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45th Year of Publication

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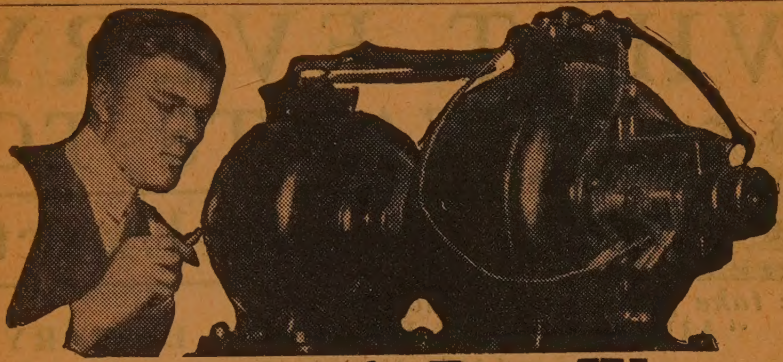

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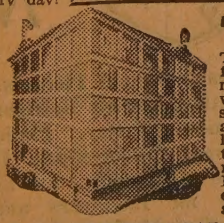

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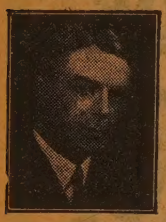

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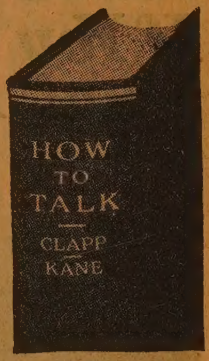

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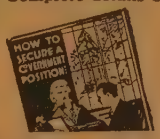

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Don't pass this page until the coupon's ready to mail.

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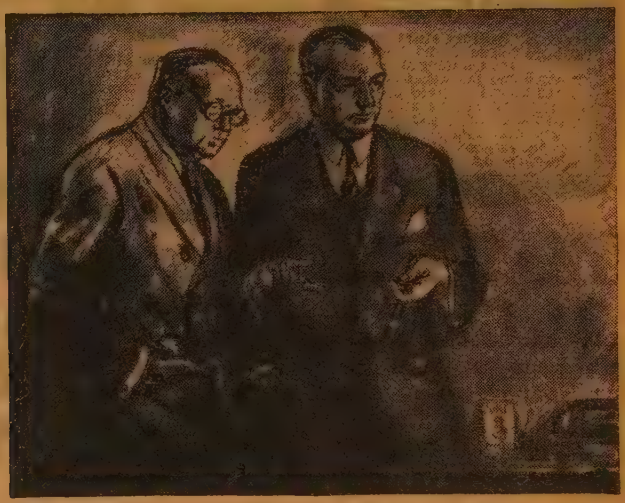

IN looking over our records of the past twenty years we find that a very large proportion of men who enrolled for this Service were receiving from $4,000 to $7,500 at the time they enrolled. A hundred dollars a week is perhaps the most common figure.

Many of these men were overpaid at $100 a week. By that we mean that their employers easily could have substituted younger men for them at smaller salaries. They had reached the hundred dollar figure partly by merit, and partly by little routine increases.

Yet these same men, who were overpaid at $100 a week, are now, in many cases, earning four and five times that much.

These records—which are open for your inspection—suggest two very interesting conclusions:

1. When a man begins to earn from $4,000 to $7,500 he becomes conscious for the first time of his own opportunities and his limitations. He begins to taste the possibility of real money. Yet he realizes, often with a sense of deep discouragement, what a great gap lies between him and the heads of the business. He is making what seemed—when he was twenty—a very satisfactory income. At thirty or

A story that is a warning

IN every big corporation there are men of 35 or 40 who started work there when they were boys. They have 20 years or so of loyal service to their credit; now they are getting $100 a week.

From one standpoint these men have done well. Yet theirs is the most dangerous position in all business.

We know one such man personally. For years he had been getting regular increases. He felt he was getting ahead. Then suddenly the president brought in an efficiency engineer. There was a general house-cleaning; the hundred-a-week man went out. And his place was filled by a youngster just out of college who is now doing the same work for $40 a week.

The old-timer hadn't grown with the company. At 40 he was let out of an overpaid position when he should have been at the threshold of his career.

yet he should be earning $10,000

thirty-five it seems like nothing in comparison with the earnings of the men at the top. He begins to look around eagerly, wondering whether there is any service, any help, that can carry him across the big gap.

2. It is amazingly easy to transform a $100-a-week man into a $10,000 man. So little is required that the wonder is that more men do not avail themselves of the opportunity. The difference between a modest salary and a good salary is not entirely a matter of brains. Not a matter of pull. Not even a matter of long experience.

Often by using the Institute Service in only a very small way, a $100-a-week man has found all that he needed. Many have never completed the Course at all, but merely used the volumes and lectures, and the personal consultation service, as occasional helps when the need arose. In case after case the impressive thing is that very little was required to give a man the extra assets that he required.

To men earning between $4,000 and $7,500 a year

We have learned from experience just what type of men—in age, situation and earning power—can get the most out of our training in the shortest possible time. We should like to hear, either by personal letter or by coupon, from those that feel there is a gap between them and the really big rewards of business. We will answer very frankly. It is to our advantage not to have any man enroll for this service unless it can help him very much and very quickly and at very small comparative cost.

For men vitally interested in bridging the gap between $100 a week and $10,000, we have prepared a little booklet called "Forging Ahead in Business." The coupon will bring it.

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Please send me the latest edition of "Forging Ahead in Business," which I may keep without charge.

Name.....

Business Address.....

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Railway Postal Clerks, like all Government employees, are given a yearly vacation of 15 working days (about 18 days). On runs they usually work three days and have three days off duty, or in the same proportion. During this off duty and vacation, their pay continues just as though they were working. When they grow old they are retired with a pension. As Railway Postal Clerks are continually traveling, they have an excellent chance to see the country.

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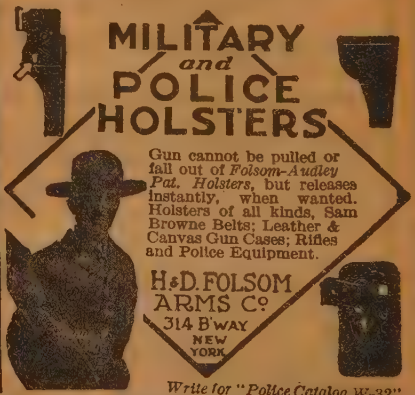

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GOOD dancers are always popular—sure of a good time wherever they go!

And dancing is great fun—wonderful exercise. Keeps you happy and healthy—always on your toes and full of pep. Develops self-confidence—enables you to make friends easily—often opens the door to important business and social contacts.

And it's so easy now to be a brilliant, finished dancer, able to do all the newest, smartest steps! For I have developed a remarkable new method of teaching dancing by mail, which is so simple that *you can learn any of the latest steps in one evening*—right at home, in the privacy of your own room, without music or partner!

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One Full Ampoule of amazing Hairerbs fluid which I discovered myself and which grew hair on my head.

This Ampoule is absolutely free. Don't send any money. There is no C.O.D. No charge whatsoever. All I want is an opportunity to show you the fluid with which I grew hair on my own and on other men's heads. Merely mail the coupon below for Free Ampoule.

Here Is How I Used to Look

I was just as bald as this picture. It is a true photograph without any tampering or retouching. It is exactly as I used to look. Then look at the full head of hair I have in the picture on the left! . . . As I have stated so often, I don't know whether I am the first man who discovered this great secret, but I do know I have it, that I grew my own hair and that I am growing hair on the heads of other men.

These are exact untouched photographs of Miss Augustina Raimondo, 2580 E. 25th St., Cleveland, who was almost entirely bald and who had to wear a net covering in the school room. She was a very unhappy young lady. Physicians, hospitals and clinics told her that she would be bald for life. She saw one of our advertisements, became interested and began taking treatments with Hairerbs. The growth of hair was surprisingly fast. A hairy fuzz began to appear after twelve treatments. More hair came steadily until today Miss Raimondo has a full head of hair which is daily becoming more luxuriant. The case is open to investigation by anyone.

Bald Men

It's No Joke to Be Bald

What I accomplished on my own head and on other heads I believe I can do for you, provided you are under 45 years of age and loss of hair was not brought about by burns or scars or other causes leading to absolutely dead hair roots. Anyhow, I must succeed or your money is refunded in strict accordance with my guarantee. No apparatus. My home treatment is simple, and easily applied.

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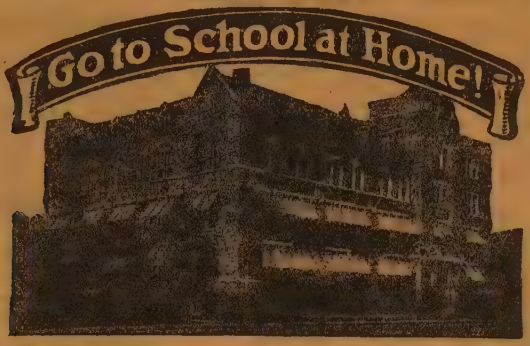

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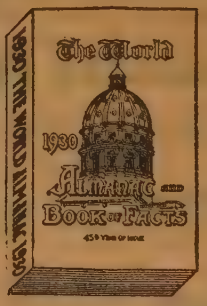

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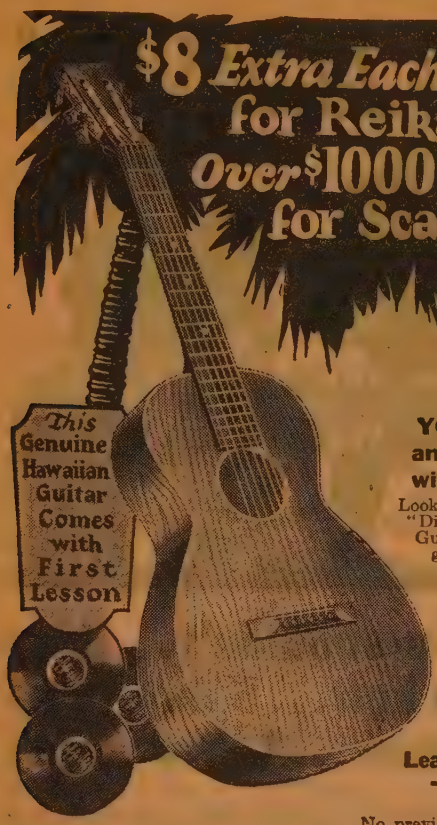

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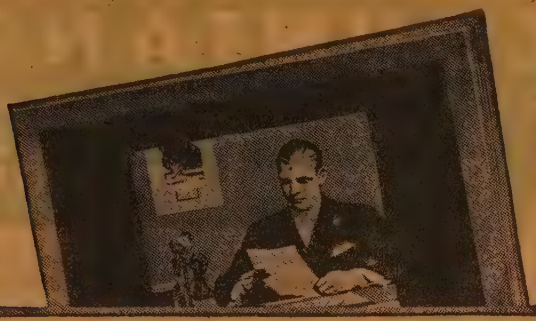

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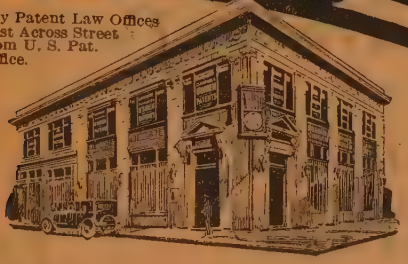

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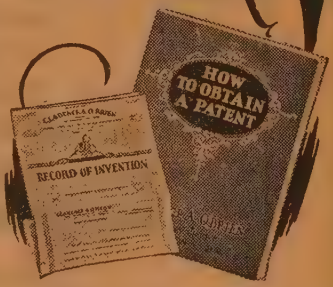

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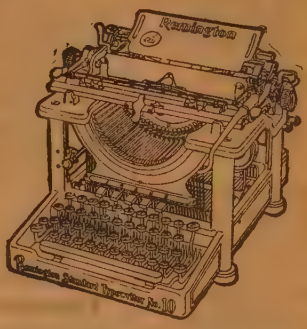

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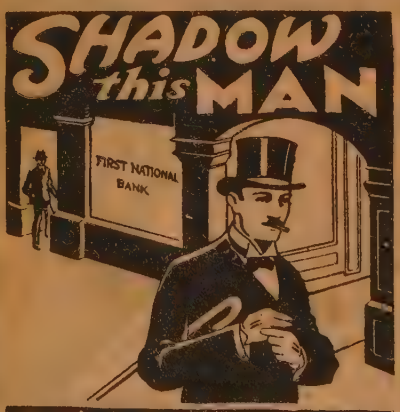

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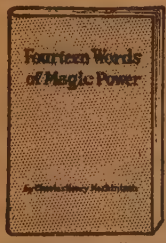

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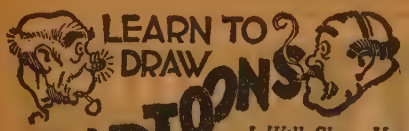

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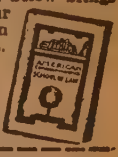

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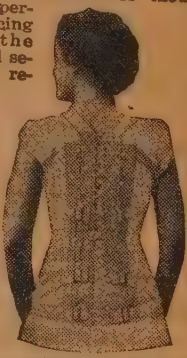

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Today I have an income of $20,000 a year—$17,920 more than it was two years ago. A difference of $35,840.

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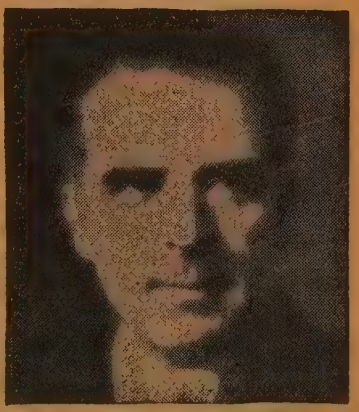
What magic was it that changed my whole life? Here's the answer in one word—Pelmanism. I gambled 2c on it. Yet without it, I might have stayed in a rut for life.

Pelmanism taught me how to think straight and true. It focused my aim on one thing. It dispelled my fears—improved my memory. Initiative, organizing ability, forcefulness, were a natural result. Inertia disappeared—as also mind-wandering and indecision. With new allies—and old enemies beaten—I was prepared for anything.

I want other average men to gamble 2c as I did. For the cost of a postage stamp I sent for the booklet about Pelmanism, called "Scientific Mind Training." Reading that free book started me on my climb.



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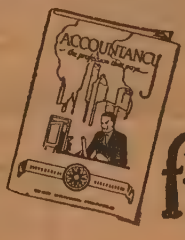

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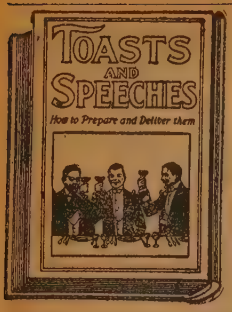

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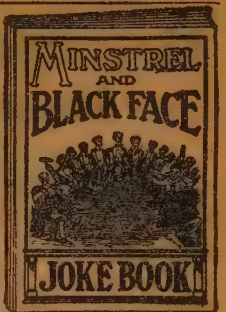

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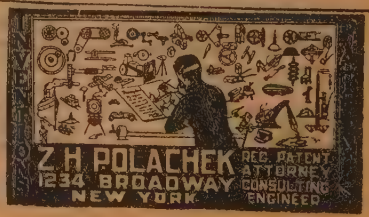

"They Snickered When I Got Up To Speak"

—But from the First Word, I Held Them Spellbound

THE banquet hall was crowded. Suddenly I heard the chairman's voice say—"We will now have a few words from Mr. Byron Munn." It came like a flash of lightning! He was unexpectedly calling on *me* for a speech!

As I started to get up, I heard a titter run around the table.

"Watch him make a fool of himself," I overheard someone whisper. "He's so bashful he's afraid of his own voice."

I knew they were expecting me to make myself ridiculous, but I only grinned inside. I stood squarely on my two feet and started in!

"But When I Commenced to Speak"—

Almost from the first word, the smiles and derision faded from their faces. Instantly the atmosphere became so tense that you could have heard a pin drop! No snickers nor sneers *now*! My voice, clear as a bell—strong, forceful, unfaltering—rang out through the banquet hall as I hammered home each point. I let myself go—soaring to a smashing finale that almost brought them to their feet!

When I finished, there was an instant of dead silence! And then it came—a deafening wave of applause, rolling up from one hundred pairs of hands—spontaneous, excited, thrilling!

Was Once a "Human Clam"

After it was all over, Jack Hartray fell into step beside me as I left the hall. "Gee, that was great!" he said enthusiastically. "You certainly raised yourself about 100% in the eyes of every person in that place tonight. . . . And yet they used to call you 'a human clam'—and the quietest man in the office!"

It was true, too. All my life I *had* been handicapped with a shy, timid and retiring nature. With only a limited education. I never could express my ideas in a coherent, forceful way. As a result I saw dozens of men with less ability pass me by simply because they were good talkers and knew how to create the right impression. It was maddening.

A Lucky Accident

At last I accidentally ran across a little book entitled *How to Work Wonders With Words*. Between its covers I discovered certain facts and secrets I had never dreamed of. Difficulties were swept away as I found a simple way to overcome timidity, stage-fright and self-consciousness—and how to win advancement, popularity and success.

What 20 Minutes a Day Will Show You

How to talk before your club or lodge.
How to propose and respond to toasts.
How to make a political speech.
How to tell entertaining stories.
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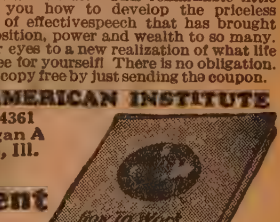

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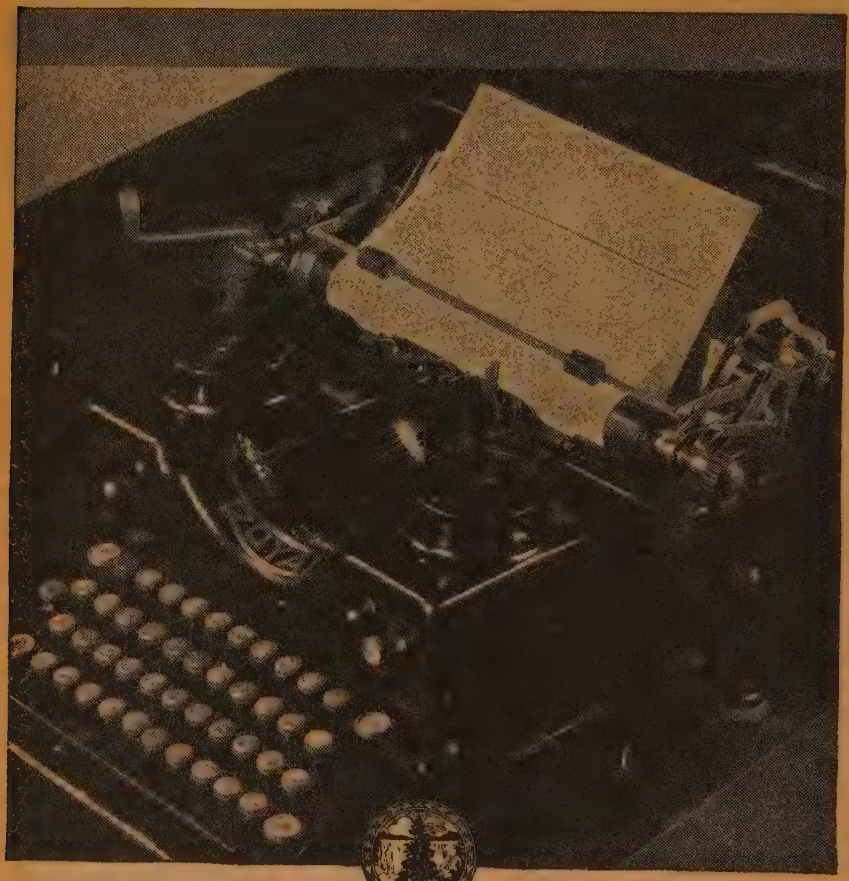

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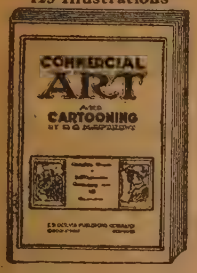

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"Why so quiet, Joe?" someone called out. "Just reading an ad," I replied. "Says here anyone can learn music in a few months at home, without a teacher. Sounds easy."

"Do you suppose they would say it was *hard?*" laughed Fred Lawrence.

"Perhaps not," I came back, "but it sounds so reasonable I thought I'd write for their booklet."

What a razzing I got then! Fred Lawrence sneered: "He really believes he can learn music by mail!"

"Yes, and I'll bet money I can do it!" I cried, and the crowd roared. Fred never missed a chance to give me a sly dig about my bet.

My Chance Arrives

Then came the office outing at Pine Grove. After lunch it rained, and we had to sit around inside. Suddenly someone spied a piano. Fred saw a fine chance to have some fun at my expense.

"Folks," he cried, "Joe has consented to give us a recital."

That gave the boys a good laugh. "Play the 'Varsity Drag'!" shouted Fred.

I smiled to myself. This was a wonderful setting for my little surprise. Assuming a scared look, I began fingering the keys, and then .... I broke right into the very selection Fred asked for. In a few minutes the whole crowd was dancing. I played one selection after another until I finished with "Crazy Rhythm" and the crowd stopped to applaud me. I turned around, and there was Fred holding a tenspot under my nose.

"Folks," he said, "I want to apologize to Joe. I bet him he couldn't learn music by mail. He sure deserves to win the money!"

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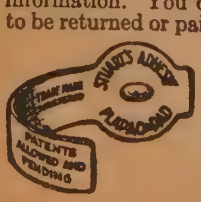

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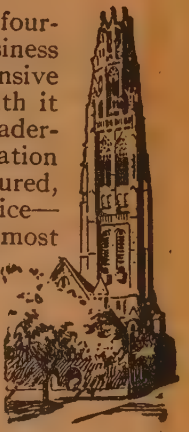

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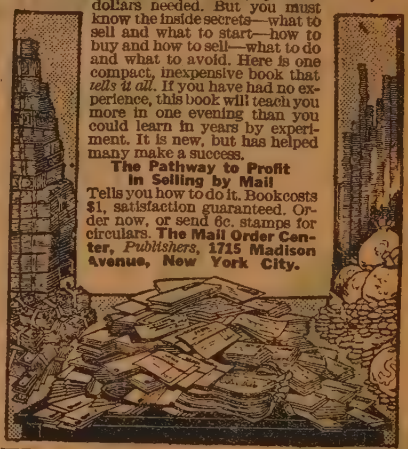

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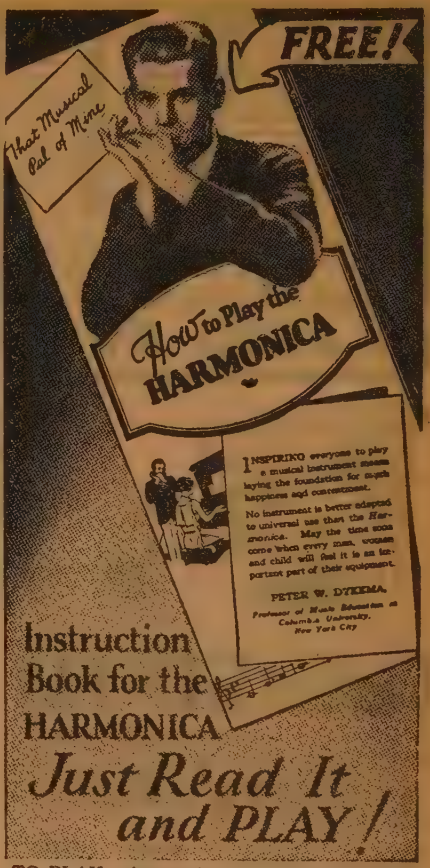

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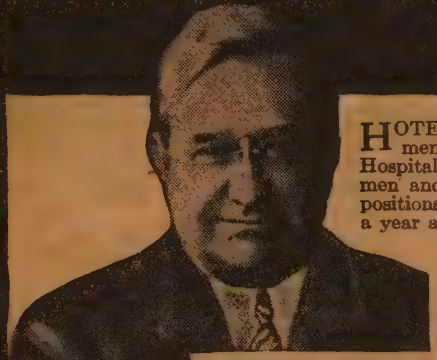

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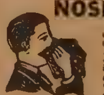

When some men blow their noses it sounds like a trombone. Now the *NOSE BLOWER* has come to torment us. It is a startler! It is ingeniously concealed in the handkerchief. Proceed to blow your nose and your friends will think they heard a steam engine or something. You can blame the hideous noise to your having a very bad cold and keep up the fun as long as you like. *PRICE 10c, 3 for 25c, or 75c doz. postpaid*

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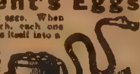

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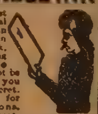

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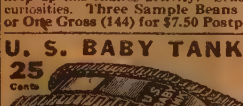

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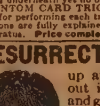

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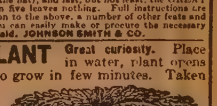

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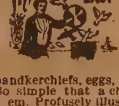

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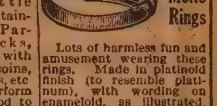

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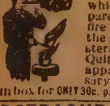

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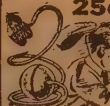

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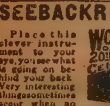

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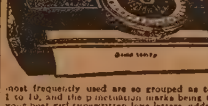

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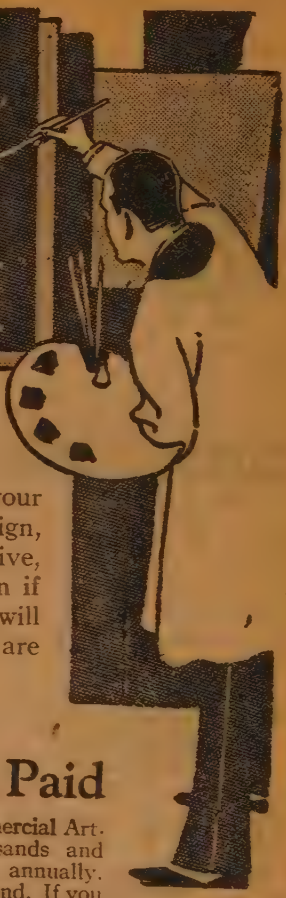

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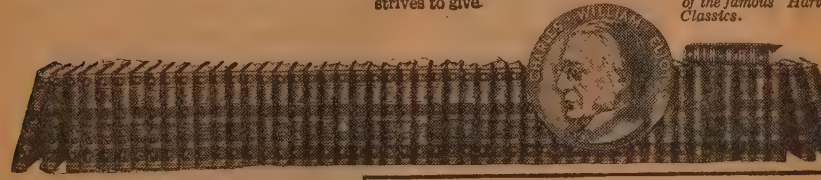

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by ARTHUR K. WHITLEY

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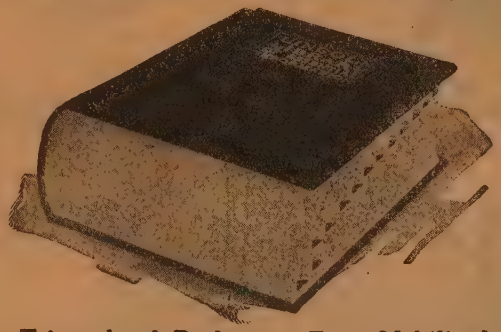

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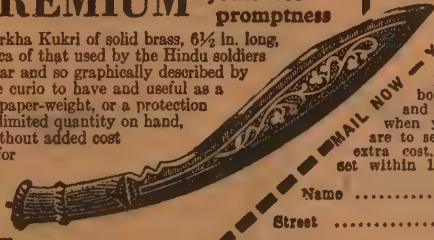

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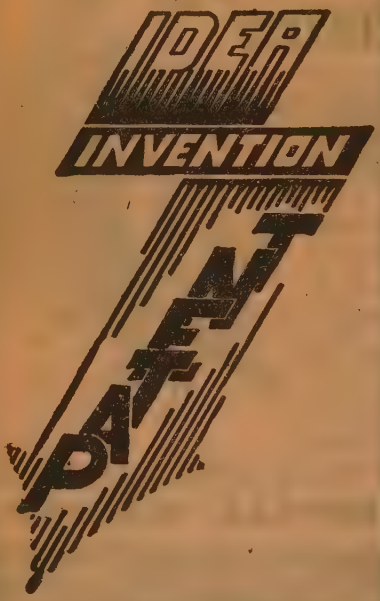

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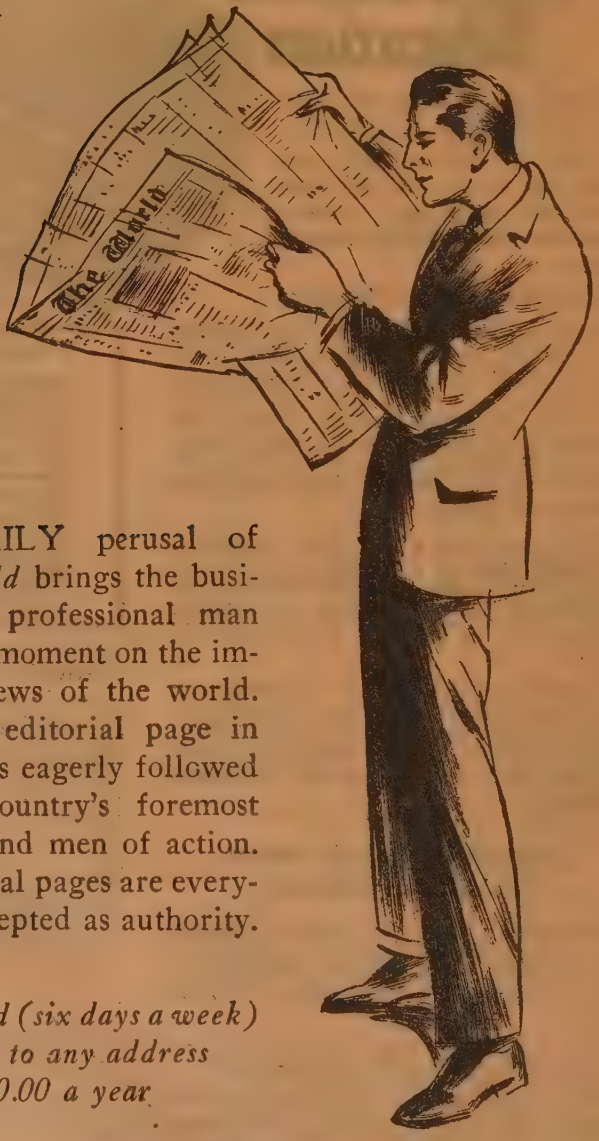

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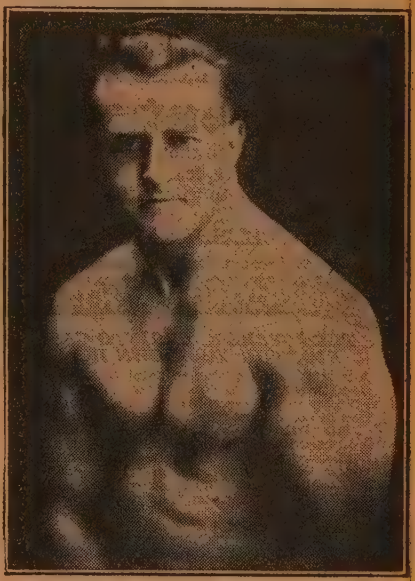

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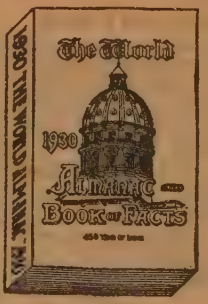

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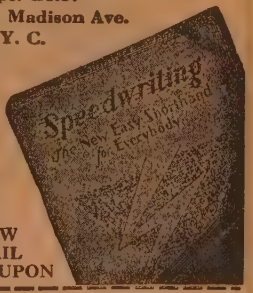

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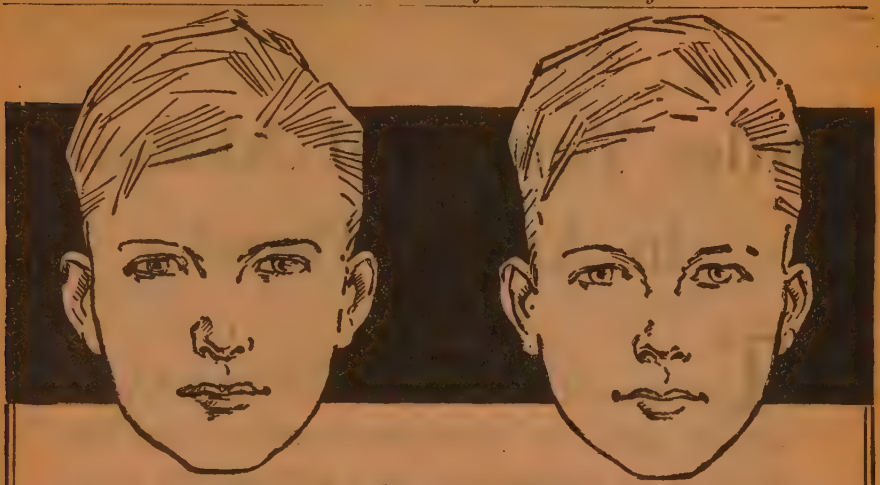

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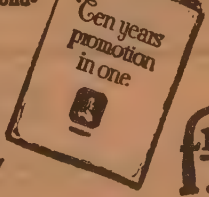

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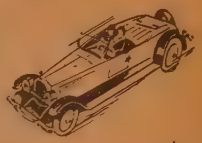

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FOR

1930

EDITED BY

ROBERT HUNT LYMAN

Officier de l'Instruction Publique

Fellow of the Royal Geographical Society

Fellow of the American Geographical Society

Fellow of the American Association for the Advancement of Science

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OCCURRENCES DURING PRINTING.

Six New Cardinals (Page 433)—Pope Piux XI at a secret consistory on Dec. 16, 1929, followed by a public consistory on the 18th, elevated to the cardinalate these six prelates:

Mgr. Emanuele Concalves Cerejeira (born 1879), Patriarch of Lisbon;

Mgr. Luigi Lavitrano (1874), Archbishop of Palermo;

Mgr. Carlo Dalmarzio Minoretti (1861), Archbishop of Genoa;

Mgr. Joseph MacRory (1861), Archbishop of Armagh;

Mgr. Jean Verdier (1864), Archbishop of Paris; and

Mgr. Eugenio Pacelli (1876), Nuncio to Berlin.

Austria (Pages 630, 631)—The Australian Parliament passed a revised constitution on Dec. 10, 1929 The President of the republic hereafter will be elected by popular vote instead of by Parliament and the term is extended from four years to six. He will have the right to issue decrees during national emergencies which, however, must have the consent of the Cabinet and within eighty days Parliament must be convened and within four weeks must confirm or reject the decree.

Canada (Page 569)—James A. Robb, Dominion Minister of Finance, died Nov. 11; Charles A. Dunning, former Premier of Saskatchewan, was appointed to succeed him.

Greece (Page 666)—Admiral Paul Koundouriotis, President of Greece, resigned that office because of ill health Dec. 10, and Alexander Zaimis was elected by Parliament on the 14th to succeed him.

Switzerland (Page 713)—Karl Scheurer, Vice-President of the Federal Council of Switzerland, who in the normal course would have been elected President for 1930, died Nov. 14. Jean Marie Musy was, on Dec. 16, elected President for the coming year.

Japan (Page 676)—The Japanese Government announced on Nov. 21 that the gold embargo pot on in September, 1917, would be removed on Jan. 11, 1930; and that a stabilization credit of 100,000,000 yen half in New York and half in London, had been arranged.

New Zealand (Page 616)—Lord Bledisloe has been appointed Governor-General in succession to Gen. Sir Charles Fergusson, Bt., whose term will expire early in 1930.

Iraq (Page 671)—Nazi Bey Suwaidi was made Premier of Iraq on Nov. 19 following the suicide of his predecessor.

Curacao (Page 691)—Maj. Van Slobbe was, on Dec. 2, named as Governor-General of Curacao to succeed M. de Fruytier who retired as a result of the raid of the Venezuelan filibusters.

Aviation (Page 186)—Maj. Tadio Larre-Borges and Lt. Challes started from Seville, Spain, Sunday Dec. 15, to fly to Montevideo, but were forced down when over Brazil, escaping with slight injuries.

New York City (Page 544)—The New York City Board of Aldermen, on Dec. 17, voted increases of salary for the Mayor from $25,000 to $40,000; Comptroller, from $25,000 to $35,000;P resident of the Board of Aldermen, from $15,000 to $25,000; and Borough Presidents, from $15,000 to $20,000 each. The Board of Estimate on Dec.19 unanimously ratified this action. Increases take effect on Jan. 1, 1930.

Benefactions (Page 141)—The Rockefeller Foundation, on Dec. 15, gave $250,000 to the American Schools of Oriental Research over a seven-year period, and a further sum of $250,000, tentatively, conditional on the raising of a like amount by the research organization

Steamship Fort Victoria Sunk in Collision—Just outside New York Harbor, on Dec. 18, in a fog, the outgoing steamship Fort Victoria, for Bermuda, and the Algonquin, for West Indian ports, collided, and the former sank in 60 feet of water. There was no loss of life.

CANDY PRODUCTION IN THIS COUNTRY, 1927.

Kind.	Quantity and Value.
Aggregate value of products reported by all (1,908) establishments	$391,927,343
Total value of products for 1,612 establishments which reported in detail	368,777,162
Confectionery, including salted nuts	347,600,969
Other products, not normally belonging to the industry	21,176,193
Value of products for 296 establishments which did not report in detail	23,150,181
Confectionery, including salted nuts, (as reported in detail), total value	$347,600,969
Chocolates:	
Total pounds	375,755,849
Total value	$126,995,870
Fancy packages—	
Pounds	131,999,228
Value	$68,984,509
Bulk—	
Pounds	189,780,407
Value	$48,251,189
Count—	
Pounds	53,976,214
Value	$9,760,172
Confectionery, including salted nuts (as reported in detail)—Con.	
Bars:	
Total pounds	346,680,325
Total value	$72,145,583
Chocolate-covered—	
Pounds	271,676,899
Value	$57,847,080
Other kinds (not including solid chocolate)—	
Pounds	75,003,426
Value	$14,298,503
Hard candy:	
Pounds	223,480,707
Value	$35,382,440
Carmels and chewing candy:	
Pounds	102,258,130
Value	$16,454,844
Gum work:	
Pounds	83,181,461
Value	$10,721,160
Pan work:	
Pounds	72,990,157
Value	$10,425,881
Marshmallows:	
Pounds	54,497,630
Value	$8,868,302
Lozenges:	
Pounds	23,724,609
Value	$5,516,335
Other confectionery, except salted nuts, value	$44,936,306
Salted nuts, value	$16,154,248

The World.

JOSEPH PULITZER.
April 10, 1847 ✣ October 29, 1911.

THE WORLD, as established by JOSEPH PULITZER, May 10, 1883:—

"An institution that should always fight for progress and reform, never tolerate injustice or corruption, always fight demagogues of all parties, never belong to any party, always oppose privileged classes and public plunderers, never lack sympathy with the poor, always remain devoted to the public welfare, never be satisfied with merely printing news, always be drastically independent, never be afraid to attack wrong, whether by predatory plutocracy or predatory poverty."

Again, as always since the Great War, the Armistice and the peace treaties profoundly changed the current of world affairs, the editorial comment and policy of The World in 1929 turned first of all to the service and seeking of international peace. As the year closed, humanity had reason for high hopes of the outcome of a five-power naval conference to be held in the early days of the new year. The visit of Ramsay MacDonald, Labor Prime Minister of Great Britain, to the United States and his conversations with President Hoover upon the subject of Anglo-American relations provided suitable occasions to urge and commend the policy of further limitation of naval arms, a policy which The World, while frankly pointing out the difficulties which lie in the way, has consistently advocated. With Great Britain, Italy, France and Japan joining in the conference there is a fair prospect of success. Though The World had frankly and forcibly opposed the election of Republican Congressmen and a Republican President in 1928, it gave Mr. Hoover in his effort to promote sea disarmament more effective support than any newspaper organ of his own party, and cordially welcomed his selection of an excellent delegation to represent the United States in the Conference.

A little before Mr. MacDonald's visit a citizen of the Republic, Owen D. Young had accomplished with The World backing him at every step, an important work for delimitation of the war debts by carrying through the plan of payment—superseding the Dawes plan, which had served its purpose of affording a temporary arrangement for the payment and allocation of the German indemnities—which bears his name. The World has not ceased to urge that the scale of payments be kept within the bounds of what is reasonably possible.

An event or series of events quite out of the usual course was furnished during the year by the unprecedented rise of stock quotations on Wall Street and the resultant inevitable crash which carried many speculators to ruin. The World did not fail to speak words of caution during the rise; it upheld the efforts of the Federal Reserve to check wild speculation; it emphasized the basic soundness of the country in the days when disaster hung heavy on the Street; it energetically urged acceptance of President Hoover's plans for speeding up useful constructive undertakings, public and private, to avert possible unemployment in the wake of the slaughter of paper values; and it stood ready to rebuke fantastic remedies proposed in the halls of legislation, some of which would have proved in practise worse than the evils they were designed to cure.

The World continued to support with hearty approval President Hoover's Mexican policy of friendly understanding, ably carried out upon the ground by Ambassador Morrow. Toward the end of a year signalized by better relations between the sister republics than has been known in a lifetime there came a welcome illustration of the new spirit in Mexico, which we had aided in strengthening. The election of Senor Ortiz Rubio was the third in succession where the title and power of President passed from hand to hand by ballots and not by bullets, the election disturbances being local only. As a result the prospects of the new executive for a peaceful term were excellent. Mexico sorely needed a breathing spell to recover from the waste and destruction of civil disturbances. To the extent that the United States could aid in that process of recovery The World was unremitting in its efforts to spur and speed official action.

The elections of the year were generally of a minor character. New York State and City being no exception. Mayor Walker's re-election—by almost exactly half a million plurality, as it happened—was so easily foreseen that there was scarcely a conflict. The World, while preferring a continuation of the Walker Administration to the election of Major La Guardia, the Republican candidate, was sympathetic to the casting of a vote of protest for Norman Thomas, the candidate of the Socialist Party. Many thousand such votes were cast by men and women who had no intention of espousing the Socialist cause, and the lesson thus indicated seemed not to have been lost upon the Mayor, who promptly announced for his new term an admirable program of civic progress. City planning was at last taken up vigorously, with a timely report by Day & Zimmerman as the Mayor's experts; while the success of a referendum vote upon the Sanitary Commission plan promised another step forward in the long overdue reorganization of the city's departments for more effective functioning and the elimination of waste and duplicated work.

Upon the general subject of farm relief The World, though a metropolitan newspaper, maintained a sympathetic attitude. It backed Governor Roosevelt's policy of relieving the poorer counties of part of their road and school costs though the result was to add more state costs to city taxpayers. The World would have welcomed any real relief to staple farmers from the deliberations of Congress in special session though of their great relief by tariff reductions cheapening the cost of their purchases there was unhappily little hope. Circumstances being as they were, The World again commended Mr. Hoover for his desire to limit the action of the special session to the purposes named in the call. As to tariff changes in general, The World adhered to the policy announced by Governor Smith in the 1928 campaign that no attempt should be made at a general revision bill at any time; that tariff changes when actually needed should be made by separate single-purpose bills. Following this principle, The World urged the defeat of the Hawley-Smoot bill as mischievous and unnecessary.

In the affairs of New York State The World continued to commend the policy inherited by Governor Roosevelt from Governor Smith; of preserving to the people the benefits of their water power properties by public rather than private development. It supported also the Roosevelt policy of issuing bonds for the more rapid reconstruction of the State's backward hospitals. Before the year was out the appeal to the States by President Hoover to rush construction projects to prevent unemployment was to show how wise the bond policy, blocked by the Republican Legislature, would have been. Consistently also The World commended the splendid progress made by the State Park Board in developing parks and parkways in every part of the commonwealth.

The year was one of great progress in the construction of new subways; of little progress, if any, toward the unification of the systems, the new municipal lines with the two private corporations engaged in transit work. The World urged unification as the ultimate solution of the transit problem. It repeatedly called attention to the added pressure upon transit lines made by the mad race to erect the "tallest buildings in the world." It prodded the City Administration to speed up a solution of

the omnibus problem and the relief of street congestion.

THROWING LIGHT IN DARK CORNERS.

Since financial disturbances loomed so large in the year's history, it was inevitable that The World should have played an important part in throwing light into the darker corners. Early in January it was revealed that David Steinhardt, New York lawyer who had been appointed receiver in seventeen bankruptcy cases, was missing. Investigation by The World revealed that United States District Judge Francis A. Winslow had awarded a large proportion of these receiverships to Steinhardt. Enough evidence was gathered to indicate suspicious favoritism on the part of a member of the Federal bench. Largely as a consequence of The World's survey Congressman F. H. La Guardia moved Judge Winslow's impeachment. The Judiciary Committee of the House of Representatives appointed a sub-committee to take testimony, but before it began hearings Winslow resigned. Steinhardt committed suicide. Max D. Pinner, a court attache enmeshed in the scandal, after attempting to kill himself gave important aid to the investigators.

The situation revealed in Manhattan caused attention to be directed to Brooklyn, where it came to light that United States District Judge Grover M. Moscowitz had bestowed Federal receiverships generously on former law partners, and that the door of the office they occupied still carried the name of Judge Moscowitz. Congressman Arthur W. Somers of Brooklyn moved at Washington for the impeachment of Moscowitz, who for a time withdrew from the bench, later resuming his seat. The charges against him, it is expected, will be taken up during the current session of Congress.

When the City Trust Company, a state-chartered institution with several branches, closed its doors, following the suicide of its president, Frank M. Ferrari, The World developed many incidents revelatory of intimacy between Ferrari and Frank H. Warder, State Superintendent of Banks. Acting on these disclosures and those of other newspapers Acting Governor Herbert H. Lehman ordered a Moreland Act Inquiry. Warder resigned his state office, was tried and convicted of accepting a bribe. He is now free on heavy bail pending decision on his appeal.

Early in the year The World charged editorially that the Public Service Commission had become woefully ineffective for the purposes for which it was designed. This declaration brought immediate reaction among legislators, who with little dissent agreed with The World's conclusions. A legislative commission on revision of the public service law was the outcome. A mass of testimony has been collected and the commission's conclusions will be reported to the Assembly this year.

A series of prison revolts during the summer, two of them in leading New York state penal institutions led The World to undertake an inquiry which revealed a deplorable condition of over-crowding in prisons throughout the United States. The excess population of these institutions was found in cases to run as high as 121 per cent. Following publication of these facts, and of those gleaned from a special inquiry into conditions in New York prisons, Governor Roosevelt conferred with leading penologists on methods of relieving the situation.

A survey by The World which evoked immediate sympathetic vibrations from the hearts of its New York City readers was of noises that distract residents of the metropolis. Radio loudspeaker, riveter, traffic noises of a dozen kinds—all were considered dispassionately with a view to laying foundation for effective steps in abatement. The letter response to the published articles revealed, perhaps for the first time in a serious fashion by any important publication, that unnecessary street noises are a serious menace to happiness, health and in many cases to business. Health Commissioner Wynner was quick to catch the import of the survey, appointing a commission which is now well on its way in studies of noise conditions and their remedies.

Space limitations forbid detailed review of all of The World's public service activities during the year. It has continued to expose the sub-meter system whereby apartment house owners in New York City are milking their tenants. It was alone in its revelation that Bishop James Cannon, Jr., advisory member of the Methodist Board of Temperance, Prohibition and Public Morals, had lost heavily in stock speculation through a New York concern of the bucket shop variety. In a series of articles The World showed how the people of New York contribute not less than $200,000,000 yearly to the city's racketeers.

At the close of the theatrical year 1927-1928, St. John Ervine, distinguished English playwright and critic, returned home and his place at the head of The World's staff of dramatic reviewers was taken by Robert Littell. His lucid, interesting critiques have maintained the tradition's established and carried along by such men as Louis V. Defoe, Heywood Broun, and Alexander Woolcott. In the field of music Samuel Chotzinoff has carried on. Quinn Martin continues as an assayer of motion pictures. Harry Hansen continues to delight with his sane, always interesting book reviews, competently assisted by Harry Salpeter.

The Conning Tower of F. P. A. still holds its place facing the editorial page, companioned at the right by Elsie McCormick and William Bolitho. In lighter vein The World, as always, sustains a high standard of diversion. Three times a week and on Sundays Frank Sullivan contributes mirth-provoking comment on timely topics. Milt Gross and James M. Cain are other humorous writers who cannot be imitated successfully. Denys Wortman with his Metropolitan Movies delights an ever-growing public, while not less eagerly awaited day by day are Will B. Johnstone's topical cartoons, Mutt and Jeff and Webster's drawings.

IN THE FIELD OF SPORTS.

In keeping with the standard of previous years, reports of sports activities were accurate and thorough. To meet the needs of the demand of the greatly increased number of sports readers, The World has a staff thoroughly versed in its sphere with an ability to present its news in clear and flowing style.

George Daley, who writes horse racing, is one of the leading authorities on the turf in America. G. W. Daley, one of the real experts in baseball, has close friendships with players, managers, club owners and league presidents; he also holds a similar status in the field of ice hockey. Ned Brown, a close observer of boxing affairs, also dwells each day in his column, "Pardon My Glove," on both serious and facetious comment on the continual whirl of fistic activities. Dick Williams writes on golf and other sports with a rare descriptive touch. Jack Lippert is a close follower of tennis, and track and field. William Hennigan also reports the happenings in the baseball world with a deep background in the sport. Donald Gibbs presents the mirthful side of many sport events in his own inimitable style. L. de B. Handley is the foremost swimming authority in the United States.

The entire staff is under the direction of James Robbins, sports editor, who possesses a wide knowledge of sports in general.

Augmenting this regular staff for its daily contributions to The World is a large group of staff correspondents covering the large centers of population and the various college campuses dotting the country. From these points come dispatches as news warrants. In addition there are local correspondents whose duties are to supply The World with the news of the many minor sports.

Not only has The World its regular and staff correspondents, but to further satisfy the reader's appetite for sports news, offers the actual thoughts and opinions of combatants and near combatants of the field of play.

When the Philadelphia Athletics defeated the Chicago Cubs in the World's Series, The World printed daily stories by Connie Mack and Joe McCarthy, the contending managers; Al Simmons, of the Athletics; Hazen Cuyler, of the Cubs, and Babe Ruth. This same application to detail was to be found in the big golf events. When Abe Espinosa was beaten in the play-offs of the U. S. Open by Bobby Jones, Espinosa's account of the event was to be found in the columns of The World. Likewise at the amateur play, George Von Elm had an account each day from the competitor's point of view and Harrison Johnston gave his version of his brilliant victory over Dr. O. F. Willing in the final. Maureen Orcutt, Metropolitan and Eastern Women's Golf champion, covered all the important women's matches on the links.

Tad Jones gave The World readers intimate stories of the Harvard-Michigan, Yale-Princeton, Yale-Harvard and Army-Notre Dame football games; Knute Rockne, the Notre-Dame-Southern California and Notre Dame-Navy frays; Glenn Warner, the the Stanford-Southern California and Stanford-California games, and William Alexander, the Georgia Tech-Notre Dame contest. Albie Booth Yale's spectacular midget halfback, gave an account of the Yale-Harvard game.

Through Ned Brown, in his column, "Pardon My Glove" maimed veterans of the war located in Metropolitan hospitals are able to visit boxing shows in New York City without cost. The World's ring authority strongly advocated this measure and as a result several generous promoters extend courtesies to fifteen veterans at each of their boxing and wrestling programs.

NOTABLE COLOR GRAVURES.

The World, in its Color Gravure Section, continued during 1929 the earlier progress made in the presentation in color of paintings and living subjects. Of particular note was the spring fashion section published March 10, containing two pages of direct color photographs made from living models. During April a series of ten Wild West paintings from the famous collection of Dr. Philip G. Cole was greatly admired.

Throughout the year the Gravure Section continued the publication of the latest pictures illustrating events of national and international importance and The World often published there exclusive gravure photographs of paramount interest; outstanding were illustrations of Sir Hubert Wilkins's airplane exploration of the Antarctic, the cruise from Germany to Palestine of the German dirigible Graf Zeppelin and of its world cruise that was the aviation sensation of the year.

THE NEW WORLD MAGAZINE.

The year 1929 witnessed the advent of the new Sunday World Magazine, a marked improvement in both tone and content over its predecessor. With the first issue, September 15, there was brought to readers of The World something new in the Sunday magazine field. The praise and comment which this publication has aroused attest to its popularity.

Noticeable among the added features of the new magazine was the inclusion in its pages of direct color photographs, formerly appearing in the Color Gravure Section. This made possible the exclusive reproduction, in color, of many famous scenes, including the historical rooms of the White House in Washington.

Stories and feature articles by world famous writers appeared in each issue of the new magazine, as did illustrations and covers by such artists as Herb Roth, Samuel Cahan, Leo Kober, Gustav Tenggren, Penrhyn Stanlaws, Neysa McMein, Arthur M. Lewis, J. Recoder, and Garretto, the caricaturist.

The Sixteen Best Short Stories of 1929 again were presented in the Sunday Magazine early in the year, the fifth annual publication of this unusual anthology. The stories, selected from among those nominated by the editors of sixteen leading fiction magazines, included works by Vina Delmar, Coningsby Dawson, Katherine Newlin Burt, Stephen Vincent Benet, Thomas Boyd, Konrad Bercovici and Alice Duer Miller.

Other features in the Sunday Magazine from January 1 to September 15 included "Famous Mis-Steps of Justice," by Joseph Gollomb, a series of eight stories of true detective adventures that baffled the courts; "Master Detective—Joe Smith of the Waldorf," by Alan Macdonald, detailing the experiences of the secret service chief at the famous hotel; stories by Jack McLaren, telling of adventures and customs of the South Seas; "How I Carried the Message to Garcia," by Col. Andrew Summers Rowan, a thrilling account by the hero of his famous exploit; "New Honors to the Birds of War," by Alan Macdonald, a story of the nation's winged hero veterans of many battlefields; "Ladylips—Ghost of the Sea," by G. K. Spencer, weird version of a marine mystery, and a number of feature articles by Emery Derl, relating romances and intrigues of European personages.

With the arrival of the new Sunday Magazine in September, came the first publication in any form of a new novel by William J. Locke, entitled "Ancestor Jorico." This gripping serial, illustrated by Tenggren and Gordon Grant, was received enthusiastically. Additional features in the new magazine were weekly fashion pictures, in direct color photograph, of the latest styles from both Paris and New York, and a double page each week on which some colorful scene or object, lately before the eye of the color camera, was produced in bright hues. Marion Meyer Drew contributed articles on astrology, and answered queries on that subject from readers. Milton C. Work, well-known expert, conducted a weekly department on "How to Play Bridge."

Some noted literary features of the new magazine included "Take Him for a Ride," by Alan Macdonald, remarkable true story of astoic young gangster who was tortured, shot and left for dead on the New Jersey meadows; "Master Manhunters of the North," by Joseph Gollomb, a series of five stories dealing with the dramatic experiences of the Northwest Mounted Police; and fiction and feature articles from such artists as Edna Ferber, Robert E. Sherwood, F. Britten Austin, Homer Croy, E. Phillips Oppenheim, John Galsworthy, James Branch Cabel, Mary Roberts Rinehart, Peter B. Kyne, Edgar Rice Burroughs, S. S. Van Dine, P. G. Wodehouse, Octavus Roy Cohen, Clarence Buddington Kelland Achmed Abdullah.

Among the celebrities who contributed articles were Mary Pickford, Adolphe Menjou, Rudy Vallee, Dolores Del Rio and Joe Humphreys.

PULITZER PRIZE WINNER.

The Evening World continued, in 1929, in both its editorial and news columns the crusade against the abuse of legal practices which won from the Trustees of Columbia University the gold medal for the most disinterested and meritorious public service rendered by an American newspaper during the year 1928, a prize established by Joseph Pulitzer, who established the Evening World Oct. 10, 1887, 42 years ago.

The citation under which the medal was awarded read:

> For its effective campaign to correct evils in the administration of justice, including the fight to curb "ambulance chasers," support the "fence" bill, and measures to simplify procedure, prevent perjury and eliminate politics from municipal courts; a campaign which has been instrumental in securing remedial action.

Exhaustive and fearless research was made into the abuses of the bankruptcy process by lawyers and unscrupulous clients, and in one instance at least by judges, speedily brought results—the judge resigned; numerous lawyers resigned from the bar, a United States auctioneer was removed; and constructive changes were made in the entire procedure of bankruptcy cases, especially in the conservation of the assets of the bankrupt for the benefit of the creditors.

The campaign for the simplication of legal procedure in all courts was pressed. William H. Taft, Chief Justice of the Supreme Court of the United States, presented through the Evening World a notable pronouncement that such reforms of practice and simplifying of codes and procedure as were advocated by the Evening World were essential to the preservation of liberty and equal justice in the republic.

The Evening World has been active in disclosing the personal irresponsibility of lawmakers and administrators in conforming to the statutes for which they should be responsible; it has kept its readers enlightened as to the meaning of "free entry" past customs offices and other chimerical privileges claimed by congressmen and other public servants who have seemed to regard themselves as public concessionaires. A staff correspondent early in the year put before the readers a state of affairs very like the public exposure of official negligence of duty which was punished later in the year by sending three Washington reporters to jail.

The work of promoting better housing and living conditions has been continuous. Public interest in such movements has been stimulated and official action energized always for the good of the greatest number and the neediest. It was at the suggestion of the Evening World that the Libby's Hotel property on the lower east side, condemned and awaiting destruction to make room for the Chrystie-Forsythe street municipal housing plan was temporally leased to a trustee so that its stockholders who had lost their savings, might recover some of their investment.

The interpretation, in simple, clear terms, of the complications of politics enabled Evening World readers to understand the movement which brought about the renomination of Comptroller Berry after he had offended the dominating political leaders of his party by his conscientious independence of action in office. Evening World readers knew in advance the reason for the cancellation of the franchise of the Equitable Bus company when its policy, changed from a will to give public service and find a market for bus manufacturers to a project to peddle bus concessions to other corporations. Similarly the significance of events leading up to the election of a new leader of the City Democracy were so told that readers of the Evening World were able to forecast definitely what the result would be. The same was true of the municipal election.

The combined Movie and Radio Supplement of the Saturday issue were built up. The practical aid to the users of radio sets and the students of radio was increased by a comprehensive service of answers to questions by readers. In the moving picture department particular attention was given to the development of business leaders, artistic and scientific, in moving and talking pictures, in addition to their personalities and to critical reviews.

The scope of the education department to the city schools has been augmented by space devoted to the housebuilder, the housewife and the parent with an increased staff and an expanded field of activity.

The Evening World, in 1929, organized an independent service for the reporting of financial and business activity in terms understandable by those uninitiatiated in the technical language of "experts." This service was supplemented by articles written in the same manner by such authorities as Roger W. Batson and Irving Fisher. A daily report on stock prices has been broadcast by the Financial Department direct over the radio.

THE YOUNG PLAN SUCCEEDS THE DAWES PLAN.

The Belgian, British, French, German, Italian and Japanese governments reached a decision in Geneva on Sept. 16, 1928, to set up a committee of independent financial experts to draw up a complete and final settlement of the Reparations problem. Emphasis was given to the need for this work by the fact that the five-year program of the Dawes Plan would be completed on Aug. 31, 1929.

The report of S. Parker Gilbert, Agent-General for Reparations Payments issued on Jan. 1, 1929, on the fourth year of the workings of the Dawes Plan was optimistic. The total payments of 1,750,000,000 gold marks (250,000,000 marks more than for the previous year) had been punctually and fully made and the problem of transfer had presented no difficulties. The income from industrial debentures, railway bonds, the transport tax and other controlled revenues pledged for reparations payments had yielded "a total return which provides a margin considerably more than 100% over the standard budget contribution of 1,250,000,000 marks" and without impairing the resources or efficiency of the railways and other sources from which these revenues were derived. General business conditions were good, the aggregate production high, exports and imports nearly equalized and 5,000 contracts for deliveries in kind completed in the fourth annuity year. The only item increased for the fifty year over the fourth is the amount which the German budget is required to bear, about 750,000,000 more marks. He considered Germany able to pay the 2,500,000,000 gold marks ($625,000,000) called for by the Dawes Plan for the fifty or maximum year. He held that a fixation by mutual agreement of the aggregate amount of payments would be in the interest of the creditors of Germany as well as of Germany itself. "Fundamentally," he said, "confidence has been restored and Germany has been reestablished as a going concern on a relatively high level of economic activity."

The Committee of Experts met in Paris on Feb. 11, 1929. The members were:

Belgian—Emile Francqui, former member of Camille Gutt—alternates: Baron Terlinden, H. Fabri.

French—Emile Moreau, Governor of the Bank of France, Jean V. Parmentier, member of the Reparations Committee on Transfers—alternates: C. Moret, Edgar Allix.

German—Dr. Hjalmar Schacht, President of the Reichsbank; Dr. Adolph Voegler—alternates: Dr. C. Melchior, Dr. L. Kastl.

British—Sir Josiah Stamp and Lord Revelstoke, both directors of the Bank of England—alternates: Sir Charles Addis, Sir Basil Blackett.

Italian—Dr. Alberto Pirelli, Prof. Fulvio Suvitch—alternates: Giuseppe Bianchini, Bruno Dolcetta.

Japanese—Kengo Mori, former Financial Attache in London; Takashi Aoki, Under Governor of the Imperial Bank of Japan—alternates: Saburo Sonoda, Yasumune Matsui.

American—Owen D. Young, J. P. Morgan—alternates: Thomas N. Perkins, T. W. Lamont.

The American experts were selected and appointed by the six countries, the United States Government having declared that it had no objection. Owen D. Young was elected Chairman, Lord Revelstoke died on April 19 and was succeeded by Sir Charles Addis. Dr. Albert Voegler resigned and was succeeded by Dr. Ludwig Kastl.

FEATURES OF THE YOUNG PLAN.

The committee worked steadily, facing and overcoming a harassing multitude of difficulties, finally reached complete accord on June 4, and all signed the voluminous report on June 7. The main points of this report, which is everywhere called the Young Plan, are as follows:

First—That all financial controls, special securities and liens imposed on Germany by the former treaties and agreements shall be abolished and the Dawes Plan be suppressed as of August 31, 1929, when the new plan will go into effect.

Second—That Germany shall pay as from Sept. 1, 1929, in thirty-seven annuities closing on March 31, 1966, a total sum having a present value of 32,866,000,000 marks, the average annuity for this period, inclusive of the service of the Dawes loan, being 2,050,800,000 marks. An additional twenty-two annuities are to be paid from April 1, 1966 to March 31, 1988, these payments to equal the Allied outpayments on war debts to the United States during these years. The grand total present value of the Young Plan payments, including the 1,240,000,000 marks of the last five months of the Dawes Plan, is computed at 36,996,000,000 marks, with the interest figured at 5½%.

Third—That 660,000,000 marks from each of the first thirty-seven annuities shall be paid unconditionally in foreign currencies, without the right of postponement, being thus available for commercialization and mobilization. Of this unconditional portion of each annuity, 500,000,000 marks will be allocated to France. The unconditional annuity will be guaranteed by the imposition of a direct tax on the Reich railroads for the amount of 660,000,000 marks. All other payments represented by the first thirty-seven annuities will be derived from the budget of the Reich. The last twenty-two annuities are to be paid from a special sinking fund which will be built up by the allocation of 80% of the profits of the projected International Bank of Settlements. In the event of a reduction of the Allied payments on the debt to America, 66 2/3% of such reduction is to be allocated to Germany and 33 1/3% to the chief creditor nations.

Fourth—That there shall be set up a Bank for International Settlements which will be outside the field of political influence and which will take the place of the existing machinery for reparations collection. German payments will flow into this bank, from which, it is claimed, advantages will accrue both to Germany and to the creditor nations by putting the payments on a business basis, making their receipt more certain and facilitating their movement.

Fifth—That in periods of economic difficulty or crises Germany may, on appeal to the Special Advisory Committee of the Bank, be granted a postponement of part of the postponable portion of the annuities for a period not exceeding two years. Under continued abnormal conditions, part of the payments may be suspended entirely.

Sixth—That the system of deliveries in kind shall be gradually decreased from the value of 750,000,000 marks to 300,000,000 marks by the tenth year of the application of the new plan, such deliveries to be entirely suppressed thereafter.

Seventh—That there shall be a general liquidation within a year of the financial questions raised by the war and the subsequent peace treaty, affecting the restoration of German property and assuring the renunciation of claims, such as those of Germany against the successor States to the Austro-Hungarian Empire.

The Belgian experts signed after an understanding was reached with the German experts, that the settlement by direct negotiation of Belgium's claim for the making good for the worthless paper marks with which the country was flooded during the Invasion. This was duly carried and an agreement reached on July 13. (See page 631.)

The five creditor nations and Germany signed also a concurrent memorandum specifying the amounts of the annuities which are required to cover outpayments (i.e., the war debts due to the United States) for 59 years and providing that of any relief which any creditor power may effectively receive in respect of its net outward payments on account of war debts, as regards the first 37 years, Germany is to benefit to the extent of two-thirds by reduction of her annuity, and one-third of the net relief shall be retained by the creditor concerned; and as regards to the last 22 years, the whole of such relief shall be applied to the reduction of Germany's liabilities.

THE HAGUE CONFERENCE.

The nations concerned, with representatives also from the British Dominions, Greece, Poland, Portugal, Roumania, Yugo-Slavia and Czechoslovachia, met at The Hague Aug. 6 to consider the experts' report. An American observer, Edwin C. Wilson, First Secretary of the Embassy at Paris, was present. Philip Snowden, the British Chancellor of the Exchequer, declared that Great Britain had been most unfairly treated in the distribution of the German annuities and demanded that the Spa percentages be followed and that Great Britain be allotted a larger share or his government would withdraw. After much acrimonious haggling over terms a compromise was reached meeting a very substantial part of Snowden's financial demands—France, Italy, Belgium, Japan and Germany agreeing to guarantee Great Britain $9,528,000 (36,000,000 marks) of the $11,433,000 increase in Britain's annual receipts which he demanded, which brought Great Braitain's share of the unconditional annuities up to $22,867,200 (96,000,000 marks).

The distribution of the balance of the unconditional part of the annuities under the experts report, 70,000,000 marks, was fixed at: The British Empire, 55,000,000 marks; Japan, 6,600,000 marks; Yugo-Slavia, 6,000,000; and Portugal, 2,400,000 marks.

Guarantees were also given against the reexport of deliveries in kind which Snowden declared threatened British trade, and in no case are deliveries in kind to continue for more than ten years longer. Moreover the Italian State railways were pledged by Italy to buy a million tons of British coal annually

for the next three years "at the best British export market price."

It was further agreed that within eight months after the ratification of the Young Plan by France and Germany, and in any case by June 30, 1930, the evacuation of the Rhine Zone should be complete. (The British troops left Wisbaden Sept. 15, and the French began the evacuation of the Coblenz zone in November.)

The Conference adjourned Aug. 31 after its president, Premier Henri Jaspar of Belgium had announced that all the governments had accepted the Young Plan in principle, and by agreement Germany pays according to the Young Plan beginning with the end of the fifth year of the Dawes Plan, Aug. 31, 1929.

THE INTERNATIONAL BANK.

The subcommittee appointed by the Hague Conference to draw up the statutes for the Bank for International Settlements met at Baden-Baden Oct. 3, and completed their work on Nov. 14. Although the United States Government declined to have anything to do with it, Jackson E. Reynolds, president of the First National Bank of New York, and Melvin A. Taylor, president of the First National Bank of Chicago, selected by Owen Young, sat on the committee by invitation. Jackson E. Reynolds was made chairman.

Charter, statutes and trust deeds were drawn up and signed making compact and precise the Young Plan scheme and the home of the bank fixed at Basle, the protest of the Belgian members who desired Brussels be chosen, proving uneffective.

Under the terms of the Young Plan, 65% of the sums to be paid by Germany are to go to cover war debt payments to the United States, while 35% will be applied to war damage, mostly in France.

The Experts concluded "if our proposals are adopted with good will by all concerned, and the rest of the world has confidence in the constructive value of this mutual accord, then indeed there can be no reasonable doubt that the agreement will be capable of complete fulfillment and the nations it concerns will be brought to a high level of economic stability and of mutual understanding than ever before."

SHARE OF THE UNITED STATES.

In the division of the German annuities to be allotted under the Young Plan the United States consented (if other nations make similar sacrifices, and subject to the authorization of Congress) to a 10% reduction of its claim for reimbursements of costs of its army of occupation. The recommended share of the annuities for this and for the war claims was an average of 66,100,000,000 marks (approximately $15,731,800) for 37 years, and 40,800,000 marks (approximately $9,710,000) for 15 years thereafter. Of this the Secretary of the Treasury recommended to Congress that 40,800,000 marks annually be allotted to the satisfaction of mixed claims.

The total Army of Occupation cost charges (gross) as of Sept. 1, 1929 was $292,633,436 less credits to Germany of $44,797,790, leaving a net of $247,-86o,646; as against which payments were received under the agreement of May 25, 1923 of $14,725,154; and under the Paris agreement of Jan .14, 1925 of $39,203,726, a total of $53,928,880, leaving a balance due as of Sept. 1, 1929 of $193,936,765.

The estimated balance due as of Sept. 1, 1929, on account of mixed claims, some unsettled, was $256,-656,713, Germany having paid $31,831,472 during the five years of the Dawes Plan.

1929 CROPS IN THE UNITED STATES.

Crop.	1928.	1929.	1928.	1929.
	1,000 Acres.	*1,000 Acres.*	*Million Bushels.*	*Million Bushels.*
Corn	100,630	98,333	2,836	2,621
Wheat:				
Winter	36,207	39,885	578	568
Durum,4 States	6,711	5,357	93	52
Other spg., U.S.	14,850	15,514	231	172
All	57,768	60,756	902	792
Oats	41,734	40,222	1,449	1,227
Barley	12,533	13,595	357	313
Rye	3,439	3,284	41.7	41.0
Buckwheat	749	764	13.1	11.9
Flaxseed	2,638	3,092	18.7	16.1
Rice, 5 States	965	881	41.9	39.2
Grain sorgh.	6,497	6,286	143	104
Potatoes	3,832	3,370	464	354
Sweet potatoes	810	814	77.7	82.9
Beans, dry edible	1,577	1,735	16.6	18.6
Peaches,total crop	.....	.....	68.4	44.8
Pears, total crop	.....	.....	24.0	20.8
Apples, total crop	.....	.....	186	140
			Barrels.	*Barrels.*
Apples, commer	.....	.....	35.3	28.5

Crop.	1928.	1929.	1928.	1929.
	1,000 Acres.	*1,000 Acres.*	*Million Bushels.*	*Million Bushels.*
Cotton	45,341	46,594	*Bales.* 14.5	*Bales.* 15.0
			Pounds.	*Pounds.*
Tobacco	1,895	2,003	1,378	1,481
Peanuts	1,180	1,217	809	902
Hops	26	25	32.7	31.6
Hay:			*Tons.*	*Tons.*
Tame	57,768	60,054	93.0	100.6
Wild	13,138	13,233	12.9	12.4
All	70,906	73,287	105.9	113.0
Timothy	8,748	.....	11.0	.....
Mixed	15,904	.....	22.7	.....
Clover	5,182	.....	8.2	.....
Sweet clover	1,253	.....	2.55	.....
Alfalfa	11,048	11,378	29.1	29.5
Grapes	.....	.....	2.67	2.05
Broomcorn	298	300	54.5	46.2
Sugar beets	644	730	7.10	8.47
			Gallons.	*Gallons.*
Sorgo for sirup	348	352	27.0	26.7

Broom corn production is in *thousands of tons*; grape includes fresh fruit, juice, and raisins.

COLD-STORAGE HOLDINGS IN UNITED STATES ON SEPTEMBER 1, 1929.

Commodity.	Aug. 1, 5-year aver.	Sept. 1, 5-year aver.	Sept. 1, 1929. aver.
	1,000	*1,000*	*1,000*
Fresh Fruits.			
Pears, boxes	112	656	433
Pears, barrels	11	44	164
Frozen, preserved fruits, lbs.	51,953	54,043	65,162
Dairy Products, lbs.			
Butter, creamery	127,986	144,574	168,974
Cheese, American	69,272	77,574	86,654
Cheese, Swiss, includ. block	5,692	6,955	7,493
Cheese, brick and Munster	2,070	1,920	981
Cheese, Limburger	1,509	1,615	1,616
Cheese, all other varieties	8,525	8,108	9,410
Total cheese	87,068	96,172	106,154
Eggs.			
Case, cases	10,076	9,564	8,540
Frozen, lbs	58,587	60,113	86,695
Frozen Poultry, lbs.			
Broilers	6,145	8,506	13,178
Fryers	.....	.....	1,529
Roasters	8,657	6,548	5,145
Fowls	6,839	6,132	6,606
Turkeys	6,549	5,703	5,876

Commodity.	Aug. 1, 5-year aver.	Sept. 1, 5-year aver.	Sept. 1 1929. aver.
	1,000	*1,000*	*1,000*
Misc. frozen poultry	12,938	13,287	16,666
Total frozen poultry	41,128	40,176	49,000
Meats, lbs.			
Beef, frozen	23,472	21,634	32,091
Beef, in process of cure	9,047	9,262	8,402
Beef, cured	10,220	9,169	7,486
Total beef	42,739	40,065	47,979
Pork, frozen	177,882	137,915	177,038
Pork dry salt, in process of cure	85,227	78,919	80,076
Pork dry, salt, cured	92,026	89,084	80,771
Pork, pickled, in process of cure	235,748	211,292	226,597
Pork, pickled, cured	165,767	156,025	155,622
Total pork	758,650	673,235	720,104
Lamb and mutton, frozen	1,680	1,698	3,159
Misc. meats, frozen, cured	64,984	61,907	76,811
Total meats	866,053	776,905	848,053
Lard	166,649	147,108	179,899

DAIRY PRODUCTS MANUFACTURED IN THE UNITED STATES IN 1928.

Manufactured Product.	Total.
	1,000 *lbs.*
Creamery butter	1,487,049
Whey butter (made from whey cream)	1,097
Renovated or process butter	2,716
American cheese:	
Whole milk	335,253
Part skim	2,900
Full skim	3,048
Swiss cheese (including block)	16,718
Brick and Munster cheese	28,960
Limburger cheese	7,437
Cream and Neufchatel cheese	30,589
All Italian varieties	3,587
All other varieties	9,027
Cottage, pot, and baker's cheese	87,525
Condensed milk (sweetened):	
Case goods—	
Skimmed	1,366
Unskimmed	139,077
Bulk goods—	
Skimmed	154,723
Unskimmed	38,660
Total condensed milk	333,826

Manufactured Product.	Total.
	1,000 *lbs.*
Evaporated milk (unsweetened):	
Case goods—	
Skimmed	10,618
Unskimmed	1,337,022
Bulk goods—	
Skimmed	147,625
Unskimmed	89,336
Total evaporated milk	1,584,601
Concentrated skim milk (for animal feed)	20,982
Con. or evap. but'milk (incl. con. prod.)	102,452
Dried or powdered buttermilk	45,502
Powdered whole milk	9,605
Powdered skim milk	147,996
Powdered cream	673
Dried casein (skim milk or but'milk prod.)	22,151
Malted milk	21,128
Milk sugar (crude)	5,323
Ice cream (all kinds), gallons	232,185

Total value of dairy products of farms in 1928 approximately $3,000,000,000.

CANNING AND PRESERVING INDUSTRIES.

Class and Kind.	1927.
Canning and preserving, all prods, value	$637,428,049
Canned and processed vegetables, fruits, and sea foods	603,127,377
Other products	34,300,672
Canned and processed vegetables, fruits, and sea foods, secondary products of other industries	15,207,898
Canned and processed vegetables, fruits, and sea foods, all industries:	
Aggregate value (sum of 2, 4)	$618,335,375
Vegetables, soups, and fruits	$400,237,888
Canned vegetables and soups:	
Cases	97,355,699
Value	$234,259,659
Beans, with pork, with sauce, and baked—	
Cases	17,886,709
Value	$34,959,053
Beans, other than those above—	
Cases	7,473,029
Value	$18,110,241
Peas—	
Cases	13,084,793
Value	$34,030,864
Tomatoes—	
Cases	18,229,068
Value	$33,813,525
Corn—	
Cases	10,254,706
Value	$22,855,387
Asparagus—	
Cases	2,176,755
Value	$12,201,729

Class and Kind.	1927.
Spinach—	
Cases	2,462,190
Value	$6,225,106
Spaghetti—	
Cases	2,750,501
Value	$6,060,844
Kraut—	
Cases	3,100,929
Value	$5,460,115
Canned fruits—	
Cases	27,564,341
Total value	$101,730,609
Peaches—	
Cases	11,305,057
Value	$36,235,437
Pears—	
Cases	2,953,502
Value	$13,066,554
Apricots—	
Cases	3,099,357
Value	$12,256,317
Berries—	
Cases	2,374,588
Total value	$9,806,725
Fruits for salad—	
Cases	1,101,188
Value	$7,574,856
Cherries—	
Cases	1,229,386
Value	$6,490,065
Apples—	
Cases	2,939,031
Value	$5,895,138
Dried fruits—	
Pounds	1,012,795,660
Value	$64,167,036
Raisins—	
Pounds	435,291,836
Value	$25,823,583
Prunes—	
Pounds	438,885,640
Value	$23,737,732
Apricots—	
Pounds	36,754,815
Value	$5,438,911
Preserves, Jams, Jellies, and fruit butters: value	$37,682,393

Class and Kind.	1927.
Pickles, sauces, salad dressing, etc., ketchup and prepared horseradish:	
Value	$116,004,770
Salad dressing and sald oils:	
Mayonnaise	27,099,024
Sauces, prepared mustard, prepared horseradish, etc.	19,567,254
Pickles	32,979,816
Ketchup	20,236,807
Fish, crabs, shrimps, oysters, and clams:	
Value	$64,410,224
Canned fish, oysters, etc.: Cases	11,030,870
Value	$51,090,315
Salmon—	
Cases	1,504,451
Value	$15,712,497
Sardines—	
Cases	6,183,364
Value	$14,517,814
Tuna—	
Cases	1,255 818
Value	$8,368,227
Shrimps—	
Cases	852,764
Value	$5,321,652
Cured fish:	
Pounds	91,212,832
Value	$13,319,909
Smoked fish—	
Pounds	27,390,630
Value	$5,793,321
Dried fish—	
Pounds	8,132,082
Value	$837,157
Salted and pickled fish—	
Pounds	35,621,936
Value	$3,755,431
Boneless fish—	
Pounds	20,068,184
Value	$2,934,000

"RIGHTS OF MAN"—AN INTERNATIONAL DECLARATION.

The Institute of International Law, Dr. James Brown Scott, President, had its first meeting in the United States at Briarcliff Manor, N. Y., Oct. 21, 1929, and adopted unanimously the following declaration of the "Rights of Man":

"It is the duty of every State to recognize for every individual the equal right to life, liberty and property and to accord to every one on its territory the full and complete protection of the law without distinction for nationality, sex, race, language or religion.

"It is the duty of every State to recognize for every individual the right to the free exercise both public and private of every faith, religion or belief of which the practice is not incompatible with public policy and good morals.

"It is the duty of every State to recognize the right of every individual to the free use of the language of his choice and for instruction in this language."

These resolutions were drafted by a committee composed entirely of European lawyers under the chairmanship of Andre N. Mandlestam, formerly head of the Legal Department of the Foreign affairs Ministry of Russia and now a resident of France, and followed a long discussion.

MAYORS OF AMERICAN CITIES.

City.	Mayor.	Term exp.
Akron, Ohio	G. Lloyd Well, D.	1932, Jan.
Alameda, Cal.	V. L. Schaefer, R.	1931, Apr.
Albany, N. Y.	J. B. Thacher, D.	1934, Jan.
Allentown, Pa.	M. W. Gross, D.	1932, Jan.
Altoona, Pa.	J. J. McMurray, R.	1932, Jan.
Amsterdam N. Y.	Wm. A. Gardner, D.	.....
Asheville, N. C.	G. Roberts, D.	1931, May
Atlanta, Ga.	I. N.Ragsdale, D.	1931, Jan.
Atlantic City, N. J.	A. M. Ruffn, Jr., R.	1932, May
Auburn, N. Y.	C. D. Osborne, D.	1932, Jan.
Augusta, Ga.	Wm. B. Bell, D.	1931, Jan.
Austin, Tex.	P. W. McFadden	1931, May
Baltimore, Md.	W. F. Broening, R.	1931, May
Bayonne, N. J.	Bert J. Daly, D.	1931, May
Beaumont, Tex.	L. W. King, D.	1930, Apr.
Berkeley, Cal.	M. B. Driver	1930, June
Bethlehem, Pa.	Robert Pfeifle, D.	1934, Jan.
Binghamton, N. Y.	N. A. Boyd, R.	1932, Jan.
Birmingham, Ala.	J. M. Jones, Jr.*	1933, Nov.
Bloomington, Ill.	B. S. Rhodes, R.	1931, May
Boston, Mass.	James M. Curley, D.	1934, Jan.
Bridgeport, Conn.	E.T.Buckingham,D.	1931, Nov.
Brockton, Mass.	Harold D. Bent, R.	1932, Jan.
Buffalo, N. Y.	C. E. Roesch, R.	.....
Butte, Mont.	M. Kerr Beadle, D.	1931, May
Cambridge, Mass.	R. M. Russell, D.	1932, Jan.
Camden, N. J.	W. S. Price, R.	1931, May
Canton, Ohio	H. R. Witter, D.	1931, Jan.
Cedar Rapids, Ia.	J. F. Rall	1930, Mar.
Charleston, S. C.	Thos. P. Stoney, D.	1932, Jan.
Charleston, W. Va.	Wm. W. Wentz, R.	1931, May
Charlotte, N. C.	G. F. Wilson, Jr., D	1931, May
Chattanooga, Tenn.	E. D. Bass, D.	1931, Apr.
Chester, Pa.	S. E. Turner, R.	1932, Jan.
Chicago, Ill.	W. H. Thompson, R.	1931, Apr.
Chicopee, Mass.	H. Cloutier, N.-P	.....
Cincinnati, Ohio	Russell Wilson, R.	1932, Jan.
Clarksburg, W. Va.	R. L. Osborn†	.....
Clifton, N. J.	Wm. P. Jordan, R.	1932, Jan.
Colorado Spgs., Col.	George Birdsall	1931, Apr.
Columbia, S. C.	L. B. Owens, D.	1930, June
Columbus, Ohio	J. J. Thomas, R.	1932, Jan.
Council Bluffs, Ia.	S. A. Greene, D.	1930, May
Covington, Ky.	T. F. Donnelly, D.	1932, Jan.
Cranston, R. I.	F. C. Speck, R.	1931, Jan.
Cumberland, Md.	T. W. Koon, D.	1930, Apr.
Dallas, Tex.	J. W. Tate, N.-P.	1931, May
Danville, Ill.	Henry Hulce, R.	1931, Apr.
Davenport, Ia.	H. Metcalf, R.	1930, Apr.
Dayton, Ohio	A.C.McDonald,N.-P.	.....
Decatur, Ill.	O. W. Smith	1931, May
Denver, Col.	B. F. Stapleton, D.	1931, June
Des Moines, Ia.	E. H. Mulock, R.	1930, Apr.
Detroit, Mich.	Charles Bowles	1932, Jan.
Dubuque, Ia.	M. B. Andelfinger	1930, Mar.
Duluth, Minn.	S. F. Snively	1933, Apr.
Durham, N. C.	J. M. Manning, D.	1931, May
East Chicago, Ind.	R. P. Hale, R.	1934, Jan.
East Orange, N. J.	C. H. Martens, R.	1931, Jan.
East St. Louis, Ill.	F. Doyle, R.	1931, May
Easton, Pa.	Samuel S. Horn, R.	1932, Jan.
Elgin, Ill.	E. R. Kelly	1931, May
Elizabeth, N. J.	John F. Kenah, D.	1930, Dec.
Elmira, N. Y.	F. P. Robinson, D.	1932, Jan.
El Paso, Tex.	R. E. Thomason, D.	1931, Apr.
Erie, Pa.	J. C. Williams, R.	1932, Jan.
Evanston, Ill.	C. H. Bartlett, R.	1931, May
Evansville, Ind.	F. W. Greise	1935, Jan.
Fall River, Mass.	E. P. Talbot	1931, Jan.
Fitchburg, Mass.	J. N. Carriere, I.-P.	1931, Jan.
Flint, Mich.	Ray Brownell, R.	1931, Apr.
Fort Smith, Ark.	F. Bourland, D.	1933, Apr.
Fort Wayne, Ind.	W. J.Hosey, D.	1933, Jan.
Fresno, Cal.	Z. S. Leynel, N.-P.	1933, Apr.
Galveston, Tex.	J. E. Pearce, R.	1931, June
Gr. Rapids, Mich.	E. Swarthout, R.	1930, Apr.
Gt. Falls, Mont.	A. J. Fouske, D.	1931, May
Green Bay, Wis.	J. V. Diener, N.-P.	1931, Apr.
Greensboro, N. C.	R. R. King, Jr., D.	1931, May
Hammond, Ind.	C. C. Schonert	1934, Jan.
Hamtramck, Mich.	R.G.Tenerowicz, R.	1930, Apr.
Harrisburg, Pa.	G. A. Hoverter, R.	1932, Jan.
Hartford, Conn.	W. W. Batterson, R.	.....
Hazleton, Pa.	J. G Harvey	1934, Jan.
Highland Pk, Ill.	J. C. Shields, N.-P.	1930, Apr.
Hoboken, N. J.	Gustav Bach, D.	1931, May
Holyoke, Mass.	W. T. Dillon, N.-P.	1931, Jan.
Houston, Tex.	W. E. Montieth, D.	1931, Apr.
Huntington, W. Va.	J. B. Taylor, D.	1931, June
Indianapolis, Ind.	R. H. Sullivan, D.	1934, Jan.
Irvington, N. J.	David H. Greene	1930, May
Jackson, Mich.	M. R. Hullberger, R.	1932, Jan.
Jersey City, N. J.	Frank Hague, D.	1933, May
Johnstown, Pa.	J. Cauffiel, R.	1932, Jan.
Joliet, Ill.	George F. Sehring	1931, June
Kalamazoo, Mich.	S. R. Light, R.	1931, Nov.
Kansas City, Kan.	D. McCombs, N.-P.	1930, Apr.
Kansas City, Mo.	A. I. Beach, R.	1930, May
Kearny, N. J.	A. H. Jones, R.	1932, Jan.
Kenosha, Wis.	W. E. O'Brien†	.....
Knoxville, Tenn.	James A. Trentt	.....
La Crosse, Wis.	John E. Langdon	1932, Apr.
Lakewood, Ohio	E.A.Wiegand,N.-P.	1932, Jan.
Lancaster, Pa.	T. W. Metzger, R.	1934, Jan.
Lansing, Mich.	L. J. Troyer, R.	1931, Jan.
Lawrence, Mass.	M. A. Landers, D.	.....
Lexington, Ky.	James J. O'Brien	1932, Jan.
Lima, Ohio	J. A. Harley, R.	1932, Jan.
Lincoln, Neb.	D. L. Love, N.-P.	1931, May
Little Rock, Ark.	P. L. Robinson, D.	1931, Apr.
Long Beach, Cal.	Oscar Hauge, R.	1930, July
Lorain, Ohio	P. J. Goldthorpe, R.	1932, Jan.
Los Angeles, Cal.	J. C. Porter, N.-P.	1933, June
Louisville, Ky.	W. B. Harrison, R.	1933, Nov.
Lowell, Mass.	T. H. Braden, R.	1931, Jan.
Lynchburg, Va.	J. Tannier, D.	1930, Sept.
Lynn, Mass.	F. Manning, N.-P.	1932, Jan.
Macon, Ga.	G. G. Toole, D.	1931, Nov.
Madison, Wis.	A. Schmedeman, D.	1930, Apr.
Manchester, N. H.	A. E. Moreau, R.	1932, Jan.
Mansfield, Ohio	C. S. Moore, R.	1932, Jan.
McKeesport, Pa.	G. H. Lysle, R.	1934, Jan.
Memphis, Tenn.	W. Overton, D.	1931, Dec.
Meriden, Conn.	F. T. Maloney, D.	1932, Jan.
Miami, Fla.	C. H. Reeder	1931, June
Milwaukee, Wis.	D. W. Horan, N.-P.	1932, Apr.
Minneapolis, Minn.	W. F. Kunze, R.	1931, June
Mobile, Ala.	H. T. Hartwell	1930, Sept.
Moline, Ill.	C. W. Sandstrom, R.	1931, May
Montclair, N. J.	C. G. Phillips	1932, May
Montgomery, Ala.	W. Gantner, Jr., D.	1931, Oct.
Mt. Vernon, N. Y.	Jas. Berg, R.	1932, Jan.
Muskegon, Mich.	J. Arthur Dratty	1931, Jan.
Muskogee, Okla.	Thos. L. Gibson	1930, Apr.
Nashville, Tenn.	H. E. Howse, D.	1931, June
Nashua, N. H.	W.F.Sullivan,N.-P.	.....
Newark, N. J.	J. T. Congleton, R.	1933, May
Newark, Ohio	R. Hunter, D.	1932, Jan.
N. Bedford, Mass.	C. S. Ashley, D.	1933, Jan.
N. Britain, Conn.	A. M. Pavnessa, D.	1930, Apr.
N. Brunswick, N. J.	J. J. Morrison, R.	1931, May
Newburgh, N. Y.	Jas. D. Tweed, R.	1931, Dec.
New Castle, Pa.	W. H. Gillespie, D.	1932, Jan.
New Haven, Conn.	Thomas A. Tully, R.	1932, Jan.
New Orleans, La.	A. J. O'Keefe	1930, May
N. Britain, Conn.	A. M. Ponessa, D.	1930, Apr.
New Orleans, La.	A. J. O'Keefe	1930, May
Newport, R. I.	M. A. Sullivan, D.	1931, Jan.
Newport News, Va.	T. B. Jones, D.	1930, Sept.
N. Rochelle, N. Y.	W. G. C. Otto, D.	1931, Jan.
Newton Mass.	Sinclair Weeks	.....
New York, N. Y.	James J. Walker, D.	1934, Jan.
Niagara Falls, N.Y.	Wm. Laughlin, D.	1932, Jan.
Norfolk, Va.	S. Heth Tyler, D.	1930, Sept.
Norwalk, Conn.	Anson F. Keeler, R.	1931, Oct.
Norwood, Ohio	Harry H. Baker	1932, Jan.
Oakland, Calif.	John L. Davie, R.	1931, June
Oak Park, Ill. (Vil.)	C. Crysler, R.	1931, May
Ogden, Utah	Ora Bundy, D.	1932, Jan.
Okla. City, Okla.	Walter C. Dean	1931, Apr.
Omaha, Neb.	J. C. Dahlman, D.	1930, May
Orange, N. J.	F. J. Murray, R.	1930, May
Oshkosh, Wis.	H. F. Kitz, N.-P.	1930, Apr.
Pasadena, Cal.	R. V. Orbison, C.M.	.....
Passaic, N. J.	J. J. Roegner, R.	1931, May
Paterson, N. J.	J. V. Hinchliffe, D.	1932, Jan.
Pawtucket, R. I.	Charles H. Holt, R.	1931, Jan.
Pensacola, Fla.	J. H. Bayliss, D.	1931, June
Peoria, Ill.	E. N. Woodruff, R.	1931, May
Perth Amboy, N. J.	Frank Dorsey, D.	1930, May
Petersburg, Va.	R. T. Wilson, D.	1932, Sept.
Philadelphia, Pa.	H. A. Mackey, R.	1932, Jan.
Phoenix, Ariz.	F. J. Paddock	1930, Apr.
Pittsburgh, Pa.	C. H. Kline, R.	1934, Jan.
Pittsfield, Mass.	Jay P. Barnes, D.	1931, Jan.
Plainfield, N. J.	J. T. MacMurray, R	1931, Jan.
Pontiac, Mich.	C. L. Rockwell	1930, Apr.
Port Arthur, Tex.	J. W. O'Neal	1931, June
Portland, Me.	J. E. Barlow, C.-M.	.....
Portland, Ore.	G. L. Baker, R.	1933, July
Portsmouth, Va.	V. A. Brooks, D.	1930, Aug.
Poughkeepsie, N. Y.	Alexander Caven, R.	.....
Providence, R. I.	J. E. Dunne, D.	1931, Jan.
Pueblo, Col.	J. M. Jackson§	1931, Dec.
Quincy, Ill.	F. A. Jasper, D.	1931, May
Quincy, Mass.	Thos. G. McGrath	1931, Jan.
Racine, Wis.	W. H. Armstrong	.....
Raleigh, N. C.	E. E. Culbreth, D.	1931, May
Reading, Pa.	J. H. Stump, Soc.	1932, Jan.
Revere, Mass.	A. A. Cassassa, R.	1931, Jan.
Richmond, Va.	J. F. Bright, D.	1932, Aug.
Roanoke, Va.	Chas. D. Fox, D.	1930, Aug.

City.	Mayor.	Term exp.
Rockford, Ill.	J. H. Hallstrom, R.	1931, May
Rock Island, Ill.	C. Thompson, D.	1931, May
Sacramento, Calif.	C. H. S. Bidwell	1931, Dec.
Saginaw, Mich.	A. W. Tausend, D.	1932, Apr.
St. Joseph, Mo.	L. V. Stigall, D.	1930, Apr.
St. Louis, Mo.	V. J. Miller, R.	1933, Apr.
St. Paul, Minn.	L. C. Hodgson, N.-P.	1930, June
St. Petersburg, Fla.	A. R. Thompson, R.	1930, June
Salem, Mass.	G. J. Bates, N.-P.	1932, Jan.
Salt Lake City, Ut.	J. F. Bowman, R.	1933, Jan.
San Antonio, Tex.	C. M. Chambers	1931, May
San Diego, Ca.	Harry C. Clark	1931, Apr.
San Francisco, Cal.	Jas Ralph, Jr., R.	1932, Jan.
San Jose, Cal.	C. B. Goodwin†	.....
Savannah, Ga.	Gordon Saussip, D.	1931, Jan.
Schenectady, N. Y.	Henry C. Fagel, R.	.....
Seattle, Wash.	F. Edwards, N.-P.	1930, June
Sheboygan, Wis.	H. Schuelke, N.-P.	1931, Apr.
Shreveport, La.	L. E. Thomas, D.	1930, Nov.
Sioux City, Ia.	Thos. B. Huff, R.	1930, Apr.
Sioux Falls, S. D.	G. W. Burnside	1934, May
South Bend, Ind.	W. R. Hinkle, D.	1934, Jan.
Spokane, Wash.	L. Funk, N.-P.	1933, June
Springfield, Ill.	J. Emil Smith, R.	1931, Apr.
Springfield, Mass.	D. R. Winter, D.†	1932, Jan.
Springfield, Mo.	T. H. Gideon	1932, Apr.
Springfield, Ohio.	R. W. Flack†	.....
Stamford, Conn.	W. W. Graves, R.	1931, Jan.
Steubenville, Ohio.	O. R. Conley, R.	1931, Dec.
Superior, Wis.	G. E. Detrich, N.-P.	1931, Apr.
Syracuse, N. Y.	R. S. Marvin, R.	1932, Jan.
Tacoma, Wash.	M. G. Tennent, R.	1930, June
Tampa, Fla.	D. B. McKay	1932, Jan.
Taunton, Mass.	W.K.Hodgman,N-P.	.....
Terre Haute, Ind.	.....	.....
Toledo, Ohio.	W. T. Jackson, N.-P.	1932, Jan.
Topeka, Kan.	W. O. Rigby, D.	1931, Apr.
Trenton, N. J.	F. W. Donnelly, D.	1931, May
Troy, N. Y.	C. F. Burns, D.	1931, Jan.
Tulsa, Okla.	D. W. Patton, R.	1930, May
Utica, N. Y.	C. S. Donnelley	1932, Jan.
Waco, Tex.	T. D. Brooks, D.	1930, Apr.
Waltham, Mass.	H. F. Beal, N.-P.	.....
Warren, Ohio.	W. A. Lynn, D.	1932, Jan.
Waterbury, Conn.	Frank Hayes, D.	1932, Jan.
Waterloo, Iowa.	G. A. Tibbitts, R.	1930, Apr.
Watertown, N. Y.	J. B. Harris, R.	1932, Jan.
Wheeling, W. Va.	T. Y. Beckett, R.	1931, June
Wichita, Kan.	C. S. Lawrence	1930, Apr.
Wichita Falls, Tex.	J. W. Akin	1930, Apr.
Wilkes-Barre, Pa.	Daniel L. Hart, D.	1931, Jan.
Williamsport, Pa.	H. T. Ames, Proh.	1932, Jan.
Wilmington, Del.	G. W. K. Forrest, R.	1931, June
Wilmington, N. C.	W. H. Blair, D.	1933, May
Winston-S'm, N. C.	Geo. W. Coan, Jr.	1931, May
Woonsocket, R. I.	J. Hector Poquin, R.	1931, Jan.
Worcester, Mass.	.....	.....
Yonkers, N. Y.	John J. Fogarty, R.	1931, Jan.
York, Pa.	J. E. Weaver, D.	1932, Jan.
Youngstown, O.	J. L.Heffernan,N.-P	1931, Dec.
Zanesville, O.	Wm. H. Webster, R.	1934, Jan.

* Pres. of Comm. † City Manager. § Pres. of Council.

FOOD SHIPS AND FREEDOM OF THE SEAS.

President Hoover, in his Armistice Day speech, Nov. 11, in the Washington, D. C. Auditorium, said in part:

"There is another of these age-old controversies which stir men's minds and their fears. That is the so-called freedom of the seas. In reality in our day it is simply the rights of private citizens to trade in time of war, for there is today complete freedom of the seas in times of peace.

"If the world succeeds in establishing peaceful methods of settlement of controversies, the whole question of trading rights in time of war becomes a purely academic discussion. Peace is its final solution.

"But I am going to have the temerity to put forward an idea which might break through the involved legal questions and age-old interpretations of right and wrong by a practical step which would solve a large part of the intrinsic problem. I have not made it a governmental proposition to any nation and do not do so now. This is not a proposition for the forthcoming naval conference.

"For many years, and born of a poignant personal experience, I have held that food ships should be made free of any interference in times of war. I would place all vessels laden solely with food supplies on the same footing as hospital ships. The time has come when we should remove starvation of women and children from the weapons of warfare.

"The rapid growth of industrial civilization during the past half century has created in many countries populations far in excess of their domestic food supply and thus steadily weakened their natural defenses. As a consequence, protection for overseas or imported supplies has been one of the most impelling causes of increasing naval armaments and military alliances.

"The fear of an interruption in sea-borne food supplies has powerfully tended toward naval development in both importing and exporting nations. In all important wars of recent years, to cut off or to protect such supplies has formed a large element in the strategy of all combatants.

"The world must sooner or later recognize this as one of the underlying causes of its armed situation, but, far beyond this, starvation should be rejected among the weapons of warfare.

"To those who doubt the practicability of the idea, and who insist that agreements are futile for the purpose of controlling conduct in war, I may point out that the Belgian Relief Commission delivered more than 2,000 shiploads of food through two rings of blockade and did it under neutral guarantees continuously during the whole World War."

LATE SPORTS.

Bicycle—Six-day Race, Dec. 1-7, Madison Sq. Garden, N. Y. City—

Team.	Miles.	Laps.	Pts.
Georgetti-Debaets	2,270	9	505
Spencer-Deulberg	2,270	8	651
Letourner-Brocardo	2,270	8	276
Hill-Walthour	2,270	8	126
McNamara-Bellont	2,270	7	576
Horder-Linari	2,270	7	435
Bichill-Reiger	2,270	7	342
Beckman-Winter	2,270	6	598

Football—Results of games played December 7:

Centenary 6	Loyola (New Orleans)	0
Florida 20	Oregon	6
Georgia 12	Georgia Tech	6
Haskell Inst. 20	Tulsa	14
Louisiana Tech 24	S. W. Louisiana	7
North Carolina U. 48	Duke	7
Oklahoma City 27	Davis-Elkins	14
Pasadena 14	Kamehamaha	13
St. Edward's 6	Austin	6
Tennessee 54	South Carolina	0
W. and M. 20	Hampden-Sidney	6
Western Maryland 12	Maryland	0

Southern California Univ. beat Carnegie Tech., 45 to 13, on Dec. 14, at Los Angeles.

Golf—National Professional Golf Association Championship of 1929; won by Leo Diegel who defeated John Farrell, 6 and 4, in the final round at the Hillcrest Country Club, Los Angeles, Cal., December 7.

Tony Manero, of Elmsford, N. Y., defeated Olin Dutra, 186 and 187, and won the Second Annual Catalina Island Open Golf Championship, at Avalon, Calif., Dec. 15.

Boxing—Young Stribling defeated Primo Carnera seven rounds, on foul, Paris, December 7.

Cross-Country Run—National Amateur Athletic Union Cross-Country Championship Run, New York, N. Y., December 8; results, first five:

Position.	Name and Club.	Time.
1	Gus Moore, Univ. of Pittsburgh	31:14
2	Eino Heikkila, Dorchester Club	31:50
3	Eldridge Stevens, Dorchester Club	32:08
4	George Rapp, Meadowbrook Club	32:15
5	William C. Zepp, Dorchester Club	32:13

THE JONES-WHITE ACT.

The Jones-White merchant marine act, approved May 22, 1928, was intended to put American shipping on an equal footing with the shipping of other nations. It contemplated primarily the financing, by Government loans, of ship construction for private ownership and operation. For this loan service it authorized the construction loan fund to be increased to a total of $250,000,000 and provided that from this fund private ship builders might borrow, on long terms and at low interest rates, up to three-quarters of the cost of the ships they build for foreign trade, and one-half of the cost of vessels built for the coasting trade. More liberal mail subsidies and long-term mail contracts were also provided, and the U. S. Shipping Board was also authorized to create an insurance fund in which it may insure in whole or in part, against all hazards commonly covered by insurance policies in such cases, any legal or equitable interest of the United States in any vessel constructed or in process of construction and in any plants or properties in the possession or under the authority of the Board.

RULERS OR HEADS OF GOVERNMENTS OF THE WORLD.

The date of birth, when known, is given in parentheses.

Country.	Name of Ruler, Etc.	Accession.
Abyssinia	Waizeru Zauditu (1876), *Empress*; Ras Tafari, *King and Regent*	1916
Afghanistan	Nadir Khan, *King*	1929
Albania	Ahmed Zogu (1894), *King of the Albanians*	1924
Argentina	Dr. Hipolito Irigoyen (1852), *President*; term, six years	1928
Australia	Lord Stonehaven (1874), *Governor General*; I. H. Scullin, *Premier*	1925
Austria	Dr. Wilhelm Miklas (1872), *President*; Johann Schober, *Premier*	1928
Belgium	Albert (1875), *King*	1909
Bhutan (Br. Protectorate)	Jik-me Wangchuck, *Maharajah*	1926
Bolivia	Hernando Siles, *President*; term, four years	1925
Brazil	Dr. Washington Luis Pereixa de Sousa (1870), *President*; term four years	1926
Bulgaria	Boris III. (1894), *Czar*	1918
Cambodia	Monivong, *King* (French protectorate)	1927
Canada	Lord Willingdon (1866), *Governor General*; Mackenzie King, *Premier*	1926
Chile	Gen. Carlos Ibanez (1882), *President*; term, six years	1927
China	Gen. Chiang Kai-shek, *President*	1928
Colombia	Dr. Miguel Aradia Mendez, *President*; term, four years	1926
Costa Rica	Cleto Gonzales Viquez (1858), *President*; term, four years	1928
Cuba	Gen. Gerado Machado, *President*; re-elected 1928 for six years	1925
Czechoslovakia	Thomas G. Masaryk (1850), *President*; for life	1920
Danzig	Heinrich Sahm (1877), *Senate President*	1921
Denmark	Christian X. (1870), *King*	1912
Dominican Republic	Gen. Horacio Vasquez, *President*; term, four years	1924
Ecuador	Dr. Isidro Ayora (1879), *President*; re-elected Mar. 2, 1929 for five years	1926
Egypt	Fuad I. (1868), *King*; Adly Pasha, *Premier*	1922
Estonia	Otto Strandmann, *State Head*	1926
Finland	L. K. Relander (1883), *President*; term, six years	1925
France	Gaston Doumergue (1863), *President*; term, seven years	1924
Germany	F. M. Paul von Hindenburg (1847), *President*, seven years	1925
Greece	Alexander Zaimis, *President*	1929
Guatemala	Dr. Lazaro Chacin (1873), *President*; term, six years	1926
Haiti	Louis Borno, *President* (under American quasi protectorate)	1922
Hejaz and Nejd, The	Abd-el-Aziz es Saud ibn Saud (1882), *King*	1926
Honduras	Dr. Vincente Mejia Colundris, *President*; term, four years	1929
Hungary	Admiral Nicholas von Horthy (1868), *Regent*	1920
Iceland	Christian X. (1870), *King*	1912
India (British)	Lord Irwin (1881), *Viceroy*	1926
Iraq (Mesopotamia)	Feisal I. (1887) *King*	1921
Irish Free State	William T. Cosgrave (1880), *Presdent* of the Dail Eireann	1922
Italy	Victor Emmanuel III. (1869), *King*; Benito Mussolini, *Premier*	1900
Japan	Hirohito (1901), *Emperor*	1926
Latvia	Gustav Zemgals (1871), *President*; term, three years	1927
Liberia	Charles D. B. King, *President*; term, four years, reelected 1924, 1928	1920
Liechtenstein	Francis I. (1853), *Prince*	1929
Lithuania	Antona Smetona, *President*	1926
Luxemburg	Charlotte (1896), *Grand Duchess*	1919
Mexico	Emilio Portes Gil (1891), *Provisional President* to Feb. 5, 1930 Pascual Ortiz Rubio (1877), *President-elect*, term. four years	1928 1930
Monaco	Louis (1870), *Prince*	1927
Morocco	Moulai Mohammed (1913), *Sultan*, third son of Moulai Yusef	1922
Nepal	Tribhubana Bir Bikram (1906), *Shah*	1911
Netherlands	Wilhelmina (1880), *Queen*	1890
Newfoundland	Sir John Middleton (1871), *Governor*: Sir Richard Squires, *Premier*	1929
New Zealand	Sir Charles Fergusson (1865), *Gov. Gen.*; Sir Joseph Ward, *Premier*	1924
Nicaragua	Gen. Jose Maria Moncado, *President*; term, four years	1929
Norway	Haakon VII. (1872), *King*, son of Frederick VIII. of Denmark	1905
Oman	Seyyid Timour ibn Feisal (1886), *Sultan*	1913
Palestine	Sir J. R. Chancellor (1870), *British High Commissioner*	1928
Panama	Dr. Florencio Arosemena, *President*; term, four years	1928
Paraguay	Dr. Jose P. Guggiari (1884), *President*; term, four years	1924
Persia	Mirza Reza Pahlavi (1878), *Shah*	1925
Peru	Augusto B. Legula, *President*; term, five years (re-elected 1924 and 1929)	1919
Poland	Prof. Ignatz Mosciski, *President*	1926
Portugal	Gen. Antonio Carmona (1869), *President*	1926
Prussia	Herr Otto Braun (1872), *Premier*	1922
Roumania	Michael (1921), *King*; Prince Nicholas et als, *Regents*	1927
Russia (U. S. S. R.)	Governed by Soviet Commissars headed by Alexis Rykov	1924
El Salvador	Dr. Pio Romero Bosque (1863), *President*; term, four years	1927
Siam	Prada Dhipok (1893), *King*	1925
Soudan, Anglo-Egyptian	Sir John Loader Maffey, K. C. V. O., (1877), *Governor General*	1926
South Africa, Union of	Earl of Athlone (1874), *Governor General*; J. B. M. Hertzog, *Premier*	1924
Spain	Alfonso XIII. (1886), *King*; Gen. Primo de Rivera (1870), *Premier*	1886
Sweden	Gustaf V. (1858), *King*	1907
Switzerland	Jean Marie Musy, *President*, term, one year	1930
Syria (French Mandate)	Auguste Henri Ponsot (1877), *High Commissioner*	1920
Tunis	Sidi Ahmed, *Bey*	1929
Turkey	Mustapha Kemal Pasha (1880), *President* of the Grand Natl. Assem.	1923
United Kingdom	George V. (1865), *King and Emperor*; Ramsay MacDonald, *Premier*	1910
United States	Herbert Hoover (1874), *President*; term, four years from Mar. 4, '29.	1929
Uruguay	Dr. Juan Campisteguy (1859), *President*; term, four years	1927
Vatican City, State of	Piux XI (1857), *Pope*	1922
Venezuela	Dr. Juan Bautista Perez (1870), *President*; term, seven years	1929
Yugo-Slavia	Alexander (1889), *King*	1921
Zanzibar	Seyyid Khalifa ibn Harub (1879), *Sultan*	1911

AMERICAN AND FOREIGN AMBASSADORS AND MINISTERS.

Countries.	Envoys From United States to—	Envoys to United States From
Albania	Charles C. Hart (D. C.), M.	Mr. Faik Konitza, M.
Argentina	Robert Wood Bliss (N. Y.), A.*	Senor Don Julian Enciso (Charge d'Affaires)
Austria	Albert Henry Washburn (Mass.), M.	Mr. Edgar L. G. Prochnik, M.
Belgium	Hugh S. Gibson (Cal.), A.*	H. H. Prince Albert de Ligne, A.
Bolivia	Evan E. Young (S. D.), M.	Senor Don Eduardo Diez de Medina, M.
Brazil	Edwin V. Morgan (N. Y.), A.*	Mr. S. Gurgel do Amaral, A.
Bulgaria		Mr. Simeon Radeff, M.
Canada	William Phillips (Mass.), M.*	Vincent Massey, M.
Chile	William S. Culbertson (Kan.), A.	Senor Don Carlos G. Davila, A.
China	Nelson T. Johnson (Okla.), M.*	Mr. Chao-Chu Wu, M.
Colombia	Jefferson Caffrey (La.), M.*	Dr. Enrique Olaya, M.
Costa Rica	H. F. Arthur Schoenfeld (D. C.), M.*	Senor Don Manuel Castro Quesada, M.
Cuba	Harry F. Guggenheim (N. Y.), A.	Senor Don Orestes Ferrara, A.
Czechoslovakia	Lewis Einstein (N. Y.), M.*	Mr. Ferdinand Veverka, M.
Denmark	H. Percival Dodge (Mass.), M.*	Mr. Constantin Brun, M.
Dominican Rep.	Charles B. Curtis (N. Y.), M.	Senor Angel Morales, M.
Ecuador	Gerhard A. Bading (Wis.), M.	Senor Dr. Don Homero Viteri Lafronte, M.
Egypt	Franklin Mott Gunther (Va.), M.*	Ahmed Mamdouh Mourad, (Charge d' A.)
Estonia	Frederick W. B. Coleman (Minn.), M.	Col. Victor Mutt, C. G. (in charge).
Ethiopia	Addison E. Southard (Ky.), M. and C.G.*	
Finland	Alfred J. Pearson (Iowa), M.	Mr. Axel L. Astrom, M.
France	Walter E. Edge (N. J.), A.	Mr. Paul Claudel, A.
Germany	Jacob Gould Schurman (N. Y.), A.	Mr. F. W. von Prittwitz und Gaffron, A.
Great Britain	Charles G. Dawes (Ill.), A.	Sir Esme Howard, A.‡
Greece	Robert P. Skinner (Ohio), M.*	Mr. Charalambos Simopoulos, M.
Guatemala	Sheldon Whitehouse (N. Y.), M.	Senor Dr. Don Adrian Recinos, M.
Haiti		Mr. Raoul Lizaire (Charge d'Affaires).
Honduras	Julius G. Lay (Wash.), M.	Senor Dr. Don Ernesto Argueta, M.
Hungary	J. Butler Wright (Wyo.), M.*	Count Laszlo Szechenyi, M.
Irish Free State	Frederick A. Sterling (Tex.), M.*	Mr. Michael MacWhite, M.
Italy	John W. Garrett (Md.), A.	Nobile Giacomo de Martino, A.
Japan	William R. Castle, Jr. (D. C.), A.	Mr. Katsuji Debuchi, A.
Latvia	Frderick W. B. Coleman (Minn.), M.	Mr. Arthur B. Lule (in charge).
Lithuania	Frederick W. B. Coleman (Minn.), M.	Mr. Bronius Kasimir Balutis, M.
Luxemburg	Hugh S. Gibson (Cal.), M.	Baron Raymond de Waha, (Charge d' Af.)
Mexico	Dwight W. Morrow (N. J.), A.	Senor Don Manuel C. Tellez, A.
Netherlands	Gerrit John Diekema (Mich.), M.	Mr. J. H. van Royen, M.
Nicaragua	Matthew E. Hanna (O.), M.	Senor Dr. Don Juan B. Sacasa, M.
Norway	Laurits S. Swenson (Minn.), M.	Mr. Halvard H. Bachke, M.
Panama	Roy T. Davis (Mo.), M.	Senor Dr. Don Ricardo J. Alfaro, M.
Paraguay	Post Wheeler (Wash.), M.	Senor Don Pablo M. Ynsfran, (Charge d'Af.)
Persia	Hoffman Philip (N. Y.), M.*	Miza Davoud Kahn Meftah, M.
Peru	Alexander P. Moore (Penn.), A.	Dr. Hernan Velarde, A.
Poland	John B. Stetson, Jr. (Penn.), M.	Mr. Tytus Filipowicz, M.
Portugal	John Glover South (Ky.), M.	Viscount d'Alte, M.
Roumania	Charles S. Wilson (Me.), M.*	Mr. Charles A. Davila, M.
Salvador	Warren D. Robbins (N. Y.), M.*	Senor Dr. Don Francisco A. Lima, M.
Siam	Arthur H. Geissler (Okla.), M.	Maj. Gen. Prince Amoradat Kridakara, M.
Spain	Irwin B. Laughlin (Pa.), A.	Senor Don Alejandro Padilla y Bell, M.
Sweden		Mr. Wollmar Bostroem, M.
Switzerland	Hugh R. Wilson (Ill.), M.*	Mr. Marc Peter, M.
Turkey	Joseph C. Grew (N. H.), A.*	Ahmed Mouhtar Bey, A.
Union of So. Africa		Mr. Eric Hendrik Louw, M.
Uruguay	Leland Harrison (Ill.), M*	Dr. Jacobo Varela, M.
Venezuela	Willis C. Cook (S. D.), M.	Senor Don Carlos F. Grisanti, M.
Yugo Slavia	Dr. John Dyneley Prince (N. J.), M.*	Dr. Leonide Pitamic, M.

*Career Diplomats. ‡To be succeeded by Sir Roland Lindsay on his retirement in 1930.

UNITED STATES CONSULATES ABROAD.

The State Department of the United States advises: "To avoid delay and insure prompt attention correspondence upon consular business should be addressed—To the American Consul at . . . ."

The list of United States Consulates abroad is given herewith, Consulates General of each, being indicated by the initials C. G.

Argentina—Buenos Ayres, C. G., Rosario. *Austria*—Vienna. C. G., Belgium—Antwerp, C. G., Brussels, *Bolivia*—La Paz. *Brazil*—Para, Permambuco, Porto Alegre, Rio de Janeiro, C. G., Santos, Sao Paulo. *Bulgaria*—Sofia.

Chile—Antofagasta, Arica, Concepcion, Iquique, Magallanes, Valparaiso, C. G. *China*—Canton, C. G., Hankow, C. G., Shanghai, C. G., Tientsin, C. G., Amoy, Antung, Chefoo, Chungking, Foochow, Harbin, Mukden, Nanking, Swatow, Tsinan, Tsingtao and Yunnanfu. *Colombia*—Barranquilla, Buenventura, Cartagena, Cali, Santa Marta. *Costa Rica*—Port Limon, San Jose. *Cuba*—Havana, C. G., Antilla, Cienfuegos, Neuvitas, Santiago. *Czechoslavakia*—Prague., C. G.

Danzig, Free City of—Danzig. *Denmark*—Copenhagen, C. G. *Dominican Republic*—Puerto Plata, Santo Domingo. *Ecuador*—Guayaquil, C. G. *Egypt*—Alexandria, Cairo, Port Said. *Estonia*—Tallinn. *Ethiopia*—Addis Ababa, C. G. *Finland*—Helsingfors.

France—Paris, C. G., Bordeaux, Calais, Cherbourg, Havre, Lille, Lyons, Marseilles, C. G., Nantes, Nice, Strasburg, Algiers, Boulogne, Salgon (French Indo-China), Tananarivo (Madagascar), Dakar (Senegal), Tahiti, Tunis, Guadeloupe, Martinique.

Germany—Berlin, C. G., Frankfort-O.-M., C. G., Munich, C. G., Bremen, Breslau, Cologne, Dresden, C. G., Hamburg, C. G., Leipzig, Stuttgart.

Great Britain—London, C. G., Birmingham, Belfast, C. G., Bradford, Bristol, Cardiff, Dundee, Edinburgh, Gibraltar, Glasgow, C. G., Hull, Liverpool, C. G., Malta, Manchester, Newcastle-on-Tyne, Plymouth, Sheffield, Southampton. *Canada*—Calgary, Fernie, Fort William and Port Arthur, Halifax, C. G., Hamilton, Kingston, London, Moncton, Montreal, C. G., Niagara Falls, Ottawa, C. G., Prince Rupert, Quebec, Regina, St. John, Sarnia, Sault Ste. Marie, Sherbrooke, Sydney, Toronto, Vancouver, C. G., Victoria, Windsor, Winnipeg, C. G., Yarmouth. *Newfoundland*—St. John's. *Irish Free State*—Dublin, C. G., Cobh (Queenstown). *Australia*—Melbourne, C. G., Adelaide, Brisbane, Sydney *New Zealand*—Auckland, Wellington, C. G., *India*—Calcutta, C. G., Bombay, Karachi, Madras, Rangoon, Colombo (Ceylon). *West Indies*—Barbados, Kingston (Jamaica), Nassau (N. P.), Tripidad, Belize (British Honduras), Georgetown (British Guiana), Hamilton (Bermuda). *Union of South Africa*—Cape Town, C. G., Durban, Port Elizabeth, Johannesburg. *Kenya*—Nairobi. *Nigeria*—Lagos. *Others*—Singapore, C. G., Hongkong, C. G., Suva (Fiji Islands).

Greece—Athens, C. G., Patras, Salonika. *Guatemala*—Guatemala, C. G. *Haiti*—Port au Prince. *Hungary*—Budapest, C. G. *Iraq*—Bagdad.

Italy—Genoa, C. G., Naples, C. G., Florence, Leghorn, Messina, Milan, Palermo, Rome, Trieste, Turin, Venice.

Japan—Seoul, C. G., Tokio, C. G., Dairen, Kobe Nagasaki, Yokohama. *Latvia*—Riga. *Liberia*—Monrovia, C. G. *Lithuania*—Kovno.

Mexico—Mexico City, C. G., Acapulco, Aguascalientes, Chihuahua, Ciudad Juarez, Durango Encalientes, Chihuahua, Ciudad Juarez, Durango Ensenada, Guadalajara, Guaymas, Manzanillo, Matamoros, Mazatlan, Mexicali, Monterey, Nogales, Nuevo Laredo, Piedras, Negras Progreso, Saltillo, San Luis Potosi, Tampico, Torreon, Vera Cruz.

Morocco—Tangier, C. G.; Casablanca. *Netherlands*—Amsterdam, C. G.; Rotterdam, Batavia C. G. (Java), Soerabaya (Java), Medan (Sumatra), Curacao (W. I.). *Nicaragua*—Bluefields, Corinto.

Norway—Oslo, C. G., Bergen, Stavanger.

Palestine—Jerusalem, C. G. *Panama*—Panama, C. G., Colon. *Paraguay*—Asuncion. *Persia*—Tabriz, Teheran. *Peru*—Callao-Lima. *Poland*—Warsaw, C. G. *Portugal*—Lisbon, C. G., Funchal, Oporto, St. Michaels, Lourenco, Marques. *Roumania*—Bucharest.

Salvador—San Salvador. *Serbs, Croats, and Slovenes*—Belgrade, Zagreb. *Siam*—Bangkok. *Spain*—Barcelona, C. G., Bilbao, Madrid, Malaga, Seville, Valencia, Vigo, Teneriffe. *Sweden*—Stockholm, C. G., Goteberg, Malmo. *Switzerland*—Zurich, C. G., Basel, Berne, Geneva, Lauzanne. *Syria*—Beirut, C. G. *Turkey*—Constantinople, C. G., Smyrna. *Uruguay*—Montevideo, C. G. *Venezuela*—Caracas, Maracaibo, Puerto Cabello.

CHIEF FOREIGN CONSULATES IN THE UNITED STATES.

Albania—Boston. *Argentina*—New Orleans, La., C. G.; New York, C. G.; San Francisco, Cal., C. G.; Baltimore; Boston; Buffalo, N. Y., Chicago, Ill.; Philadelphia, Pa. *Austria*—New York, C. G.; Chicago, Ill., Norfolk, Va.

Belgium—Portland, Ore., C. G., New Orleans, La., C. G., San Francisco, Cal., C. G.; Atlanta, Ga.; Baltimore, Md.; Birmingham, Ala.; Boston, Mass.; Charleston, S. C.; Chicago, Ill; Cincinnati, Ohio; Cleveland, Ohio; Denver, Col.; Detroit, Mich.; Dubuque, Iowa; Galveston, Tex.; Green Bay, Wis.; Kansas City, Mo.; Memphis, Tenn.; Minneapolis Minn.; Mobile, Ala.; Newport News and Norfolk, Va.; New York; Omaha, Neb.; Philadelphia, Pa.; Pittsburgh, Pa.; Richmond, Va.; St. Louis, Mo.; Savannah, Ga.; Seattle, Wash.; Sioux Falls, S. D.

Bolivia—New York, C. G.; Boston, Mass.; New Orleans, La.; St. Louis, Mo.; San Diego, Cal.; San Francisco, Cal., C. G.; Seattle, Wash. *Brazil*—New Orleans, La., C. G.; New York, C. G.; Baltimore, Md.; Boston, Mass.; Chicago, Ill.; Newport News, Va.; Norfolk, Va.; Palm Beach, Fla.; Philadelphia, Pa.; Richmond, Va.; San Francisco, Cal. *Bulgaria*—New York, C. G.

Chile—New York, C. G.; Baltimore, Md.; Boston, Mass.; Los Angeles, Cal.; Newark, N. J.; New Orleans, La.; San Francisco, Cal.; Seattle, Wash. *China*—New York, C. G.; San Francisco, Cal. C. G.; Portland, Ore.; Seattle, Wash. *Colombia*—New Orleans, La., C. G.; New York, C. G.; San Francisco, Cal., C. G. *Costa Rica*—Milwaukee, Wis., C. G.; New Orleans, La., C. G.; New York, C. G.; San Francisco, Cal., C. G.; Chicago, Ill.; Baltimore, Md.; Boston, Mass.; Los Angeles, Cal.; Meriden, Conn. *Cuba*—New York, C. G.; Atlanta, Ga.; Baltimore, Md.; Boston, Mass.; Charleston, S. C.; Chicago, Ill.; Cincinnati, Ohio; Detroit, Mich.; Gernandina, Fla.; Galveston, Tex.; Jacksonville, Fla.; Kansas City, Mo.; Key West, Fla.; Miami, Fla.; Mobile, Ala.; New Orleans, La.; Newport News, Va.; Norfolk, Va.; Penascola, Fla.; Philadelphia, Pa.; St. Louis, Mo.; San Francisco, Cal.; Tampa, Fla.; *Czechoslavakia*—Chicago, Ill.; Cleveland, Ohio; New York, C. G.; Pittsburgh, Pa.

Denmark—New York, C. G.; Chicago, Ill.; New Orleans, La.; San Francisco, Cal.; Seattle, Wash. *Dominican Republic*—New York, C. G.; New Orleans, La.; Philadelphia, Pa.; San Francisco, Cal. *Ecuador*—New Orleans, La., C. G.; New York, C. G.; San Francisco, Cal., C. G.; Philadelphia, Pa.; Seattle, Wash. *Egypt*—New York, New Orleans, La. *Estonia*—New York, C. G.; San Francisco, Cal.; New Orleans, La.; Charleston, S. C.; Norfolk, Va. *Finland*—New York, C. G.; Astoria, Ore.; Chicago, Ill.; Duluth, Minn.; Seattle, Wash.

France—New York, C. G.; San Francisco, Cal., C. G.; Chicago, Ill.; New Orleans, La.; Philadelphia, Pa.; Seattle, Wash. (Note—France maintains Consular Agents in thirty cities.)

Germany—Chicago, Ill., C. G.; New York, C. G.; San Francisco, Cal., C. G.; Atlanta, Ga.; Baltimore, Md.; Boston, Mass., C. G.; Buffalo, N. Y.; Cincinnati, Ohio; Cleveland, Ohio; Charleston, S. C.; Denver, Col.; Galveston, Tex.; Jacksonville, Fla.; Los Angeles, Cal.; Mobile, Ala.; New Orleans, La.; Pensacola, Fla.; Portland, Ore.; St. Louis, Mo., C. G.; Savannah, Ga.; San Antonio, Tex.; Seattle, Wash.

Great Britain—Boston, Mass., C. G.; Chicago, Ill., C. G., New Orleans, La., C. G.; New York, C. G.; Philadelphia, Pa., C. G.; San Francisco, Cal., C. G.; Baltimore, Md.; Detroit, Mich.; Galveston, Tex.; Jacksonville, Fla.; Los Angeles, Cal.; Norfolk, Va.; Pittsburgh, Pa.; Portland, Me.; Portland, Ore.; St. Louis, Mo.; Savannah, Ga.; Seattle, Wash. (Note—There are British Vice Consulates in thirty-one other cities.).

Greece—Chicago, Ill., C. G.; New York, C. G.; San Francisco, Cal., C. G.; Boston, Mass.; St. Louis, Mo.; Seattle, Wash., Tacoma, Wash. *Guatemala*—Baltimore, Md.; Boston, Mass., C. G.; Chicago, Ill., C. G.; New York, N. Y., C. G.; St. Louis, Mo. C. G.; San Francisco, Cal., C. G.; Los Angeles, Cal.; Providence, R. I. *Haiti*—New Orleans, La., C. G.; New York, C. G.; Boston, Mass. *Honduras*—Chicago, Ill., C. G.; New Orleans, La., C. G.; New York, C. G.; Mobile, Ala.; San Francisco, Cal.; Washington, D. C. *Hungary*—New York, C. G.; Chicago, Ill.; Cleveland, Ohio.

Italy—Chicago, Ill., C. G.; New York, C. G.; San Francisco, Cal., C. G.; Atlanta, Ga., Baltimore, Md.; Boston, Mass.; Cleveland, Ohio; Denver, Col.; New Orleans, La.; Philadelphia, Pa., C. G.; Seattle, Wash.; St. Louis, Mo. (Note—Italy maintains Vice Consulates in four cities and Consular Agents in sixty-four cities.(

Japan—New York, C. G.; San Francisco, Cal., C. G.; Boston, Mass.; Chicago, Ill.; Galveston, Tex.; Los Angeles, Cal.; Mobile, Ala.; New Orleans, La.; Philadelphia, Pa.; Portland, Ore.; St. Louis, Mo.; Seattle, Wash. *Latvia*—Boston, Mass., Charleston, S. C.; Chicago, Ill.; Cleveland, Ohio; New Orleans La.; New York, C. G.; Philadelphia, Pa.; Portland, Ore.; St. Louis, Mo.; San Francisco, Cal.; Seattle, Wash.

Mexico—El Paso, Tex., C. G.; New Orleans, La.; C. G.; New York, C. G.; San Antonio, Tex., C. G.; San Francisco, Cal., C. G.; Albuquerque, N. M.; Baltimore, Md.; Beaumont, Tex.; Boston, Mass.; Brownsville, Tex.; Chicago, Ill.; Corpus Christi, Tex.; Dallas, Tex.; Del Rio, Tex.; Denver, Col.; Detroit, Mich.; Douglas, Ariz.; Eagle Pass, Tex.; Galveston, Tex.; Houston, Tex.; Hidalgo, Tex.; Kansas City, Mo.; Laredo, Tex.; Los Angeles, Cal.; McAllen, Tex.; Mobile, Ala.; Naco, Ariz.; Nogales, Ariz.; Norfolk, Va.; Oklahoma City, Okla.; Philadelphia, Pa.; Phoenix, Ariz.; Pittsburgh, Pa.; Portland, Ore.; Presidio, Tex.; Port Arthur, Tex.; Rio Grande, Tex.; St. Louis, Mo.; Salt Lake City, Utah; San Diego, Cal.; Seattle, Wash.; Sweetwater, Tex.; Tucson, Ariz. *Monaco*—New York, C. G.; Chicago; Boston.

Netherlands—Chicago, Ill., C. G.; New York, C. G.; San Francisco, Cal., C. G.; Baltimore, Md.; Boston, Mass.; Charleston, S. C.; Galveston, Tex.; Grand Rapids, Mich.; Kansas City, Mo.; New Orleans, La.; Norfolk, Va.; Philadelphia, Pa.; Port Arthur, Tex., St. Louis, Mo. *Nicaragua*—Chicago, Ill., C. G.; Kansas City, Kan., Kan., C. G.; New Orleans, La., C. G.; New York, N. Y., C. G.; St Louis, Mo., C. G.; Pgiladelphia, Pa., C. G. *Norway*—New York, C. G.; Chicago, Ill.; St. Paul, Minn.; San Francisco, Cal.; Seattle, Wash. (Note—Norway has Vice Consulates in thirty-nine cities.)

Panama—New Orleans, La., C. G.; New York C. G.; Chicago, Ill., C. G.; San Francisco, Cal *Paraguay*—New York, C. G.; Philadelphia, Pa. *Peru*—New York, N. Y., C. G.; San Francisco, Cal., C. G.; Baltimore, Md.; Boston, Mass.; New Orleans, La., C. G.; Philadelphia, Pa.; Portland, Ore.; Seattle Wash. *Poland*—Chicago, Ill., C. G.; New York, C. G.; Buffalo, N. Y.; Detroit, Mich.; Pittsburgh, Pa. *Portugal*—New York, C. G.; Boston, Mass.; Bristol, R. I.; Chicago, Ill.; Fall River, Mass.; Hartford, Conn.; New Bedford, Mass.; New Orleans, La.; Providence, R. I.; San Francisco, Cal.

Salvador—New York, C. G.; New Orleans, La.; San Francisco, Cal. *Serbs, Croats and Slovenes*—New York, C. G.; Chicago, Ill., C. G.; San Francisco, Cal. *Siam*—Chicago, Ill., C. G.; New York; San Francisco, Cal., C. G.; Philadelphia, Pa. *Spain*—New York, C. G.; Boston, Mass.; Chicago, Ill.; Detroit, Mich.; New Orleans, La.; Philadelphia, Pa.; Galveston, Tex.; San Francisco, Cal.; Tampa, Fla. (Note—Spain maintains also Vice Consulates in twenty-two cities.) *Sweden*—New York, C. G.; Chicago, Ill.; San Francisco, Cal. (Note—Sweden maintains also Vice Consulates in twenty-five cities.)

Switzerland—Chicago, Ill.; Cincinnati, Ohio, Denver, Col.; Los Angeles, Cal.; New Orleans, La.; New York, C. G.; Philadelphia, Pa.; Portland, Ore.; St. Louis, Mo.; San Francisco, Cal.; Seattle, Wash.; Washington, D. C. *Turkey*—New York, C. G.; Chicago, Ill., C. G.

Uruguay—New York, C. G.; Baltimore, Md.; Boston, Mass.; Chicago, Ill.; New Orleans, La.; St. Louis, Mo.; Philadelphia, Pa.; San Francisco, Cal.; Savannah, Ga. *Venezuela*—New York, C. G.; New Orleans, La., C. G.; San Francisco, Cal., C. G.; Mobile, Ala.; Philadelphia, Pa.; St. Louis, Mo.

United States Government.

PRESIDENT.....HERBERT C. HOOVER, of California.....Salary, $75,000
VICE-PRESIDENT.....CHARLES CURTIS, of Kansas..... 15,000

THE CABINET (Salary, $15,000 each).

Secretary of State—Henry L. Stimson, New York.
Secretary of the Treasury—Andrew W. Mellon, Pennsylvania.
Secretary of War—Col. Patrick J. Hurley, Oklahoma.
Attorney General—William D. Mitchell, Minnesota.
Postmaster General—Walter F. Brown, Ohio.
Secretary of the Navy—Charles F. Adams, Massachusetts.
Secretary of the Interior—Ray Lyman Wilbur, California.
Secretary of Agriculture—Arthur M. Hyde, Missouri.
Secretary of Commerce—Robert P. Lamont, Illinois.
Secretary of Labor—James John Davis, Pennsylvania.

PRESIDENTIAL SUCCESSION.

In the above list, the Cabinet offices are arranged in the order in which they succeed to the Presidency in case of the removal, death, resignation, or inability of both the President and Vice-President. No such emergency has arisen.

The order of succession was established by an act of Congress, approved Jan. 19, 1886, and no mention was made of the Secretaries of Agriculture, Commerce, and Labor, whose departments had not been organized at that time.

THE WHITE HOUSE.

SECRETARY TO THE PRESIDENT.....GEORGE AKERSON, Minnesota..... Salary, $10,000
.. ..LAWRENCE RICHEY, Pennsylvania . .. 10,000
.. ..WALTER H. NEWTON, Minnesota . . 10,000

EXECUTIVE CLERKS, Rudolph Forster, D. C. ($7,000); French Strother, Missouri, ($7,000); and Maurice C. Latta, Okla., ($5,600).

The Physician to the White House, was appointed on March 6, 1929, in the person of Commander Joel T. Boone, U. S. Navy, who succeeded Major James F. Coupal, resigned.

The Cabinet meets on Tuesdays and Fridays at ten-thirty o'clock. The White House is open to visitors daily except Sundays and holidays from ten to two o'clock.

DEPARTMENT OF STATE.

Under Secretary—Joseph P. Cotton, N. Y.. $10,000
Assistant Secretaries ($9,000 each)—Wilbur J. Carr, N. Y.; William R. Castle, Jr., D. C; Francis White, Md.. 8,500
Solicitor—Green H. Hackworth, Ky.. 8,500
Chief Clerk and Administrative Assistant—E. J. Ayers, N. J.. 4,800
Ch. Div. Far Eastern Affairs—Stanley K. Hornbeck.. 8,000
Ch. Div. Latin American Affairs—Dana G. Munro, New Jersey.. 7,000
Ch. Div. American Affairs—Arthur Bliss Lane. 8,000
Ch. Div. Near Eastern Affairs—Wallace S. Murray, Ohio.. 6,500
Ch. Div. Eastern European Affairs—Robert F. Kelley, Mass.. 7,500
Ch. Div. Western European Affairs—J. Theodore Marriner, Me.. 7,000
Economic Adviser—Frederick Zivesey, N. Y. $5,600
Historical Adviser—Tyler Dennett, New York. 5,600
Chi. Passport Div.—Ruth B. Shipley.. 4,600
Ch. Div. Current Information—Michael J. McDermott, Conn.. 4,600
Ch. Div. Foreign Service Administration—Herbert C. Hengstler, Ohio.. 6,000
Ch. Div. Foreign Service Personnel—Worthington E. Stewart, Ohio.. 4,800
Bureau of Accounts—William McNeir, D. C.. 3,900
Bureau of Indexes and Archives—David A. Salmon, Conn.. 4,800
Chi. Visa—John F. Simmons, New York.. 5,000
Ch. Off. Co-ordination and Review—Margaret M. Hanna, Kans.. 4,600
Chief Consular Commercial Office—John G. Erhardt, New York.. 5,000
Chief, Foreign Service Buildings Office—Keith Merrill, Minn.. 7,000

TREASURY DEPARTMENT.

Undersecretary—Ogden L. Mills, N. Y.. $10,000
Assistant Secretary—Seymour Lowman, N. Y. 9,000
Assistant Secretary—Ferry K. Heath, Mich.. 8,000
Assistant Secretary—Walter E. Hope, N. Y.. 8,000
Chief Clerk—Frank A. Birgfeld, Md.. 6,400
Chief, Div. of Appoint.—Jas. E. Harper, S. C.. 5,200
Chief, Secret Service Div.—W. H. Moran, D. C. 7,500
Chief, Div. of Supply—Lewis C. Spangler, Va. 5,600
Disbursing Clerk—John L. Summers, Tenn.. 5,200
Comptroller of Currency—John W. Pole, Ohio. *5,000
Treas. of the U. S.—Walter O. Woods, Kan.. 8,000
Commissioner of Public Debt—William S. Broughton, Ill.. 8,500
Register of the Treas.—Edward E. Jones, Pa.. 6,000
Commissioner of Accounts and Deposits—Robert C. Hand, Miss.. 8,500
Chief, Division of Bookkeeping and Warrants—Edward F. Bartelt, Ill.. 6,200
Commissioner of Internal Revenue—Robert H. Lucas, Ky.. 10,000
Commissioner of Prohibition—James M. Doran, Minn.. $9,000
Commissioner of Customs—Francis X. A. Eble, Utah.. 8,000
Director of the Mint—Robert J. Grant, Colo.. *6,500
Farm Loan Commissioner—H. Paul Bestor, Mo.. 10,000
Director, Bureau of Engraving and Printing—Alvin W. Hall, Pa.. 8,500
Acting Supervising Architect—James A. Wetmore, N. Y.. 8,500
Commandant, United States Coast Guard—Rear Admiral F. C. Billard, Md.. 6,000
Surgeon General, Public Health Service—Hugh S. Cumming, Va.. 6,000
Director, Bureau of the Budget—J. Clawson Roop, Ill.. 10,000
Solicitor of the Treasury—Robert J. Mawhinney, Pa.. **8,500

*Receives $7,000 addition as Member of the Federal Reserve Board. **Carried on the rolls of the Department of Justice.

WAR DEPARTMENT.

Ass't. Secretary—.....$10,000
Ass't Secretary for Aeronautics—F. Trubee Davison, N. Y.. 9,000
Ass't and Chief Clerk—John C. Scofield, Ga.. 5,600
Chief of Staff—General Charles P. Summerall, Florida.. 8,000
Chief Clerk—Adolph Gerhard, Ill.. 3,300
The Adjt. Gen.—Major Gen. Charles H. Bridges, Ill.. 8,000
Insp. Gen.—Major Gen. William C. Rivers, Tenn.. 8,000
Judge Adv. Gen.—Maj. Gen. Edward A. Kreger, Iowa.. 8,000
Chief Clerk and Solicitor—E. B. Pitts, N. Y.. 3,000
Quar. Gen.—Major Gen. B. Frank Cheatham, Tenn.. 8,000
Surgeon Gen.—Major Gen. M. W. Ireland, Ind. 8,000
Ch. of Eng.—Major Gen. Lytle Brown, Tenn. 8,000
Chief of Ordn.—Major Gen. C. C. Williams, Ga.. 8,000
Chief Sig.—Major Gen. George S. Gibbs Iowa. 8,000
Civilian Assistant—Herbert S. Flynn, D. C.. $3,400
Chief Bur. Ins. Affairs—Brig. Gen. Francis Le J. Parker, S. C.. 8,000
Chief, Coast Art.—Major Gen. Andrew Hero jr., La.. 8,000
Chief Militia Bur.—Major Gen. William G. Everson, Ind.. 8,000
Chief Air Corps—Major Gen. James E. Fechet, Texas.. 8,000
Chief Chemical Warfare Service—Major Gen. Harry L. Gilchrist, Ohio.. 8,000
Chief Infantry—Major Gen. Stephen O. Fuqua, La.. 8,000
Chief Cavalry—Major Gen. Herbert B. Crosby, Ill.. 8,000
Chief of Field Artillery—Major General Fred T. Austin, Mass.. 8,000
Chief Finance—Major General Roderick L. Carmichael, S. C.. 8,000
Inland Waterways Corporation—Major General Thomas Q. Ashburn, Ohio.. 8,000

DEPARTMENT OF JUSTICE.

Solicitor General—Charles Evans Hughes, Jr., New York.....$10,000
Asst. Atty. Gen.—John Lord O'Brian, N. Y... 9,000
Asst. Attys. Gen.—Charles D. Lawrence, N. Y., $9,000; Herman J. Galloway, Ind., $9,000; George R. Farnum, Mass., $9,900; Oscar R. Luhring, Ind., $9,000; Charles P. Sisson, R' I., $8,000; Seth W. Richardson, N. Dak., $8,000; G. Aaron Youngquist, Minn., (Vice Mrs. M. W. Willebrandt, resigned.)

Solicitors: Dept. of State—Green H. Hackworth, Ky., $8,500; Dept. of Commerce—Ephraim F. Morgan, W. Va., $8,500; Dept. of Labor—Theodore G. Risley, Ill., $8,500; Treasury Dept.—Robert J. Mawhinney, Penna., $8,500.
Chief Clerk and Administrative Assistant—James W. Baldwin, Ind. $5,200
Dir., Bur. of Investigation—J. Edgar Hoover, Dist. of Col. 9,000

POST OFFICE DEPARTMENT.

Chief Clerk and Supt. of Bldgs.—Audus T. Davis, Mo. $5,600
First Asst. Post. Gen.—Arch Coleman, Minn... 9,000
Second Asst. Post. Gen.—W. Irving Glover, N.J. 9,000
Third Asst. Post. Gen.—Frederic A. Tilton, Mich. 9,000
Fourth Asst. Post. Gen.—John W. Philp, Tex... 9,000
Dir., Div. Post. Sav.—William T. S. Rollins, Md. 5,800
Solicitor—Horace J. Donnelly, D. C. 8,500
Pur. Agt.; Admin. Asst. Post. Gen.—Robert S. Regar, Pa. $7,500
Personnel Officer—Alice B. Sanger, Ind. 3,600
Dir. Int'l Post. Ser.—Eugene R. White, N. C... 5,600
Supt. Div. Money Orders—Charles E. Matthews, Okla. 5,600
Gen. Supt. Rail. Mail Serv.—Aleyne A. Fisher, Vermont 5,800
Supt. Div. Dead Letters, Dead Par. Post—Frank C. Staley, Okla. 3,800
Chief Inspector—Grant B. Miller, Ohio. 7,000

NAVY DEPARTMENT.

Asst. Sec. of the Navy—David S. Ingalls.....$8,500
Asst. Sec. for Aeronautics—Edw. P. Warner... 8,500
Chief Clerk—Frank S. Curtis. 6,000
Ch. Naval Oper.—Adm. Chas. F. Hughes.....10,200
Ch. Bureau Yards and Docks—L. E. Gregory (Rear Adm.), C. E. C. 8,000
Ch. Bu. Nav.—R. H. Leigh (Rear Adm.)..... 8,000
Ch. Bu. Ord.—W. D. Leahy (Rear Adm.)..... 8,000
Ch. Bu. Constr. and Rep.—John D. Beuret, Chief Constr. (Rear Adm.) (C. C.)..... 8,000
Ch. Bu. Eng'r'g—H. E. Yarnell (Rear Adm.).. 8,000
Ch. Bu. Sup. and Accts.—J. J. Chetham, Paymaster General (Rear Adm.)..... $8,000
Ch. Bu. Med. and Sur.—C. E. Riggs, Surgeon General (Rear Adm.), M. C. 8,000
Ch. Bu. of Aero.—W. A. Moffett (Rear Adm.). 8,000
Judge Adv. Gen.—D. F. Sellers, (Rear Adm.).. 8,000
Pres. Nav. Ex. Bd. and Nav. Ret. Bd.—Y. Stirling Jr. (Rear Adm.) 6,000
Dir. Naval Intell.—A. W. Johnson..... (Capt.) 6,000
Supt. Nav. Obser.—C. S. Freeman (Capt.) 6,000
Hydrographer—C. S. Kempff (Capt.) 6,000

INTERIOR DEPARTMENT.

First Asst. Sec'y—Joseph M. Dixon, Mont.....$8,000
Asst. Secretary—John H. Edwards, Ind..... 9,000
Admin. Asst.—Ebert K. Burlew, Pa..... 7,500
Execu. Asst.—Northcutt Ely, N. Y..... 6,500
Execut. Asst.—Ernest W. Sawyer, Cal..... 6,500
Chief Clerk—Wm. Betrand Acker, N. Y..... 5,000
Solicitor—Edward C. Finney, Kan..... 8,500
Com. Gen. Land Office—Charles C. Moore, Idaho 9,000
Com. of Pensions—Earl D. Church, Conn..... 9,000
Dep. Com. of Pen.—Edward W. Morgan, Vt... 5,800
Com. of Education—William J. Cooper, Calif...$9,000
Asst. Com. of Edu.—Miss Bess Goodykoontz, Ia. 6,500
Com. of Indian Affairs—Charles J. Rhoads, Pa. 9,000
Dir. of the Geo. Sur.—George Otis Smith, Me.. 9,000
Admin. Geologist—Julian D. Sears, Md..... 6,400
Com. of Reclamation—Elwood Mead, Cal.....10,000
Dir. of Reclm. Econs.—George C. Kreutzer, Cal. 6,400
Chief Engineer—Raymond F. Walter, Colo.... 9,000
Dir. Nat'l Park Serv.—Horace M. Albright, Cal. 7,500
Gen. Mgr. Alaska Rd.—Otto F. Ohlson, Minn.14,400

DEPARTMENT OF AGRICULTURE.

Assistant Secretary—R. W. Dunlap, Ohio.....$9,000
Dir. of Scientific Work—Albert F. Woods, Md. 9,000
Dir. of Regulatory Work—W. G. Campbell, Ky. 9,000
Dir. of Extension Work—C. W. Warburton, Ia. 9,000
Dir. of Personnel and Business Administration—W. W. Stockberger, Ohio..... 7,000
Dir. of Information—M. S. Eisenhower, Kan.. 6,500
Solicitor—C. E. Winter, Wyoming..... 8,000
Chiefs of Bureaus: Weather Bureau—C. F. Marvin, Ohio, $8,000; *Animal Ind.*—J. R. Mohler, Pa., $8,500; *Dairy Ind.*—O. E. Reed, Mich.,$8,000; *Plant Ind.*—W. A. Taylor, Mich., $8,000; *Forest Service*—R. Y. Stuart, Pa., $8,000; *Chemistry and Soils*—H. G. Knight, W. Va., $8,000; *Entomology*—C. L. Marlatt, Kans., $8,000; *Biological Survey*—Paul G. Redington, Ariz., $8,000; *Public Roads*—T. H. MacDonald, Iowa, $8,500; *Agricultural Economics*—Nils A. Olsen, Ill., $8,000; *Home Economics*—Louise Stanley, Mo., $7,000.
Chief, Plant Quarantine and Control Administration—C. L. Marlatt, Kansas $8,000
Chief, Grain Futures Administration—J. W. T. Duvel, Ohio. 6,500
In charge, Food, Drug, and Insecticide Administration—W. G. Campbell, Ky., Dir. of Regulatory Work. 9,000
Chief, Office of Experiment Stations—E. W. Allen, Mass. 6,500
Chief, Office of Cooperative Extension Work—C. B. Smith, Mich. 6,200
Librarian—Claribel R. Barnett, N. Y. 4,600

DEPARTMENT OF COMMERCE.

(Salaries fluctuate under the Classification Act.)

Assistant Secretary—Julius Klein, Mass.
Assistant Secretary (Aeronautics)—Clarence M. Young, Iowa.
Admins. Asst. to Sec'y—Malcolm Kerlin, N. J.
Sec'y to the Secretary—Arthur W. Coombs, Jr., Mass.
Chief Clerk and Supt.—E. W. Libbey, D. C.
Disbursing Clerk—Chas. E. Molster, Ohio.
Chief, Div. of Appointments—Edw. J. Gardner, S. C.
Chief, Div. Publications—Thomas F. McKeon, N. Y.
Chief, Div. of Supplies—Walter S. Erwin, Miss.
Dir. of the Census—William M. Steuart, Mich.
Dir., Bur. of Foreign and Domestic Commerce—William L. Cooper, N. Y.
Dir., Bur. of Standards—George K. Burgess, Cal.
Comm. of Fisheries—Henry O'Malley, Wash.
Comm. of Lighthouses—Geo. R. Putnam, Iowa.
Dir., Coast, Geodetic Sur.—Raymond S. Patton, O
Comm. of Navigation—Arthur J. Tyrer, D. C.
Supervising Inspector General, Steamboat-Inspection Service—Dickerson N. Hoover, Md.
Comm. of Patents—Thomas E. Robertson, Md.
Dir., Bur. of Mines—Scott Turner, Mich.
Chief, Radio Division—William D. Terrell, N. Y.

DEPARTMENT OF LABOR.

Asst. Secretary—Robe Carl White, Ind.....$9,000
Second Asst. Sec.—W. W. Husband, Vt..... 9,000
Chief Clerk—Samuel J. Gompers, N. Y..... 5,600
Disbursing Clerk—John R. Demorest, Mich... 3,300
Comm. Gen. Immig.—Harry E. Hull, Iowa.... 8,500
Comm. Naturalization—R. F. Crist, Ill..... 8,500
Comm. Labor Statistics—Ethelbert Stewart, Ill. 8,500
Chief, Children's Bur.—Grace Abbott, Neb.....$7,500
Dir. Gen. U. S. Employ. Service—Francis I. Jones, N. J. 6,200
Dir. Conciliation—Hugh L. Kerwin, Pa..... 7,500
Dir. Women's Bureau—Mary Anderson, Ill.... 6,500
Dir. Industrial Housing and Transp.—Lulah T. Andrews, Nebr.. 5,000

SUPREME COURT OF THE UNITED STATES.

(Dates in parentheses show when born and when appointed.)

Chief Justice ($20,500)—William Howard Taft, of Connecticut (1857—June 30, 1921). *Associate Justices* ($20,000)—Oliver Wendell Holmes, of Massachusetts (1841—Dec. 4, 1902); Willis Van Devanter, of Wyoming (1859—Dec. 16, 1910); James Clark McReynolds, of Tennessee (1862—Aug. 29, 1914); Louis D. Brandeis, of Massachusetts (1856—June 1, 1916); George Sutherland, of Utah (1862—Sept. 18, 1922); Pierce Butler, of Minnesota (1866—Dec. 21, 1922); Edward Terry Sanford, of Tennessee (1865—Jan. 29, 1923); Harlan Fiske Stone, of New York (1872—Feb. 5, 1925). *Clerk*—C. Elmore Cropley, of Washington, D. C. ($6,000). *Marshal*—Frank Key Green, of Washington, D. C. ($4,500) *Reporter*—Ernest Knaebel, of Colorado ($8,000).

FEDERAL CIRCUIT JUDGES ($12,500), AND THEIR HEADQUARTERS.

First (Me., Mass., N. H., R. I., Porto Rico)—George H. Bingham, Manchester, N. H.; Scott Wilson, Portland, Me.; George W. Anderson, Boston.

Second (Conn., N. Y., Vt.)—Learned Hand, N. Y. City; Thomas W. Swan, New Haven; Augustus N. Hand, N. Y. City; Martin T. Manton, N. Y. City; Harrie B. Chase, Brattleboro, Vt.

Third (Del., N. J., Pa.)—Joseph Buffington, Pittsburgh, Pa.; Victor B. Woolley, Wilmington, Del.; J. Warren Davis, Trenton, N. J.

Fourth (Md., N. C., S. C., Va., W. Va.)—Edmund Waddill jr., Richmond; John J. Parker, Charlotte, N. Car.; Elliott Northcott, Huntington, W. Va.

Fifth (Ala., Fla., Ga., La., Miss., Tex., Canal Zone.—Richard W. Walker, Huntsville, Ala.; Nathan P. Bryan, Jacksonville; Rufus E. Foster, New Orleans.

Sixth (Ky., Mich., Ohio, Tenn.)—Arthur C. Denison, Grand Rapids, Mich.; Zenophon Hicks, Knoxville, Tenn.; Chas. H. Moorman, Louisville, Ky.

Seventh (Ill., Ind., Wis.)—Samuel Alschuler, Chicago; Evan A. Evans, Madison, Wis.; Geo. T. Page, Chicago; William M. Sparks, Indianapolis, Ind.

Eighth (Ark., Col., Iowa, Kan., Minn., Mo., Neb., N. M., N. D., Okla., S. D., Utah, Wyo.)—W. S. Kenyon, Fort Dodge, Ia.; Kimbrough Stone, Kansas City, Mo.; Arba S. Valkenburgh, Kansas City, Mo.; Wilbur F. Booth, Minneapolis, Minn.; Archibald K. Gardner, Huron, S. D.

Ninth (Ariz., Cal., Idaho, Mont., Nev., Ore., Wash., Alaska, Hawaii)—William B. Gilbert, Portland, Ore.; Frank H. Rudkin, Seattle, Wash.; Frank S. Dietrich, Boise; Curtis D. Wilbur, San Francisco.

District.	*Judges.*	*Addresses.*	*App.*
Ala.: N.&M.	Henry D. Clayton	Montgomery	1914
" N.	Wm. I. Grubb	Birmingham	1909
" S. D.	Robert T. Ervin	Mobile	1917
Ariz.	Wm. H. Sawtelle	Tucson	1913
"	F. C. Jacobs	Globe	1923
Ark.: E. D.	John E. Martineau	Little Rock	1928
" W. D.	F. A. Youmans	Fort Smith	1911
Cal.: N. D.	Frank H. Kerrigan	San Francisco	1924
" N. D.	A. F. St. Sure	San Francisco	1925
" N. D.	Harold Louderback	San Francisco	1928
" S. D.	William P. James	Los Angeles	1915
" S. D.	E. J. Henning	Los Angeles	1925
" S. D.	Paul J. McCormick	Los Angeles	1924
Colorado	John F. Symes	Denver	1922
Connecticut	Edwin S. Thomas	Norwalk	1913
"	W. B. Burrows	Hartford	1928
Delaware	Hugh M. Morris	Wilmington	1919
Fla.: N. D.	W. B. Sheppard	Pensacola	1907
" S. D.	Lake Jones	Tampa	1924
" S. D.	H. L. Ritter	Miami	1929
" S. D.	Alex. A. Kerman	Tampa	1929
Ga.: N. D.	Samuel H. Sibley	Atlanta	1919
" M. D.	B. S. Deaver	Macon	1928
" S. D.	W. H. Barrett	Augusta	1922
Idaho	Chas. C. Cavanah	Boise	1927
Ill.: N. D.	J. H. Wilkerson	Chicago	1922
" N. D.	Geo. A. Carpenter	Chicago	1910
" N. D.	C. E. Woodward		1929
" S. D.	Louis Fitz Henry	Peoria	1918
" E. D.	Fred. L. Wham	East St. Louis	1927
" E. D.	W. C. Lindley	Danville	1922
Indiana: S.	R. C. Baltzell	Indianapolis	1925
" N.	T. W. Slick	South Bend	1924
Iowa: N. D.	Geo. C. Scott	Sioux City	1922
" S. D.	Martin J. Wade	Davenport	1915
" S. D.	Chas. A. Dewey	Des Moines	1928
Kansas	John C. Pollock	Kansas City	1903
Ky.: W. D.	C. I. Dawson	Louisville	1925
" E. D.	A. M. J. Cochran	Covington	1901
La.: E. D.	W. G. Borah	New Orleans	1928
" W. D.	Benj. C. Dawkins	Monroe	1924
Maine	John A. Peters	Bangor	1921
Maryland	Morris A. Soper	Baltimore	1923
"	W. C. Coleman	Baltimore	1927
Mass.	Jas. M. Morton jr.	New Bedford	1922
"	J. A. Lowell	Boston	1922
"	E. H. Brewster	Springfield	1922
Mich.: E. D.	Arthur J. Tuttle	Detroit	1912
" E. D.	Charles C. Simons	Detroit	1923
" E.D.	Edw. J. Moinet	Detroit	1927
" W. D.C.	W. Sessions	Grand Rapids	1911
"	F. M. Raymond	Grand Rapids	1925
Minnesota	J. W. Molyneaux	Minneapolis	1925
"	J. B. Sanborn	St. Paul	1925
"	William A. Cant	Duluth	1923
Mississippi	E. R. Holmes	Jackson	1918
"	N. Allen Cox	Aberdeen	1929
Mo.: E. D.	Charles B. Faris	St. Louis	1919
" E. D.	Chas. B. Davis	St Louis	1924
" W. D.	M. E. Otis	Kansas City	1925
" W. D.	Albert L. Reeves	Kansas City	1923
Montana	G. M. Bourquin	Butte	1912
"	Chas. N. Pray	Great Falls	1924
Nebraska	Jas. W. Woodrough	Omaha	1916
"	Thos. C. Munger	Lincoln	1907
Nevada	F. H. Norcross	Carson City	1928
N. Hamp.	George F. Morris	Littleton	1921
New Jersey	William Clark	Newark	1926
"	Guy L. Fake	Newark	1929
New Jersey	John B. Avis	Camden	1929
"	Wm. N. Runyon	Newark	1923
New Mexico	Colin Neblett	Santa Fe	1917
N. Y.: N. D.	Frank Cooper	Albany	1920
" N.D	Fred H. Bryant	Utica	1927
" W. D.	John R. Hazel	Buffalo	1900
" W.D	Simon L. Adler	Rochester	1927
" S. D.	John M Woolsey	N. Y. City	1929
" S. D.	T. D. Thacher	N. Y. City	1925
" S. D.	Francis G. Caffey	N. Y. City	1929
" S. D.	Alfred C. Coxe	N. Y. City	1929
" S. D.	Henry W. Goddard	N. Y. City	1923
" S. D.	William Bondy	N. Y. City	1923
" S. D.	Fred'k J. Coleman	N. Y. City	1927
" E. D.	Marcus B. Campbell	Brooklyn	1923
" E. D.	G. M. Moskowitz	Brooklyn	1926
" E. D	Robert A. Inch	Brooklyn	1923
" E. D.	A. G. Galston	Brooklyn	1929
" E.D.	M. W. Byers	Brooklyn	1929
N. C.: E. D.	I. M. Meekins	Elizabeth City	1925
" M. D.	Johnson J. Hayes	Greensboro	1927
" W. D.	Edwin Y. Webb	Charlotte	1919
" W. D.	James E. Boyd	Greensboro	1900
N. Dakota	Andrew Miller	Fargo	1922
"	Chas. F. Amdion	Fargo	1929
Ohio: N. D.	Paul Jones	Cleveland	1923
" S. D.	Rob't R. Nevin	Dayton	1929
" N. D.	S. H. West	Cleveland	1929
" S. D.	W. Hough	Cincinnati	1925
Okla.: E. D.	R. L. Williams	Muskogee	1919
" W. D.	E. S. Vaughan	Okla. City	1928
" N. D.	F. E. Kennamer	Tulsa	1924
Oregon	John H. McNary	Portland	1927
"	Robert S. Bean	Portland	1909
Pa.: E. D.	J. W. Thompson	Philadelphia	1912
" E. D.	O. B. Dickinson	Philadelphia	1914
" E.D.	W. H. Kirkpatrick	Philadelphia	1927
" M. D.	A. W. Johnson	Lewisburg	1926
" W. D.	Nelson McVicar	Pittsburgh	1928
" W. D.	R. M. Gibson	Pittsburgh	1922
" W. D.	F. P. Schoonmaker	Erie	1923
Rhode Island	Ira L. Letts	Providence	1927
S. C.: E. D.	E. F. Cochran	Charleston	1923
" E. D.	J. L. Glenn	Rock Hill	1929
" W. D.	Hy. H. Watkins	Anderson	1919
S. Dakota	James D. Elliott	Sioux Falls	1911
"	A. Leo Wyman	Sioux Falls	1929
Tenn.: E.	Geo. C. Taylor	Knoxville	1928
" M.	John J. Gore	Cookville	1923
" W. D.	Harry B. Anderson	Memphis	1926
Tex.: E. D.	W. Lee Estes	Texarkana	1920
" W. D.	Du Val West	San Antonio	1916
" W. D.	C. A. Boynton	El Paso	1925
" N. D.	James C. Wilson	Fort Worth	1919
" N. D.	Edward R. Meek	Dallas	1898
" N. D.	William H. Atwell	Dallas	1923
" S. D.	J. C. Hutcheson jr.	Houston	1918
Utah	Till. D. Johnson	Salt Lake City	1915
Vermont	Harland B. Howe	Burlington	1915
Va.: E. D.	D. L. Groner	Norfolk	1921
" W. D.	H. C. McDowell	Lynchburg	1901
Wash.: W. D.	Ed. E. Cushman	Tacoma	1912
" W. D.	Jere Neterer	Seattle	1913
" E. D.	J. Stanley Webster	Spokane	1923
W. Va.: N. D.	W. E. Baker	Elkins	1921
" S. D.	G. W. McClintic	Charleston	1921
Wis.: E. D.	F. A. Geiger	Milwaukee	1912
" W. D.	Claude Z. Luse	Superior	1921
Wyoming	T. B. Kennedy	Cheyenne	1921

UNITED STATES CIRCUIT COURTS OF APPEAL.

The U. S. Circuit Courts of Appeal consist of the District and Circuit Judges in the respective Circuits, together with a Justice of the Supreme Court assigned to that Circuit. The Justices so assigned are, by Circuits—1st, Holmes; 2d, Stone; 3d, Brandeis; 4th, Chief Justice Taft; 5th, Sanford; 6th, McReynolds; 7th, Butler; 8th, Van Devanter; 9th, Sutherland.

FEDERAL COURT OF CLAIMS.

Chief Justice ($12,500)—Fenton W. Booth, of Ill. *Judges* ($12,500)—William R. Green, Iowa; Samuel J. Graham, Pa.; Benjamin H. Littleton, Tenn.; Thomas S. Williams, Ill.

FEDERAL TERRITORIAL JUDGES.

Alaska—*District Judges;* (1) Justin W. Harding, Juneau; (2) G. J. Lomen, Nome; (3) E. Coke Hill, Valdez; (4) Cecil H. Clegg, Fairbanks.

Hawaii—*Supreme Court·* Chief Justice, Antonio M. Perry, Honolulu; Associate Justices, James J. Banks and Charles F. Parsons, of Honolulu.

Circuit Court: (1) Alva E. Steadman, Albert M. Cristy, Charles S. Davis and Edward M. Watson, all of Honolulu; (2) Daniel H. Case, Walluku; (3) James Wesley Thompson, Kailua; (4) Homer L. Ross, Hilo; (5) W. C. Achi, Jr., Lihue.

U. S. District Judges: William B. Lymer and Edward K. Massee, of Honolulu.

Porto Rico—*U. S. District Judge:* Ira K. Wells, San Juan.

FEDERAL JUDGES IN DISTRICT OF COLUMBIA.

COURT OF APPEALS—*Chief Justice,* George E. Martin of the Dist. of Columbia, *Associate Justices*—Charles H. Robb, Vt.; Josiah A. Van Orsdel, Wyo.

SUPREME COURT OF THE DISTRICT—*Chief Justice,* ——— ———, *Associate Justices*—Wendell P. Stafford, of Vermont; Frederick L. Siddons, Peyton Gordon and William Hitz, of the District of Columbia; Alfred A. Wheat, of New York, Thomas J. Bailey, of Tennessee.

UNITED STATES ATTORNEYS.

District.	*Name.*	*Address.*
Alabama, north.	Charles B. Kennamer	Birmingham.
Alabama, mid.	Grady Reynolds	Montgomery.
Alabama, south.	Alex C. Birch	Mobile.
Alaska—		
Div. No. 1	H. D. Stabler	Juneau.
Div. No. 2	J. T. Hart	Nome.
Div. No. 3	Warren N. Cuddy	Valdez.
Div. No. 4	Julian A. Hurley	Fairbanks
Arizona	John C. Gung'l	Tucson.
Arkansas, east.	Charles F. Cole	Little Rock.
Arkansas, west.	Samuel S. Langley	Fort Smith.
California, nor.	G. J. Hatfield	San Francisco.
California, sou.	S. W. McNabb	Los Angeles.
Colorado	Ralph L. Carr	Denver.
Connecticut	John Buckley	Hartford.
Delaware	L. E. Wales	Wilmington
Dist. of Col	Leo A. Rover	Washington.
Florida, north.	Fred C. Cubberly	Pensacola.
Florida, south.	Wilbur P. Hughes	Jacksonville.
Georgia, north.	Clint W. Hager	Atlanta.
Georgia, mid	William A. Bootle	Macon.
Georgia, south.	C. L. Redding	Savannah.
Hawaii (6 years)	S. B. D. Wood	Honolulu.
Idaho	Hoyt E. Ray	Boise.
Illinois, north.	G. E. Q. Johnson	Chicago.
Illinois, eastern.	H. G. Baker	East St. Louis.
Illinois, south.	W. M. Provine	Springfield.
Indiana, south.	George R. Jeffrey	Indianapolis.
Indiana, nor.	O. M. Loomis	South Bend.
Iowa, northern.	B. E. Rhinehart	Cedar Rapids.
Iowa, southern.	Ross W. Mowry	Newton.
Kansas	Al. F. Williams	Topeka.
Kentucky, east.	Sawyer A. Smith	Covington.
Kentucky, west.	Thos. J. Sparks	Louisville.
Louisiana, east.	E. E. Talbot	New Orleans.
Louisiana, west.	Philip H. Mecom	Shreveport.
Maine	Frederick R. Dyer	Portland.
Maryland	Amos W. W. Woodcock	Baltimore.
Massachusetts.	Fred. H. Tarr	Boston.
Michigan, east.	John R. Watkins	Detroit.
Michigan, west.	Edward J. Bowman	Grand Rapids.
Minnesota	Lewis L. Drill	St. Paul.
Mississippi, nor.	Lester G. Fant	Clarksdale.
Mississippi, sou.	Ben. F. Cameron	Meridian.
Missouri, east.	L. H. Breuer	St. Louis.
Missouri, west.	W. L. Vandeventer	Kansas City.
Montana	W. D. Rankin	Helena.
Nebraska	James C. Kinsler	Omaha.
Nevada	H. H. Atkinson	Reno.
New Hamp.	Raymond U. Smith	Concord.
New Jersey	Philip Forman	Trenton.
New Mexico	Hugh B. Woodward	Albuquerque.
New York, nor.	Oliver D. Burden	Syracuse.
New York, sou.	Chas. H. Tuttle	N. Y. City.
New York, east.	Howard W. Ameli	Brooklyn.
New York, west.	R. H. Templeton	Buffalo.
No. Car., east.	Irvin B. Tucker	Raleigh.
No. Car., mid.	Edw. L. Gavin	Greensboro.
No. Car, west.	T. J. Harkins	Asheville.
North Dakota.	Peter B. Garberg	Fargo.
Ohio, northern.	W. J. Mahon	Cleveland.
Ohio, southern.	H. E. Mau	Cincinnati.
Oklahoma, east.	Frank Lee	Muskogee.
Oklahoma, nor.	J. N. Goldesberry	Tulsa.
Oklahoma, west	Roy St. Lewis	Okla. City.
Oregon	George Neuner	Portland.
Pennsylv'a, east.	Calvin S. Boyer	Philadelphia.
Pennsylv'a, mid.	Andrew B. Dunsmore	Sunbury.
P'nnsylv'a, west.	Louis E. Graham	Pittsburgh.
Porto Rico	John L. Gay	San Juan.
Rhode Island	Henry M. Boss, Jr.	Providence.
So. Car., east.	J. D. Ernest Meyer	Charleston.
So. Car., west.	Jos. A. Tolbert	Greenville.
South Dakota.	Olaf Elden	Brookings.
Tennessee, east.	Everett Greer	Knoxville.
Tennessee, mid.	A. V. McLane	Nashville.
Tennessee, west.	L. B. Phillips	Memphis.
Texas, northern.	N. A. Dodge	Fort Worth.
Texas, southern.	Henry M. Holden	Houston.
Texas, eastern.	Randolph Bryant	Sherman.
Texas, western.	John D. Hartman	San Antonio.
Utah	C. R. Hollingsworth	Salt Lake City.
Vermont	Harry B. Amey	Burlington.
Virginia, eastern	Paul W. Kear	Norfolk.
Virginia, west.	John Paul	Roanoke.
Wash'gton, east.	Roy C. Fox	Spokane.
Wash'gton, west.	Anthony Savage	Seattle.
West Va., north	Arthur Arnold	Parkersburg.
West Va., south.	James Damron	Huntington.
Wisconsin, east.	L. H. Bancroft	Milwaukee.
Wisconsin, west.	S. M. Ryan	Madison.
Wyoming	A. D. Walton	Cheyenne.

U. S. COURT OF CUSTOMS AND PATENT APPEALS.

Presiding Judge—William J. Graham, of Ill.; *Associate Judges*—Oscar E. Bland, of Indiana; Charles S. Hatfield, of Ohio; Finis J. Garrett, of Tennessee; Irvine L. Lenroot, of Wisconsin; *Marshal*—Frank H. Briggs, of Maine; *Clerk*—Arthur B. Shelton, of Maryland.

The act of Congress of Aug. 5, 1909, created the United States Court of Customs Appeals.

By this act the court was given exclusive jurisdiction to review, by appeal, final decisions of the Board of General Appraisers (now the United States Customs Court), and it further provided that the judgment or decrees of the Court of Customs Appeals should be final in all cases.

By act of Aug. 22, 1914, it was provided that review by the Supreme Court might be had on certain conditions, involving constitutional questions or treaty rights, or where the Attorney General might, previous to the decision of a case, file with the court a certificate to the effect that the case is of such importance as to render expedient its review by the Supreme Court.

The Act of March 2, 1929, effective April 1, changed the title of the United States Court of Customs Appeals to the United States Court of Customs and Patent Appeals, and conferred on the court the jurisdiction formerly vested in the Court of Appeals of the District of Columbia in respect to appeals from the Patent Office in patent and trade-mark cases.

On April 1, 1929, patent and trade-mark cases to the number of 241 were transferred to this court. Since then, and up to Nov., 1929, 144 patent appeals have been filed, making a total of 385.

THE U. S. BOARD OF TAX APPEALS.

The office of the Board at Washington, D. C., is open each business day from 9 A.M. to 4.30 P.M.

Chairman—Logan Morris; other members: W. C. Lansdon, John J. Marquette, Charles P. Smith, John M. Sternhagen, Charles M. Trammell, Sumner L. Trussell, Percy W. Phillips, William R. Green, Jr., William D. Love, C. Rogers Arundell, J. Edgar Murdock, Ernest H. Van Fossan, Stephen J. McMahon, Eugene Black, and Herbert F. Seawell.

Robert C. Tracy, *Secretary*; B. D. Gamble, *Clerk*; Charles E. Gebhardt, *Reporter*.

THE SEVENTY-FIRST CONGRESS.

THE SENATE.

Terms of Senators end on March 4 of year preceding name. Salary of a Senator is $10,000 a year.

Presiding Officer, the Vice-President, Charles Curtis, R., of Kansas, salary $15,000.
President pro tem., Senator George H. Moses, R., of New Hampshire. *Secretary*, Edwin P. Thayer, R., of Indiana.

Terms Expire.	Senators.	P. O. Address
	Alabama.	
1931.	J. Thos. Heflin, D.	Lafayette.
1933.	Hugo Black, D.	Birmingham.
	Arizona.	
1935.	Henry F. Ashurst, D.	Prescott.
1933.	Carl Hayden, D.	Phoenix.
	Arkansas.	
1933.	Thaddeus H. Caraway, D.	Jonesboro.
1931.	Joseph T. Robinson, D.	Little Rock.
	California.	
1935.	Hiram W. Johnson, R.	San Francisco.
1933.	Samuel M. Shortridge, R.	Menlo Park.
	Colorado.	
1931.	Lawrence C. Phipps, R.	Denver.
1933.	Charles W. Waterman, R.	Denver.
	Connecticut.	
1935.	Frederick C. Walcott, R.	Norfolk.
1933.	Hiram Bingham, R.	New Haven.
	Delaware.	
1935.	John G. Townsend, Jr., R.	Selbyville
1931.	Daniel O. Hastings, R.	Wilmington
	Florida.	
1935.	Park Trammell, D.	Lakeland
1933.	Duncan U. Fletcher, D.	Jacksonville.
	Georgia.	
1933.	Walter F. George, D.	Vienna.
1931.	William J. Harris, D.	Cedartown.
	Idaho.	
1933.	John Thomas, R.	Gooding.
1931.	William E. Borah, R.	Boise.
	Illinois.	
1931.	Charles S. Deneen, R.	Chicago.
1933.	Otis F. Glenn, R.	Murphysboro.
	Indiana.	
1935.	Arthur R. Robinson, R.	Indianapolis.
1933.	James E. Watson, R.	Rushville.
	Iowa.	
1933.	Smith W. Brookhart, R.	Washington.
1931.	Daniel F. Steck, D.	Ottumwa.
	Kansas.	
1933.	Henry J. Allen, R.	Wichita.
1931.	Arthur Capper, R.	Topeka.
	Kentucky.	
1931.	Fred M. Sackett, R.	Louisville.
1933.	Alben W. Barkley, D.	Paducah.
	Louisiana.	
1933.	Edwin S. Broussard, D.	New Iberia.
1931.	Joseph E. Ransdell, D.	L. Providence.
	Maine.	
1935.	Frederick Hale, R.	Portland.
1931.	Arthur R. Gould, R.	Presque Isle.
	Maryland.	
1935.	Phillips L. Goldsborough, R.	Baltimore.
1933.	Millard E. Tydings, D.	Havre de Grace.
	Massachusetts.	
1931.	Frederick H. Gillett, R.	Springfield.
1935.	David I. Walsh, D.	Fitchburg.
	Michigan.	
1935.	A. H. Vandenburg, R.	Grand Rapids.
1931.	James Couzens, R.	Detroit.
	Minnesota.	
1935.	Henrik Shipstead, Farm-Lab.	Minneapolis.
1931.	Thomas D. Schall, R.	Excelsior.
	Mississippi.	
1935.	Hubert D. Stephens, D.	New Albany.
1931.	Pat Harrison, D.	Gulfport.
	Missouri.	
1935.	Roscoe C. Patterson, R.	Kansas City.
1933.	Harry B. Hawes, D.	St. Louis.
	Montana.	
1935.	Burton K. Wheeler, D.	Butte.
1931.	Thomas J. Walsh, D.	Helena.

Terms Expire.	Senators.	P. O. Address
	Nebraska.	
1935.	Robert B. Howell, R.	Omaha.
1931.	George W. Norris, R.	McCook.
	Nevada.	
1935.	Key Pittman, D	Tonopah.
1933.	Tasker L. Oddie, R.	Reno.
	New Hampshire.	
1931.	Henry W. Keyes, R.	Haverhill.
1933.	George H. Moses, R.	Concord.
	New Jersey.	
1935.	Hamilton F. Kean, R.	Elizabeth.
1931.	David Baird, Jr., R.	Camden.
	New Mexico.	
1935.	Bronson M. Cutting, R.	Santa Fe.
1931.	Sam G. Bratton, D.	Albuquerque.
	New York.	
1935.	Royal S. Copeland, D.	N. Y. City.
1933.	Robert F. Wagner, D.	N. Y. City.
	North Carolina.	
1933.	Lee S. Overman, D.	Salisbury.
1931.	Furnifold McL. Simmons, D.	New Bern.
	North Dakota.	
1935.	Lynn J. Frazier, R.	Hoople.
1933.	Gerald P. Nye, R.	Cooperstown.
	Ohio.	
1935.	Simeon D. Fess, R.	Yellow Springs
1931.	Roscoe C. McCulloch, R.	Canton.
	Oklahoma.	
1931.	W. B. Pine, R.	Okmulgee.
1933.	Elmer Thomas, D.	Medicine Park
	Oregon.	
1931.	Charles L. McNary, R.	Salem.
1933.	Frederick Steiwer, R.	Pendleton.
	Pennsylvania.	
1935.	David A. Reed, R.	Pittsburgh.
1931.	Joseph R. Grundy, R.	Bristol.
	Rhode Island.	
1935.	Felix Hebert, R.	West Warwick
1931.	Jesse H. Metcalf, R.	Providence.
	South Carolina.	
1933.	Ellison D. Smith, D.	Florence.
1931.	Coleman L. Blease, D.	Columbia.
	South Dakota.	
1933.	Peter Norbeck, R.	Redfield.
1931.	W. H. McMaster, R.	Pierre.
	Tennessee.	
1935.	Kenneth I. McKellar, D.	Memphis.
1931.	William E. Brock, D.	Chattanooga.
	Texas.	
1935.	Tom Connally, D.	Marlin.
1931.	Morris Sheppard, D.	Texarkana.
	Utah.	
1935.	Wm. H. King, D.	Salt Lake City.
1933.	Reed Smoot, R.	Provo.
	Vermont.	
1935.	Frank L. Greene, R.	St. Albans.
1933.	Porter H. Dale, R.	Island Pond.
	Virginia.	
1935.	Claude A. Swanson, D.	Chatham.
1931.	Carter Glass, D.	Lynchburg.
	Washington.	
1935.	C. C. Dill, D.	Spokane.
1933.	Wesley L. Jones, R.	Seattle.
	West Virginia.	
1935.	Henry D. Hatfield, R.	Huntington.
1931.	Guy D. Goff, R.	Clarksburg.
	Wisconsin.	
1935.	Robert M. LaFollette, Jr., R.	Madison.
1933.	John J. Blaine, R.	Boscobel.
	Wyoming.	
1935.	John B. Kendrick, D.	Sheridan.
1931.	Patrick J. Sullivan, R.	Rawlins.

Number of Senators, 96; Republicans, 56; Democrats, 39; Farmer Labor, 1.

Henry J. Allen, Kansas, was appointed to the vacancy caused by the resignation of Charles Curtis, Mar. 3, 1929, before being sworn to the Vice-Presidency. David Baird, Jr., New Jersey, was appointed Nov. 21, 1929 to the vacancy caused by the resignation of Walter E. Edge, confirmed that day as Ambassador to France; Governor Larson of New Jersey announced that Mr. Baird would retire in 1930 and Dwight W. Morrow (R.) now Ambassador to Mexico would be appointed to fill the unexpired term on his return from the Naval Disarmament Conference to be held in London in January, 1930. Roscoe C. McCulloch, Ohio, was appointed to the vacancy caused by the death of Theodore E. Burton Oct. 28, 1929. W. E. Brock, Tennessee, was appointed to the vacancy caused by the death of Lawrence D. Tyson, Aug. 24, 1929. The death of Francis E. Warren, Wyoming, on Nov. 24, 1929, when Congress was not in session, left a vacancy that must under the State Law be filled by a special election in January, 1930; Gov. Emerson, on Dec. 3, appointed Patrick J. Sullivan to fill the vacancy until then. Joseph R. Grundy, Pa., was appointed by Gov. Fisher to the vacancy created on Dec. 6., 1929, when the Senate, by a vote of 58 to 22, refused to seat William S. Vare, R., who was elected in 1926 for a full term.

THE HOUSE OF REPRESENTATIVES

Elected Nov. 6, 1928; terms from March 4, 1929, to March 4, 1931. Salary of members, $10,000 a year.
Speaker—Nicholas Longworth, Rep., of Ohio.
Clerk of the House of Representatives—William Tyler Page, Rep., of Maryland.

Alabama.

Dist.		Politics.	P. O. Address.
1	John McDuffie*	Dem.	Monroeville.
2	Lister Hill*	Dem.	Montgomery.
3	Henry B. Steagall*	Dem.	Ozark.
4	Lamar Jeffers*	Dem.	Anniston.
5	L. L. Patterson	Dem.	Dadeville.
6	William B. Oliver*	Dem.	Tuscaloosa.
7	Miles C. Allgood*	Dem.	Allgood.
8	Edward B. Almon*	Dem.	Tuscumbia.
9	George Huddleston*	Dem.	Birmingham.
10	William B. Bankhead*	Dem.	Jasper.

Arizona.

	Lewis W. Douglas	Dem.	Phoenix.

Arkansas.

1	William J. Driver*	Dem.	Osceola.
2	Mrs. Pearl P. Oldfield*	Dem.	Batesville.
3	Claude Fuller	Dem.	Eureka Springs.
4	Otis Wingo*	Dem.	De Queen.
5	Heartsill Ragon*	Dem.	Clarkesville.
6	D. D. Glover	Dem.	Lonoke.
7	Tilman B. Parks*	Dem.	Hope.

California.

1	Clarence F. Lea*	Dem.	Santa Rosa.
2	Harry L. Englebright*	Rep.	Nevada City.
3	Charles F. Curry*	Rep.	Sacramento.
4	Mrs. Florence P. Kahn*	Rep.	San Francisco.
5	Richard J. Welch*	Rep.	San Francisco.
6	Albert E. Carter*	Rep.	Oakland.
7	Henry E. Barbour*	Rep.	Fresno.
8	Arthur M. Free*	Rep.	San Jose.
9	W. E. Evans	Rep.	Glendale.
10	Joe Crail	Rep.	Los Angeles.
11	Philip D. Swing*	Rep.	El Centro.

Colorado.

1	Wm. R. Eaton	Rep.	Denver.
2	Charles B. Timberlake*	Rep.	Sterling.
3	Guy U. Hardy*	Rep.	Canon City.
4	Edward T. Taylor*	Dem.	Glenwood Springs.

Connecticut.

1	E. Hart Fenn*	Rep.	Wethersfield.
2	Richard P. Freeman*	Rep.	New London.
3	John Q. Tilson*	Rep.	New Haven.
4	Schuyler Merritt*	Rep.	Stamford.
5	James P. Glynn*	Rep.	Winsted.

Delaware.

	Robert G. Houston*	Rep.	Georgetown.

Florida.

1	Herbert J. Drane*	Dem.	Lakeland.
2	R. A. Green*	Dem.	Starke.
3	Tom A. Yon	Dem.	Tallahassee.
6	Ruth Bryan Owen	Dem.	Miami.

Georgia.

1	Charles G. Edwards*	Dem.	Savannah.
2	E. E. Cox*	Dem.	Camilla.
3	Charles R. Crisp*	Dem.	Americus.
4	William C. Wright*	Dem.	Newnan.
5	Robert) Ramspeck	Dem.	Decatur.
6	Samuel Rutherford*	Dem.	Forsyth.
7	Malcolm C. Tarver	Dem.	Dalton.
8	Charles H. Brand*	Dem.	Athens.
9	Thomas M. Bell*	Dem.	Gainesville.
10	Carl Vinson*	Dem.	Milledgeville.
11	William C. Lankford*	Dem.	Douglas.
12	William W. Larsen*	Dem.	Dublin.

Idaho.

1	Burton L. French*	Rep.	Moscow.
2	Addison T. Smith*	Rep.	Twin Falls.

Illinois.

1	Oscar DePriest	Rep.	Chicago.
2	Morton D. Hull*	Rep.	Chicago.
3	Elliott W. Sproul*	Rep.	Chicago.
4	Thomas A. Doyle	Dem.	Chicago.
5	Adolph J. Sabath*	Dem.	Chicago.
6	James T. Igoe	Dem.	Chicago.
7	M. Alfred Michaelson*	Rep.	Chicago.
8	Stanley H. Kunz*	Dem.	Chicago.
9	Fred A. Britten*	Rep.	Chicago.
10	Carl R. Chindblom*	Rep.	Chicago.
11	Frank R. Reid*	Rep.	Aurora.
12	John T. Buckbee	Rep.	Rockford.
13	William R. Johnson*	Rep.	Freeport.
14	John C. Allen*	Rep.	Monmouth.
15	Vacant.		
16	William E. Hull*	Rep.	Peoria.
17	Homer W. Hall	Rep.	Bloomington.
18	William P. Holaday*	Rep.	Georgetown.
19	Charles Adkins*	Rep.	Decatur.
20	Henry T. Rainey*	Dem.	Carrollton.
21	F. M. Ramey	Rep.	Hillsboro.
22	Ed. M. Irwin*	Rep.	Belleville.
23	William W. Arnold*	Dem.	Robinson.

Illinois—Continued.

Dist.		Politics.	P. O. Address.
24	Vacant (by resignation).		
25	Edward E. Denison*	Rep.	Marion.

At Large.

	Richard Yates*	Rep.	Springfield.
	Ruth H. McCormick	Rep.	Byron.

Indiana.

1	Harry E. Rowbottom*	Rep.	Evansville.
2	Arthur H. Greenwood*	Dem.	Washington.
3	James W. Dunbar†	Rep.	New Albany.
4	Harry C. Canfield*	Dem.	Batesville.
5	Noble J. Johnson*	Rep.	Terre Haute.
6	Richard N. Elliott*	Rep.	Connersville.
7	Louis Ludlow	Dem.	Indianapolis.
8	Albert H. Vestal*	Rep.	Anderson.
9	Fred S. Purnell*	Rep.	Attica
10	William R. Wood*	Rep.	La Fayette.
11	Albert R. Hall*	Rep.	Marion.
12	David Hogg*	Rep.	Fort Wayne.
13	Andrew J. Hickey*	Rep.	La Porte.

Iowa.

1	William F. Kopp*	Rep.	Mount Pleasant.
2	F. D. Letts*	Rep.	Davenport.
3	T. J. B. Robinson*	Rep.	Hampton.
4	Gilbert N. Haugen*	Rep.	Northwood.
5	Cyrenus Cole*	Rep.	Cedar Rapids.
6	C. William Ramseyer*	Rep.	Bloomfield.
7	Cassius C. Dowell*	Rep.	Des Moines.
8	Lloyd Thurston*	Rep.	Osceola.
9	C. E. Swanson	Rep.	Council Bluffs.
10	L. J. Dickinson*	Rep.	Algona.
11	E. H. Campbell	Rep.	Battle Creek.

Kansas.

1	W. P. Lambertson	Rep.	Fairview.
2	U. S. Guyert†	Rep.	Kansas City.
3	W. H. Sproul*	Rep.	Sedan.
4	Homer Hoch*	Rep.	Marion.
5	James G. Strong*	Rep.	Blue Rapids.
6	C. I. Sparks	Rep.	Goodland.
7	Clifford R. Hope	Rep.	Garden City.
8	William A. Ayres*	Dem.	Wichita.

Kentucky.

1	W. V. Gregory	Dem.	Mayfield.
2	David H. Kincheloe*	Dem.	Madisonville.
3	John W. Moore	Dem.	Morgantown.
4	J. D. Craddock	Rep.	Muifordville.
5	Maurice H. Thatcher*	Rep.	Louisville.
6	J. L. Newhall	Rep.	Covington.
7	R. Blackburn	Rep.	Lexington.
8	Lewis L. Walker	Rep.	Lancaster.
9	E. R. Kendall	Rep.	Carlisle.
10	Mrs. Katherine Langley	Rep.	Pikeville.
11	John M. Robsion*	Rep.	Barbourville.

Louisiana.

1	James O'Connor*	Dem.	New Orleans.
2	J. Zach Spearing*	Dem.	New Orleans.
3	Numa F. Montet	Dem.	Thibodeaux.
4	John N. Sandlin*	Dem.	Minden.
5	Riley J. Wilson*	Dem.	Ruston.
6	Bolivar E. Kemp*	Dem.	Amite.
7	Rene L. De Rouen	Dem.	Ville Platte.
8	James B. Aswell*	Dem.	Natchitoches.

Maine.

1	Carroll L. Beedy*	Rep.	Portland.
2	Wallace H. White, Jr.*	Rep.	Lewiston.
3	John E. Nelson*	Rep.	Augusta.
4	D. F. Snow	Rep.	Bangor.

Maryland.

1	T. Alan Goldsborough*	Dem.	Denton.
2	L. L. Clarke	Rep.	Baltimore.
3	Vincent L. Palmisano	Dem.	Baltimore.
4	J. Charles Linthicum*	Dem.	Baltimore.
5	Stephen W. Gambrill*	Dem.	Laurel.
6	Frederick N. Zihlman*	Rep.	Cumberland.

Massachusetts.

1	Allen T. Treadway*	Rep.	Stockbridge.
2	W. K. Kaynor	Rep.	Springfield.
3	Frank H. Foss*	Rep.	Fitchburg.
4	George R. Stoobs*	Rep.	Worcester.
5	Edith Nourse Rogers*	Rep.	Lowell.
6	A. Platt Andrew*	Rep.	Gloucester.
7	William P. Connery, Jr.*	Dem.	Lynn.
8	Frederick W. Dallinger*	Rep.	Cambridge.
9	Charles L. Underhill*	Rep.	Somerville.
10	John J. Douglass*	Dem.	Boston.
11	Geo. Holden Tinkham*	Rep.	Boston.
12	J. W. McCormack	Dem.	Boston.
13	Robert Luce	Rep.	Waltham.
14	R. B. Wigglesworth	Rep.	Milton.
15	Joseph W. Martin, Jr.*	Rep.	North Attleboro.
16	Charles L. Gifford*	Rep.	Cotuit.

Michigan.

Dist.		Politics.	P. O. Address.
1	Robert H. Clancy†	Rep.	Detroit.
2	Earl C. Michener*	Rep.	Adrian.
3	Joseph L. Hooper*	Rep.	Battle Creek.
4	John C. Ketcham*	Rep.	Hastings.
5	Carl E. Mapes*	Rep.	Grand Rapids.
6	Grant M. Hudson*	Rep.	East Lansing
7	Louis C. Cramton*	Rep.	Lapeer.
8	Bird J. Vincent*	Rep.	Saginaw.
9	James C. McLaughlin*	Rep.	Muskegon.
10	Roy O. Woodruff*	Rep.	Bay City.
11	Frank P. Bohn	Rep.	Newberry.
12	W. Frank James*	Rep.	Hancock.
13	Clarence J. McLeod*	Rep.	Detroit.

Minnesota.

1	V. Christgau	Rep.	Austin.
2	Frank Clague*	Rep.	Redwood Falls.
3	August H. Andresen*	Rep.	Red Wing.
4	Melvin J. Maas	Rep.	St. Paul.
5	W. I. Nolan	Rep.	Minneapolis.
6	Harold Knutson*	Rep.	St. Cloud.
7	Paul J. Kvale	F. L.	Benson.
8	William A. Pittenger	Rep.	Duluth.
9	C. G. Selvig	Rep.	Crookston.
10	Godfrey G. Goodwin	Rep.	Cambridge.

Mississippi.

1	John E. Rankin*	Dem.	Tupelo.
2	Wall Doxey	Dem.	Holly Springs.
3	W. M. Whittington*	Dem.	Greenwood.
4	Jeff Busby*	Dem.	Houston.
5	Ross A. Collins*	Dem.	Meridian.
6	R. S. Hall	Dem.	Hattiesburg.
7	Percy E. Quin*	Dem.	McComb.
8	James W. Collier*	Dem.	Vicksburg.

Missouri.

1	M. A. Romjue*	Dem.	Macon.
2	Ralph F. Lozier*	Dem.	Carrollton.
3	Jacob L. Milligan*	Dem.	Richmond.
4	David Hopkins	Rep.	St. Joseph.
5	Edgar C. Ellis	Rep.	Kansas City.
6	Thos. J. Halsey	Rep.	Holden.
7	John W. Palmer	Rep.	Sedalia.
8	William L. Nelson*	Dem.	Columbia.
9	Clarence Cannon*	Dem.	Elsberry.
10	Henry F. Niedringhaus	Rep.	St. Louis.
11	John J. Cochran*	Dem.	St. Louis
12	Leonidas C. Dyer*	Rep.	St. Louis.
13	Charles E. Kiefner	Rep.	Perryville.
14	Dewey J. Short	Rep.	Galena.
15	Joe J. Manlove*	Rep.	Joplin.
16	Rowland L. Johnston	Rep.	Rolla.

Montana.

1	John M. Evans*	Dem.	Missoula.
2	Scott Leavitt*	Rep.	Great Falls.

Nebraska.

1	John H. Morehead*	Dem.	Falls City.
2	Willis G. Sears*	Rep.	Omaha.
3	Edgar Howard*	Dem.	Columbus.
4	Charles H. Sloan	Rep.	Geneva.
5	Fred G. Johnson	Rep.	Hastings.
6	Robert G. Simmons*	Rep.	Scottsbluff.

Nevada.

	Samuel S. Arentz*	Rep.	Simpson.

New Hampshire.

1	Fletcher Hale*	Rep.	Laconia.
2	Edward H. Wason*	Rep.	Nashua.

New Jersey.

1	Charles A. Wolverton	Rep.	Camden.
2	Isaac Bacharach*	Rep.	Atlantic City.
3	Harold G. Hoffman	Rep.	South Amboy.
4	Charles A. Eaton*	Rep.	North Plainfield.
5	Ernest R. Ackerman*	Rep.	Plainfield.
6	Randolph Perkins*	Rep.	Woodcliff Lake.
7	George N. Seger*	Rep.	Passaic.
8	Paul J. Moore	Dem.	Newark.
9	Franklin W. Fort*	Rep.	East Orange.
10	Frederick R. Lehlbach*	Rep.	Newark.
11	Oscar L. Auf der Heide*	Dem.	West New York.
12	Mary T. Norton*	Dem.	Jersey City.

New Mexico.

	Albert G. Sims	Rep.	Albuquerque.

New York.

1	Robert L. Bacon*	Rep.	Westbury.
2	W. F. Brunner	Dem.	Rockaway Park.
3	George W. Lindsay*	Dem.	Brooklyn.
4	Thomas H. Cullen*	Dem.	Brooklyn.
5	Loring M. Black, Jr.*	Dem.	Brooklyn.
6	Andrew L. Somers*	Dem.	Brooklyn.
7	John F. Quayle*	Dem.	Brooklyn.
8	Patrick J. Carley	Dem.	Brooklyn.
9	David J. O'Connell*	Dem.	Brooklyn.
10	Emanuel Celler*	Dem.	Brooklyn.
11	Anning S. Prall*	Dem.	W. New Brighton.

New York—Continued.

Dist.		Politics.	P. O. Address.
12	Samuel Dickstein*	Dem.	New York City.
13	Christopher D. Sullivan*	Dem.	New York City.
14	William I. Sirovich	Dem.	New York City.
15	John J. Boylan*	Dem.	New York City.
16	John J. O'Connor*	Dem.	New York City.
17	Ruth Baker Pratt	Rep.	New York City.
18	John P. Carew*	Dem.	New York City.
19	Sol Bloom*	Dem.	New York City.
20	Florello H. LaGuardia*	Rep.	New York City.
21	Joseph A. Gavagan	Dem.	New York City.
22	Anthony J. Griffin*	Dem.	New York City.
23	Frank Oliver*	Dem.	Bronx.
24	James M. Fitzpatrick	Dem.	Bronx.
25	J. Mayhew Wainwright*	Rep.	Rye.
26	Hamilton Fish, Jr.*	Rep.	Garrison.
27	Harcourt J. Pratt*	Rep.	Highland.
28	Parker Corning*	Dem.	Albany.
29	James S. Parker*	Rep.	Salem.
30	Frank Crowther*	Rep.	Schenectady.
31	Bertrand H. Snell*	Rep.	Potsdam.
32	Francis D. Culkin	Rep.	Oswego.
33	Fred'k M. Davenport*	Rep.	Clinton.
34	John D. Clarke†	Rep.	Fraser.
35	Clarence E. Hancock	Rep.	Syracuse.
36	John Taber*	Rep.	Auburn.
37	Gale H. Stalker*	Rep.	Elmira.
38	James L. Whitley	Rep.	Rochester.
39	Archie D. Sanders*	Rep.	Stafford.
40	S. Wallace Dempsey*	Rep.	Lockport.
41	Edmund F. Cooke	Rep.	Alden.
42	James M. Mead*	Dem.	Buffalo.
43	Daniel A. Reed*	Rep.	Dunkirk.

North Carolina.

1	Lindsay Warren*	Dem.	Washington.
2	John H. Kerr*	Dem.	Warrenton.
3	Charles L. Abernethy*	Dem.	New Bern.
4	Edward W. Pou*	Dem.	Smithfield.
5	Charles M. Stedman*	Dem.	Greensboro.
6	J. Bayard Clark	Dem.	Fayetteville.
7	William C. Hammer*	Dem.	Asheboro.
8	Robert L. Doughton*	Dem.	Laurelsprings.
9	Charles A. Jonas	Rep.	Lincolnton.
10	Geo. M. Pritchard	Rep.	Asheville.

North Dakota.

1	Olger B. Burtness*	Rep.	Grand Forks.
2	Thomas Hall*	Rep.	Bismarck.
3	James H. Sinclair*	Rep.	Kenmare.

Ohio.

1	Nicholas Longworth*	Rep.	Cincinnati.
2	W. E. Hess	Rep.	Cincinnati.
3	Roy G. Fitzgerald*	Rep.	Dayton.
4	John L. Cable	Rep.	Lima.
5	Charles J. Thompson*	Rep.	Defiance.
6	Charles C. Kearns*	Rep.	Amelia.
7	Charles Brand*	Rep.	Urbana.
8	Grant E. Mouser	Rep.	Marion.
9	W. W. Chalmers*	Rep.	Toledo.
10	Thomas A. Jenkins*	Rep.	Ironton.
11	Mell G. Underwood*	Dem.	New Lexington.
12	John C. Speaks*	Rep.	Columbus.
13	Jos. E. Beard	Rep.	Bowling Green.
14	Francis Selberling	Rep.	Akron.
15	C. Ellis Moore*	Rep.	Cambridge.
16	C. B. McClintock	Rep.	Canton.
17	William M. Morgan*	Rep.	Newark.
18	Frank Murphy*	Rep.	Steubenville.
19	John G. Cooper*	Rep.	Youngstown.
20	Charles A. Mooney*	Dem.	Cleveland.
21	Robert Crosser*	Dem.	Cleveland.
22	Chester C. Bolton	Rep.	Cleveland.

Oklahoma.

1	Charles O'Connor	Rep.	Tulsa.
2	William W. Hastings*	Dem.	Tahlequah.
3	Wilbur Cartwright	Dem.	McAlester.
4	Tom D. McKeown*	Dem.	Ada.
5	U. S. Stone	Rep.	Norman.
6	Jed Johnson	Dem.	Anadarko.
7	James V. McClintic*	Dem.	Snyder.
8	M. C. Garber*	Rep.	Enid.

Oregon.

1	Willis C. Hawley*	Rep.	Salem.
2	Robert R. Butler	Rep.	The Dalles.
3	Franklin F. Korell	Rep.	Portland.

Pennsylvania.

1	James M. Beck	Rep.	Philadelphia.
2	George S. Graham*	Rep.	Philadelphia.
3	Harry C. Ransley*	Rep.	Philadelphia.
4	Benjamin M. Golder*	Rep.	Philadelphia.
5	James J. Connolly*	Rep.	Philadelphia.
6	George A. Welsh*	Rep.	Philadelphia.
7	George P. Darrow*	Rep.	Philadelphia.
8	James Wolfenden	Rep.	Upper Darby.
9	Henry W. Watson*	Rep.	Langhorne.
10	Vacant.		
11	Laurence H. Watres*	Rep.	Scranton.

Pennsylvania—Continued.

Dist.	Politics.	P. O. Address.
12 O. Murray Turpin	Rep.	Wilkes-Barre.
13 George F. Brumm	Rep.	Minersville.
14 Charles J. Esterly	Rep.	Sally Ann Furnace
15 Louis T. McFadden*	Rep.	Canton.
16 Edgar R. Kiess*	Rep.	Williamsport.
17 Frederick W. Magrady*	Rep.	Mount Carmel.
18 Edward M. Beers*	Rep.	Mount Union.
19 I. H. Doutrich	Rep.	Harrisburg.
20 J. Russell Leech	Rep.	Ebensburg.
21 J. Banks Kurtz*	Rep.	Altoona.
22 Franklin Menges*	Rep.	York.
23 J. Mitchell Chase	Rep.	Clearfield.
24 Samuel A. Kendall*	Rep.	Meyersdale.
25 Henry W. Temple*	Rep.	Washington.
26 J. Howard Swick	Rep.	Beaver Falls.
27 Nathan L. Strong*	Rep.	Brookville.
28 Thomas C. Cochran	Rep.	Mercer.
29 Milton W. Shreve*	Rep.	Erie.
30 William R. Coyle	Rep.	Bethlehem.
31 Adam M. Wyant*	Rep.	Greensburg.
32 Stephen G. Porter*	Rep.	Pittsburgh.
33 M. Clyde Kelly*	Rep.	Edgewood.
34 Patrick J. Sullivan	Rep.	Pittsburgh.
35 Harry A. Estep	Rep.	Pittsburgh.
36 Guy E. Campbell*	Rep.	Crafton.

Rhode Island.

1 Clark Burdick*	Rep.	Newport.
2 Richard S. Aldrich*	Rep.	Warwick.
3 J. E. O'Connell	Dem.	Providence.

South Carolina.

1 Thomas S. McMillan*	Dem.	Charleston.
2 Butler B. Hare*	Dem.	Saluda.
3 Fred H. Dominick*	Dem.	Newberry.
4 John J. McSwain*	Dem.	Greenville.
5 William F. Stevenson*	Dem.	Cheraw.
6 Allard H. Gasque*	Dem.	Florence.
7 Hampton P. Fulmer*	Dem.	Orangeburg.

South Dakota.

1 C. A. Christopherson*	Rep.	Sioux Falls.
2 Royal C. Johnson*	Rep.	Aberdeen.
3 William Williamson*	Rep.	Custer.

Tennessee.

1 B. Carroll Reece*	Rep.	Butler.
2 J. Will Taylor*	Rep.	La Follette.
3 S. D. McReynolds	Dem.	Chattanooga.
4 Cordell Hull*	Dem.	Carthage.
5 Ewin L. Davis*	Dem.	Tullahoma.
6 Joseph W. Byrns*	Dem.	Nashville.
7 Edward E. Eslick*	Dem.	Pulaski.
8 Gordon Browning*	Dem.	Huntingdon.
9 L. Jere Cooper	Dem.	Dyersburg.
10 Hubert F. Fisher*	Dem.	Memphis.

Texas.

1 Wright Patman	Dem	Texarkana.
2 John C. Box*	Dem	Jacksonville.
3 Morgan G. Sanders*	Dem	Canton.
4 Sam Rayburn*	Dem	Bonham.
5 Hatton W. Sumners*	Dem	Dallas.
6 Luther A. Johnson*	Dem	Corsicana.
7 Clay Stone Briggs*	Dem	Galveston.
8 Daniel E. Garrett*	Dem	Houston.
9 Joseph J. Mansfield*	Dem	Columbus.
10 James P. Buchanan*	Dem	Brenham.
11 O. H. Cross	Dem	Waco.
12 Fritz G. Lanham*	Dem	Fort Worth.

Texas—Continued.

Dist.	Politics.	P. O. Address.
13 Guinn Williams*	Dem.	Decatur.
14 Augustus McCloskey	Dem.	San Antonio.
15 John N. Garner*	Dem.	Uvalde.
16 C. B. Hudspeth*	Dem.	El Paso.
17 R. Q. Lee	Dem.	Cisco.
18 Marvin Jones*	Dem.	Amarillo.

Utah.

1 Don B. Colton*	Rep.	Vernal.
2 Elmer O. Leatherwood*	Rep.	Salt Lake City.

Vermont.

1 Elbert S. Brigham*	Rep.	St. Albans.
2 Ernest W. Gibson*	Rep.	Brattleboro.

Virginia.

1 Schuyler Otis Bland*	Dem.	Newport News.
2 Menaleus Lankford	Rep.	Norfolk.
3 Andrew J. Montague*	Dem.	Richmond.
4 Patrick Henry Drewry*	Dem.	Petersburg.
5 Joseph Whitehead*	Dem.	Chatham.
6 Clifton A. Woodrum	Dem.	Roanoke.
7 J. A. Garber	Rep.	Harrisonburg.
8 R. Walton Moore*	Dem.	Fairfax.
9 Joseph C. Shaffer	Rep.	Roanoke.
10 H. St. George Tucker*	Dem.	Lexington.

Washington.

1 John F. Miller*	Rep.	Seattle.
2 Lindley H. Hadley*	Rep.	Bellingham.
3 Albert Johnson*	Rep.	Hoquiam.
4 John W. Summers*	Rep.	Walla Walla.
5 Sam B. Hill*	Dem.	Waterville.

West Virginia.

1 Carl G. Bachmann*	Rep.	Wheeling.
2 Frank L. Bowman*	Rep.	Morgantown.
3 John M. Wolverton	Rep.	Richwood.
4 James A. Hughes†	Rep.	Huntington.
5 Hugh Ike Shott	Rep.	Bluefield.
6 Joe L. Smith	Dem.	Beckley.

Wisconsin.

1 Henry Allen Cooper*	Rep.	Racine.
2 Charles A. Kading	Rep.	Sheboygan.
3 John M. Nelson*	Rep.	Madison.
4 John C. Shafer*	Rep.	Milwaukee.
5 William H. Stafford	Rep.	Milwaukee.
6 Florian Lampert*	Rep.	Oshkosh.
7 Merlin Hull	Rep.	Black River Falls.
8 Edward E. Browne*	Rep.	Waupaca.
9 George J. Schneider*	Rep.	Appleton.
10 James A. Frear*	Rep.	Hudson
11 Hubert H. Peavey*	Rep.	Washburn.

Wyoming.

Vincent Carter	Rep.	Kemmerer.

ALASKA—*Delegate.*

Dan A. Sutherland*	Rep.	Juneau.

HAWAII—*Delegate.*

Victor S. K. Houston*	Rep.	Honolulu.

PHILIPPINE ISLANDS—*Resident Commissioners.*

Pedro Guevara*	Natl.	Santa Cruz.
Camilo Osias	Natl.	Balacal.

Elected for a term of three years, ending 1932.

PORTO RICO—*Resident Commissioner.*

Felix Cordova Davilla	Union.	Manati.

Elected for a term of four years, from March 4, 1929

*Served in the 70th Congress. †Served in a previous Congress.

House of Representatives of the 71st Congress consists of 435 members. The composition of the House Dec. 3, 1929, is: Republicans 266; Democrats, 165; Farmer-Labor, 1; vacancies (Republican districts), 3.

POLITICAL DIVISIONS IN CONGRESS AT OPENING, 1855-1929.

Congress.	Senate.					House of Reps.				
	T.	R.	D.	I.	V.	T.	R.	D.	I.	V.
34th	62	15	42	5	...	234	108	83	43	...
35th	64	20	39	5	...	237	92	131	14	...
36th	66	26	38	2	...	237	113	101	23	...
37th	50	31	11	7	1	178	106	42	28	2
38th	51	39	12	...	...	183	103	80	...	...
39th	52	42	10	...	...	191	145	46	...	...
40th	53	42	11	...	...	193	143	49	...	1
41st	74	61	11	...	2	243	170	73	...	...
42d	74	57	17	...	...	243	139	104	...	...
43d	74	54	19	...	1	293	203	88	...	2
44th	66	46	29	...	1	293	107	181	3	2
45th	76	39	36	1	...	293	137	156	...	...
46th	76	33	43	...	...	293	128	150	14	1
47th	76	37	37	2	...	293	152	130	11	...
48th	76	40	36	...	...	325	119	200	6	...
49th	76	41	34	...	1	325	140	182	2	1
50th	76	39	37	...	...	325	151	170	4	...
51st	84	47	37	...	...	330	173	156	1	...
52d	88	47	39	2	...	333	88	231	14	...
53d	86	38	44	3	1	357	126	220	8	3
54th	86	42	39	5	...	357	246	104	7	...
55th	90	46	34	10	...	357	206	134	16	1
56th	90	53	26	11	...	357	185	163	9	...
57th	90	56	29	3	2	357	198	153	5	1
58th	90	58	32	...	...	386	207	178	...	1
59th	90	58	32	...	...	386	250	136	...	...
60th	92	61	29	...	2	386	222	164	...	...
61st	92	59	32	...	1	391	219	172	...	...
62d	92	49	42	...	1	391	162	228	1	...
63d	96	44	51	1	...	435	127	290	18	...
64th	96	39	56	1	...	435	193	231	8	3
65th	96	42	53	1	...	435	216	210	9	...
66th	96	48	47	1	...	435	237	191	7	...
67th	96	59	37	...	...	435	300	132	1	2
68th	96	51	43	2	...	435	225	207	3	...
69th	96	54	40	1	1	435	246	181	5	...
70th	96	48	47	1	...	435	237	195	3	...
71st	96	55	39	1	1	435	268	165	1	1

T.—Total. R.—Republican. D.—Democrat. I.—Independent. V.—Vacant.

INVISIBLE BALANCE OF TRADE OF THE UNITED STATES, 1927 AND 1928.

The estimated balances of international payments of the United States for the calendar years 1927 (revised) and 1928 as prepared by the United States Department of Commerce is here given. More items have been taken into consideration, so no comparison can be made with the figures for 1922-1925 printed in previous World Almanacs. The net debit balance for 1926 (revised) was estimated at $186,000,000.

The "invisible items" as prepared by Dr. Ray O. Hall, Assistant Chief of the Finance and Investment Division of the Department, are as follows:

Classes of International Transactions.	Cal. Year, 1927 (rev.).			Cal. Year, 1928.		
	Creds.	Debs.	Balance.	Creds.	Debs.	Balance.
			(*In Millions of Dollars.*)			
Commodity Trade:						
Merchandise exports and imports (as reported)	4,865	4,184	+681	5,129	4,091	+1,038
Silver	76	55	+21	87	68	+19
Bunker coal and oil sales to foreign vessels	60	29	+31	50	25	+25
Ship chandling, ship repairs, and tonnage dues	45	34	+11	45	34	+11
Sale of vessels	4	5	+1	3	3	.....
Unrecorded parcel-post shipments	22	22	.....	20	20	.....
Adjustments for differences in year-end lags	19	.....	+19	.....	55	−55
Other merchandise adjustments	.....	179	−179	.....	201	−201
Total commodity trade (as adjusted)	5,091	4,508	+583	5,334	4,497	+837
Miscellaneous Invisible Items:						
Freight payments and receipts:						
Oversea and Great Lakes traffic	125	149	−24	129	167	−38
Railway earnings on transit shipments	15	37	−22	14	40	−26
Foreign inland freight on U. S. imports	.....	20	−20	.....	20	−20
Tourist expenditures:						
Canada	83	199	−116	87	232	−145
Mexican border	6	32	−26	6	32	−26
Overseas (including West Indies)	74	465	391	75	518	−443
Ocean-borne pass. traffic (by "substitution") (*a*)	89	.....	+89	89	.....	+89
Earnings of long-term investments:						
Received from American investments abroad	743	.....	+743	817	.....	+817
Paid to foreign investors in the United States	.....	203	−203	.....	252	−252
Earnings of short-term interest and commissions:						
Collected from foreigners abroad	57	.....	+57	65	.....	+65
Paid to foreigners abroad	.....	78	−78	.....	107	−107
Immigrant remittances	35	241	−206	28	217	−189
War-debt receipts of U. S. Treasury:						
Interest	160	.....	+160	160	.....	+160
Principal	46	.....	+46	50	.....	+50
Other U. S. Gov. receipts, and payments, and foreign representations here	57	86	−29	53	110	−57
Missionary and charitable contributions, etc	.....	49	−49	.....	52	−52
Motion-picture royalties	75	4	+71	70	6	+64
Insurance transactions	80	70	+10	80	70	+10
Miscellaneous minor items:						
Imports of Canadian electric power	.....	5	−5	.....	3	−3
Foreign subscriptions to American press	5	3	+2	5	3	+2
Patents and copyright sales and royalties	15	15	.....	15	15	.....
American advertising abroad	2	10	−8	3	13	−10
Cablegrams, radiograms, and telephone services	22	18	+4	23	19	+4
Total commodity and miscellaneous items	6,780	6,192	+588	7,103	6,373	+730
Movement of Private Long-Term Capital:						
New American investments abroad:						
Foreign securities publicly offered here (at par)	.....	1,537	−1,537	.....	1,483	−1,483
Deduct for "refunding to Americans"	235	.....	+235	237	.....	+237
Deduct for American underwriters' commissions	63	.....	+63	59	.....	+59
Deduct for securities issued below par	56	.....	+56	63	.....	+63
Add new "direct invest." abroad by Americans	.....	257	−257	.....	378	−378
Add foreign stocks and bonds bought from foreigners in small lots (*b*)	.....	166	−166	.....	568	−568
Reductions of previou Amer. investments abroad:						
Bond-redemptions payments rec. from foreigners	200	.....	+200	260	.....	+260
Sinking-fund payments rec. from foreigners	104	.....	+104	101	.....	+101
Resale to foreigners of direct investments	51	.....	+51	50	.....	+50
Foreign stocks and bonds resold to foreigners	398	.....	+398	442	.....	+442
New foreign investments in the U. S.:						
Direct investments	28	.....	+28	70	.....	+70
American stocks and bonds sold to foreigners (*b*)	861	.....	+861	1,634	.....	+1,634
Reductions of previous foreign investments in U. S.:						
Redemption and sinking-fund pay's to foreigners	.....	70	−70	.....	70	−70
Purchase of American properties from foreigners	.....	.....	.....	.....	.....	.....
Amer. stocks, bonds bought back from foreigners	.....	661	−661	.....	1,153	−1,153
Total private, long-term capital items	1,996	2,691	(*d*) −695	2,916	3,652	(*c*) −736
Movement of short-term capital:						
Net change in international banking accounts, as revealed by questionnaire	.....	.....	.....	.....	226	−226
Pure Cash Items:						
Gold shipments	201	207	−6	561	169	+392
Changes in ear-marked gold	183	23	+160	68	188	−120
Total gold and currency	384	230	+154	629	357	+272
Grand total, all items	9,160	9,113	(*d*) +47	10,648	10,608	(*d*) +40

(*a*) Largely a deduction from American tourist expenditures.

(*d*) One of four important items whose amounts are extremely uncertain. It is supposable that most of the net discrepancy in the entire statement (arising from errors and omissions) results from errors in this group of items. Accordingly, the original estimates of these items were all altered according to a uniform ratio which would eliminate 60 per cent of the net discrepancy in the entire statement. Before the items were thus altered, the net discrepancies for the years 1927 and 1928 were respectively +118 and +101.

(*c*) Estimated net export of long-term private capital.

(*d*) Discrepancy, due to net errors and omissions.

GOVERNORS OF THE STATES AND TERRITORIES.

State.	Governor.	Yrs.	Expires.	State.	Governor.	Yrs.	Expires.
Ala.	Bibb Graves, D.	4	Jan., 1931	N. H.	Chas. W. Tobey, R.	2	Jan., 1931
Ariz.	John C. Phillips, R.	2	Jan., 1931	N. J.	Morgan F. Larson, R.	3	Jan., 1932
Ark.	Harvey Parnell, D.	2	Jan., 1931	N. M.	Richard C. Dillon, R.	2	Jan., 1931
Cal.	C. C. Young, R.	4	Jan., 1931	N. Y.	Franklin D. Roosevelt, D.	2	Jan., 1931
Col.	Wm. H. Adams, D.	2	Jan., 1931	N. C.	O. Max Gardner, D.	4	Jan., 1933
Conn.	John H. Trumbull, R.	2	Jan., 1931	N. D.	Geo. F. Shafer, R.	2	Jan., 1931
Del.	C. Douglass Buck, R.	4	Jan., 1933	Ohio.	Myers Y. Cooper, R.	2	Jan., 1931
Fla.	Doyle E. Carlton, D.	4	Jan., 1933	Okla.	W. J. Holloway, D.	4	Jan., 1931
Ga.	L. G. Hardman, D.	2	July, 1931	Ore.	I. L. Patterson, R.	4	Jan., 1931
Idaho.	H. C. Baldridge, R.	2	Jan., 1931	Pa.	John S. Fisher, R.	4	Jan., 1931
Ill.	Louis L. Emerson, R.	4	Jan., 1933	R. I.	Norman S. Case, R.	2	Jan., 1931
Ind.	Harry G. Leslie, R.	4	Jan., 1933	S. C.	John G. Richards, D.	4	Jan., 1931
Iowa.	John Hammill, R.	2	Jan., 1931	S. D.	Wm. J. Bulow, D.	2	Jan., 1933
Kan.	Clyde M. Reed R.	2	Jan., 1931	Tenn.	Henry H. Horton, D.	2	Jan., 1933
Ky.	Flem D. Sampson, R.	4	Dec., 1931	Tex.	Dan Moody, D.	2	Jan., 1933
La.	Huey P. Long, D.	4	May, 1932	Utah.	George H. Dern, D.	4	Jan., 1933
Me.	Wm. T. Gardiner, R.	2	Jan., 1931	Vt.	John E. Weeks, R.	2	Jan., 1931
Md.	Albert E. Ritchie, D.	4	Jan., 1931	Va.	John G. Pollard, D.	4	Jan., 1934
Mass.	Frank G. Allen, R.	2	Jan., 1931	Wash.	Roland H. Hartley, R.	4	Jan., 1933
Mich.	Fred W. Green, R.	2	Jan., 1931	W. Va.	William G. Conley, R.	4	Mar., 1933
Minn.	Theodore Christianson, R.	2	Jan., 1931	Wis.	Howard M. Gore, R.	2	Jan., 1931
Miss.	Theo. G. Bilbo, D.	4	Jan., 1932	Wyo.	Frank C. Emerson, R.	4	Jan., 1931
Mo.	Henry C. Caulfield, R.	4	Jan., 1933	Alaska	Geo. Alexander Parks, R.	4	June, 1933
Mont.	J. E. Erickson, D.	4	Jan., 1933	Hawaii.	Lawrence M. Judd, R.	4	Jun., 1933
Neb.	Arthur J. Weaver, R.	2	Jan., 1931	Philip. I.	Dwight F. Davis, R.	indef.	.....
Nev.	Frederick B. Balzar, R.	4	Jan., 1931	P. Rico.	Theo. Roosevelt, Jr., R.	indef.	.....

Henry S. Johnston, D., Governor of Okla., was removed from office, March 20, 1929.

POSTMASTERS OF PRINCIPAL U. S. CITIES, AS OF NOV. 1, 1929.

Post Office.	Postmaster.	Appointment.	Post Office.	Postmaster.	Appointment
Akron, Ohio.	Lloyd D. Cater.	Jan. 31, 1928	Miami, Fla.	Owen W. Pittman	July 2, 1926
Albany, N. Y.	P. S. Kling.	Dec. 11, 1926	Milwaukee, Wis.	P. F. Piasecki.	Jan. 29, 1927
Allentown, Pa.	Arthur J. Nagle.	Mar. 1, 1927	Nashville, Tenn.	Ollie F. Minton.	Jan. 11, 1929
Atlanta, Ga.	Edwin K. Large.	May 17, 1926	Newark, N. J.	Frank J. Bock.	Dec. 21, 1925
Atlantic City, N. J.	Alfred J. Perkins.	Feb. 9, 1927	New Haven, Conn.	C. W Birely.	July 3, 1926
Baltimore, Md.	B. F. Woelper, Jr.	Jan. 13, 1926	New Orleans, La.	Wm. L. S. Gordon	May 23, 1929
Battle Creek, Mich.	John C. Davis.	Jan. 9, 1928	New York, N. Y.	John J. Kiely.	Jan. 19, 1929
Binghamton, N. Y.	Henry B. Mulford	Jan. 16, 1928	Norfolk, Va.	Clinton L. Wright	Dec. 22, 1926
Birmingham, Ala.	John G. Bass.	Dec. 11, 1928	Oakland, Calif.	William N. Friend	May 26, 1928
Boston, Mass.	Charles R. Gow.	Dec. 11, 1929	Oklahoma C., Okla.	Wm. G. Johnston	Jan. 13, 1928
Bridgeport, Conn.	W. T. Meyer.	Feb. 4, 1928	Omaha, Neb.	J. D. Ringer.	Feb. 23, 1926
Brooklyn, N. Y.	A. B. W. Firmin.	Feb. 10, 1928	Pasadena, Calif.	William F. Knight	April 3, 1926
Buffalo, N. Y.	R. W. Gallagher.	Dec. 21, 1925	Paterson, N. J.	Henry C. Allen	Dec. 21, 1926
Camden, N. J.	Chas. H. Ellis.	Mar. 22, 1926	Peoria, Ill.	Byron C. Colborn	Sept. 5, 1922
Canton, Ohio.	Leonard T. Cool.	Feb. 4, 1927	Philadelphia, Pa.	Thos. McLeister	Aug. 31, 1929
Cedar Rapids, Iowa	Frank K. Hahn.	Dec. 16, 1926	Pittsburgh, Pa.	G. W. Gosser.	Dec. 21, 1925
Charleston, S. C.	E. H. Jennings.	Dec. 21, 1926	Portland, Me.	Chas. A. Robinson	Mar. 2, 1926
Charleston, W. Va.	M. R. Mathews.	May 3, 1929	Portland, Ore.	John M. Jones.	Jan. 8, 1926
Charlotte, N. C.	Judson D. Albright	Mar. 16, 1926	Providence, R. I.	W. A. Kilton.	Dec. 18, 1925
Chattanooga, Tenn.	W. J. Springfield.	Dec. 16, 1925	Racine, Wis.	George H. Herzog	Jan. 17, 1924
Chicago, Ill.	A. C. Lueder.	Feb. 1, 1924	Reading, Pa.	H. H. Hammer.	Dec. 16, 1926
Cincinnati, Ohio.	A. L. Behymer.	June 14, 1926	Richmond, Va.	J. W. Stewart.	Dec. 22, 1926
Cleveland, Ohio.	H. A. Taylor.	Jan. 28, 1927	Rochester, N. Y.	John B. Mullan.	Mar. 11, 1926
Columbus, Ohio.	James R. Green.	Dec. 7, 1928	Rockford, Ill.	Arthur L. Johnson	Mar. 24, 1926
Davenport, Iowa.	Charles S. Lewis.	Dec. 10, 1926	Sacramento, Calif.	Har. J. McCurry.	May 11, 1926
Dallas, Texas.	W.B. Luna, (act'g)	June 30, 1929	St. Joseph, Mo.	Elliot Marshall.	Jan. 31, 1928
Dayton, Ohio.	L. C. Weimer.	Mar. 3, 1927	St. Louis, Mo.	A. J. Michener.	Mar. 3, 1927
Denver, Colo.	Frank L. Dodge.	Mar. 22, 1926	St. Paul, Minn.	Charles J. Moos.	Jan. 21, 1926
Des Moines, Iowa.	Edwin J. Frisk.	Jan. 29, 1926	Salt Lake C., Utah.	John McPhee.	May 22, 1928
Detroit, Mich.	Chas. C. Kellogg.	Feb. 28, 1925	San Antonio, Tex.	Peter G. Lucas.	Feb. 15, 1926
Duluth, Minn.	Thomas Considine	May 8, 1928	San Diego, Calif.	Ernest W. Dort.	Jan. 21, 1926
Elizabeth, N. J.	Charles E. Bishop	May 14, 1928	San Francisco, Cal.	Harry L. Todd.	Dec. 20, 1928
El Paso, Texas.	Henry C. Kramp.	Jan. 25, 1927	Savannah, Ga.	Marion Lucas.	May 23, 1926
Erie, Pa.	Joseph A. Hanley.	Feb. 23, 1927	Schenectady, N. Y.	Edwin G. Conde.	Dec. 21, 1925
Evansville, Ind.	Charles G. Covert	Dec. 19, 1927	Scranton, Pa.	M. W. Lowry.	Aug. 23, 1922
Fall River, Mass.	G. de Tonnancour	Dec. 15, 1927	Seattle, Wash.	C. M. Perkins.	Jan. 10, 1928
Flint, Mich.	Eldon E. Baker.	May 14, 1926	Shreveport, La.	Clem S. Clarke.	Dec. 22, 1928
Flushing, N. Y.	John A. Rapelye	May 4, 1926	Sioux City, Iowa.	William H. Jones.	Dec. 18, 1925
Fort Wayne, Ind.	Harry W. Baals.	Dec. 21, 1926	South Bend, Ind.	John N. Hunter.	May 12, 1928
Fort Worth, Texas.	William N. Moore	Jan. 11, 1928	Spokane, Wash.	Thomas J. Smith.	Feb. 6, 1926
Gr. Rapids, Mich.	Aaron E. Davis.	Oct. 16, 1929	Springfield, Ill.	Wm. H. Conkling	Dec. 18, 1925
Harrisburg, Pa.	Charles E. Pass.	Feb. 1, 1926	Springfield, Mass.	James P. Smith.	Dec. 12, 1928
Hartford, Conn.	Hy. K. Taylor.	May 26, 1928	Springfield, Ohio.	Joseph M. Collins	Dec. 21, 1926
Honolulu, H. T.	J. Frank Woolley.	Mar. 3, 1926	Syracuse, N. Y.	James McLusky.	April 20, 1926
Houston, Tex.	Roy B. Nichols.	May 12, 1928	Tacoma, Wash.	Clyde J Backus.	Feb. 17, 1927
Indianapolis, Ind.	Robt. H. Bryson.	Dec. 19, 1927	Tampa, Fla.	Eliz. D. Barnard.	Jan. 15, 1927
Jacksonville, Fla.	Herbert E. Ross.	Dec. 22, 1926	Toledo, Ohio.	W. T. Huntsman.	Dec. 20, 1924
Jamaica, N. Y.	Lorenz D. Brown.	April 5, 1928	Topeka, Kan.	Rob't C. Caldwell	June 23, 1926
Jersey City, N. J.	J. Rotherham.	Jan. 15, 1927	Trenton, N. J.	Chas. H. Updike	Dec. 12, 1926
Kalamazoo, Mich.	Fred C. Putnam.	May 16, 1928	Troy, N. Y.	Wm. T. Wilmson	Feb. 24, 1927
Kansas City, Mo.	Wm. E. Morton.	Jan. 19, 1929	Tulsa, Okla.	James M. Adkison	Dec. 15, 1927
Knoxville, Tenn.	John J. Graham.	Jan. 4, 1928	Utica, N. Y.	Wm. M. Philleo.	Dec. 21, 1925
Lancaster, Pa.	C. H. Stormfeltz.	July 3, 1926	Warren, Pa.	Karl M. Lyons.	Jan. 10, 1928
Lansing, Mich.	Walter G. Rogers.	Dec. 14, 1926	Washington, D. C.	W. M. Mooney.	Jan. 10, 1928
Lincoln, Nebr.	T. E. Gillaspie.	May 29, 1928	Waterbury, Conn.	Al. N. Colgrove.	Jan. 15, 1929
Little Rock, Ark.	Jas. A. Ginocchio.	Jan. 13, 1926	Waterloo, Iowa.	Glenn A. Tibbitts	Nov. 1, 1929
Long Beach, Calif.	F. W. McCullah.	Jan. 29, 1927	Wheeling, W. Va.	Fred E. Cowl.	Feb. 25, 1929
Long Is. C., N. Y.	Henry Strube.	Jan. 10, 1928	Wichita, Kan.	Stew. M. Young.	Dec. 14, 1925
Los Angeles, Calif.	Patrick P. O'Brien	Feb. 27, 1926	Wilkes-Barre, Pa.	Wm. E. Newhart	Aug. 31, 1929
Louisville, Ky.	Wm. E. Robinson	May 8, 1929	Wilmington, Del.	Alex. R. Abraham	Dec. 10, 1928
Lynn, Mass.	H. S. Cummings.	Mar. 2, 1926	Worcester, Mass.	James F. Healey.	Jan. 29, 1927
Madison, Wis.	Wm. A. Devine.	Jan. 5, 1928	Yonkers, N. Y.	Albert C. Bogert.	April 2, 1928
Memphis, Tenn.	Edward V. Sheely	Feb. 28, 1929	Youngstown, Ohio.	B. E. Westwood.	Mar. 27, 1926

Astronomical Calculations for 1930.

The Astronomical Calculations are given in local Mean Time, except as otherwise indicated, and were made expressly for The World Almanac by Henry B. Hedrick, Ph.D., Washington, D. C.

(Time after noon is indicated by **black-face** type.)

CALENDAR FOR 1930.

	Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
Jan.				1	2	3	4
	5	6	7	8	9	10	11
	12	13	14	15	16	17	18
	19	20	21	22	23	24	25
	26	27	28	29	30	31	
Feb.							1
	2	3	4	5	6	7	8
	9	10	11	12	13	14	15
	16	17	18	19	20	21	22
	23	24	25	26	27	28	
March							1
	2	3	4	5	6	7	8
	9	10	11	12	13	14	15
	16	17	18	19	20	21	22
	23	24	25	26	27	28	29
	30	31					

	Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
April			1	2	3	4	5
	6	7	8	9	10	11	12
	13	14	15	16	17	18	19
	20	21	22	23	24	25	26
	27	28	29	30			
May					1	2	3
	4	5	6	7	8	9	10
	11	12	13	14	15	16	17
	18	19	20	21	22	23	24
	25	26	27	28	29	30	31
June	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30					

	Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
July			1	2	3	4	5
	6	7	8	9	10	11	12
	13	14	15	16	17	18	19
	20	21	22	23	24	25	26
	27	28	29	30	31		
Aug.						1	2
	3	4	5	6	7	8	9
	10	11	12	13	14	15	16
	17	18	19	20	21	22	23
	24	25	26	27	28	29	30
	31						
Sept.		1	2	3	4	5	6
	7	8	9	10	11	12	13
	14	15	16	17	18	19	20
	21	22	23	24	25	26	27
	28	29	30				

	Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
Oct.				1	2	3	4
	5	6	7	8	9	10	11
	12	13	14	15	16	17	18
	19	20	21	22	23	24	25
	26	27	28	29	30	31	
Nov.							1
	2	3	4	5	6	7	8
	9	10	11	12	13	14	15
	16	17	18	19	20	21	22
	23	24	25	26	27	28	29
	30						
Dec.		1	2	3	4	5	6
	7	8	9	10	11	12	13
	14	15	16	17	18	19	20
	21	22	23	24	25	26	27
	28	29	30	31			

CALENDAR FOR 1929.

	Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
Jan.			1	2	3	4	5
	6	7	8	9	10	11	12
	13	14	15	16	17	18	19
	20	21	22	23	24	25	26
	27	28	29	30	31		
Feb.						1	2
	3	4	5	6	7	8	9
	10	11	12	13	14	15	16
	17	18	19	20	21	22	23
	24	25	26	27	28		
March						1	2
	3	4	5	6	7	8	9
	10	11	12	13	14	15	16
	17	18	19	20	21	22	23
	24	25	26	27	28	29	30
	31						

	Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
April		1	2	3	4	5	6
	7	8	9	10	11	12	13
	14	15	16	17	18	19	20
	21	22	23	24	25	26	27
	28	29	30				
May				1	2	3	4
	5	6	7	8	9	10	11
	12	13	14	15	16	17	18
	19	20	21	22	23	24	25
	26	27	28	29	30	31	
June							1
	2	3	4	5	6	7	8
	9	10	11	12	13	14	15
	16	17	18	19	20	21	22
	23	24	25	26	27	28	29
	30						

	Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
July		1	2	3	4	5	6
	7	8	9	10	11	12	13
	14	15	16	17	18	19	20
	21	22	23	24	25	26	27
	28	29	30	31			
Aug.					1	2	3
	4	5	6	7	8	9	10
	11	12	13	14	15	16	17
	18	19	20	21	22	23	24
	25	26	27	28	29	30	31
Sept.	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30					

	Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
Oct.			1	2	3	4	5
	6	7	8	9	10	11	12
	13	14	15	16	17	18	19
	20	21	22	23	24	25	26
	27	28	29	30	31		
Nov.						1	2
	3	4	5	6	7	8	9
	10	11	12	13	14	15	16
	17	18	19	20	21	22	23
	24	25	26	27	28	29	30
Dec.	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30	31				

CALENDAR FOR 1931.

	Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
Jan.					1	2	3
	4	5	6	7	8	9	10
	11	12	13	14	15	16	17
	18	19	20	21	22	23	24
	25	26	27	28	29	30	31
Feb.	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
March	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30	31				

	Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
April				1	2	3	4
	5	6	7	8	9	10	11
	12	13	14	15	16	17	18
	19	20	21	22	23	24	25
	26	27	28	29	30		
May						1	2
	3	4	5	6	7	8	9
	10	11	12	13	14	15	16
	17	18	19	20	21	22	23
	24	25	26	27	28	29	30
	31						
June		1	2	3	4	5	6
	7	8	9	10	11	12	13
	14	15	16	17	18	19	20
	21	22	23	24	25	26	27
	28	29	30				

	Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
July				1	2	3	4
	5	6	7	8	9	10	11
	12	13	14	15	16	17	18
	19	20	21	22	23	24	25
	26	27	28	29	30	31	
Aug.							1
	2	3	4	5	6	7	8
	9	10	11	12	13	14	15
	16	17	18	19	20	21	22
	23	24	25	26	27	28	29
	30	31					
Sept.			1	2	3	4	5
	6	7	8	9	10	11	12
	13	14	15	16	17	18	19
	20	21	22	23	24	25	26
	27	28	29	30			

	Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
Oct.					1	2	3
	4	5	6	7	8	9	10
	11	12	13	14	15	16	17
	18	19	20	21	22	23	24
	25	26	27	28	29	30	31
Nov.	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30					
Dec.			1	2	3	4	5
	6	7	8	9	10	11	12
	13	14	15	16	17	18	19
	20	21	22	23	24	25	26
	27	28	29	30	31		

THE SEASONS.

In the temperate zones, these are four in number: Spring, Summer, Autumn and Winter; beginning respectively at the vernal equinox, the summer solstice, the autumnal equinox and the winter solstice; for which, in the north temperate zone, the approximate dates are March 21, June 21, September 23, and December 21.

In the south temperate zone, the vernal equinox or the beginning of Spring is September 23, the summer solstice or the beginning of summer is December 21, and so on.

The earth's axis continually points in the same direction, and if the axis were perpendicular to the plane of the earth's orbit around the sun there would be no change of seasons. Day and night would everywhere be of equal length and equable conditions of temperature would prevail.

But the axis is tilted 23° 27′ away from a perpendicular to the orbit, and only in March and September is the axis at right angles to the direction of the sun.

In those months occur the equinoxes, when day and night are equal the world over.

In June, the North Pole is tilted 23° 27′ toward the sun and the days in the northern hemisphere are longer than the nights; at the same time, the days in the southern hemisphere are shorter than the nights.

In December the North Pole is tilted 23° 27′ away from the sun, and the nights in the northern hemisphere are longer than the days; at the same time the nights in the southern hemisphere are shorter than the days.

The heating influence of the sun increases with the length of the day and with the sun's altitude at noon. The greatest daily accession of heat is, therefore, at the time of the summer solstice.

In June, in the north temperate zone, the heat received by day far exceeds the loss through radiation by night, and it is not until July or August that the two become equal and the maximum temperature of the year is experienced.

In December, the heat received by day fails to make good the loss by night, and it is not until January or February that gain and loss become equal and the thermometer ceases to show a downward tendency.

The seasons in 1930 (Eastern Standard Time) begin as follows: Vernal Equinox (Spring) March 21, 3.30; Summer Solstice (Summer) June 21, 10.54; Autumnal Equinox (Autumn) September 23, 1.37; Winter Solstice (Winter) December 22, 8.40.

1st Month. **JANUARY.** **31 Days.**

(Local Mean Time. A. M., light figures; P. M., black.)
To obtain Standard time see directions on page 63

Day of the Month	Day of the Week	Calendar for Boston, New England, N. Y. State, Michigan, Wisconsin, N. and S. Dakota, Washington, and Oregon.			Calendar for New York City, Connecticut, Pennsylvania, Ohio, Indiana, Illinois, Iowa, Nebraska, Wyoming, and Northern California.			Calendar for Washington, Virginia, Kentucky, Missouri, Kansas, Colorado, Utah, Nevada, and Central California.			Calendar for Charleston, Georgia, Alabama, Louisiana, Arkansas, Texas, New Mexico, Arizona, and Southern California.		
		Sun Rises.	*Sun Sets.*	*Moon R. & S.*	*Sun Rises.*	*Sun Sets.*	*Moon R. & S.*	*Sun Rises.*	*Sun Sets.*	*Moon R. & S.*	*Sun Rises.*	*Sun Sets.*	*Moon R. & S.*
		H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H M.	H. M.	H. M.	H. M.	H. M	H. M.
1	W	7 30	4 37	6 0	7 25	4 42	6 7	7 19	4 48	6 13	7 2	5 5	6 34
2	Th	7 30	4 38	7 3	7 25	4 43	7 9	7 19	4 49	7 14	7 2	5 6	7 31
3	Fr	7 30	4 39	8 7	7 25	4 44	8 11	7 19	4 50	8 15	7 2	5 6	8 29
4	Sa	7 30	4 40	9 10	7 25	4 45	9 13	7 19	4 51	9 16	7 3	5 7	9 25
5	S	7 30	4 40	10 13	7 25	4 45	10 14	7 19	4 51	10 16	7 3	5 8	10 22
6	M	7 30	4 41	11 16	7 25	4 46	11 17	7 19	4 52	11 18	7 3	5 9	11 19
7	Tu	7 30	4 42	. . .	7 25	4 47	. . .	7 19	4 53	. . .	7 3	5 10	. . .
8	W	7 30	4 43	12 21	7 25	4 48	12 20	7 19	4 54	12 20	7 3	5 10	12 16
9	Th	7 30	4 44	1 29	7 25	4 49	1 28	7 19	4 55	1 26	7 3	5 11	1 17
10	Fr	7 30	4 45	2 42	7 25	4 50	2 39	7 19	4 56	2 36	7 3	5 12	2 23
11	Sa	7 29	4 46	3 59	7 25	4 51	3 53	7 19	4 57	3 49	7 3	5 13	3 32
12	S	7 29	4 47	5 16	7 25	4 52	5 10	7 19	4 58	5 5	7 3	5 14	4 43
13	M	7 28	4 48	6 30	7 24	4 53	6 23	7 18	4 59	6 18	7 3	5 14	5 55
14	Tu	7 28	4 50	rises.	7 24	4 54	rises.	7 18	5 0	rises.	7 3	5 15	rises.
15	W	7 28	4 51	5 47	7 24	4 56	5 52	7 18	5 2	5 59	7 3	5 16	6 18
16	Th	7 27	4 52	7 9	7 23	4 57	7 14	7 17	5 3	7 16	7 3	5 17	7 29
17	Fr	7 27	4 53	8 29	7 23	4 58	8 32	7 17	5 4	8 35	7 2	5 18	8 45
18	Sa	7 26	4 54	9 45	7 22	4 59	9 46	7 16	5 5	9 48	7 2	5 19	9 52
19	S	7 26	4 56	10 57	7 22	5 0	10 57	7 16	5 6	10 57	7 2	5 20	10 56
20	M	7 25	4 57	. . .	7 21	5 1	. . .	7 15	5 7	. . .	7 2	5 21	11 58
21	Tu	7 25	4 58	12 7	7 21	5 2	12 5	7 15	5 8	12 4	7 1	5 22	. . .
22	W	7 24	5 0	1 15	7 20	5 3	1 12	7 14	5 10	1 10	7 1	5 23	12 59
23	Th	7 23	5 1	2 22	7 20	5 5	2 17	7 14	5 11	2 14	7 0	5 24	1 59
24	Fr	7 22	5 2	3 28	7 19	5 6	3 22	7 13	5 12	3 18	7 0	5 25	2 59
25	Sa	7 21	5 3	4 31	7 18	5 7	4 25	7 13	5 13	4 20	6 59	5 26	3 58
26	S	7 20	5 5	5 30	7 17	5 8	5 22	7 12	5 14	5 17	6 59	5 27	4 54
27	M	7 20	5 6	6 21	7 17	5 10	6 13	7 12	5 15	6 8	6 58	5 28	5 45
28	Tu	7 19	5 7	7 5	7 16	5 11	6 58	7 11	5 17	6 53	6 58	5 29	6 31
29	W	7 18	5 9	sets.	7 15	5 12	sets.	7 10	5 18	sets.	6 57	5 30	sets.
30	Th	7 17	5 10	5 58	7 14	5 13	6 3	7 9	5 19	6 8	6 57	5 31	6 23
31	Fr	7 16	5 11	7 2	7 13	5 15	7 6	7 8	5 20	7 9	6 56	5 32	7 20

SUN ON MERIDIAN OF WASHINGTON.

Day of Month.	H.	M.	S.	Day of Month.	H.	M.	S.	Day of Month.	H.	M.	S.	Day of Month.	H.	M.	S.	Day of Month.	H.	M.	S.
1	12	3	34	8	12	6	44	14	12	9	6	20	12	11	5	26	12	12	38
2	12	4	2	9	12	7	9	15	12	9	28	21	12	11	22	27	12	12	50
3	12	4	30	10	12	7	34	16	12	9	48	22	12	11	39	28	12	13	2
4	12	4	58	11	12	7	58	17	12	10	9	23	12	11	55	29	12	13	13
5	12	5	25	12	12	8	21	18	12	10	28	24	12	12	10	30	12	13	24
6	12	5	52	13	12	8	44	19	12	10	47	25	12	12	24	31	12	13	33
7	12	6	18																

TWILIGHT.

Places.	Jan.	Begins	Ends	Jan.	Begins	Ends	Jan.	Begins	Ends
		H. M.	H. M.		H. M.	H. M.		H. M.	H. M.
Boston	1	5 48	6 19	11	5 48	6 28	21	5 45	6 38
New York	1	5 46	6 21	11	5 46	6 30	21	5 44	6 39
Wash'ton	1	5 44	6 24	11	5 44	6 32	21	5 42	6 41
Charleston	1	5 34	6 34	11	5 36	6 40	21	5 35	6 48

MOON'S PHASES (EASTERN STANDARD TIME).

	D.	H.	M.		D.	H.	M.
First Quarter	7	10		Last Quarter	21	11	
Full Moon	14	5	21	New Moon	29	2	7

Morning Stars—Venus, Mars, Saturn.

Evening Stars—Mercury, Jupiter.

2d Month. **FEBRUARY.** 28 Days.

(Local Mean Time. A. M., light figures; P. M., black.)
To obtain Standard time see directions on page 63

Day of the Month.	Day of the Week.	Calendar for Boston, New England, N. Y. State, Michigan, Wisconsin, N. and S. Dakota, Washington, and Oregon.			Calendar for New York City, Connecticut, Pennsylvania, Ohio, Indiana, Illinois, Iowa, Nebraska, Wyoming, and Northern California.			Calendar for Washington, Virginia, Kentucky, Missouri, Kansas, Colorado, Utah, Nevada, and Central California.			Calendar for Charleston, Georgia, Alabama, Louisiana, Arkansas, Texas, New Mexico, Arizona, and Southern California.		
		Sun Rises.	*Sun Sets.*	*Moon R. & S.*	*Sun Rises.*	*Sun Sets.*	*Moon R. & S.*	*Sun Rises.*	*Sun Sets.*	*Moon R. & S.*	*Sun Rises.*	*Sun Sets.*	*Moon. R. & S.*
		H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M
1	Sa	7 15	5 12	8 6	7 12	5 16	8 8	7 8	5 20	8 10	6 55	5 33	8 16
2	S	7 14	5 14	9 9	7 11	5 18	9 10	7 7	5 22	9 11	6 54	5 34	9 12
3	M	7 13	5 15	10 12	7 10	5 19	10 12	7 6	5 23	10 13	6 54	5 34	10 9
4	Tu	7 12	5 16	11 19	7 9	5 20	11 17	7 5	5 24	11 15	6 53	5 35	11 9
5	W	7 11	5 18	.. ..	7 8	5 21	.. ..	7 4	5 25	.. ..	6 52	5 36	.. ..
6	Th	7 10	5 19	12 27	7 7	5 22	12 24	7 3	5 26	12 22	6 52	5 37	12 10
7	Fr	7 9	5 20	1 40	7 6	5 24	1 35	7 2	5 28	1 31	6 51	5 38	1 15
8	Sa	7 7	5 22	2 54	7 4	5 25	2 48	7 1	5 29	2 43	6 50	5 39	2 24
9	S	7 6	5 23	4 7	7 3	5 26	4 0	7 0	5 30	3 55	6 49	5 40	3 33
10	M	7 5	5 24	5 15	7 2	5 27	5 8	6 59	5 31	5 3	6 48	5 40	4 40
11	Tu	7 4	5 25	6 13	7 1	5 28	6 6	6 58	5 32	6 1	6 47	5 41	5 39
12	W	7 2	5 26	6 58	7 0	5 30	6 53	6 57	5 33	6 48	6 46	5 42	6 30
13	Th	7 1	5 28	rises.	6 58	5 31	rises.	6 56	5 34	rises.	6 46	5 43	rises.
14	Fr	7 0	5 29	7 18	6 57	5 32	7 21	6 54	5 35	7 23	6 45	5 44	7 30
15	Sa	6 58	5 31	8 26	6 56	5 33	8 36	6 53	5 36	8 36	6 44	5 45	8 38
16	S	6 57	5 32	9 48	6 54	5 34	9 47	6 52	5 37	9 47	6 43	5 46	9 42
17	M	6 56	5 33	11 0	6 53	5 36	10 57	6 51	5 38	10 56	6 42	5 47	10 45
18	Tu	6 54	5 34	.. ..	6 52	5 37	.. ..	6 49	5 39	.. ..	6 41	5 48	11 49
19	W	6 53	5 36	12 10	6 50	5 38	12 6	6 48	5 41	12 2	6 40	5 49	.. ..
20	Th	6 52	5 37	1 18	6 49	5 40	1 13	6 47	5 42	1 8	6 39	5 50	12 51
21	Fr	6 50	5 38	2 23	6 47	5 41	2 17	6 45	5 43	2 12	6 38	5 50	1 51
22	Sa	6 49	5 40	3 24	6 46	5 42	3 17	6 44	5 44	3 11	6 37	5 51	2 48
23	S	6 47	5 41	4 19	6 45	5 43	4 11	6 43	5 45	4 6	6 36	5 52	3 41
24	M	6 46	5 42	5 4	6 43	5 44	4 57	6 41	5 46	4 52	6 34	5 53	4 29
25	Tu	6 44	5 44	5 42	6 42	5 46	5 36	6 40	5 48	5 31	6 33	5 53	5 11
26	W	6 42	5 45	6 14	6 40	5 47	6 8	6 38	5 49	6 4	6 32	5 54	5 47
27	Th	6 41	5 46	6 40	6 39	5 48	6 36	6 37	5 50	6 33	6 31	5 55	6 20
28	Fr	6 39	5 47	sets.	6 37	5 49	sets.	6 35	5 51	sets.	6 30	5 56	sets.
..	..	..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..	..	..	..	..

SUN ON MERIDIAN OF WASHINGTON.

Day of Month.	H.	M.	S.	Day of Month.	H.	M.	S.	Day of Month.	H.	M.	S.	Day of Month.	H.	M.	S.	Day of Month.	H.	M.	S.
1	12	13	42	7	12	14	16	13	12	14	21	19	12	13	59	25	12	13	14
2	12	13	50	8	12	14	19	14	12	14	19	20	12	13	53	26	12	13	4
3	12	13	57	9	12	14	21	15	12	14	17	21	12	13	47	27	12	12	54
4	12	14	3	10	12	14	22	16	12	14	13	22	12	13	39	28	12	12	43
5	12	14	8	11	12	14	23	17	12	14	9	23	12	13	31				
6	12	14	13	12	12	14	22	18	12	14	5	24	12	13	23				

TWILIGHT.

Place.	Feb.	Begins	Ends	Feb.	Begins	Ends	Feb.	Begins	Ends
		H. M.	H. M.		H. M.	H. M.		H. M.	H. M.
Boston	1	5 39	6 49	11	5 29	7 1	21	5 16	7 13
New York	1	5 37	6 50	11	5 28	7 2	21	5 16	7 13
Wash'ton	1	5 36	6 51	11	5 28	7 2	21	5 16	7 13
Charleston	1	5 31	6 56	11	5 24	7 5	21	5 15	7 13

MOON'S PHASES (EASTERN STANDARD TIME).

First Quarter	6	*D.*	12	*H.*	26	*M.*
Full Moon	13		3		39	
Last Quarter	20	*D.*	3	*H.*	44	*M.*
New Moon	28		8		33	

Morning Stars—Mercury, Mars, Saturn. Evening Stars—Venus, Jupiter.

3d Month. **MARCH.** 31 Days.

(Local Mean Time. A. M., light figures; P. M., black.)
To obtain Standard time see directions on page 63

Day of the Month.	Day of the Week.	Calendar for Boston, New England, N. Y. State, Michigan, Wisconsin, N. and S. Dakota, Washington, and Oregon.			Calendar for New York City, Connecticut, Pennsylvania, Ohio, Indiana, Illinois, Iowa, Nebraska, Wyoming, and Northern California.			Calendar for Washington, Virginia, Kentucky, Missouri, Kansas, Colorado, Utah, Nevada, and Central California.			Calendar for Charleston, Georgia, Alabama, Louisiana, Arkansas, Texas, New Mexico, Arizona, and Southern California.		
		Sun Rises.	*Sun Sets.*	*Moon R. & S.*	*Sun Rises.*	*Sun Sets.*	*Moon R. & S.*	*Sun Rises.*	*Sun Sets.*	*Moon R. & S.*	*Sun Rises.*	*Sun Sets.*	*Moon R. & S.*
		H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.
1	Sa	6 38	5 48	7 1	6 36	5 50	7 2	6 34	5 52	7 4	6 29	5 57	7 7
2	S	6 36	5 50	8 5	6 34	5 51	8 5	6 32	5 53	8 6	6 28	5 58	8 5
3	M	6 34	5 51	9 11	6 33	5 52	9 10	6 31	5 54	9 8	6 26	5 58	9 3
4	Tu	6 32	5 52	10 19	6 31	5 53	10 16	6 30	5 55	10 15	6 25	5 59	10 3
5	W	6 31	5 53	11 29	6 30	5 54	11 26	6 28	5 56	11 22	6 24	5 59	11 8
6	Th	6 29	5 55	. . .	6 28	5 55	. . .	6 26	5 57	. . .	6 23	6 0	. . .
7	Fr	6 27	5 56	12 42	6 27	5 57	12 37	6 25	5 58	12 32	6 22	6 1	12 13
8	Sa	6 26	5 57	1 55	6 25	5 58	1 48	6 24	5 59	1 43	6 20	6 2	1 20
9	S	6 24	5 58	3 3	6 23	5 59	2 56	6 22	6 0	2 50	6 19	6 3	2 26
10	M	6 22	6 0	4 2	6 22	6 0	3 55	6 21	6 1	3 49	6 18	6 4	3 26
11	Tu	6 21	6 1	4 50	6 20	6 2	4 44	6 19	6 2	4 39	6 17	6 4	4 20
12	W	6 19	6 2	5 30	6 18	6 3	5 24	6 18	6 3	5 21	6 16	6 5	5 5
13	Th	6 17	6 3	6 1	6 16	6 4	5 57	6 16	6 4	5 55	6 14	6 6	5 44
14	Fr	6 16	6 4	rises.	6 15	6 5	rises.	6 15	6 5	rises.	6 13	6 7	rises.
15	Sa	6 14	6 6	7 22	6 13	6 6	7 22	6 13	6 6	7 22	6 12	6 8	7 21
16	S	6 12	6 7	8 37	6 12	6 7	8 35	6 12	6 7	8 33	6 10	6 8	8 27
17	M	6 10	6 8	9 49	6 10	6 8	9 46	6 10	6 8	9 43	6 9	6 9	9 31
18	Tu	6 8	6 9	11 1	6 8	6 9	10 56	6 8	6 9	10 53	6 8	6 10	10 35
19	W	6 7	6 10	. . .	6 7	6 10	. . .	6 7	6 10	11 59	6 6	6 10	11 39
20	Th	6 5	6 11	12 9	6 5	6 11	12 4	6 5	6 11	. . .	6 5	6 11	. . .
21	Fr	6 3	6 12	1 14	6 4	6 12	1 7	6 4	6 12	1 2	6 4	6 12	12 39
22	Sa	6 2	6 13	2 12	6 2	6 13	2 4	6 2	6 13	1 59	6 2	6 13	1 35
23	S	6 0	6 14	3 2	6 0	6 14	2 54	6 0	6 14	2 49	6 1	6 13	2 25
24	M	5 58	6 16	3 42	5 59	6 15	3 36	5 59	6 15	3 31	6 0	6 14	3 9
25	Tu	5 57	6 17	4 16	5 57	6 16	4 11	5 57	6 16	4 6	5 59	6 15	3 48
26	W	5 55	6 18	4 44	5 55	6 17	4 39	5 55	6 17	4 36	5 58	6 16	4 21
27	Th	5 53	6 19	5 7	5 54	6 18	5 4	5 54	6 18	5 1	5 56	6 16	4 51
28	Fr	5 51	6 20	5 28	5 52	6 19	5 26	5 52	6 19	5 25	5 55	6 17	5 18
29	Sa	5 49	6 22	5 48	5 50	6 20	5 47	5 50	6 20	5 47	5 53	6 17	5 45
30	S	5 48	6 23	sets.	5 48	6 22	sets.	5 49	6 21	sets.	5 52	6 18	sets.
31	M	5 46	6 24	8 9	5 46	6 23	8 7	5 48	6 22	8 6	5 51	6 19	7 57

SUN ON MERIDIAN OF WASHINGTON.

Day of Month.	H.	M.	S.	Day of Month.	H.	M.	S.	Day of Month.	H.	M.	S.	Day of Month.	H.	M.	S.	Day of Month.	H.	M.	S.
1	12	12	32	8	12	10	59	14	12	9	24	20	12	7	39	26	12	5	50
2	12	12	20	9	12	10	44	15	12	9	7	21	12	7	21	27	12	5	32
3	12	12	8	10	12	10	29	16	12	8	50	22	12	7	3	28	12	5	14
4	12	11	55	11	12	10	13	17	12	8	32	23	12	6	45	29	12	4	55
5	12	11	41	12	12	9	57	18	12	8	15	24	12	6	27	30	12	4	37
6	12	11	28	13	12	9	40	19	12	7	57	25	12	6	8	31	12	4	19
7	12	11	14																

TWILIGHT.

Places.	Mar.	Begins	Ends	Mar.	Begins	Ends	Mar.	Begins	Ends
		H. M.	H. M.		H. M.	H. M.		H. M.	H. M.
Boston	1	5 4	7 23	11	4 46	7 35	21	4 28	7 48
New York	1	5 5	7 22	11	4 48	7 33	21	4 32	7 46
Wash'ton	1	5 6	7 21	11	4 50	7 31	21	4 34	7 43
Charleston	1	5 7	7 19	11	4 55	7 27	21	4 42	7 34

MOON'S PHASES (EASTERN STANDARD TIME).

	D.	H.	M.		D.	H.	M.
First Quarter	7	11	0	Last Quarter	21	10	13
Full Moon	14	1	58	New Moon	30	12	46

Morning Stars—Mercury, Mars, Saturn.

Evening Stars—Venus, Jupiter.

4th Month. **APRIL.** 30 Days.

(Local Mean Time. A. M., light figures; P. M., black.)
To obtain Standard time see directions on page 63.

Day of the Month.	Day of the Week.	Calendar for Boston, New England, N. Y. State, Michigan, Wisconsin, N. and S. Dakota, Washington, and Oregon.			Calendar for New York City, Connecticut, Pennsylvania, Ohio, Indiana, Illinois, Iowa, Nebraska, Wyoming, and Northern California.			Calendar for Washington, Virginia, Kentucky, Missouri, Kansas, Colorado, Utah, Nevada, and Central California.			Calendar for Charleston, Georgia, Alabama, Louisiana, Arkansas, Texas, New Mexico, Arizona, and Southern California.		
		Sun Rises.	*Sun Sets.*	*Moon R. & S.*	*Sun Rises.*	*Sun Sets.*	*Moon R. & S.*	*Sun Rises.*	*Sun Sets.*	*Moon R. & S.*	*Sun Rises.*	*Sun Sets.*	*Moon R. & S.*
		H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.
1	Tu	5 44	6 25	9 21	5 45	6 24	9 17	5 46	6 22	9 13	5 49	6 19	9 0
2	W	5 42	6 26	10 34	5 43	6 25	10 28	5 45	6 23	10 24	5 48	6 20	10 6
3	Th	5 40	6 27	11 46	5 41	6 26	11 40	5 43	6 24	11 35	5 47	6 21	11 14
4	Fr	5 39	6 28	. . .	5 40	6 27	. . .	5 42	6 25	. . .	5 45	6 22	. . .
5	Sa	5 37	6 30	12 57	5 38	6 28	12 49	5 40	6 26	12 44	5 44	6 23	12 20
6	S	5 35	6 31	1 58	5 37	6 29	1 50	5 39	6 27	1 45	5 43	6 23	1 20
7	M	5 33	6 32	2 48	5 35	6 30	2 42	5 37	6 28	2 37	5 42	6 24	2 15
8	Tu	5 31	6 33	3 29	5 33	6 31	3 24	5 35	6 29	3 19	5 40	6 24	3 1
9	W	5 30	6 34	4 1	5 32	6 32	3 57	5 34	6 30	3 54	5 39	6 25	3 41
10	Th	5 28	6 35	4 28	5 30	6 33	4 25	5 32	6 31	4 24	5 38	6 26	4 16
11	Fr	5 27	6 36	4 52	5 29	6 34	4 51	5 31	6 32	4 50	5 37	6 26	4 48
12	Sa	5 25	6 37	5 15	5 27	6 35	5 15	5 29	6 33	5 16	5 36	6 27	5 18
13	S	5 23	6 38	rises.	5 26	6 36	rises.	5 28	6 34	rises.	5 34	6 28	rises.
14	M	5 22	6 40	8 38	5 24	6 38	8 34	5 26	6 35	8 31	5 33	6 28	8 18
15	Tu	5 20	6 41	9 50	5 22	6 39	9 44	5 25	6 36	9 40	5 32	6 29	9 22
16	W	5 18	6 42	10 58	5 21	6 40	10 52	5 23	6 37	10 47	5 31	6 30	10 24
17	Th	5 17	6 43	. . .	5 19	6 41	11 53	5 22	6 38	11 48	5 30	6 30	11 23
18	Fr	5 15	6 44	12 1	5 18	6 42	. . .	5 20	6 39	. . .	5 28	6 31	. . .
19	Sa	5 14	6 45	12 55	5 16	6 43	12 47	5 19	6 40	12 41	5 27	6 32	12 17
20	S	5 12	6 46	1 40	5 14	6 44	1 32	5 18	6 41	1 27	5 26	6 33	1 4
21	M	5 11	6 48	2 16	5 13	6 46	2 10	5 16	6 42	2 5	5 25	6 33	1 45
22	Tu	5 9	6 49	2 46	5 11	6 47	2 41	5 15	6 43	2 37	5 24	6 34	2 21
23	W	5 7	6 50	3 11	5 10	6 48	3 7	5 13	6 44	3 4	5 23	6 35	2 51
24	Th	5 6	6 51	3 32	5 8	6 49	3 30	5 12	6 45	3 28	5 22	6 36	3 20
25	Fr	5 4	6 52	3 52	5 7	6 50	3 51	5 11	6 46	3 50	5 20	6 36	3 46
26	Sa	5 3	6 53	4 11	5 6	6 51	4 12	5 10	6 47	4 12	5 19	6 37	4 12
27	S	5 1	6 55	4 32	5 4	6 52	4 34	5 8	6 48	4 35	5 18	6 38	4 39
28	M	5 0	6 56	sets.	5 3	6 53	sets.	5 7	6 49	sets.	5 17	6 39	sets.
29	Tu	4 59	6 57	8 19	5 2	6 54	8 14	5 5	6 50	8 11	5 16	6 39	7 55
30	W	4 57	6 58	9 35	5 0	6 55	9 29	5 4	6 51	9 24	5 15	6 40	9 4
..	..	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .

SUN ON MERIDIAN OF WASHINGTON.

Day of Month.	H.	M.	S.	Day of Month.	H.	M.	S.	Day of Month.	H.	M.	S.	Day of Month.	H.	M.	S.	Day of Month.	H.	M.	S.
1	12	4	1	7	12	2	15	13	12	0	37	19	11	59	10	25	11	57	58
2	12	3	43	8	12	1	58	14	12	0	21	20	11	58	56	26	11	57	47
3	12	3	25	9	12	1	41	15	12	0	6	21	11	58	44	27	11	57	37
4	12	3	7	10	12	1	25	16	11	59	51	22	11	58	31	28	11	57	28
5	12	2	50	11	12	1	8	17	11	59	37	23	11	58	20	29	11	57	19
6	12	2	32	12	12	0	52	18	11	59	23	24	11	58	8	30	11	57	11

TWILIGHT.

Place.	Apr.	Begins	Ends	Apr.	Begins	Ends	Apr.	Begins	Ends
		H. M.	H. M.		H. M.	H. M.		H. M.	H. M.
Boston	1	4 7	8 3	11	3 47	8 17	21	3 26	8 32
New York	1	4 11	7 59	11	3 52	8 12	21	3 32	8 26
Wash'ton	1	4 15	7 55	11	3 57	8 7	21	3 39	8 20
Charleston	1	4 27	7 43	11	4 12	7 52	21	3 58	8 1

MOON'S PHASES (EASTERN STANDARD TIME).

First Quarter	6D.	6H.	25M.	Last Quarter	20D.	5H.	8M
Full Moon	13	12	48	New Moon	28	2	8

Morning Stars—Mars, Saturn.

Evening Stars—Mercury, Venus, Jupiter.

5th Month. **MAY.** 31 Days.

(Local Mean Time. A. M., light figures; P. M., black.)
To obtain Standard time see directions on page 63.

Day of the Month.	Day of the Week.	Calendar for Boston, New England, N. Y. State, Michigan, Wisconsin, N. and S. Dakota, Washington, and Oregon.			Calendar for New York City, Connecticut, Pennsylvania, Ohio, Indiana, Illinois, Iowa, Nebraska, Wyoming, and Northern California.			Calendar for Washington, Virginia, Kentucky, Missouri, Kansas, Colorado, Utah, Nevada, and Central California.			Calendar for Charleston, Georgia, Alabama, Louisiana, Arkansas, Texas, New Mexico, Arizona, and Southern California.		
		Sun Rises.	*Sun Sets.*	*Moon R. & S.*	*Sun Rises.*	*Sun Sets.*	*Moon R. & S.*	*Sun Rises.*	*Sun Sets.*	*Moon R. & S.*	*Sun Rises.*	*Sun Sets.*	*Moon R. & S.*
		H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.
1	Th	4 56	6 59	10 47	4 59	6 56	10 40	5 3	6 52	10 35	5 14	6 41	10 12
2	Fr	4 54	7 0	11 52	4 58	6 57	11 45	5 2	6 53	11 40	5 13	6 41	11 15
3	Sa	4 53	7 1	.....	4 57	6 58	.. ..	5 1	6 54	.. ..	5 12	6 42	.. ..
4	S	4 52	7 2	12 47	4 55	6 59	12 40	4 59	6 55	12 35	5 11	6 43	12 12
5	M	4 50	7 3	1 30	4 54	7 0	1 25	4 58	6 56	1 20	5 10	6 44	1 1
6	Tu	4 49	7 5	2 5	4 53	7 1	2 0	4 57	6 57	1 57	5 9	6 45	1 42
7	W	4 48	7 6	2 32	4 52	7 2	2 29	4 56	6 58	2 27	5 8	6 45	2 17
8	Th	4 47	7 7	2 56	4 51	7 3	2 55	4 55	6 59	2 54	5 8	6 46	2 49
9	Fr	4 46	7 8	3 18	4 50	7 4	3 18	4 54	7 0	3 19	5 7	6 47	3 18
10	Sa	4 44	7 9	3 40	4 49	7 5	3 41	4 53	7 1	3 43	5 6	6 48	3 48
11	S	4 43	7 10	4 2	4 48	7 6	4 5	4 52	7 2	4 8	5 5	6 48	4 18
12	M	4 42	7 11	rises.	4 46	7 7	rises.	4 51	7 3	rises.	5 4	6 49	rises.
13	Tu	4 41	7 12	8 40	4 45	7 8	8 35	4 50	7 4	8 29	5 3	6 49	8 9
14	W	4 40	7 13	9 46	4 44	7 9	9 39	4 49	7 5	9 34	5 3	6 50	9 11
15	Th	4 39	7 14	10 44	4 43	7 10	10 36	4 48	7 6	10 31	5 2	6 51	10 8
16	Fr	4 38	7 15	11 34	4 42	7 11	11 26	4 47	7 6	11 20	5 1	6 52	10 58
17	Sa	4 37	7 16	.. ..	4 41	7 12	.. ..	4 46	7 7	.. ..	5 1	6 52	11 41
18	S	4 36	7 17	12 14	4 40	7 13	12 7	4 45	7 8	12 2	5 0	6 53	.. ..
19	M	4 35	7 18	12 46	4 39	7 14	12 41	4 44	7 9	12 36	5 0	6 54	12 19
20	Tu	4 34	7 19	1 13	4 38	7 15	1 8	4 43	7 10	1 5	4 59	6 54	12 51
21	W	4 33	7 20	1 35	4 37	7 16	1 32	4 43	7 10	1 30	4 58	6 55	1 20
22	Th	4 32	7 21	1 56	4 36	7 17	1 54	4 42	7 11	1 53	4 58	6 56	1 47
23	Fr	4 31	7 22	2 15	4 36	7 18	2 14	4 41	7 12	2 15	4 57	6 56	2 13
24	Sa	4 30	7 23	2 34	4 35	7 19	2 35	4 40	7 13	2 36	4 56	6 57	2 39
25	S	4 29	7 24	2 56	4 34	7 19	2 57	4 40	7 13	3 0	4 56	6 58	3 7
26	M	4 29	7 25	3 19	4 33	7 20	3 23	4 39	7 14	3 27	4 55	6 58	3 39
27	Tu	4 28	7 26	3 48	4 33	7 21	3 53	4 38	7 15	3 58	4 55	6 59	4 15
28	W	4 28	7 27	sets.	4 32	7 22	sets.	4 38	7 16	sets.	4 54	7 0	sets.
29	Th	4 27	7 28	9 41	4 31	7 23	9 33	4 37	7 17	9 28	4 54	7 0	9 4
30	Fr	4 26	7 29	10 41	4 30	7 23	10 34	4 37	7 17	10 28	4 54	7 1	10 5
31	Sa	4 26	7 30	11 29	4 30	7 24	11 23	4 36	7 18	11 18	4 54	7 1	10 58

SUN ON MERIDIAN OF WASHINGTON.

Day of Month.	H.	M.	S.	Day of Month.	H.	M.	S.	Day of Month.	H.	M.	S.	Day of Month.	H.	M.	S.	Day of Month.	H.	M.	S.
1	11	57	3	8	11	56	24	14	11	56	11	20	11	56	20	26	11	56	48
2	11	56	56	9	11	56	20	15	11	56	11	21	11	56	23	27	11	56	55
3	11	56	49	10	11	56	17	16	11	56	12	22	11	56	27	28	11	57	2
4	11	56	43	11	11	56	15	17	11	56	13	23	11	56	31	29	11	57	9
5	11	56	37	12	11	56	13	18	11	56	15	24	11	56	36	30	11	57	17
6	11	56	32	13	11	56	12	19	11	56	17	25	11	56	42	31	11	57	26
7	11	56	28																

TWILIGHT.

Place.	May.	Begins	Ends	May.	Begins	Ends	May.	Begins	Ends
		H. M.	H. M.		H. M.	H. M.		H. M.	H. M.
Boston...	1	3 7	8 49	11	2 48	9 5	21	2 31	9 22
New York	1	3 13	8 42	11	2 57	8 57	21	2 41	9 12
Wash'ton.	1	3 22	8 33	11	3 7	8 47	21	2 53	9 1
Charleston	1	3 45	8 11	11	3 32	8 21	21	3 23	8 31

MOON'S PHASES (EASTERN STANDARD TIME).

First Quarter	5	*D.*	11	*H.*	53	*M.*	Last Quarter	20	*D.*	11	*H.*	21	*M.*
Full Moon	12		12		29		New Moon	28		12		37	

Morning Stars—Mars, Saturn. Evening Stars—Mercury, Venus, Jupiter.

6th Month. **JUNE.** 30 Days

(Local Mean Time. A. M., light figures; P. M., black.)
To obtain Standard time see directions on page 63

Day of the Month.	Day of the Week.	Calendar for Boston, New England, N. Y. State, Michigan, Wisconsin, N. and S. Dakota, Washington, and Oregon.			Calendar for New York City, Connecticut, Pennsylvania, Ohio, Indiana, Illinois, Iowa, Nebraska, Wyoming, and Northern California.			Calendar for Washington, Virginia, Kentucky, Missouri, Kansas, Colorado, Utah, Nevada, and Central California.			Calendar for Charleston, Georgia, Alabama Louisiana, Arkansas, Texas, New Mexico, Arizona, and Southern California.		
		Sun Rises.	*Sun Sets.*	*Moon R. & S.*	*Sun Rises.*	*Sun Sets.*	*Moon R. & S.*	*Sun Rises.*	*Sun Sets.*	*Moon R. & S.*	*Sun Rises.*	*Sun Sets.*	*Moon R. & S.*
		H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.
1	S	4 25	7 30	. . . .	4 30	7 25	. . . .	4 36	7 19	11 58	4 53	7 2	11 43
2	M	4 25	7 31	12 6	4 30	7 26	12 2	4 36	7 20	. . . .	4 53	7 2	. . . .
3	Tu	4 24	7 32	12 36	4 30	7 26	12 34	4 36	7 20	12 30	4 53	7 3	12 19
4	W	4 24	7 33	1 2	4 29	7 27	1 0	4 35	7 21	12 59	4 52	7 4	12 52
5	Th	4 24	7 34	1 23	4 29	7 28	1 23	4 35	7 22	1 23	4 52	7 4	1 21
6	Fr	4 23	7 34	1 45	4 29	7 28	1 46	4 35	7 22	1 47	4 52	7 5	1 50
7	Sa	4 23	7 35	2 7	4 28	7 29	2 9	4 34	7 23	2 12	4 52	7 5	2 20
8	S	4 23	7 36	2 31	4 28	7 30	2 35	4 34	7 24	2 38	4 52	7 6	2 52
9	M	4 22	7 36	2 59	4 28	7 30	3 4	4 34	7 24	3 9	4 52	7 6	3 27
10	Tu	4 22	7 37	3 33	4 27	7 31	3 38	4 34	7 25	3 45	4 52	7 7	4 6
11	W	4 22	7 37	rises.	4 27	7 31	rises.	4 33	7 25	rises.	4 52	7 7	rises.
12	Th	4 22	7 38	9 27	4 27	7 32	9 19	4 33	7 26	9 14	4 52	7 7	8 51
13	Fr	4 22	7 38	10 11	4 27	7 32	10 4	4 33	7 26	9 58	4 52	7 8	9 36
14	Sa	4 21	7 39	10 46	4 26	7 33	10 40	4 33	7 27	10 35	4 52	7 8	10 16
15	S	4 21	7 39	11 14	4 26	7 33	11 10	4 33	7 27	11 6	4 52	7 8	10 50
16	M	4 21	7 39	11 38	4 26	7 33	11 36	4 33	7 27	11 32	4 52	7 9	11 20
17	Tu	4 21	7 40	11 59	4 26	7 34	11 57	4 33	7 28	11 56	4 52	7 9	11 48
18	W	4 21	7 40	. . . .	4 26	7 34	. . . .	4 33	7 28	. . . .	4 52	7 9	. . . .
19	Th	4 22	7 41	12 18	4 27	7 35	12 17	4 33	7 29	12 17	4 52	7 10	12 13
20	Fr	4 22	7 41	12 37	4 27	7 35	12 37	4 34	7 29	12 38	4 52	7 10	12 39
21	Sa	4 22	7 41	12 57	4 27	7 35	12 58	4 34	7 29	1 0	4 52	7 10	1 6
22	S	4 22	7 41	1 19	4 27	7 36	1 21	4 34	7 29	1 24	4 53	7 10	1 34
23	M	4 23	7 41	1 45	4 27	7 36	1 49	4 34	7 29	1 54	4 53	7 11	2 9
24	Tu	4 23	7 41	2 18	4 28	7 36	2 24	4 35	7 29	2 30	4 53	7 11	2 49
25	W	4 23	7 42	3 2	4 28	7 36	3 8	4 35	7 30	3 15	4 53	7 11	3 37
26	Th	4 23	7 42	sets.	4 28	7 37	sets.	4 35	7 30	sets.	4 54	7 11	sets.
27	Fr	4 24	7 42	9 21	4 29	7 37	9 14	4 36	7 30	9 9	4 54	7 11	8 47
28	Sa	4 24	7 42	10 4	4 29	7 37	9 59	4 36	7 30	9 54	4 54	7 12	9 37
29	S	4 24	7 42	10 38	4 29	7 37	10 34	4 36	7 30	10 31	4 55	7 12	10 18
30	M	4 25	7 42	11 5	4 30	7 37	11 2	4 37	7 30	11 1	4 55	7 12	10 53
..	..	..	..	..	..	..	..	..	..	..	..	..	..

SUN ON MERIDIAN OF WASHINGTON.

Day of Month.	H.	M.	S.	Day of Month.	H.	M.	S.	Day of Month.	H.	M.	S.	Day of Month.	H.	M.	S.	Day of Month.	H.	M.	S.
1	11	57	34	7	11	58	35	13	11	59	45	19	12	1	1	25	12	2	20
2	11	57	44	8	11	58	46	14	11	59	57	20	12	1	15	26	12	2	33
3	11	57	53	9	11	58	57	15	12	0	10	21	12	1	28	27	12	2	45
4	11	58	3	10	11	59	9	16	12	0	23	22	12	1	41	28	12	2	58
5	11	58	13	11	11	59	21	17	12	0	35	23	12	1	54	29	12	3	10
6	11	58	24	12	11	59	33	18	12	0	48	24	12	2	7	30	12	3	22

TWILIGHT.

Places.	June.	Begins	Ends	June.	Begins	Ends	June.	Begins	Ends
		H. M.	H. M.		H. M.	H. M.		H. M.	H. M.
Boston...	1	2 18	9 38	11	2 10	9 51	21	2 7	9 55
New York	1	2 28	9 27	11	2 22	9 38	21	2 18	9 43
Wash'ton.	1	2 42	9 13	11	2 36	9 23	21	2 35	9 27
Charleston	1	3 15	8 40	11	3 11	8 47	21	3 11	8 51

MOON'S PHASES (EASTERN STANDARD TIME).

First Quarter	3	*D.*	4	*H.*	56	*M.*	
Full Moon	11		1		12		
Last Quarter	19	*D.*	4	*H.*	0	*M.*	
New Moon	26		8		47		

Morning Stars—Mercury, Mars, Saturn.

Evening Stars—Venus, Jupiter.

7th Month. **JULY.** 31 Days.

(Local Mean Time. A. M., light figures; P. M., black.)
To obtain Standard time see directions on page 63

Day of the Month	Day of the Week	Calendar for Boston, New England, N. Y. State, Michigan, Wisconsin, N. and S. Dakota, Washington, and Oregon.			Calendar for New York City, Connecticut, Pennsylvania, Ohio, Indiana, Illinois, Iowa, Nebraska, Wyoming, and Northern California.			Calendar for Washington, Virginia, Kentucky, Missouri, Kansas, Colorado, Utah, Nevada, and Central California.			Calendar for Charleston, Georgia, Alabama, Louisiana, Arkansas, Texas, New Mexico, Arizona, and Southern California.		
		Sun Rises.	*Sun Sets.*	*Moon R. & S.*	*Sun Rises.*	*Sun Sets.*	*Moon R. & S.*	*Sun Rises.*	*Sun Sets.*	*Moon R. & S.*	*Sun Rises.*	*Sun Sets.*	*Moon R. & S.*
		H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.
1	Tu	4 25	7 42	11 28	4 30	7 37	11 27	4 37	7 30	11 27	4 56	7 12	11 24
2	W	4 26	7 42	11 50	4 31	7 36	11 51	4 38	7 30	11 51	4 56	7 12	11 53
3	Th	4 26	7 41	.. ..	4 31	7 36	.. ..	4 38	7 29	.. ..	4 57	7 12	.. ..
4	Fr	4 27	7 41	12 12	4 32	7 36	12 13	4 39	7 29	12 16	4 57	7 11	12 23
5	Sa	4 27	7 41	12 35	4 32	7 36	12 39	4 39	7 29	12 41	4 57	7 11	12 53
6	S	4 28	7 40	1 1	4 33	7 35	1 6	4 40	7 29	1 11	4 58	7 11	1 27
7	M	4 28	7 40	1 33	4 34	7 35	1 39	4 40	7 29	1 44	4 58	7 11	2 4
8	Tu	4 29	7 40	2 11	4 34	7 35	2 17	4 41	7 28	2 24	4 59	7 11	2 48
9	W	4 30	7 39	2 57	4 35	7 34	3 4	4 42	7 28	3 11	4 59	7 10	3 36
10	Th	4 30	7 39	rises.	4 35	7 34	rises.	4 42	7 28	rises.	5 0	7 10	rises.
11	Fr	4 31	7 38	8 46	4 36	7 33	8 40	4 43	7 27	8 35	5 0	7 10	8 15
12	Sa	4 32	7 38	9 17	4 37	7 33	9 12	4 44	7 27	9 7	5 1	7 10	8 51
13	S	4 33	7 37	9 42	4 38	7 32	9 38	4 44	7 26	9 35	5 1	7 9	9 22
14	M	4 34	7 37	10 3	4 39	7 32	10 0	4 45	7 26	9 59	5 2	7 9	9 50
15	Tu	4 34	7 36	10 23	4 40	7 31	10 21	4 46	7 25	10 20	5 2	7 9	10 16
16	W	4 35	7 36	10 41	4 41	7 31	10 41	4 47	7 25	10 42	5 3	7 8	10 41
17	Th	4 36	7 35	11 0	4 41	7 30	11 1	4 47	7 24	11 2	5 4	7 8	11 6
18	Fr	4 37	7 34	11 20	4 42	7 29	11 22	4 48	7 23	11 25	5 4	7 7	11 33
19	Sa	4 38	7 34	11 44	4 43	7 29	11 48	4 49	7 23	11 51	5 5	7 7	.. ..
20	S	4 39	7 33	.. ..	4 44	7 28	.. ..	4 50	7 22	.. ..	5 5	7 7	12 4
21	M	4 40	7 32	12 12	4 45	7 27	12 17	4 50	7 21	12 22	5 6	7 6	12 40
22	Tu	4 41	7 32	12 49	4 45	7 27	12 54	4 51	7 21	1 2	5 6	7 6	1 23
23	W	4 42	7 31	1 38	4 46	7 26	1 46	4 52	7 20	1 52	5 7	7 5	2 17
24	Th	4 43	7 30	2 41	4 47	7 25	2 49	4 53	7 20	2 56	5 8	7 5	3 20
25	Fr	4 44	7 29	sets.	4 48	7 24	sets.	4 54	7 19	sets.	5 8	7 4	sets.
26	Sa	4 45	7 28	8 34	4 49	7 23	8 29	4 55	7 18	8 26	5 9	7 3	8 11
27	S	4 46	7 26	9 4	4 50	7 22	9 1	4 56	7 17	8 59	5 10	7 3	8 50
28	M	4 47	7 25	9 30	4 51	7 21	9 29	4 56	7 16	9 28	5 11	7 2	9 23
29	Tu	4 48	7 24	9 53	4 51	7 20	9 53	4 57	7 16	9 54	5 11	7 1	9 54
30	W	4 49	7 23	10 15	4 52	7 19	10 16	4 58	7 15	10 19	5 12	7 0	10 24
31	Th	4 50	7 22	10 38	4 53	7 18	10 41	4 58	7 14	10 44	5 13	6 59	10 54

SUN ON MERIDIAN OF WASHINGTON.

Day of Month.	H.	M.	S.	Day of Month.	H.	M.	S.	Day of Month.	H.	M.	S.	Day of Month.	H.	M.	S.	Day of Month.	H.	M.	S.
1	12	3	34	8	12	4	49	14	12	5	37	20	12	6	9	26	12	6	21
2	12	3	46	9	12	4	58	15	12	5	44	21	12	6	12	27	12	6	22
3	12	3	57	10	12	5	7	16	12	5	50	22	12	6	15	28	12	6	21
4	12	4	8	11	12	5	15	17	12	5	55	23	12	6	18	29	12	6	20
5	12	4	19	12	12	5	23	18	12	6	0	24	12	6	20	30	12	6	18
6	12	4	29	13	12	5	30	19	12	6	5	25	12	6	21	31	12	6	16
7	12	4	39																

TWILIGHT.

Place.	July.	Begins	Ends	July.	Begins	Ends	July.	Begins	Ends
		H. M.	H. M.		H. M.	H. M.		H. M.	H. M.
Boston....	1	2 13	9 54	11	2 21	9 48	21	2 36	9 35
New York	1	2 24	9 42	11	2 32	9 36	21	2 46	9 25
Wash'ton.	1	2 39	9 28	11	2 47	9 22	21	2 58	9 13
Charleston	1	3 15	8 52	11	3 22	8 48	21	3 30	8 42

MOON'S PHASES (EASTERN STANDARD TIME).

First Quarter.....	2D.	11H.	3M.	Last Quarter..	18D.	6H.	29M.
Full Moon.....	10	3	1	New Moon.....	25	3	42
Morning Stars—Mars, Jupiter.				Evening Stars—Venus, Saturn.			

8th Month. **AUGUST.** 31 Days.

(Local Mean Time. A. M., light figures; P. M., black.)
To obtain Standard time see directions on page 63

Day of the Month.	Day of the Week.	Calendar for Boston, New England, N. Y. State, Michigan, Wisconsin, N. and S. Dakota, Washington, and Oregon.			Calendar for New York City, Connecticut, Pennsylvania, Ohio, Indiana, Illinois, Iowa, Nebraska, Wyoming, and Northern California.			Calendar for Washington, Virginia, Kentucky, Missouri, Kansas, Colorado, Utah, Nevada, and Central California.			Calendar for Charleston, Georgia, Alabama, Louisiana, Arkansas, Texas, New Mexico, Arizona, and Southern California.		
		Sun Rises.	*Sun Sets.*	*Moon R. & S.*	*Sun Rises.*	*Sun Sets.*	*Moon R. & S.*	*Sun Rises.*	*Sun Sets.*	*Moon R. & S.*	*Sun Rises.*	*Sun Sets.*	*Moon R. & S.*
		H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.
1	Fr	4 51	7 21	11 4	4 54	7 17	11 8	4 59	7 12	11 13	5 14	6 59	11 28
2	Sa	4 52	7 20	11 34	4 55	7 16	11 40	5 0	7 11	11 46	5 14	6 58	.. ..
3	S	4 53	7 19	.. ..	4 56	7 15	.. ..	5 1	7 10	.. ..	5 15	6 57	12 4
4	M	4 54	7 18	12 10	4 57	7 14	12 17	5 2	7 9	12 23	5 16	6 56	12 45
5	Tu	4 55	7 16	12 53	4 58	7 12	1 1	5 3	7 8	1 8	5 16	6 55	1 31
6	W	4 56	7 15	1 43	5 0	7 11	1 52	5 4	7 7	1 59	5 17	6 54	2 23
7	Th	4 57	7 14	2 41	5 1	7 10	2 49	5 5	7 6	2 56	5 18	6 53	3 19
8	Fr	4 58	7 12	3 44	5 2	7 9	3 50	5 6	7 5	3 57	5 18	6 52	4 17
9	Sa	4 59	7 11	rises.	5 3	7 8	rises.	5 7	7 4	rises.	5 19	6 51	rises.
10	S	5 0	7 10	8 8	5 4	7 6	8 6	5 8	7 2	8 3	5 20	6 50	7 53
11	M	5 1	7 8	8 28	5 5	7 5	8 27	5 9	7 1	8 26	5 20	6 50	8 19
12	Tu	5 2	7 7	8 47	5 6	7 4	8 46	5 10	7 0	8 47	5 21	6 49	8 45
13	W	5 3	7 6	9 5	5 6	7 2	9 6	5 11	6 58	9 7	5 22	6 48	9 10
14	Th	5 4	7 4	9 24	5 7	7 1	9 26	5 11	6 57	9 28	5 22	6 47	9 35
15	Fr	5 5	7 3	9 46	5 8	7 0	9 49	5 12	6 56	9 52	5 23	6 46	10 4
16	Sa	5 6	7 1	10 11	5 9	6 58	10 16	5 13	6 54	10 21	5 24	6 45	10 36
17	S	5 7	7 0	10 44	5 10	6 57	10 49	5 14	6 53	10 56	5 24	6 44	11 15
18	M	5 8	6 58	11 25	5 11	6 56	11 33	5 15	6 52	11 40	5 25	6 43	.. ..
19	Tu	5 10	6 57	.. ..	5 12	6 54	.. ..	5 16	6 51	.. ..	5 26	6 42	12 2
20	W	5 11	6 56	12 19	5 13	6 53	12 28	5 17	6 50	12 35	5 26	6 40	1 0
21	Th	5 12	6 54	1 28	5 14	6 52	1 36	5 18	6 49	1 42	5 27	6 39	2 6
22	Fr	5 13	6 53	2 47	5 15	6 50	2 53	5 18	6 47	3 0	5 28	6 38	3 20
23	Sa	5 14	6 51	sets.	5 16	6 49	sets.	5 19	6 46	sets.	5 28	6 37	sets.
24	S	5 15	6 50	7 28	5 17	6 47	7 26	5 20	6 44	7 25	5 29	6 35	7 18
25	M	5 16	6 48	7 53	5 18	6 46	7 52	5 21	6 43	7 53	5 30	6 34	7 50
26	Tu	5 17	6 46	8 16	5 19	6 44	8 17	5 22	6 41	8 18	5 30	6 33	8 22
27	W	5 18	6 45	8 40	5 20	6 43	8 42	5 23	6 40	8 45	5 31	6 32	8 53
28	Th	5 19	6 43	9 5	5 22	6 41	9 8	5 24	6 38	9 12	5 32	6 31	9 26
29	Fr	5 20	6 41	9 34	5 23	6 40	9 39	5 25	6 37	9 44	5 32	6 30	10 2
30	Sa	5 22	6 40	10 8	5 24	6 38	10 14	5 26	6 35	10 21	5 33	6 28	10 42
31	S	5 23	6 38	10 50	5 25	6 36	10 57	5 27	6 33	11 4	5 34	6 27	11 27

SUN ON MERIDIAN OF WASHINGTON.

Day of Month.	H.	M.	S.	Day of Month.	H.	M.	S.	Day of Month.	H.	M.	S.	Day of Month.	H.	M.	S.	Day of Month	H.	M.	S.
1	12	6	12	8	12	5	34	14	12	4	38	20	12	3	22	26	12	1	51
2	12	6	9	9	12	5	26	15	12	4	26	21	12	3	8	27	12	1	34
3	12	6	4	10	12	5	17	16	12	4	15	22	12	2	54	28	12	1	17
4	12	6	0	11	12	5	8	17	12	4	2	23	12	2	39	29	12	0	59
5	12	5	54	12	12	4	59	18	12	3	49	24	12	2	23	30	12	0	41
6	12	5	48	13	12	4	48	19	12	3	36	25	12	2	7	31	12	0	23
7	12	5	41																

TWILIGHT.

Place.	Aug.	Begins	Ends	Aug.	Begins	Ends	Aug.	Begins	Ends
		H. M.	H. M.		H. M.	H. M.		H. M.	H. M.
Boston...	1	2 54	9 17	11	3 10	8 57	21	3 27	8 37
New York	1	3 2	9 9	11	3 19	8 51	21	3 33	8 31
Wash'ton.	1	3 13	9 0	11	3 27	8 43	21	3 40	8 25
Charleston	1	3 40	8 33	11	3 49	8 20	21	3 59	8 6

MOON'S PHASES (EASTERN STANDARD TIME).

First Quarter	1	*D.* 7	*H.* 26	*M.*	Last Quarter	17 *D.* 6	*H.* 31 *M.*
Full Moon	9	5	58		New Moon	23 10	37
					First Quarter	30 6	57

Morning Stars—Mars, Jupiter.
Evening Stars—Mercury, Venus, Saturn.

9th Month. **SEPTEMBER.** 30 Days.

(Local Mean Time. A. M., light figures: P. M., black.)

To obtain Standard time see directions on page 63

Day of the Month.	Day of the Week.	Calendar for Boston, New England, N. Y. State, Michigan, Wisconsin, N. and S. Dakota, Washington, and Oregon.			Calendar for New York City, Connecticut, Pennsylvania, Ohio, Indiana, Illinois, Iowa, Nebraska, Wyoming, and Northern California.			Calendar for Washington, Virginia, Kentucky, Missouri, Kansas, Colorado, Utah, Nevada, and Central California.			Calendar for Charleston, Georgia, Alabama, Louisiana, Arkansas, Texas, New Mexico, Arizona, and Southern California.		
		Sun Rises.	*Sun Sets.*	*Moon R. & S.*	*Sun Rises.*	*Sun Sets.*	*Moon R. & S.*	*Sun Rises.*	*Sun Sets.*	*Moon R. & S.*	*Sun Rises.*	*Sun Sets.*	*Moon R. & S.*
		H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.
1	M	5 24	6 36	11 38	5 26	6 31	11 46	5 28	6 32	11 53	5 34	6 25	.. ..
2	Tu	5 25	6 34	.. ..	5 27	6 32	.. ..	5 29	6 30	.. ..	5 35	6 24	12 18
3	W	5 26	6 32	12 34	5 27	6 31	12 42	5 29	6 29	12 49	5 36	6 23	1 13
4	Th	5 27	6 31	1 35	5 28	6 29	1 42	5 30	6 27	1 49	5 36	6 22	2 11
5	Fr	5 28	6 29	2 39	5 29	6 28	2 45	5 31	6 26	2 50	5 37	6 20	3 9
6	Sa	5 29	6 27	3 43	5 30	6 26	3 47	5 32	6 24	3 51	5 38	6 19	4 6
7	S	5 30	6 26	rises.	5 31	6 24	rises.	5 33	6 22	rises.	5 38	6 18	rises.
8	M	5 31	6 24	6 53	5 32	6 23	6 52	5 34	6 21	6 52	5 39	6 16	6 49
9	Tu	5 32	6 22	7 11	5 33	6 21	7 11	5 35	6 19	7 12	5 40	6 15	7 14
10	W	5 33	6 20	7 30	5 34	6 19	7 31	5 36	6 17	7 34	5 40	6 14	7 39
11	Th	5 34	6 19	7 50	5 35	6 18	7 53	5 37	6 16	7 56	5 41	6 12	8 6
12	Fr	5 35	6 17	8 14	5 36	6 16	8 18	5 38	6 14	8 23	5 41	6 11	8 37
13	Sa	5 36	6 15	8 43	5 37	6 14	8 49	5 39	6 13	8 54	5 42	6 10	9 12
14	S	5 37	6 13	9 21	5 38	6 13	9 27	5 40	6 11	9 34	5 42	6 9	9 56
15	M	5 38	6 12	10 9	5 39	6 11	10 16	5 40	6 10	10 23	5 43	6 7	10 47
16	Tu	5 40	6 10	11 9	5 40	6 9	11 17	5 41	6 9	11 24	5 44	6 6	11 49
17	W	5 41	6 8	.. ..	5 42	6 7	.. ..	5 42	6 7	.. ..	5 44	6 4	.. ..
18	Th	5 42	6 6	12 21	5 43	6 5	12 28	5 43	6 5	12 35	5 45	6 3	12 58
19	Fr	5 43	6 4	1 41	5 44	6 4	1 46	5 44	6 4	1 52	5 46	6 2	2 12
20	Sa	5 44	6 3	3 3	5 45	6 2	3 7	5 45	6 2	3 12	5 46	6 0	3 25
21	S	5 45	6 1	4 24	5 46	6 0	4 27	5 46	6 0	4 30	5 47	5 59	4 38
22	M	5 46	5 59	sets.	5 46	5 59	sets.	5 46	5 59	sets.	5 48	5 58	sets.
23	Tu	5 47	5 57	6 39	5 47	5 57	6 40	5 47	5 57	6 43	5 48	5 56	6 49
24	W	5 48	5 56	7 4	5 48	5 55	7 7	5 48	5 55	7 10	5 49	5 55	7 22
25	Th	5 49	5 54	7 31	5 49	5 54	7 36	5 49	5 54	7 41	5 49	5 54	7 57
26	Fr	5 50	5 52	8 4	5 50	5 52	8 10	5 50	5 52	8 16	5 50	5 52	8 36
27	Sa	5 51	5 50	8 43	5 51	5 50	8 50	5 51	5 50	8 57	5 50	5 51	9 21
28	S	5 52	5 48	9 30	5 52	5 49	9 38	5 52	5 49	9 46	5 51	5 50	10 10
29	M	5 54	5 46	10 25	5 53	5 47	10 33	5 53	5 47	10 40	5 52	5 48	11 5
30	Tu	5 55	5 45	11 25	5 54	5 45	11 33	5 54	5 45	11 39	5 52	5 47	.. ..

SUN ON MERIDIAN OF WASHINGTON.

Day of Month.	H.	M.	S.	Day of Month.	H.	M.	S.	Day of Month.	H.	M.	S.	Day of Month.	H.	M.	S.	Day of Month.	H.	M.	S.
1	12	0	4	7	11	58	6	13	11	56	1	19	11	53	54	25	11	51	49
2	11	59	45	8	11	57	46	14	11	55	40	20	11	53	33	26	11	51	28
3	11	59	26	9	11	57	25	15	11	55	19	21	11	53	12	27	11	51	8
4	11	59	6	10	11	57	4	16	11	54	58	22	11	52	51	28	11	50	48
5	11	58	47	11	11	56	44	17	11	54	37	23	11	52	30	29	11	50	28
6	11	58	27	12	11	56	23	18	11	54	15	24	11	52	9	30	11	50	8

TWILIGHT.

Place.	Sept.	Begins	Ends	Sept.	Begins	Ends	Sept.	Begins	Ends
		H. M.	H. M.		H. M.	H. M.		H. M.	H. M.
Boston...	1	3 43	8 15	11	3 57	7 54	21	4 10	7 35
New York	1	3 48	8 11	11	4 0	7 51	21	4 13	7 32
Wash'ton.	1	3 53	8 5	11	4 5	7 47	21	4 16	7 29
Charleston	1	4 9	7 51	11	4 17	7 36	21	4 24	7 20

MOON'S PHASES (EASTERN STANDARD TIME).

Full Moon	7	*D.*	9	*H.*	48	*M.*	
Last Quarter	15		1		13		
New Moon	22	*D.*	6	*H.*	42	*M.*	
First Quarter	29		9		58		

Morning Stars—Mars, Jupiter.

Evening Stars—Venus, Saturn.

10th Month. **OCTOBER.** 31 Days.

(Local Mean Time. A. M., light figures; P. M., black.)
To obtain Standard time see directions on page 63

Day of the Month	Day of the Week	Calendar for Boston, New England, N. Y. State, Michigan, Wisconsin, N. and S. Dakota, Washington, and Oregon.			Calendar for New York City, Connecticut, Pennsylvania, Ohio, Indiana, Illinois, Iowa, Nebraska, Wyoming, and Northern California.			Calendar for Washington, Virginia, Kentucky, Missouri, Kansas, Colorado, Utah, Nevada, and Central California.			Calendar for Charleston, Georgia, Alabama, Louisiana, Arkansas, Texas, New Mexico, Arizona, and Southern California.		
		Sun Rises.	*Sun Sets.*	*Moon R. & S.*	*Sun Rises.*	*Sun Sets.*	*Moon R. & S.*	*Sun Rises.*	*Sun Sets.*	*Moon R. & S.*	*Sun Rises.*	*Sun Sets.*	*Moon R. & S.*
		H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.
1	W	5 56	5 43	. . . .	5 55	5 44	. . . .	5 55	5 44	. . . .	5 53	5 46	12 2
2	Th	5 57	5 41	12 28	5 56	5 42	12 34	5 56	5 42	12 41	5 54	5 44	1 0
3	Fr	5 58	5 40	1 33	5 57	5 41	1 38	5 57	5 41	1 43	5 55	5 43	1 59
4	Sa	5 59	5 38	2 37	5 58	5 39	2 40	5 58	5 39	2 44	5 55	5 42	2 55
5	S	6 0	5 36	3 40	6 0	5 37	3 42	5 59	5 37	3 44	5 56	5 41	3 51
6	M	6 2	5 35	4 41	6 1	5 35	4 43	6 0	5 36	4 44	5 57	5 40	4 47
7	Tu	6 3	5 33	rises.	6 2	5 33	rises.	6 1	5 35	rises.	5 58	5 38	rises.
8	W	6 4	5 31	5 56	6 3	5 32	5 58	6 2	5 34	6 1	5 58	5 37	6 9
9	Th	6 5	5 30	6 18	6 4	5 30	6 22	6 2	5 32	6 31	5 59	5 36	6 39
10	Fr	6 6	5 28	6 46	6 5	5 29	6 51	6 3	5 31	6 57	6 0	5 35	7 14
11	Sa	6 7	5 26	7 21	6 6	5 27	7 27	6 4	5 29	7 33	6 1	5 34	7 54
12	S	6 8	5 24	8 5	6 7	5 25	8 12	6 5	5 27	8 19	6 1	5 32	8 42
13	M	6 10	5 22	9 0	6 8	5 24	9 8	6 6	5 26	9 16	6 2	5 31	9 40
14	Tu	6 11	5 20	10 7	6 9	5 22	10 15	6 7	5 24	10 22	6 3	5 30	10 46
15	W	6 12	5 19	11 22	6 11	5 21	11 28	6 9	5 23	11 34	6 3	5 28	11 55
16	Th	6 13	5 17	. . . .	6 12	5 19	. . . .	6 10	5 21	. . . .	6 4	5 27	. . . .
17	Fr	6 14	5 16	12 41	6 13	5 18	12 46	6 11	5 20	12 51	6 5	5 26	1 7
18	Sa	6 16	5 14	2 0	6 14	5 16	2 4	6 12	5 18	2 7	6 6	5 25	2 18
19	S	6 17	5 13	3 19	6 15	5 15	3 21	6 13	5 17	3 23	6 6	5 24	3 28
20	M	6 18	5 11	4 36	6 16	5 13	4 36	6 14	5 15	4 37	6 7	5 23	4 36
21	Tu	6 19	5 10	sets.	6 17	5 12	sets.	6 15	5 14	sets.	6 8	5 22	sets.
22	W	6 20	5 8	5 29	6 18	5 11	5 32	6 16	5 13	5 37	6 9	5 20	5 50
23	Th	6 21	5 7	5 59	6 19	5 9	6 4	6 17	5 11	6 10	6 10	5 19	6 28
24	Fr	6 23	5 5	6 36	6 20	5 8	6 42	6 18	5 10	6 49	6 10	5 18	7 11
25	Sa	6 24	5 4	7 20	6 22	5 6	7 28	6 19	5 9	7 35	6 11	5 17	8 0
26	S	6 25	5 2	8 13	6 23	5 5	8 21	6 20	5 7	8 28	6 12	5 16	8 53
27	M	6 26	5 1	9 12	6 24	5 3	9 20	6 21	5 6	9 27	6 13	5 15	9 50
28	Tu	6 28	5 0	10 16	6 26	5 2	10 22	6 22	5 5	10 29	6 14	5 14	10 49
29	W	6 29	4 58	11 20	6 27	5 0	11 26	6 23	5 4	11 31	6 14	5 13	11 48
30	Th	6 30	4 57	. . . .	6 28	4 59	. . . .	6 24	5 3	. . . .	6 15	5 12	. . . .
31	Fr	6 31	4 55	12 24	6 29	4 58	12 28	6 25	5 2	12 32	6 16	5 11	12 45

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Day of Month.	H.	M.	S.	Day of Month.	H.	M.	S.	Day of Month.	H.	M.	S.	Day of Month.	H.	M.	S.	Day of Month.	H.	M.	S.
1	11	49	48	8	11	47	41	14	11	46	8	20	11	44	55	26	11	44	5
2	11	49	29	9	11	47	24	15	11	45	54	21	11	44	45	27	11	43	59
3	11	49	10	10	11	47	8	16	11	45	41	22	11	44	35	28	11	43	54
4	11	48	52	11	11	46	52	17	11	45	29	23	11	44	27	29	11	43	49
5	11	48	33	12	11	46	37	18	11	45	17	24	11	44	19	30	11	43	45
6	11	48	16	13	11	46	22	19	11	45	5	25	11	44	11	31	11	43	43
7	11	47	58																

TWILIGHT.

Place.	Oct.	Begins	Ends	Oct.	Begins	Ends	Oct.	Begins	Ends
		H. M.	H. M.		H. M.	H. M.		H. M.	H. M.
Boston...	1	4 22	7 16	11	4 33	6 59	21	4 45	6 44
New York	1	4 24	7 14	11	4 34	6 58	21	4 45	6 44
Wash'ton.	1	4 26	7 12	11	4 36	6 56	21	4 45	6 44
Charleston	1	4 32	7 8	11	4 38	6 54	21	4 45	6 44

MOON'S PHASES (EASTERN STANDARD TIME).

Full Moon	7	D.	1	H.	56	M.	New Moon	21	D.	4	H.	48	M.
Last Quarter	15		12				First Quarter	29		4		22	

Morning Stars—Mercury, Mars, Jupiter. Evening Stars—Venus, Saturn.

11th Month. **NOVEMBER.** 30 Days.

(Local Mean Time. A. M., light figures; P. M., black.)
To obtain Standard time see directions on page 63

Day of the Month.	Day of the Week.	Calendar for Boston, New England, N. Y. State, Michigan, Wisconsin, N. and S. Dakota, Washington, and Oregon.			Calendar for New York City, Connecticut, Pennsylvania, Ohio, Indiana, Illinois, Iowa, Nebraska, Wyoming, and Northern California.			Calendar for Washington, Virginia, Kentucky, Missouri, Kansas, Colorado, Utah, Nevada, and Central California.			Calendar for Charleston, Georgia, Alabama, Louisiana, Arkansas, Texas, New Mexico, Arizona, and Southern California.		
		Sun Rises.	*Sun Sets.*	*Moon R. & S.*	*Sun Rises.*	*Sun Sets.*	*Mooo R. & S.*	*Sun Rises.*	*Sun Sets.*	*Moon R. & S.*	*Sun Rises.*	*Sun Sets.*	*Moon R. & S.*
		H. M	*H. M.*	*H. M.*	*H. M*	*H. M.*	*H. M.*	*H. M.*	*H. M.*	*H.M.*	*H. M.*	*H. M.*	*H. M.*
1	Sa	6 32	4 54	1 27	6 30	4 57	1 30	6 26	5 1	1 32	6 17	5 10	1 41
2	S	6 33	4 53	2 29	6 31	4 56	2 31	6 27	5 0	2 33	6 18	5 9	2 37
3	M	6 35	4 52	3 32	6 32	4 54	3 32	6 28	4 58	3 32	6 18	5 8	3 33
4	Tu	6 36	4 50	4 35	6 34	4 53	4 34	6 30	4 57	4 34	6 19	5 7	4 30
5	W	6 38	4 49	5 42	6 35	4 52	5 40	6 31	4 56	5 38	6 20	5 7	5 29
6	Th	6 39	4 48	rises.	6 36	4 51	rises.	6 32	4 55	rises.	6 21	5 6	rises.
7	Fr	6 40	4 47	5 21	6 37	4 50	5 26	6 33	4 54	5 33	6 22	5 5	5 53
8	Sa	6 41	4 46	6 2	6 38	4 49	6 9	6 34	4 53	6 16	6 23	5 4	6 49
9	S	6 43	4 44	6 54	6 39	4 48	7 3	6 35	4 52	7 10	6 24	5 4	7 35
10	M	6 44	4 43	7 58	6 40	4 47	8 7	6 36	4 51	8 13	6 25	5 3	8 38
11	Tu	6 45	4 42	9 11	6 42	4 46	9 19	6 38	4 50	9 25	6 26	5 2	9 47
12	W	6 47	4 41	10 28	6 43	4 45	10 34	6 39	4 49	10 40	6 26	5 1	10 57
13	Th	6 48	4 40	11 46	6 44	4 44	11 50	6 40	4 48	11 54	6 27	5 1	. . .
14	Fr	6 49	4 39	. . .	6 45	4 43	. . .	6 41	4 47	. . .	6 28	5 0	12 7
15	Sa	6 50	4 38	1 3	6 46	4 42	1 5	6 42	4 46	1 8	6 29	5 0	1 15
16	S	6 52	4 37	2 18	6 48	4 41	2 19	6 43	4 46	2 20	6 30	4 59	2 21
17	M	6 53	4 36	3 32	6 49	4 40	3 31	6 45	4 45	3 31	6 31	4 58	3 28
18	Tu	6 54	4 36	4 46	6 50	4 39	4 44	6 46	4 44	4 43	6 32	4 58	4 34
19	W	6 55	4 35	6 2	6 51	4 39	5 58	6 47	4 44	5 55	6 33	4 58	5 41
20	Th	6 57	4 34	sets.	6 52	4 38	sets.	6 48	4 43	sets.	6 34	4 57	sets.
21	Fr	6 58	4 33	5 11	6 54	4 37	5 18	6 49	4 42	5 25	6 35	4 57	5 48
22	Sa	6 59	4 33	6 0	6 55	4 37	6 9	6 50	4 42	6 15	6 35	4 56	6 40
23	S	7 0	4 32	6 57	6 56	4 36	7 6	6 51	4 41	7 12	6 36	4 56	7 37
24	M	7 1	4 31	8 0	6 57	4 35	8 7	6 52	4 40	8 14	6 37	4 56	8 36
25	Tu	7 3	4 31	9 5	6 58	4 35	9 11	6 53	4 40	9 18	6 38	4 55	9 36
26	W	7 4	4 30	10 10	7 0	4 35	10 15	6 54	4 40	10 19	6 39	4 55	10 34
27	Th	7 5	4 29	11 13	7 1	4 34	11 17	6 55	4 39	11 20	6 40	4 55	11 30
28	Fr	7 6	4 29	. . .	7 2	4 34	. . .	6 56	4 39	. . .	6 41	4 55	. . .
29	Sa	7 7	4 28	12 15	7 3	4 33	12 18	6 57	4 38	12 20	6 42	4 55	12 26
30	S	7 8	4 28	1 17	7 4	4 33	1 18	6 58	4 38	1 19	6 43	4 54	1 21
..	.....	...	...	...	...	...	...	...	...	...	...	...	...

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Day of Month.	*H.*	*M.*	*S.*	Day of Month.	*H.*	*M.*	*S.*	Day of Month.	*H.*	*M.*	*S.*	Day of Month.	*H.*	*M.*	*S.*	Day of Month.	*H.*	*M.*	*S.*
1	11	43	40	7	11	43	44	13	11	44	18	19	11	45	23	25	11	46	58
2	11	43	39	8	11	43	48	14	11	44	27	20	11	45	37	26	11	47	17
3	11	43	38	9	11	43	52	15	11	44	37	21	11	45	52	27	11	47	36
4	11	43	38	10	11	43	57	16	11	44	47	22	11	46	7	28	11	47	56
5	11	43	40	11	11	44	3	17	11	44	58	23	11	46	24	29	11	48	17
6	11	43	42	12	11	44	10	18	11	45	10	24	11	46	41	30	11	48	38

TWILIGHT.

Place.	Nov.	Begins	Ends	Nov.	Begins	Ends	Nov	Begins	Ends
		H. M.	*H. M.*		*H. M.*	*H. M.*		*H. M.*	*H. M.*
Boston...	1	4 53	6 29	11	5 8	6 20	21	5 19	6 13
New York	1	4 56	6 29	11	5 7	6 21	21	5 17	6 14
Wash'ton.	1	4 56	6 30	11	5 5	6 22	21	5 15	6 16
Charleston	1	4 54	6 33	11	5 1	6 27	21	5 9	6 23

MOON'S PHASES (EASTERN STANDARD TIME).

Full Moon	6*D.*	5*H.*	28*M.*	New Moon	20*D.*	5*H.*	21*M.*
Last Quarter	13	7	27	First Quarter	28	1	18
Morning Stars—Mars, Jupiter.				Evening Stars—Venus, Saturn.			

12th Month. **DECEMBER.** 31 Days.

(Local Mean Time. A. M., light figures; P. M., black.)
To obtain Standard time see directions on page 63

Day of the Month.	Day of the Week.	Calendar for Boston, New England, N. Y. State, Michigan, Wisconsin, N. and S. Dakota, Washington, and Oregon.			Calendar for New York City, Connecticut, Pennsylvania, Ohio, Indiana, Illinois, Iowa, Nebraska, Wyoming, and Northern California.			Calendar for Washington, Virginia, Kentucky, Missouri, Kansas, Colorado, Utah, Nevada, and Central California.			Calendar for Charleston, Georgia, Alabama, Louisiana, Arkansas, Texas, New Mexico, Arizona, and Southern California		
		Sun Rises	*Sun Sets.*	*Moon R. & S.*	*Sun Rise*	*Sun Sets.*	*Moon R. & S.*	*Sun Rises.*	*Sun Sets.*	*Moon R. & S.*	*Sun Rises.*	*Sun Sets*	*Moon R. & S.*
		H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.
1	M	7 9	4 28	2 20	7 5	4 33	2 19	6 59	4 38	2 19	6 44	4 54	2 17
2	Tu	7 10	4 28	3 25	7 6	4 33	3 23	7 0	4 38	3 21	6 45	4 54	3 14
3	W	7 11	4 28	4 33	7 7	4 32	4 29	7 1	4 38	4 27	6 45	4 54	4 15
4	Th	7 13	4 27	5 44	7 8	4 32	5 39	7 2	4 38	5 35	6 46	4 54	5 19
5	Fr	7 14	4 27	rises.	7 9	4 32	rises.	7 3	4 38	rises.	6 47	4 54	rises.
6	Sa	7 15	4 27	4 45	7 10	4 32	4 53	7 4	4 38	5 0	6 48	4 54	5 25
7	S	7 16	4 27	5 47	7 11	4 32	5 55	7 5	4 38	6 2	6 48	4 54	6 27
8	M	7 17	4 27	7 0	7 12	4 32	7 7	7 6	4 38	7 13	6 49	4 54	7 36
9	Tu	7 18	4 27	8 18	7 13	4 32	8 23	7 7	4 38	8 29	6 50	4 54	8 48
10	W	7 19	4 27	9 36	7 13	4 32	9 41	7 7	4 38	9 45	6 51	4 55	9 59
11	Th	7 20	4 27	10 53	7 14	4 32	10 56	7 8	4 38	10 59	6 51	4 55	11 7
12	Fr	7 20	4 27	. . .	7 15	4 32	. . .	7 9	4 38	. . .	6 52	4 55	. . .
13	Sa	7 21	4 27	12 8	7 16	4 32	12 9	7 10	4 38	12 11	6 53	4 55	12 14
14	S	7 22	4 27	1 21	7 17	4 32	1 21	7 11	4 38	1 21	6 53	4 56	1 19
15	M	7 23	4 27	2 34	7 17	4 33	2 32	7 11	4 39	2 30	6 54	4 56	2 24
16	Tu	7 23	4 27	3 47	7 18	4 33	3 43	7 12	4 39	3 40	6 55	4 56	3 29
17	W	7 24	4 27	5 0	7 19	4 33	4 56	7 13	4 39	4 52	6 55	4 57	4 35
18	Th	7 25	4 28	6 12	7 19	4 33	6 6	7 13	4 39	6 1	6 56	4 57	5 41
19	Fr	7 25	4 28	sets.	7 20	4 34	sets.	7 14	4 40	sets.	6 56	4 57	sets.
20	Sa	7 26	4 28	4 45	7 20	4 34	4 53	7 14	4 40	5 0	6 57	4 58	5 25
21	S	7 26	4 29	5 46	7 21	4 35	5 53	7 15	4 41	6 0	6 58	4 58	6 23
22	M	7 27	4 29	6 50	7 21	4 35	6 56	7 15	4 41	7 3	6 58	4 59	7 23
23	Tu	7 27	4 30	7 55	7 22	4 36	8 1	7 16	4 42	8 7	6 59	4 59	8 23
24	W	7 28	4 30	9 0	7 23	4 36	9 4	7 17	4 42	9 8	6 59	5 0	9 20
25	Th	7 28	4 31	10 2	7 23	4 37	10 5	7 17	4 43	10 8	6 59	5 0	10 16
26	Fr	7 29	4 32	11 4	7 23	4 37	11 5	7 17	4 43	11 8	7 0	5 1	11 11
27	Sa	7 29	4 33	. . .	7 24	4 38	. . .	7 18	4 44	. . .	7 0	5 1	. . .
28	S	7 29	4 34	12 5	7 24	4 39	12 6	7 18	4 45	12 6	7 1	5 2	12 5
29	M	7 30	4 34	1 8	7 24	4 39	1 7	7 18	4 45	1 6	7 1	5 2	1 1
30	Tu	7 30	4 35	2 13	7 25	4 40	2 10	7 19	4 46	2 8	7 1	5 3	1 59
31	W	7 30	4 36	3 22	7 25	4 41	3 18	7 19	4 47	3 15	7 2	5 4	3 1

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Day of Month.	H.	M.	S.	Day of Month.	H.	M.	S.	Day of Month.	H.	M.	S.	Day of Month.	H.	M.	S.	Day of Month.	H.	M.	S.
1	11	49	0	8	11	51	50	14	11	54	35	20	11	57	32	26	12	0	31
2	11	49	22	9	11	52	16	15	11	55	4	21	11	58	2	27	12	1	1
3	11	49	46	10	11	52	43	16	11	55	33	22	11	58	32	28	12	1	31
4	11	50	9	11	11	53	11	17	11	56	2	23	11	59	2	29	12	2	0
5	11	50	34	12	11	53	39	18	11	56	32	24	11	59	32	30	12	2	29
6	11	50	59	13	11	54	7	19	11	57	2	25	12	0	2	31	12	2	58
7	11	51	24																

TWILIGHT.

Place.	Dec.	Begins	Ends	Dec.	Begins	Ends	Dec.	Begins	Ends
		H. M.	H. M.		H. M.	H. M.		H. M.	H. M.
Boston...	1	5 29	6 9	11	5 38	6 9	21	5 44	6 12
New York	1	5 27	6 12	11	5 35	6 12	21	5 41	6 15
Wash'ton.	1	5 25	6 14	11	5 32	6 14	21	5 38	6 18
Charleston	1	5 16	6 21	11	5 24	6 23	21	5 29	6 27

MOON'S PHASES (EASTERN STANDARD TIME).

Full Moon	5	*D.*	7	*H.*	40	*M.*	
Last Quarter	12		3		7		
New Moon	19	*D.*	8	*H.*	24	*M.*	
First Quarter	27		10		59		

Morning Stars—Venus, Mars, Jupiter.
Evening Stars—Mercury, Saturn.

READY-REFERENCE CALENDAR.

For ascertaining any Day of the Week for any given Time within Two Hundred Years from the introduction of the New Style, 1752 to 1952 inclusive.*

COMMON YEARS, 1753 TO 1951.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1761 1767 1778 1789 1795 . . 1846 1857 1863 1874 1885 1891 1801 1807 1818 1829 1835 . . . . 1903 1914 1925 1931 1942	4	7	7	3	5	1	3	6	2	4	7	2
1762 1773 1779 1790 . . . . 1841 1847 1858 1869 1875 1886 1897 1802 1813 1819 1830 . . . . . 1909 1915 1926 1937 1943	5	1	1	4	6	2	4	7	3	5	1	3
1757 1763 1774 1785 1791 . . . . 1853 1859 1870 1881 1887 1898 1803 1814 1825 1831 1842 . . . . . 1910 1921 1927 1938 1949	6	2	2	5	7	3	5	1	4	6	2	4
1754 1765 1771 1782 1793 1799 . . . . 1861 1867 1878 1889 1895 1805 1811 1822 1833 1839 1850 1901 . . . . 1907 1918 1929 1935 1946	2	5	5	1	3	6	1	4	7	2	5	7
1755 1766 1777 1783 1794 1800 . . . . 1862 1873 1879 1890 . . . 1806 1817 1823 1834 1845 1851 1902 . . . . 1913 1919 1930 1941 1947	3	6	6	2	4	7	2	5	1	3	6	1
1758 1769 1775 1786 1797 . . . . 1854 1865 1871 1882 1893 1899 1809 1815 1826 1837 1843 . . . . 1905 1911 1922 1933 1939 1950	7	3	3	6	1	4	6	2	5	7	3	5
1753 1759 1770 1781 1787 1798 . . . . 1866 1877 1883 1894 1900 1810 1821 1827 1838 1849 1855 . . . . 1906 1917 1923 1934 1945 1951	1	4	4	7	2	5	7	3	6	1	4	6
LEAP YEARS, 1756 TO 1952.	. .	29	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
1764 1792 1804 1832 1860 1888 1928	7	3	4	7	2	5	7	3	6	1	4	6
1768 1796 1808 1836 1864 1892 1904 1932	5	1	2	5	7	3	5	1	4	6	2	4
1772 . . 1812 1840 1868 1896 1908 1936	3	6	7	3	5	1	3	6	2	4	7	2
1776 . . 1816 1844 1872 . 1912 1940	1	4	5	1	3	6	1	4	7	2	5	7
1780 . . 1820 1848 1876 . . 1916 1944	6	2	3	6	1	4	6	2	5	7	3	5
1756 1784 1824 1852 1880 . . 1920 1948	4	7	1	4	6	2	4	7	3	5	1	3
1760 1788 1828 1856 1884 . . 1924 1952	2	5	6	2	4	7	2	5	1	3	6	1

NOTE.—To ascertain any day of the week, first look in the table for the year required, and under the months are figures which refer to the corresponding figures at the head of the columns of days below. *For Example:*—To know on what day of the week July 4, 1918, fell, look in the table of years for 1918, and in a parallel line under July is figure 1, which directs to column 1 in which it will be seen that July 4 fell on Thursday.

* 1752 same as 1772 from January 1 to September 2. From September 14 to December 31 same as 1780 (September 3–13 were omitted). (Whitaker's Almanack).

1	2	3	4	5	6	7
Monday 1	Tuesday 1	Wednesday 1	Thursday 1	Friday 1	Saturday 1	SUNDAY 1
Tuesday 2	Wednesday 2	Thursday 2	Friday 2	Saturday 2	SUNDAY 2	Monday 2
Wednesday 3	Thursday 3	Friday 3	Saturday 3	SUNDAY 3	Monday 3	Tuesday 3
Thursday 4	Friday 4	Saturday 4	SUNDAY 4	Monday 4	Tuesday 4	Wednesday 4
Friday 5	Saturday 5	SUNDAY 5	Monday 5	Tuesday 5	Wednesday 5	Thursday 5
Saturday 6	SUNDAY 6	Monday 6	Tuesday 6	Wednesday 6	Thursday 6	Friday 6
SUNDAY 7	Monday 7	Tuesday 7	Wednesday 7	Thursday 7	Friday 7	Saturday 7
Monday 8	Tuesday 8	Wednesday 8	Thursday 8	Friday 8	Saturday 8	SUNDAY 8
Tuesday 9	Wednesday 9	Thursday 9	Friday 9	Saturday 9	SUNDAY 9	Monday 9
Wednesd. 10	Thursday 10	Friday 10	Saturday 10	SUNDAY 10	Monday 10	Tuesday 10
Thursday 11	Friday 11	Saturday 11	SUNDAY 11	Monday 11	Tuesday 11	Wednesd. 11
Friday 12	Saturday 12	SUNDAY 12	Monday 12	Tuesday 12	Wednesd. 12	Thursday 12
Saturday 13	SUNDAY 13	Monday 13	Tuesday 13	Wednesd. 13	Thursday 13	Friday 13
SUNDAY 14	Monday 14	Tuesday 14	Wednesd. 14	Thursday 14	Friday 14	Saturday 14
Monday 15	Tuesday 15	Wednesd. 15	Thursday 15	Friday 15	Saturday 15	SUNDAY 15
Tuesday 16	Wednesd. 16	Thursday 16	Friday 16	Saturday 16	SUNDAY 16	Monday 16
Wednesd. 17	Thursday 17	Friday 17	Saturday 17	SUNDAY 17	Monday 17	Tuesday 17
Thursday 18	Friday 18	Saturday 18	SUNDAY 18	Monday 18	Tuesday 18	Wednesd. 18
Friday 19	Saturday 19	SUNDAY 19	Monday 19	Tuesday 19	Wednesd. 19	Thursday 19
Saturday 20	SUNDAY 20	Monday 20	Tuesday 20	Wednesd. 20	Thursday 20	Friday 20
SUNDAY 21	Monday 21	Tuesday 21	Wednesd. 21	Thursday 21	Friday 21	Saturday 21
Monday 22	Tuesday 22	Wednesd. 22	Thursday 22	Friday 22	Saturday 22	SUNDAY 22
Tuesday 23	Wednesd. 23	Thursday 23	Friday 23	Saturday 23	SUNDAY 23	Monday 23
Wednesd. 24	Thursday 24	Friday 24	Saturday 24	SUNDAY 24	Monday 24	Tuesday 24
Thursday 25	Friday 25	Saturday 25	SUNDAY 25	Monday 25	Tuesday 25	Wednesd. 25
Friday 26	Saturday 26	SUNDAY 26	Monday 26	Tuesday 26	Wednesd. 26	Thursday 25
Saturday 27	SUNDAY 27	Monday 27	Tuesday 27	Wednesd. 27	Thursday 27	Friday 27
SUNDAY 28	Monday 28	Tuesday 28	Wednesd. 28	Thursday 28	Friday 28	Saturday 28
Monday 29	Tuesday 29	Wednesd. 29	Thursday 29	Friday 29	Saturday 29	SUNDAY 29
Tuesday 30	Wednesd. 30	Thursday 30	Friday 30	Saturday 30	SUNDAY 30	Monday 30
Wednesd. 31	Thursday 31	Friday 31	Saturday 31	SUNDAY 31	Monday 31	Tuesday 31

Morning Stars in 1930.

Mercury—January 22 to April 1; May 20 to July 15; September 21 to November 7. Greatest elongation February 15, June 14, October 7.

Venus—January 1 to Feb. 6; November 22 to the end of the year. Greatest brilliancy December 28.

Mars—January 1 to the end of the year.

Jupiter—June 20 to the end of the year.

Saturn—January 1 to June 30.

Evening Stars in 1930.

Mercury—January 1 to January 22; April 1 to May 20; July 15 to September 21; November 7 to the end of the year. Greatest elongation January 5, April 27, August 25, December 19.

Venus—February 6 to November 22. Greatest elongation September 13. Greatest brilliancy October 18.

Mars—Not during the year.

Jupiter—January 1 to June 20.

Saturn—June 30 to the end of the year.

THE CALENDAR IN STANDARD TIME FOR CITIES IN THE U. S.

(How to ascertain the same for 120 United States cities from Local Mean Time Calendar on the twelve monthly calendar pages immediately preceding.)

Use Calendar for Boston.	M.	Use Calendar for New York City.	M.	Use Calendar for Washington, D. C.	M.	Use Calendar for Charleston.	M.
Idaho.		**Connecticut.**		**California (Central).**		**Alabama.**	
Boisé City...add	45 Mb	Bridgeport...sub	7 E	San Fran.....add	10 Pe	Mobile.....sub	8 Cf
Pocatello....add	30 M	Hartford.....sub	9 Eb	**Colorado.**		Montgomery..sub	15 C
Maine.		New Haven...sub	8 E	Col. Springs..	0 M	**Arizona.**	
Portland.....sub	19 Eb	**Illinois.**		Denver.....	0 M	Phoenix.....add	28 M
Massachusetts.		Chicago.....sub	9 Cb	Pueblo.....sub	2 M	**Arkansas.**	
Boston.....sub	16 E	Springfield...sub	1 Ce	**Delaware.**		Hot Springs..add	12 Cb
Fall River....sub	16 E	**Indiana.**		Wilmington...add	2 E	Little Rock...add	9 Cb
Lowell.....sub	15 E	Evansville....sub	10 Cg	**Dist. of Columbia.**		**California (Southern).**	
Springfield....sub	10 E	Fort Wayne...sub	20 C	Washington...add	8 E	Los Angeles...sub	7 Pb
Worcester....sub	13 E	Gary.....sub	11 C	**Kansas.**		Monterey....add	8 Pc
Michigan.		Indianapolis...sub	16 Ce	Topeka.....add	23 C	San Diego....sub	11 P
Battle Creek..sub	19 C	Kokomo.....sub	15 C	Wichita.....add	29 Ce	Santa Barbara.sub	1 Pb
Detroit.....add	32 E	Terre Haute..sub	10 Ce	**Kentucky.**		**Florida.**	
Grand Rapids.sub	17 C	**Iowa.**		Frankfort....sub	20 C	Jacksonville..add	27 Ef
Minnesota.		Burlington...add	5 C	Lexington....sub	22 C	Key West....add	27 Eh
Minneapolis..add	13 Cc	Cedar Rapids.add	7 Cb	Louisville....sub	17 C	Miami.....add	21 Eh
Montana.		Davenport....	0 C	**Maryland.**		**Georgia.**	
Butte.....add	30 Mc	Des Moines...add	14 C	Baltimore....add	6 E	Atlanta.....sub	22 Cb
New York.		Sioux City....add	26 Cb	**Missouri.**		Augusta.....add	28 E
Albany.....sub	5 E	**Nebraska.**		Jefferson City.add	9 C	Macon.....add	34 E
Binghamton..add	4 E	Lincoln.....add	27 C	Kansas City..add	18 C	Savannah....add	24 E
Buffalo.....add	16 E	Omaha.....add	24 C	Springfield...add	13 Ce	**Louisiana.**	
Poughkeepsie..sub	4 E	**Ohio.**		St. Louis....add	1 C	New Orleans...	0 Cf
Rochester....add	10 E	Cincinnati....sub	22 Ce	**Nevada.**		Shreveport...add	15 C
Schenectady..sub	4 E	Cleveland....add	26 E	Carson City...sub	1 P	**Mississippi.**	
Syracuse.....add	5 E	Columbus.....sub	28 C	**New Jersey.**		Jackson.....add	1 C
Utica.....add	1 E	Dayton.....sub	23 Ce	Atlantic City..sub	2 E	Vicksburg....add	3 C
North Dakota.		Sandusky....add	31 E	Trenton.....sub	1 Eb	**New Mexico.**	
Bismarck.....add	43 Cd	Toledo.....add	34 E	**North Carolina.**		Santa Fé.....add	4 Mc
South Dakota.		Youngstown..add	23 E	Raleigh.....add	15 Eg	**South Carolina.**	
Pierre.....add	41 Cb	**Pennsylvania.**		**Oklahoma.**		Charleston...add	20 E
Oregon.		Easton.....add	1 E	Muskogee....add	21 Cg	Columbia....add	24 Eb
Portland.....add	11 Pc	Erie.....add	20 Eb	Okla. City....add	30 Cg	**Tennessee.**	
Salem.....add	12 Pc	Harrisburg...add	8 E	**Utah.**		Memphis.....	0 Cc
Washington.		Philadelphia..add	1 E	Salt Lake....add	28 Mb	Nashville.....sub	13 Cc
Olympia.....add	12 Pd	Pittsburgh....add	20 E	**Virginia.**		**Texas.**	
Seattle.....add	9 Pd	Scranton.....add	3 E	Norfolk.....add	5 Ee	Austin.....add	31 Cf
Spokane.....sub	10 Pd	**Rhode Island.**		Richmond....add	10 Ee	Dallas.....add	27 C
Wisconsin.		Providence....sub	14 Eb	**West Virginia.**		El Paso.....add	6 M
Madison.....sub	2 C	**Wyoming.**		Charleston...add	26 E	Galveston...add	19 Cf
Milwaukee....sub	8 C	Cheyenne.....sub	1 M	Wheeling.....add	22 Eb	San Antonio..add	34 Cf

METHOD OF USING THE TABLE ABOVE.

Directions:—For New York City, subtract 4m. from the Calendar for that city and the result is in Eastern standard time; for other cities, use the Calendar named at head of column and add or subtract the given number of minutes; this gives the required standard time, which is Eastern, Central, Mountain or Pacific, according as the letter E, C, M or P is found in the table. A small letter indicates that in case of sunrise and sunset, a correction for latitude is advisable; which correction is to be found in the table below, in the column headed by the small letter and on line with the date.

CORRECTION TO SUNRISE.

Date.	b.	c.	d.	e.	f.	g.	h.
	M.	M.	M.	M.	M.	M.	M.
Jan. 1	add 4	add 8	add 17	sub 4	sub 7	sub 9	sub 17
15	add 4	add 7	add 14	sub 3	sub 6	sub 8	sub 15
Feb. 1	add 3	add 6	add 11	sub 3	sub 5	sub 6	sub 12
15	add 2	add 4	add 8	sub 2	sub 4	sub 4	sub 9
March 1	add 1	add 2	add 4	sub 1	sub 2	sub 2	sub 5
15	0	0	add 1	0	sub 1	0	sub 1
April 1	sub 1	sub 2	sub 3	add 1	add 1	add 2	add 4
15	sub 2	sub 4	sub 7	add 2	add 3	add 4	add 8
May 1	sub 3	sub 6	sub 11	add 3	add 4	add 6	add 11
15	sub 4	sub 7	sub 15	add 4	add 6	add 8	add 14
June 1	sub 4	sub 8	sub 18	add 4	add 7	add 9	add 17
15	sub 4	sub 9	sub 19	add 4	add 7	add 9	add 18
July 1	sub 4	sub 9	sub 19	add 4	add 7	add 9	add 17
15	sub 3	sub 8	sub 17	add 4	add 6	add 8	add 16
Aug. 1	sub 3	sub 7	sub 14	add 3	add 6	add 7	add 14
15	sub 2	sub 5	sub 10	add 3	add 5	add 5	add 10
Sept. 1	sub 1	sub 3	sub 6	add 2	add 3	add 3	add 6
15	sub 1	sub 1	sub 2	add 1	add 1	add 1	add 2
Oct. 1	0	add 1	add 1	0	sub 1	sub 1	sub 2
15	add 1	add 3	add 5	sub 1	sub 3	sub 3	sub 6
Nov. 1	add 2	add 5	add 9	sub 2	sub 4	sub 5	sub 10
15	add 3	add 8	add 13	sub 3	sub 5	sub 7	sub 13
Dec. 1	add 4	add 8	add 16	sub 4	sub 6	sub 8	sub 16
15	add 4	add 8	add 17	sub 4	sub 7	sub 9	sub 16

NOTE—The same correction is applied to sunset as to sunrise, but in the opposite way; subtracted instead of added and *vice versa*.

Chronological Cycles 1930,

Dominical Letter	E	Lunar Cycle	12	Roman Indiction	13
Epact	30	Solar Cycle	7	Julian Period	6643

CHRONOLOGICAL ERAS.

Name.	*Began.*			*Name.*	*Began.*		
Grecian Mundane Era	B. C.	5593,	Sept. 1	Grecian or Seleucidan Era	B. C.	312,	Sept. 1
Civil Era of Constantinople	"	5508,	Sept. 1	Era of Maccabees	"	164,	Nov. 24
Alexandrian Era	"	5502,	Aug. 29	Tyrian Era	"	125,	Oct. 19
Julian Period	"	4713,	Jan. 1	Sidonian Era	"	110,	Oct. 1
Mundane Era	"	4008,	Oct. 1	Julian Era	"	45,	Jan. 1
Jewish Mundane Era	"	3761,	Oct. 1	Spanish Era	"	38,	Jan. 1
Era of Abraham	"	2015,	Oct. 1	Augustan Era	"	27,	Feb. 14
Era of the Olympiads	"	776,	July 1	Christian Era	A. D.	1,	Jan. 1
Roman Era (A. U. C.)	"	753,	April 24	Destruction of Jerusalem	"	69,	Sept. 1
Era of Metonic Cycle	"	432,	July 15	Mohammedan Era	"	622,	July 16

The year 1930 corresponds to the year 7438-39 of the Byzantine era; 5690-91 of the Jewish era, the year 5691 commencing at sunset September 22; 2683 since the foundation of Rome, according to Varro; 2706 of the Olympiade or the second year of the 677th Olympiad, commencing July 1; 2590 of the Japanese era, and to the 54th year of the period entitled Showa; 1548-49 of the Mohammedan era, the year 1349 beginning at sunset May 25.

The 155th year of the independence of the U. S. begins on July 4, 1930.

THE ANCIENT AND MODERN YEAR.

The Athenians began the year in June, the Macedonians in September, the Romans first in March and afterward in January, the Persians on August 11, the ancient Mexicans on February 23, the Mohammedans in July.

THE CHINESE YEAR.

The Nationalist Government in China decreed that the Gregorian Calendar should go into effect on Jan. 1, 1929; but, owing to internal conditions, its practical enforcement has been limited to the great ports and to official activities and agencies.

The old Chinese year began late in January or early in February and was similar to the Mohammedan, having 12 months of 29 and 30 days alternately; but in every 19 years there were 7 years, each of which had 13 months. This did not work out quite right, so the years were arranged in 60-year cycles with 22 extra months distributed through each cycle.

Each of the old years in China had an animal for its symbol. There are 12 of these animals, coinciding in number and order with the signs of the Zodiac.

Year	Symbolic Animal	Zodiac Sign	Year	Symbolic Animal	Zodiac Sign	Year	Symbolic Animal	Zodiac Sign
1928	Dragon (Shan)	Leo	1932	Monkey (Shan)	Sagittarius	1936	Rat (Tzu)	Aries
1929	Serpent (Ssu)	Virgo	1933	Cock (Yu)	Capricornus	1937	Ox (Chou)	Taurus
1930	Horse (Wu)	Libra	1934	Dog (Hsu)	Aquarius	1938	Tiger (Yin)	Gemini
1931	Sheep (Wei)	Scorpio	1935	Boar (Hai)	Pisces	1939	Hare (Mao)	Cancer

This 12-year animal-cycle of year has persisted in China and also in Japan. The superstitious oriental believed each of the animals named rules events in its corresponding year.

CHURCH FASTS.

The Roman Catholic Days of obligation are: Jan. 1 (Circumcision of Christ); Ascension Day (forty days after Easter Sunday); Aug. 15 Assumption of the Blessed Virgin Mary); Nov. 1 (All Saints' Day); Dec. 8 (Immaculate Conception); Dec. 25 (Christmas), and all the Sundays of the year.

The Roman Catholic canon law prescribes abstinence for every Friday of the year. Abstinence and fast together are to be observed on Ash Wednesday, the Wednesdays and Fridays of Lent (in the United States), the Ember Days, the Vigils of Penetcost' the Assumption of the Blessed Virgin Mary, the feast of All Saints, and the Nativity of Our Lord. The law of fast alone is prescribed for all the remaining days of Lent except Sundays.

In the American Episcopal Church the days of fasting or abstinence to be observed, according to the Book of Common Prayer, are the forty days of Lent, the Ember Days, the three Rogation Days, and all the Fridays of the year except Christmas Day. In the Greek Church the four principal fasts are those in Lent, the week succeeding Whitsuntide, the fortnight before the Assumption, and forty days before Christmas.

Ember and Rogation Days are certain periods of the year devoted to prayer and fasting. Ember Days, twelve annually, about the beginning of the four seasons, are the Wednesday, Friday, and Saturday after the first Sunday in Lent, in Spring; after the feast of Pentecost (Whitsunday), Summer; after the festival of the Holy Cross, Autumn, and after the festival of St. Lucia, Winter. Ember Weeks are the weeks in which the Ember Days appear.

The Ember Days in 1930 at March 12, 14, 15; June 11, 13, 14; Sept. 17, 19, 20; December 17, 19, 20.

Rogation Days occur on Monday, Tuesday, and Wednesday immediately preceding Ascension Day, and in 1930 fall on May 26, 27, 28.

GREEK CHURCH CALENDAR, 1930.

Date.	Holy Days.	Date.	Holy Days.	Date.	Holy Days.
Jan. 1	Circumcision.	May 29	Ascension.	Sept. 8	Nativity of Theotokos.
Jan. 6	Theophany (Epiphany).	June 8	Pentecost.	Sept. 14	Exaltation of Cross
Feb. 2	Hypapante (Purification).	June 9	Holy Ghost.	Oct. 1	Patronage of Theotokos.
Mar. 3	Great Lent begins.	June 29	Peter and Paul (Chief Apostles).	Nov. 15	First Day of Fast of Theotokos
Mar. 25	Annunciation.	Aug. 6	Transfiguration.	Nov. 21	Entrance of Theotokos.
April 13	Palm Sunday.	Aug. 15	Repose of Theotokos.	Dec. 9	Conception of Theotokos.
April 18	Great Friday.	Aug. 30	*St. Alexander Nevsky.	Dec. 25	Nativity (Christmas).
April 20	Holy Pasch (Easter).				
April 23	St. George.				

*Peculiar to Russia. The dates above are according to the Gregorian Calendar which was adopted by the Greek Church in 1923; September 30, Old Style, of that year, being followed immediately by October 14, New Style.

MOHAMMEDAN CALENDAR, 1930.

Year	Name of Month	Month Begins	Year	Name of Month	Month Begins
1348...	Rajab	Dec. 3, 1929	1349...	Saphar	Jun. 28, 1930
1348...	Shaaban	Jan. 2, 1930	1349...	Rabia I	July 27, 1930
1348...	Ramadan	Jan. 31, 1930	1349...	Rabia II	Aug. 26, 1930
1348...	Shawall	Mar. 2, 1930	1349...	Jomadi I	Sept. 24, 1930
1348...	Dulkaada	Mar. 31, 1930	1349...	Jomadi II	Oct. 24, 1930
1348...	Dulheggia	Apr. 30, 1930	1349...	Rajah	Nov. 22, 1930
1349...	Muharram (New Year)	May 29, 1930	1349...	Shaaban	Dec. 22, 1930

JEWISH HOLIDAYS, FESTIVALS AND FASTS.

Festivals and Fasts	Hebrew	Date.	1925-27.	1927-28.	1928-29.	1929-30.	1930-31.
New Year	Tishri	1	Sept. 9, Th.	Sept. 27, T.	Sept. 15, St.	Oct. 5, St.	Sept. 23, Tu.
Fast of Gedaliah*	Tishri	3	Sept. 11, St.	Sept. 29, Th.	Sept. 17, M.	Oct. 7, M.	Sept. 25, Th.
Day of Atonement†	Tishri	10	Sept. 18, St.	Oct. 6, Th.	Sept. 24, M.	Oct. 14, M.	Oct. 2, Th.
Tabernacles, 1st Day	Tishri	15	Sept. 23, Th.	Oct. 11, T.	Sept. 29, St.	Oct. 19, St.	Oct. 7, Tu.
Tabernacles, 8th Day	Tishri	22	Sept. 30, Th.	Oct. 18, T.	Oct. 6, St.	Oct. 26, St.	Oct. 14, Tu.
Rejoicing of the Law	Tishri	23	Oct. 1, Fr.	Oct. 19, W.	Oct. 7, S.	Oct. 27, S.	Oct. 15, W.
Hannukah	Kislev	25	Dec. 1, W.	Dec. 19, M.	Dec. 8, St.	Dec. 27, Fr.	Dec. 16, Tu.
Fast of Tebet	Tebet	10	Dec. 15, W.	Jan. 3, T.	Dec. 23, S.	Jan. 10, Fr.	Dec. 30, Tu.
Purim	Adar	14	.....	Mar. 6, T.	.....	Mar. 14, Fr.	Mar. 3, Tu.
Purim (Leap Year)	Adar Sheni	14	Mar. 16, Fr	.....	Mar. 26, T.	.....	.....
Passover, 1st Day	Nisan	15	April 17, S.	April 5, Th.	April 25, Th.	Apr. 13, S.	April 2, Th.
Passover, 7th Day	Nisan	21	April 23, St.	April 11, W.	May 1, W.	Apr. 19, St.	April 8, W.
Passover, Last Day	Nisan	22	April 24, S.	April 12, Th.	May 2, Th.	Apr. 20, S.	April 9, Th.
Feast of Weeks	Sivan	6	June 6, M.	May 25, Fr.	June 14, Fr.	June 2, M.	May 22, Fr.
Fast of Tammuz*	Tammuz	17	July 17, S.	July 5, Th.	July 25, Th.	July 13, S	July 2, Th.
Fast of Ab*	Ab	9	Aug. 7, S.	July 26, Th.	Aug. 15, Th.	Aug. 3, S.	July 23, Th.

* If Saturday, substitute Sunday immediately following. † Yom Kippur.

Note—All Jewish holidays, etc., begin at sunset on the day previous to that given in the table.

CHURCH MEMORANDA FOR 1930.

January.
1 Circumcision.
5 2nd Sunday aft. Chr.
6 Epiphany.
12 I Sun. aft. Epiphany.
19 II Sun. aft. Epiphany.
25 Conversion of St. Paul.
26 III Su. aft. Epiphany.

February.
1 Saturday.
2 Purification.
IV Sun. aft. Epiphany.
9 V Sun. aft. Epiphany.
16 Septuagesima.
23 Sextagesima.
24 St. Matthias.

March.
1 Saturday.
2 Quinquagesima.
5 Ash Wednesday.
9 I Sunday in Lent.
16 II Sun. in Lent
23 III Sun. in Lent.
25 Annunciation.
30 IV Sun. in Lent.

April.
1 Tuesday.
6 V Sunday in Lent.
13 Palm Sunday.
18 Good Friday.
20 Easter Sunday.
23 St. George.
25 St. Mark.
27 I Sun. aft. Easter.

May.
1 Thursday.
St. Philip & St. James.
6 II Sun. aft. Easter.
11 III Sun. aft. Easter.
18 IV. Sun. aft. Easter.
25 Rogation Sunday.
29 Ascension Day.

June.
1 I Sun. aft. Ascension.
8 Pentacost (Whit. Su.)
11 St. Barnabas.
15 Trinity Sunday.
19 Corpus Christy.
22 I Sun. aft. Trinity.
24 St. John Baptist.
29 St. Peter, II Sun. aft. Trinity.

July.
1 Tuesday.
6 III Sun. aft. Trinity.
13 IV Sun. aft. Trinity.
20 V Sun. aft. Trinity.
25 St. James.
27 VI Sun. aft. Trinity.

August.
1 Friday.
3 VII Sun. aft. Trinity.
6 Transfiguration.
10 VIII Sun. aft. Trinity.
17 IX Sun. aft. Trinity.
24 X Sun. aft. Trinity.
St. Bartholomew.
31 XI Sun. aft. Trinity.

September.
1 Monday.
7 XII Sun. aft. Trinity.
14 XIII Sun. aft. Trinity.
21 XIV Sun. aft. Trinity.
St. Matthew.
28 XV Sun. aft. Trinity.
29 St. Michael and All Angels.

October.
1 Wednesday.
5 XVI Sun. aft. Trinity.
12 XVII Sun. aft. Trinity
18 St. Luke.
19 XVIII Sun. after Trinity.
26 XIX Su. aft. Trinity.
28 St. Simon & St. Jude.

November.
1 All Saints (Saturday).
2 XX Sun. aft. Trinity.
9 XXI Sun. aft. Trinity.
16 XXII Su. aft. Trinity.
23 XXIII Su. aft. Trinity
30 St. Andrew
I Sun. in Advent.

December.
1 Monday.
7 II Sun. in Advent.
14 III Sun. in Advent.
21 IV Sun. in Advent.
St. Thomas.
25 Christmas.
26 St. Stephen.
27 St. John Evangelist.
28 Innocents. I Su. aft. Christmas.

PROT. EPIS. RITUALISTIC CALENDAR, WITH ALTAR COLORS.

White—From the First Service (First Vespers) of Christmas Day to the Octave of Epiphany, inclusive (except on the Feasts of Martyrs); on Maundy Thursday (for the celebration); from the First Service of Easter Day to the Vigil of Pentecost (except on Feasts of Martyrs and Rogation Days); on Trinity Sunday, Conversion of St. Paul, Purification, Annunciation, St. John Baptist, St. Michael, St. Luke, All Saints, Saints not Martyrs, and Patron Saints (Transfiguration and Dedication of Church).

Red—From First Vespers of Pentecost to the First Vespers of Trinity Sunday (which includes Ember Days); Holy Innocents (if on a Sunday); and Feasts of all Martyrs.

Violet—From Septuagesima to Maundy Thursday (Easter Eve); Advent Sunday to Christmas Eve, Vigils, Ember Days (except in Whitsun Week); and Rogation Days; Holy Innocents (unless Sunday).

Black—Good Friday and at funerals.

Green—All other days.

Days, Etc.	1925.	1926.	1927.	1928.	1929.	1930.	1931.
Golden Number	7	8	9	10	11	12	13
Sunday Letter	D	C	B	AG	F	E	D
Sundays after Epiphany	4	3	5	4	2	5	3
Septuagesima	Feb. 8	Jan. 31	Feb. 13	Feb. 5	Jan. 27	Feb. 16	Feb. 1
Ash Wednesday	Feb. 25	Feb. 17	Mar. 2	Feb. 22	Feb. 13	Mar. 5	Feb. 18
First Sunday in Lent	Mar. 1	Feb. 21	Mar. 6	Feb. 26	Feb. 17	Mar. 9	Feb. 22
Passion Day	Mar. 29	Mar. 21	Apr. 3	Mar. 25	Mar. 17	Apr. 6	Mar. 22
Palm Sunday	Apr. 5	Mar. 28	Apr. 10	Apr. 1	Mar. 24	Apr. 13	Mar. 29
Good Friday	Apr. 10	Apr. 2	Apr. 15	Apr. 6	Mar. 29	Apr. 18	Apr. 3
Easter Day	Apr. 12	Apr. 4	Apr. 17	Apr. 8	Mar. 31	Apr. 20	Apr. 5
Rogation Sunday	May 17	May 9	May 22	May 13	May 5	May 25	May 10
Ascension Day	May 21	May 13	May 26	May 17	May 9	May 29	May 14
Whitsunday	May 31	May 23	June 5	May 27	May 19	June 8	May 24
Trinity Sunday	June 7	May 30	June 12	June 3	May 26	June 15	May 31
Sundays after Trinity	24	25	23	25	26	23	25
First Sunday in Advent	Nov. 29	Nov. 28	Nov. 27	Dec. 2	Dec. 1	Nov. 30	Nov. 29

THE FRENCH REVOLUTIONARY ERA.

The year was divided into twelve months of thirty days each. These months were called Vendemiaire, the month of vintage; Brumaire, the month of fog; Frimaire, the month of frost; Nivose, the snowy; Pluviose, the rainy; Ventose, the windy month; Germinal, the month of buds; Floreal, the month of flowers; Prairial, the month of meadows; Messidor, the month of reaping; Thermidor, the month of heat; Fructidor, the month of fruit. In ordinary years there were five extra days, from the 17th to the 21st of our September, and at the end of every fourth year was a sixth complementary day. This reckoning was first used on November 22, 1793, and was continued until December 31, 1805.

ASH WEDNESDAY AND EASTER SUNDAY.

The English word "Easter" is derived from the name of the Saxon goddess, *Eostre*, whose festival was in April.

Year.	Ash Wed.	Easter Sunday.	Year.	Ash Wed.	Easter Sunday.	Year.	Ash Wed.	Easter Sunday.	Year.	Ash Wed.	Easter Sunday.
1801	Feb. 18	April 5	1851	Mar. 5	April 20	1901	Feb. 20	April 7	1951	Feb. 7	Mar. 25
1802	Mar. 3	April 18	1852	Feb. 25	April 11	1902	Feb. 12	Mar. 30	1952	Feb. 27	April 13
1803	Feb. 23	April 10	1853	Feb. 9	Mar. 27	1903	Feb. 25	April 12	1953	Feb. 18	April 5
1804	Feb. 15	April 1	1854	Mar. 1	April 16	1904	Feb. 17	April 3	1954	Mar. 3	April 18
1805	Feb. 27	April 14	1855	Feb. 21	April 8	1905	Mar. 8	April 23	1955	Feb. 23	April 10
1806	Feb. 19	April 6	1856	Feb. 6	Mar. 23	1906	Feb. 28	April 15	1956	Feb. 15	April 1
1807	Feb. 11	Mar. 29	1857	Feb. 25	April 12	1907	Feb. 13	Mar. 31	1957	Mar. 6	April 21
1808	Mar. 2	April 17	1858	Feb. 17	April 4	1908	Mar. 4	April 19	1958	Feb. 19	April 6
1809	Feb. 15	April 2	1859	Mar. 9	April 24	1909	Feb. 24	April 11	1959	Feb. 11	Mar. 29
1810	Mar. 7	April 22	1860	Feb. 22	April 8	1910	Feb. 9	Mar. 27	1960	Mar. 2	April 17
1811	Feb. 27	April 14	1861	Feb. 13	Mar. 31	1911	Mar. 1	April 16	1961	Feb. 15	April 2
1812	Feb. 12	Mar. 29	1862	Mar. 5	April 20	1912	Feb. 21	April 7	1962	Mar. 7	April 22
1813	Mar. 3	April 18	1863	Feb. 18	April 5	1913	Feb. 5	Mar. 23	1963	Feb. 27	April 14
1814	Feb. 23	April 10	1864	Feb. 10	Mar. 27	1914	Feb. 25	April 12	1964	Feb. 12	Mar. 29
1815	Feb. 8	Mar. 26	1865	Mar. 1	April 16	1915	Feb. 17	April 4	1965	Mar. 3	April 18
1816	Feb. 28	April 14	1866	Feb. 14	April 1	1916	Mar. 8	April 23	1966	Feb. 23	April 10
1817	Feb. 19	April 6	1867	Mar. 6	April 21	1917	Feb. 21	April 8	1967	Feb. 8	Mar. 26
1818	Feb. 4	Mar. 22	1868	Feb. 26	April 12	1918	Feb. 13	Mar. 31	1968	Feb. 28	April 14
1819	Feb. 24	April 11	1869	Feb. 10	Mar. 28	1919	Mar. 5	April 20	1969	Feb. 19	April 6
1820	Feb. 16	April 2	1870	Mar. 2	April 17	1920	Feb. 18	April 4	1970	Feb. 11	Mar. 29
1821	Mar. 7	April 22	1871	Feb. 22	April 9	1921	Feb. 9	Mar. 27	1971	Feb. 24	April 11
1822	Feb. 20	April 7	1872	Feb. 14	Mar. 31	1922	Mar. 1	April 16	1972	Feb. 16	April 2
1823	Feb. 12	Mar. 30	1873	Feb. 26	April 13	1923	Feb. 14	April 1	1973	Mar. 7	April 22
1824	Mar. 3	April 18	1874	Feb. 18	April 5	1924	Mar. 5	April 20	1974	Feb. 27	April 14
1825	Feb. 16	April 3	1875	Feb. 10	Mar. 28	1925	Feb. 25	April 12	1975	Feb. 12	Mar. 30
1826	Feb. 8	Mar. 26	1876	Mar. 1	April 16	1926	Feb. 17	April 4	1976	Mar. 3	April 18
1827	Feb. 28	April 15	1877	Feb. 14	April 1	1927	Mar. 2	April 17	1977	Feb. 23	April 10
1828	Feb. 20	April 6	1878	Mar. 6	April 21	1928	Feb. 22	April 8	1978	Feb. 8	Mar. 26
1829	Mar. 4	April 19	1879	Feb. 26	April 13	1929	Feb. 13	Mar. 31	1979	Feb. 28	April 15
1830	Feb. 24	April 11	1880	Feb. 11	Mar. 28	1930	Mar. 5	April 20	1980	Feb. 20	April 6
1831	Feb. 16	April 3	1881	Mar. 2	April 17	1931	Feb. 18	April 5	1981	Mar. 4	April 19
1832	Mar. 7	April 22	1882	Feb. 22	April 9	1932	Feb. 10	Mar. 27	1982	Feb. 24	April 11
1833	Feb. 20	April 7	1883	Feb. 7	Mar. 25	1933	Mar. 1	April 16	1983	Feb. 16	April 3
1834	Feb. 12	Mar. 30	1884	Feb. 27	April 13	1934	Feb. 14	April 1	1984	Mar. 7	April 22
1835	Mar. 4	April 19	1885	Feb. 18	April 5	1935	Mar. 6	April 21	1985	Feb. 20	April 7
1836	Feb. 17	April 3	1886	Mar. 10	April 25	1936	Feb. 26	April 12	1986	Feb. 12	Mar. 30
1837	Feb. 8	Mar. 26	1887	Feb. 23	April 10	1937	Feb. 10	Mar. 28	1987	Mar. 4	April 19
1838	Feb. 28	April 15	1888	Feb. 15	April 1	1938	Mar. 2	April 17	1988	Feb. 17	April 3
1839	Feb. 13	Mar. 31	1889	Mar. 6	April 21	1939	Feb. 22	April 9	1989	Feb. 8	Mar. 26
1840	Mar. 4	April 19	1890	Feb. 19	April 6	1940	Feb. 7	Mar. 24	1990	Feb. 28	April 15
1841	Feb. 24	April 11	1891	Feb. 11	Mar. 29	1941	Feb. 26	April 13	1991	Feb. 13	Mar. 31
1842	Feb. 9	Mar. 27	1892	Mar. 2	April 17	1942	Feb. 18	April 5	1992	Mar. 4	April 19
1843	Mar. 1	April 16	1893	Feb. 15	April 2	1943	Mar. 10	April 25	1993	Feb. 24	April 11
1844	Feb. 21	April 7	1894	Feb. 7	Mar. 25	1944	Feb. 23	April 9	1994	Feb. 16	April 3
1845	Feb. 5	Mar. 23	1895	Feb. 27	April 14	1945	Feb. 14	April 1	1995	Mar. 1	April 16
1846	Feb. 25	April 12	1896	Feb. 19	April 5	1946	Mar. 6	April 21	1996	Feb. 21	April 7
1847	Feb. 17	April 4	1897	Mar. 3	April 18	1947	Feb. 19	April 6	1997	Feb. 12	Mar. 30
1848	Mar. 8	April 23	1898	Feb. 23	April 10	1948	Feb. 11	Mar. 28	1998	Feb. 25	April 12
1849	Feb. 21	April 8	1899	Feb. 15	April 2	1949	Mar. 2	April 17	1999	Feb. 17	April 4
1850	Feb. 13	Mar. 31	1900	Feb. 28	April 15	1950	Feb. 22	April 9	2000	Mar. 8	April 23

In A. D. 325 the Council of the Christian Churches at Nicaea adopted the present rule for determining the date of Easter, which is that Easter shall be on the first Sunday following the Paschal Full Moon which happens upon or next after the 21st of March. The principal reason, says George Eastman, for placing Easter Sunday on this date was that the pilgrims needed moonlight to travel on their way to the great yearly Easter festivities. The date of Easter may vary at present between March 22 and April 25, over a period of 35 days.

If Paschal Full Moon falls on a Sunday, then Easter Day is the next Sunday. The Paschal Full Moon is the Fourteenth Day of a Lunar month reckoned according to an ancient ecclesiastical computation and not the real or astronomical full moon.

The Golden Number used in the table below, is greater by unity than the remainder obtained upon dividing the given year by 19; for example; 10 is the Golden Number for the year 1928; from the table, the date of Paschal Full Moon is April 5, and this being Thursday, Easter Sunday is on April 8, 1928.

Lent begins on Ash Wednesday, which comes 40 days previous to Easter Sunday, not counting Sundays.

DATE OF PASCHAL FULL MOON, 1900-2199.

Golden Number.	Date.	Golden Number.	Date.	Golden Number.	Date.	Golden Number.	Date.
1	April 14	6	April 18	11	Mar. 25	16	Mar. 30
2	April 3	7	April 8	12	April 13	17	April 17
3	Mar. 23	8	Mar. 28	13	April 2	18	April 7
4	April 11	9	April 16	14	Mar. 22	19	Mar. 27
5	Mar. 31	10	April 5	15	April 10		

The Greek and Orthodox Churches having adopted the Gregorian Calendar, their Easter coincides with that of the Western nations.

Both festivals and fasts were common among the ancients before the Christian Era.

In Babylon, in Spring, a 40-day fast was observed. In Kurdistan the Yezides, or Sun Worshippers, still keep a period of 40 days.

The Egyptians annually fasted 40 days in honor of Osiris.

The Romans held a 40-nights' wailing for Proserpine.

The Mexicans, according to Humboldt, began, 3 days after the Vernal Equinox, a solemn fast of 40 days in honor of the Sun.

WEDDING ANNIVERSARIES.

First year, paper; second, calico; third, muslin; fourth, silk; fifth, wood; sixth, iron; seventh, copper; eighth, bronze; ninth, pottery; tenth, tin; fifteenth, crystal; twentieth, china; twenty-fifth, silver; thirtieth, pearl; thirty-fifth, coral; fortieth, ruby; forty-fifth, sapphire; fiftieth, gold; fifty-fifth, emerald; sixtieth, diamond; seventy-fifth, diamond.

DAYLIGHT SAVING TIME IN EFFECT IN 1929.

Daylight Saving Laws like those of Massachusetts present no interference with Federal rights and raise no questions over which Federal courts have jurisdiction, the U. S. Supreme Court ruled in October, 1921, in dismissing a case appealed by the Massachusetts State Grange, the Brotherhood of Locomotive Engineers, the Brotherhood of Locomotive Firemen and Enginemen and others.

Daylight Saving Time was observed from the last Sunday in April (the 28th) to the last Sunday in September (the 29th), during 1929 by State law in the entire states of Massachusetts and Rhode Island. In 1928 it became Sunday, April 27th, and ends Sunday, Sept 30th. The use of Daylight Saving in New York City began in 1918 March 19. The date of beginning and end of the period of advancing the clock one hour became set for 2 A M., on the last Sunday in April and the last Sunday in September in 1923; but there are some local exceptions to this statute. It was observed by municipal ordinances in the entire New York Metropolitan District.

In the state of New York it was observed by these cities: Albany, Amsterdam, Beacon, Buffalo, Cohoes, Glen Cove, Cohoes Falls, Gloversville, Hudson, Ithaca, Jamestown, Johnstown, Kingston, Little Falls, Lockport, Long Beach, Mechanicville, Middletown, Mount Vernon, Newburgh, New Rochelle, New York, Niagara Falls, Peekskill, Poughkeepsie, Rensselaer, Rome, Saratoga Springs, Schenectady, Tonawanda, Troy, Utica, Watervliet, Westfield, White Plains and Yonkers; 149 incorporated villages and 22 cities retained standard time.

The Connecticut Legislature has passed a law making it an offense to show other than Eastern Standard Time on clocks publicly displayed, but Daylight Saving was observed by all banks, offices, stores and factories in Ansonia, Bridgeport, Danbury, Greenwich, Hartford, Meriden, Middletown, New Britain, New Haven, New London, Norwalk, Norwich, South Norwalk, Stamford, Wallingford, Waterbury, Willimantic and Winsted, and 15 other towns.

Maine in 1925 enacted a law similar to that of Connecticut but Daylight Saving was in general use in Portland and vicinity and in Bar Harbor.

In New Jersey by municipal ordinance it was observed in 118 cities and towns, including all in the Metropolitan district.

In New Hampshire by State law any community adopting any but standard time is liable to a fine of $500.

In Vermont it was observed in Rutland and Bennington.

In Pennsylvania it was observed in Philadelphia and Pittsburgh, and in Ambridge, Braddock, Chester, Coatesville, Easton, McKeesport, Norristown and West Chester.

In Delaware it was observed in Wilmington; in West Virginia in Wheeling; in Illinois in Chicago and its suburbs and Evanston; and in Indiana in Crown Point, East Chicago, Fort Wayne, Garrett, Gary and Hammond.

In Ohio due to the demands for Daylight Saving in cities, towns and villages, the entire State was put on Eastern Standard Time, effective April 3, 1927, by order of the Interstate Commerce Commission.

In Michigan, in addition to the cities located in that portion of the State which is within the Eastern Standard Time Zone, practically all the cities and towns in the lower peninsula follow Eastern Standard Time the year 'round.

In Minnesota members of the Minneapolis Chamber of Commerce observed Daylight Saving Time.

In North Dakota the State Legislature in 1926 enacted a law fixing the standard time for the State as Central time. In certain sections the railroads continue to operate on Mountain time.

In Canada Daylight Saving Time, with varying limits, is observed in Halifax, Montreal, Oshawa, Ottawa, Quebec, Regina, St. John, Sherbrook, Three Rivers, Toronto and Welland.

"Summer Time" (Daylight Saving) has been in effect in Great Britain for several years, beginning with the third Sunday in April (21st in 1929) and ending the first Sunday in October (6th in 1929).

DIVISIONS OF TIME.

The interval between two consecutive meridian transits of a fixed star having no proper motion of the interval during which the earth makes one absolute revolution on its axis, is invariable.

The use of the word *invariable* is not absolutely accurate. According to Ernest W. Brown, Sterling Professor of Mathematics at Yale University, the earth is continuing to rotate with certainty of its accustomed speed, which is one rotation in approximately 24 hours.

His statement is based on 340 observations in 1927, taken all over the world, of occultations of the moon, that is, of the obscuring of stars when the moon passed in front of them. The Variable Star Observers supplied nearly two-thirds of these observations.

"The earth's rotation," said Brown, "is our clock for determining time. We might also, if we wanted, use the motion of any other body in the solar system as the clock. But comparison of the earth with the other bodies showed that one of the clocks was wrong and observations have relied upon the earth's rotation as the time instrument which varies.

"The rotation will sometimes hold the same pace for many years together. Some of the changes have occurred very abruptly.

"They amount at most to about one thirty-millionth of the day, or one three-hundredth of a second.

"The cause of the variations is unknown. The only theory that seems to fit the facts is that the earth swells or contracts from time to time. How it does so, and why, we do not know. The amount of swelling, if its exists, is very small, at most only a few inches, perhaps ten or twelve.

"It is supposed that the expansion and contraction may lead to disturbance of the earth's crust, such as occurs during earthquakes. I have made an attempt to correlate the changes in rotation periods with the frequency of earthquakes.

"There is some similarity, but that which I found from studying the records of British and California quakes was not sufficient to mean possible a definite statement."

A Sidereal Day is the interval between two consecutive transits of the Vernal Equinox over any meridian.

The Vernal Equinox is that point on the celestial equator from which the right ascension of the heavenly bodies are measured. It is also on the ecliptic, the annual path of the Sun, and when the Sun reaches this point, on or within a day of March 21, Spring commences.

The interval between two consecutive transits of the Sun over any meridian is called an Apparent Solar Day. Its length varies from day to day by reason of the variable motion of the earth in its orbit and the inclination of this orbit to the Equator.

The interval between two consecutive transits of a fictitious mean sun that moves uniformly in the celestial equator, completing the circuit in a tropical year, is called a Mean Solar Day. It is the average or mean of all the apparent solar days in a year, and equals to one day, three minutes and 56.555 seconds, when measured in units of the Sidereal Day.

Mean Solar Time is that shown by a well-regulated clock or watch.

The mean sun cannot, of course, be observed but when the Sun is on the meridian of any place it is local apparent noon and this Almanac gives for each day in the year the local mean time of apparent noon under the heading "SUN ON MERIDIAN OF WASHINGTON."

This may be taken as the local mean time of apparent noon for any other meridian in the United States within four seconds since the maximum daily change is 30 seconds.

Also, the Right Ascension of Mean Sun is the sidereal time when the mean sun is on a meridian, and the right ascension of the stars is the local sidereal time each star is on a meridian.

The interval during which the earth makes one absolute revolution round the Sun is called a Sidereal Year, and consists of 365 days, 6 hours, 9 minutes and 9.6 seconds.

The Tropical Year, on which the return of the seasons depends, is the interval between two consecutive returns of the sun to the Vernal Equinox.

If this were a fixed point, the Sidereal and Tropical Years would be identical, but in consequence of the action of the Sun and Moon upon the equatorial protuberance of the Earth's mass and, in a much less degree, the disturbing influence of the planets upon the Earth's orbit, the Equinox has a slow, retrograde mean motion of 50".26 annually, so that the Sun returns to the Equinox sooner every year than he otherwise would by 20 minutes 24.6 seconds.

The Tropical Year, therefore, consists of 365 days, 5 hours, 48 minutes and 46 seconds. The Tropical Year is not of uniform length, it is now slowly decreasing at the rate of .530 second per century, but the variation is not always positive.

STANDARD TIME.

The United States adopted standard time in 1883, on the initiative of the American Railway Association, and at noon of November 18, 1883, the telegraphic time signals sent out daily from the Naval Observatory at Washington were changed to the new system, according to which the meridians of 75°, 90°, 105° and 120° west from Greenwich became the time meridians of Eastern, Central, Mountain, and Pacific standard time respectively.

By Act of Congress, approved March 19, 1918, standard time is made the legal time throughout the United States. In addition to the four time meridians already mentioned, the meridian 150° west from Greenwich is established the time meridian of standard Alaska time. Authority to readjust the boundary line between the time zones is lodged with the Interstate Commerce Commission.

In May, 1928, the Commission made a readjustment so as to bring the limits of the zones as nearly half-way between the Standard meridians as the Junction and division points of common carriers would permit.

United States standard Eastern time is used from the Atlantic Ocean to a line through Toledo, O.; Norton, Va.; Johnson City, Tenn.; Asheville, N. C.; Atlanta and Macon, Ga., and Apalachicola, Fla.

U. S. standard Central Time is used from this first line to a line through Mandan, N. D.; Pierre, S. D.; McCook, Neb.; Dodge City, Kan., and along west line of Okla. and Tex. Standard Mountain time is used from the second line to a line that forms the western boundary of Mont., thence follows the Salmon River westward, the western boundary of Idaho southward, the southern boundary of Idaho eastward, and thence passes southward through Ogden and Salt Lake City, Utah; Parker and Yuma, Ariz.

U. S. standard Pacific time is used from the third line to the Pacific Ocean.

Almost all countries throughout the world use standard time that differs from Greenwich time by a whole number of hours or half hours; a few countries, however, use standard time based on the longitude of their national observatories.

TIME DIFFERENCE.

12 O'clock Noon U. S. Standard Eastern Time Compared with Clocks in Foreign Cities:

Aden	8.00 P.M.	Hamburg	6.00 P.M.	Manila	1.00 A.M. *
Alexandria	7.00 P.M.	Havana	11.31 A.M.	Melbourne	3.00 A.M. *
Amsterdam	5.20 P.M.	Havre	5.00 P.M.	Mexico City	10.24 A.M.
Athens	7.00 P.M.	Hongkong	1.00 A.M *	Paris	5.00 P.M.
Berlin	6.00 P.M.	Honolulu	6.30 A.M.	Rio de Janeiro	2.00 P.M.
Bogota	12.03 P.M.	Leningrad	7.01 P.M.	Rome	6.00 P.M.
Bombay	10.30 P.M.	Lima	12.01 NOON	Santiago (Chile)	12.17 P.M.
Bremen	6.00 P.M.	Lisbon	5.00 P.M.	Sitka, Alaska	7.00 A.M.
Brussels	5.00 P.M.	Liverpool	5.00 P.M.	Stockholm	6.00 P.M.
Constantinople	7.00 P.M.	London	5.00 P.M.	Vienna	6.00 P.M.
Copenhagen	6.00 P.M.	Madrid	5.00 P.M.	Yokohama	2.00 A.M. *

* At places marked * the time noted is in the morning of the following day.

12 O'clock Noon U. S. Standard Eastern Time Compared with Clocks in U. S. Cities:

Atlanta, Ga	11.00 A.M.	Detroit, Mich	12.00 NOON	Norfolk, Va	12.00 NOON
Baltimore, Md	12.00 NOON	El Paso, Tex	10.00 A.M.	Omaha, Neb	11.00 A.M.
Birmingham, Ala	11.00 A.M.	Galveston, Tex	11.00 A.M.	Philadelphia, Pa	12.00 NOON
Boston, Mass	12.00 NOON	Indianapolis, Ind	11.00 A.M.	Pittsburgh, Pa	12.00 NOON
Buffalo, N. Y	12.00 NOON	Kansas City, Mo	11.00 A.M.	Richmond, Va	12.00 NOON
Charleston, S. C	12.00 NOON	Los Angeles, Cal	9.00 A.M.	Salt Lake City, Utah	10.00 A.M.
Chicago, Ill	11.00 A.M.	Louisville, Ky	11.00 A.M.	San Francisco, Cal	9.00 A.M.
Cincinnati, Ohio	12.00 NOON	Memphis, Tenn	11.00 A.M.	Savannah, Ga	12.00 NOON
Cleveland, Ohio	12.00 NOON	Milwaukee, Wis	11.00 A.M.	Seattle, Wash	9.00 A.M.
Dallas, Tex	11.00 A.M.	Minneapolis, Minn	11.00 A.M.	St. Louis, Mo	11.00 A.M.
Denver, Col	10.00 A.M.	New Orleans, La	11.00 A.M.	Washington, D. C.	12.00 NOON

For Daylight Time in above tables, add one hour.

Longitude Difference between N. Y. City and Foreign Cities Measured from N. Y. East or West.

	H.	M.			H.	M.			H.	M.	
Aden	7	56	E.	Dublin	4	31	E.	Manila	13	0	E
Alexandria	6	55	E.	Hamburg	5	36	E.	Melbourne	14	36	E
Amsterdam	5	16	E.	Havana		33	W.	Mexico City	1	40	W
Athens	6	31	E.	Havre	4	56	E.	Paris	5	5	E
Berlin	5	49	E.	Hongkong	12	33	E.	Rio de Janeiro	2	3	E.
Bogota		1	W.	Honolulu	5	36	W.	Rome	5	46	E.
Bombay	9	47	E.	Leningrad	6	57	E.	Santiago (Chile)	5	13	E.
Bremen	5	31	E.	Lima		13	W.	Sitka, Alaska	4	5	W.
Brussels	5	13	E.	Liverpool	4	44	E.	Stockholm	6	8	E.
Constantinople	6	52	E.	London	4	56	E.	Vienna	6	1	E.
Copenhagen	5	46	E.	Madrid	4	41	E.	Yokohama	14	14	E.

HISTORY OF THE CALENDAR.

The Egyptians determined the true length of the year—365.242 days—and divided it into 12 months of 30 days each. The 5 extra days (or 6 extra days in Leap Years) were devoted to festival holidays. The month was divided into three 10-day periods.

After the conquest of Egypt, Julius Caesar, in 46 B. C., adopted the Egyptian calendar for the Roman Empire, except, says George Eastman, that he did not continue the equal months of the Egyptians. He distributed the 5 extra days throughout the year by adding one day to every other month, January, March, May, July, September and November, and took one day off February.

In 28 B. C., Augustus Caesar, in order to have as many days in the month of his birth (August) as there were in the birth month of Julius Caesar (July), and also to be known in history as having altered the calendar, moved the 29th day of February to August.

Property owners who rented by the quarter objected to the unequal quarters caused by this change, as there would have been 90 days in the first quarter and 93 in the third. Augustus compromised by moving September 31st to October 31st. That caused two 31-day months to come together, and a further change was made by moving November 31st to December 31st.

The calendar of the two Caesars, Julius and Augustus, was based upon a 365.25 day year, with a Leap Year every fourth year. The actual year is 365.242 days, therefore .008 of a day was accumulated every year. By 1582, the accumulation, it is pointed out by Eastman, had amounted to 10 days, and Pope Gregory XIII in that year ordered the 10 days between October 5 and October 15 dropped from the calendar, and adopted the present rule for Leap Year. It is said that Gregory's purpose was to keep the Equinox to the same day of the year.

Of the centurial years only those which are exactly divisible by 400 thenceforward contained 366 days. The length of the mean Gregorian Year may therefore be set down at 365 days, 5 hours, 49 minutes, 12 seconds, and the error will amount to one day in 3,000 years.

The Gregorian Calendar was introduced into England and her colonies in 1752, at which time the Equinox had retrograded 11 days since the Council of Nice in A. D. 325, when the rule for Easter Day was established and the Equinox occurred on March 21; hence September 3, 1752, was called September 14, and at the same time the commencement of the legal year was changed from March 25 to January 1, so that the year 1751 lost the months of January and February and the first 24 days of March. The difference between Julian and Gregorian Calendars is 13 days.

The Gregorian Calendar was adopted by Japan in 1873, by the Chinese Republic in 1912, by the Turkish Parliament in 1917, by the Soviet Government of Russia in 1918, by Roumania in 1919, and by Greece and the Greek Church in 1923.

The Mosaic 7-day week of the Hebrews was made legal by Constantine the Great in 321 A. D., when he adopted Christianity.

TABLE OF DAYS BETWEEN TWO DATES.

The tabulation that appears below will enable any reader of The Almanac to make interest and other calculations with certainty.

A TABLE OF THE NUMBER OF DAYS BETWEEN ANY TWO DATES WITHIN TWO YEARS.

Day Mo	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1.	1	32	60	91	121	152	182	213	244	274	305	335
2.	2	33	61	92	122	153	183	214	245	275	306	336
3.	3	34	62	93	123	154	184	215	246	276	307	337
4.	4	35	63	94	124	155	185	216	247	277	308	338
5.	5	36	64	95	125	156	186	217	248	278	309	339
6.	6	37	65	96	126	157	187	218	249	279	310	340
7.	7	38	66	97	127	158	188	219	250	280	311	341
8.	8	39	67	98	128	159	189	220	251	281	312	342
9.	9	40	68	99	129	160	190	221	252	282	313	343
10.	10	41	69	100	130	161	191	222	253	283	314	344
11.	11	42	70	101	131	162	192	223	254	284	315	345
12.	12	43	71	102	132	163	193	224	255	285	316	346
13.	13	44	72	103	133	164	194	225	256	286	317	347
14.	14	45	73	104	134	165	195	226	257	287	318	348
15.	15	46	74	105	135	166	196	227	258	288	319	349
16.	16	47	75	106	136	167	197	228	259	289	320	350
17.	17	48	76	107	137	168	198	229	260	290	321	351
18.	18	49	77	108	138	169	199	230	261	291	322	352
19.	19	50	78	109	139	170	200	231	262	292	323	353
20.	20	51	79	110	140	171	201	232	263	293	324	354
21.	21	52	80	111	141	172	202	233	264	294	325	355
22.	22	53	81	112	142	173	203	234	265	295	326	356
23.	23	54	82	113	143	174	204	235	266	296	327	357
24.	24	55	83	114	144	175	205	236	267	297	328	358
25.	25	56	84	115	145	176	206	237	268	298	329	359
26.	26	57	85	116	146	177	207	238	269	299	330	360
27.	27	58	86	117	147	178	208	239	270	300	331	361
28.	28	59	87	118	148	179	209	240	271	301	332	362
29.	29	..	88	119	149	180	210	241	272	302	333	363
30.	30	..	89	120	150	181	211	242	273	303	334	364
31.	31	..	90	..	151	..	212	243	..	304	..	365

Day Mo	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1.	366	397	425	456	486	517	547	578	609	639	670	700
2.	367	398	426	457	487	518	548	579	610	640	671	701
3.	368	399	427	458	488	519	549	580	611	641	672	702
4.	369	400	428	459	489	520	550	581	612	642	673	703
5.	370	401	429	460	490	521	551	582	613	643	674	704
6.	371	402	430	461	491	522	552	583	614	644	675	705
7.	372	403	431	462	492	523	553	584	615	645	676	706
8.	373	404	432	463	493	524	554	585	616	646	677	707
9.	374	405	433	464	494	525	555	586	617	647	678	708
10.	375	406	434	465	495	526	556	587	618	648	679	709
11.	376	407	435	466	496	527	557	588	619	649	680	710
12.	377	408	436	467	497	528	558	589	620	650	681	711
13.	378	409	437	468	498	529	559	590	621	651	682	712
14.	379	410	438	469	499	530	560	591	622	652	683	713
15.	380	411	439	470	500	531	561	592	623	653	684	714
16.	381	412	440	471	501	532	562	593	624	654	685	715
17.	382	413	441	472	502	533	563	594	625	655	686	716
18.	383	414	442	473	503	534	564	595	626	656	687	717
19.	384	415	443	474	504	535	565	596	627	657	688	718
20.	385	416	444	475	505	536	566	597	628	658	689	719
21.	386	417	445	476	506	537	567	598	629	659	690	720
22.	387	418	446	477	507	538	568	599	630	660	691	721
23.	388	419	447	478	508	539	569	600	631	661	692	722
24.	389	420	448	479	509	540	570	601	632	662	693	723
25.	390	421	449	480	510	541	571	602	633	663	694	724
26.	391	422	450	481	511	542	572	603	634	664	695	725
27.	392	423	451	482	512	543	573	604	635	665	696	726
28.	393	424	452	483	513	544	574	605	636	666	697	727
29.	394	...	453	484	514	545	575	606	637	667	698	728
30.	395	...	454	485	515	546	576	607	638	668	699	729
31.	396	...	455	...	516	...	577	608	...	669	...	730

The above table applies to ordinary years only. For leap year, one day must be added to each number of days after February 28.

DAYS' LENGTHS AT NEW YORK CITY.

The table shows the length of each day—from the rising to the setting of the sun—throughout the year, in the latitude of the metropolis. It serves, also, as the basis for similar computations elsewhere. There is, of course, no connection between the days' lengths and either standard or daylight time.

Days.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.
1...	9.17	10. 5	11.15	12.40	13.57	14.55	15. 5	14.21	13. 8	11.48	10.26	9.28
2...	9.18	10. 7	11.17	12.42	13.59	14.56	15. 4	14.19	13. 5	11.45	10.23	9.27
3...	9.19	10. 9	11.20	12.45	14. 2	14.58	15. 3	14.17	13. 2	11.42	10.21	9.25
4...	9.20	10.12	11.23	12.48	14. 4	14.59	15. 2	14.15	13. 0	11.40	10.19	9.24
5...	9.21	10.14	11.26	12.51	14. 6	15. 0	15. 2	14.13	12.57	11.37	10.17	9.23
6...	9.22	10.16	11.28	12.54	14. 8	15. 0	15. 1	14.11	12.54	11.34	10.15	9.22
7...	9.22	10.19	11.31	12.56	14.10	15. 1	15. 0	14. 9	12.52	11.31	10.13	9.21
8...	9.23	10.21	11.33	12.59	14.13	15. 2	14.59	14. 6	12.49	11.28	10.11	9.20
9...	9.24	10.23	11.36	13. 2	14.15	15. 2	14.58	14. 4	12.47	11.25	10. 8	9.19.
10...	9.25	10.25	11.39	13. 4	14.17	15. 3	14.57	14. 2	12.44	11.22	10. 6	9.19
11...	9.27	10.28	11.42	13. 7	14.19	15. 4	14.56	14. 0	12.41	11.20	10. 4	9.18
12...	9.29	10.30	11.45	13. 9	14.21	15. 5	14.55	13.58	12.38	11.17	10. 2	9.17
13...	9.30	10.33	11.48	13.12	14.23	15. 5	14.54	13.55	12.36	11.14	10. 0	9.17
14...	9.32	10.35	11.51	13.14	14.25	15. 6	14.53	13.53	12.33	11.12	9.58	9.16
15...	9.33	10.38	11.53	13.17	14.27	15. 6	14.51	13.51	12.30	11.10	9.56	9.16
16...	9.34	10.41	11.56	13.19	14.29	15. 7	14.50	13.48	12.27	11. 7	9.54	9.15
17...	9.36	10.43	11.58	13.22	14.31	15. 7	14.49	13.46	12.25	11. 4	9.52	9.15
18...	9.37	10.46	12. 1	13.25	14.33	15. 7	14.47	13.44	12.22	11. 2	9.50	9.14
19...	9.39	10.48	12. 4	13.27	14.35	15. 7	14.46	13.42	12.19	11. 0	9.48	9.14
20...	9.41	10.51	12. 6	13.30	14.37	15. 7	14.44	13.40	12.17	10.57	9.46	9.14
21...	9.43	10.53	12. 9	13.33	14.39	15. 7	14.42	13.37	12.14	10.55	9.44	9.13
22...	9.45	10.56	12.12	13.35	14.41	15. 7	14.40	13.35	12.12	10.52	9.42	9.13
23...	9.47	10.59	12.15	13.38	14.42	15. 7	14.39	13.32	12. 9	10.49	9.40	9.14
24...	9.49	11. 1	12.18	13.41	14.44	15. 7	14.37	13.29	12. 6	10.47	9.38	9.14
25...	9.51	11. 4	12.20	13.43	14.45	15. 7	14.35	13.27	12. 3	10.44	9.36	9.14
26...	9.53	11. 7	12.23	13.46	14.47	15. 7	14.33	13.24	12. 1	10.42	9.35	9.14
27...	9.54	11.10	12.26	13.48	14.48	15. 6	14.31	13.21	11.58	10.39	9.33	9.15
28...	9.56	11.12	12.29	13.50	14.50	15. 6	14.28	13.18	11.55	10.36	9.32	9.15
29...	9.58	.....	12.32	13.53	14.51	15. 6	14.26	13.15	11.53	10.34	9.31	9.15
30...	10. 0	.....	12.35	13.55	14.52	15. 5	14.24	13.13	11.50	10.31	9.29	9.16
31...	10. 3	.....	12.37	.....	14.53	.....	14.23	13.10	.....	10.29	.....	9.16

HOLIDAYS OF THE WORLD.

Christmas and New Year's are observed the world over.

In Episcopal countries, such as England, the only church days which are regular legal holidays, aside from Christmas, are Good Friday, Easter Monday, and Whit-Monday. This holds good for the British colonies, in some of which several Roman Catholic Church holidays are established.

In Roman Catholic countries, such as Spain, the church days other than Christmas which are almost universally legal holidays are Epiphany, Ascension, Assumption, All Saints', and Immaculate Conception. Throughout the Latin-American countries it is usual to observe, in addition, Good Friday and Corpus Christi. Good Friday is in many of these countries a 3-day holiday season, beginning on Holy Thursday and closing on Holy Saturday.

In Lutheran countries, such as Sweden and Prussia, Epiphany, Annunciation, Good Friday, Easter Monday, Ascension Day, Whit-Monday Ash Wednesday, and Corpus Christi are holidays.

OLD ENGLISH HOLIDAYS.

JANUARY 6. TWELFTH DAY, or Twelfth-tide, sometimes called Old Christmas Day, the same as Epiphany. The previous evening is Twelfth Night, with which many social rites have long been connected.

FEBRUARY 2. CANDLEMAS: Festival of the Purification of the Virgin. Consecration of the lighted candles to be used in the church during the year. Also known as "Groundhog Day."

FEBRUARY 14. OLD CANDLEMAS: St. Valentine's Day.

MARCH 25. LADY DAY: Annunciation of the Virgin. April 6 is old Lady Day.

JUNE 24. MIDSUMMER DAY: Feast of the Nativity of John the Baptist. July 7 is old Midsummer Day.

JULY 15. ST. SWITHIN'S DAY. There was an old superstition that if rain fell on this day it would continue forty days.

AUGUST 1. LAMMAS DAY. Originally in England the festival of the wheat harvest. In the church the festival of St. Peter's miraculous deliverance from prison. Old Lammas Day is August 13.

SEPTEMBER 29. MICHAELMAS: Feast of St. Michael the Archangel. Old Michaelmas is October 11.

NOVEMBER 1. ALL-HALLOMAS: All-hallows, or All Saints' Day. The previous evening is All-hallow-e'en, observed by home gatherings and old-time festive rites.

NOVEMBER 2. ALL SOULS' DAY: Day of prayer for the souls of the dead.

NOVEMBER 11. MARTINMAS: Feast of St. Martin. Old Martinmas is November 23.

DECEMBER 28. CHILDERMAS: Holy Innocents' Day.

Lady Day, Midsummer Day, Michaelmas and Christmas are quarter (rent) days in England, and Whit-Sunday, Martinmas, Candlemas and Lammas Day in Scotland.

Shrove Tuesday, the day before Ash Wednesday, and Maundy (Holy) Thursday, the day before Good Friday, are observed by the church.

LEGAL OR PUBLIC HOLIDAYS IN THE UNITED STATES IN 1930.

The chief legal or public holidays are:

Jan. 1—New Year's Day (all the States, Territories and colonial possessions).

Feb. 12—Lincoln's Birthday (Alaska, Cal., Colo., Conn., Del., Ill., Ind., Ia., Kan., Ky., Mich., Minn., Mo., Mont., Neb., Nev., N. J., N. Y., N. M., N. Dak., Ohio, Ore., Pa., S. Dak., Tenn., Utah, Wash., W. Va., Wyo. and observed by Governor's proclamation in Mass.).

Feb. 22—Washington's Birthday (all the States, Territories and possessions).

April 18—Good Friday (Conn., Del., Fla., La., Md., Minn., N. J., Pa., Philippines, Porto Rico, Tenn.). In Conn. Good Friday is usually proclaimed by the Governor as a day of fasting and prayer.

May 30—Decoration or Memorial Day (all States and possessions, except Ala., Ark., Fla., Ga., La., Miss., N. Car. and S. Car.)

July 4—Independence Day (all the States, Territories and possessions).

Sept. 1—Labor Day (every State and Territory except the Philippines).

Oct. 12—Columbus Day (Ark., Ariz., Cal., Col., Conn., Del., Fla., Idaho, Ill., Ind., Kan., Ky., La., Me., Md., Mass., Mich., Mo., Mont., Neb., Nev., N. H., N. J., N. Y., N. Dak., Ohio, Ore., Pa., R. I., Tex., Utah, Vt., Wash., W. Va., also in Porto Rico. In Arkansas and Kansas it does not affect notes or judicial proceedings).

Nov. 4—General Election Day (1st Tuesday after 1st Monday in Nov.). Every State and Territory except Alaska, Conn., Dist. of Col., Hawaii, Ill., Mass., Miss., Ohio, Philippines and Vt. In Illinois it is a legal holiday in Chicago, Springfield, East St. Louis, Galesburg, Danville, Cairo and Rockford. In Ohio it is a half holiday. In Maine it is a legal holiday only as to the courts, which also close on the State Election Day (biennially, 2d Monday in Sept.).

Nov. 11—Armistice Day (Ala., Ariz., Ark., Cal., Col., Conn., Fla., Ill., Iowa, La., Minn., Mo., Mont., Neb., N. H., N. J., N. Car., N. Dak., Pa., R. I., S. Dak., Tenn., Tex., Vt., Va. and Hawaii. In other States by Governor's proclamation only).

Nov. 27—Thanksgiving Day (last Thursday in Nov.) Every State, Territory and possession.

Dec. 25—Christmas Day (every State, Territory and possession).

OTHER LEGAL OR PUBLIC HOLIDAYS IN 1930 (SEE ALSO ARBOR DAYS).

Jan. 8—Battle of New Orleans (in La.).

Jan. 19—R. E. Lee's Birthday (in Ala., Ark., Fla., Ga., Ky., Miss., N. C., S. C., Tenn. and Va.).

Feb. 12—Georgia Day (in that State only. Date of Oglethorpe's landing in 1733).

Feb. 14—Admission Day (in Arizona).

Mar. 2—Texas Flag Day (in Texas).

Mar. 4—Inauguration Day (once every 4 years in the Dist. of Col. only), also, *Pennsylvania Day*, in that State, whose charter was granted Mar. 4, 1681.

Mar. 4—Shrove Tuesday (observed as Mardi Gras in Ala., Fla. and La.).

Mar. 22—Emancipation Day (in Porto Rico).

Mar. 25—Maryland Day (in that State only).

Mar. 30—Seward Day (in Alaska).

April 12—Date of passage of Halifax Independence Resolutions (in North Carolina).

April 13—Birthday of Thomas Jefferson (in Ala.).

April 15—(3d Tuesday) State elections (in La.).

April 16—De Diego's birthday (in Porto Rico).

April 17—Holy Thursday (in the Philippines).

April 19—Observed as Patriots' Day (in Me. and Mass.).

April 21—Anniversary Battle of San Jacinto (in Tex.).

April 24—(Last Thursday)—Fast Day (in N. H.).

April 26—Confederate Memorial Day (in Ala., Fla., Ga. and Miss.).

May 1—Labor Day (in Philippines).

May 10—Confederate Memorial Day (observed in Ky. and N. Car.).

May 20—Anniversary signing of Mecklenburg Declaration of Independence (observed in N. C.).

May 30—Confederate Memorial Day (in Va.).

June 3—Confederate Memorial Day (in Tenn.).

June 3—Birthday of Jefferson Davis (in Ala., Ark., Fla., Ga., La., Miss., S.C., Tex. and Va.).

June 11—Kamehameha Day (in Hawaii).

June 15—Pioneer Day (in Idaho).

July 13—Birthday of Gen. Bedford Forrest (in Tenn.)

July 17—Munoz Rivera Day (in Porto Rico).

July 24—Pioneer Day (in Utah).

July 25—Occupation Day (in Porto Rico).

July 27—Dr. Barbosa's Birthday (in Porto Rico).

Aug. 1—Colorado Day (in that State only).

Aug. 13—Occupation Day (in Philippines).

Aug. 16—Anniv. Battle of Bennington (in Vt.).

Sept. 6—Lafayette Day (also the anniversary of the First Battle of the Marne) is not a legal holiday, but is celebrated in New York and ten other States.

Sept. 9—Admission Day (in Cal.).

Sept. 12—Defenders' Day (in Md.).

Oct. 1—Missouri Day (in that State's schools).

Oct. 9—Fraternal Day (Alabama only).

Oct. 18—Alaska Day (in Alaska only).

Oct. 31—Admission Day (in Nev.).

Dec. 28—Woodrow Wilson's Birthday (in S. C.)

Dec. 30—Rizal Day (in Philippines).

Mother's Day is the second Sunday in May; May 1, Child Health Day (by annual Presidential proclamation); June 14, Flag Day; Sept. 26 (fourth Friday), American Indian Day; Sept. 17, Constitution Day (fixed date).

Saturday afternoon is a legal holiday in Ill. (cities over 200,000) Ind. (cities over 35,000) La. (cities and towns over 10,000), Md. (Annapolis, Baltimore, Ellicott and Westminster and Baltimore, Cecil, Hartford and Montgomery Counties) N. J., N. Y., O., S. C. (Richmond and Charleston Counties).

Banks close Saturday afternoons also in Ariz., Ark. (larger cities after 1 P. M.) Cal., Col. (cities over 25,000), D. C., Del. (New Castle and Kent Counties, and Wilmington), Idaho, Kan., Me., Mass., Mich., Miss., Mo. (large cities), Mont., Neb., N. H., N. C., N. D., Penn., R. I., Tenn., Utah, Vt., Va., Wash., Wyo.; also in Alaska, Hawaii, Philippines and Porto Rico.

DATES ON WHICH ARBOR DAY IS OBSERVED.

Arbor Day in the United States is mostly a spring observance. In some States it is combined with Bird Day. In the following list, the first year named is when observance began, the second is when the law was enacted. "Proclamation" means date is set each year by Governor's proclamation. Arbor Day was first observed in Nebraska, on April 10, 1872, on which occasion more than 1,000,000 trees were planted.

Alabama (1887)—In Spring, often on Audubon or Bird Day. Proclamation.
Arizona (1890)—In northern part, first Friday after April 1; in southern part, first Friday after February 1.
Arkansas (1906-1905)—First Saturday in March.
California (1886-1909)—March 7, Luther Burbank's birthday.
Colorado (1885-1889)—Third Friday in April. Proclamation.
Connecticut (1886-1886)—In the spring. Proclamation.
Delaware (1901)—In April. Proclamation.
District of Columbia (1920)—Third Friday in April.
Florida (1886)—First Friday in February.
Georgia (1887-1890)—First Friday in December.
Hawaii (1905)—In November. Proclamation.
Idaho (1886-1903)—In April. Fixed by County School Superintendents.
Illinois (1887-1887)—April and October. Proclamation.
Indiana (1884-1913)—Third Friday in April.
Iowa (1887)—Proclamation.
Kansas (1875)—At option of Governor.
Kentucky (1886)—In autumn. Proclamation.
Louisiana (1888)—Second Friday in January.
Maine (1887)—In spring. Proclamation.
Maryland (1884-1884)—In April. Proclamation.
Massachusetts (1886)—Last Saturday in April. Proclamation.
Michigan (1885)—April or May. Proclamation.
Minnesota (1876)—Latter part of April. Proclamation
Mississippi (1890)—December and February. Set by State Board of Education.
Missouri (1886-1889)—First Friday after first Thursday in April.
Montana (1888-1887)—Second Tuesday in May.
Nebraska (1872-1885)—April 22, J. S. Morton's birthday. Public Holiday.
Nevada (1887)—Proclamation.
New Hampshire (1886)—Early in May. Proclamation.
New Jersey (1884-1908)—Second Friday in April.
New Mexico (1890)—Second Friday in March. Proclamation.
New York (1889-1889)—By proclamation of the Commissioner of Education; usually choice given of 3 dates late in April and (or) early in May; for different localities in State. Bird Day is usually the second Friday in April.
North Carolina (1893-1915)—First Friday after March 15.
North Dakota (1882)—Proclamation.
Ohio (1882-1892)—In April. Proclamation.
Oklahoma (1898-1901)—Friday after second Monday in March.
Oregon (1889)—Second Friday in February in west; second Friday in April in east.
Pennsylvania (1887-1887)—In Spring and Autumn. Proclamation.
Philippines (1906)—September or October. Proclamation.
Porto Rico—Last Friday in November.
Rhode Island (1887-1887)—Second Friday in May. Public Holiday.
South Carolina (1898-1898)—Third Friday in November.
South Dakota (1884)—Usually observed in April.
Tennessee (1875-1887)—First Friday in April. Proclamation.
Texas (1890-1889)—Washington's Birthday.
Utah—April 15
Vermont (1885)—First Friday in May. Proclamation.
Virginia (1892-1902)—In spring. Proclamation.
Washington (1894)—First Friday in May. Proclamation.
West Virginia (1883)—Second Friday in April.
Wisconsin (1892-1889)—First Friday in May.
Wyoming (1888)—First Friday in May. Proclamation.

ASTRONOMICAL CONSTANTS.

MEAN solar parallax, 8″.80. Nutation constant, 9″.21.

Aberration constant, 20″.47. Annual precession, 50″.2564+0″.000222 (*t*—1900).

Obliquity of the ecliptic, 23° 27′ 8″.26—0″.4684 (*t*—1900).

Annual diminution of obliquity, 0″.4684.

Moon's equatorial horizontal parallax, 57′ 2″.70.

Moon's mean distance from the earth (centre to centre), 238,857 miles.

Sun's mean distance from the earth (astronomical unit), 92,897,416 miles.

Velocity of light, 186,324 miles per second.

Light travels unit of distance—viz. 92,897,416 miles in 498.580 seconds.

Length of the Year—Tropical (equinox to equinox, 365.2421988 days. Sidereal or absolute revolution, 365.2563604 days. Anomalistic (from perihelion to perihelion), 365.2596413 days.

Length of Day—Sidereal, 23 hours 56 minutes 4.091 seconds (mean solar time). Mean solar, 24 hours 3 minutes 56.555 seconds (sidereal time).

Length of the Month—Synodical (from new moon to new moon), 29 days 12 hours 44 minutes 2.8 seconds. Tropical, 27 days 7 hours 43 minutes 4.7 seconds. Sidereal (absolute revolution), 27 days 7 hours 43 minutes 11.5 seconds. Anomalistic (from perigee to perigee), 27 days 13 hours 18 minutes 33.1 seconds.

Dimensions of the Earth—Equatorial radius, 3,963.34 miles. Polar radius, 3,949.99 miles. Eccentricity of the oblate spheroid, 0.0819981.

ASTRONOMICAL SIGNS AND SYMBOLS.

☉ The Sun.	♂ Mars.	☌ Conjunction.
☾ The Moon.	♃ Jupiter.	□ Quadrature.
☿ Mercury.	♄ Saturn.	☍ Opposition.
♀ Venus.	♅ Uranus.	☊ Ascending Node.
⊕ The Earth.	♆ Neptune.	☋ Descending Node.

Two heavenly bodies are in "conjunction" (☌) when they have the same *Right Ascension*, or are on the *same meridian*, *i. e.*, when one is due *north* or *south* of the other; if the bodies are near each other as seen from the earth, they will rise and set at the same time; they are in "opposition" (☍) when in opposite quarters of the heavens, or when one rises as the other is setting. "Quadratu're" (□) is half way between conjunction and opposition. By "greatest elongation" is meant the greatest apparent *angular* distance from the sun; the planet is then generally most favorably situated for observation. Mercury can be seen with the naked eye only at this time. When a planet is in its "ascending" (☊) or "descending" (☋) node it is passing through the plane of the earth's orbit. The term "Perihelion" means nearest to the sun, and "Aphelion" furthest from the sun. An "occultation" of a planet or star is an eclipse of it by some other body, usually the moon.

THE ZODIAC.

THE sun's apparent yearly path among the stars is known as the ecliptic. The zone 16° wide, 8° on each side of the ecliptic, is known as the zodiac. Beginning at the point on the ecliptic which marks the position of the sun at the vernal equinox, and thence proceeding eastward, the zodiac is divided into twelve signs of 30° each, as follows:

Spring Signs.	1. ♈ Aries.	The Ram.
	2. ♉ Taurus.	The Bull.
	3. ♊ Gemini.	The Twins.
Summer Signs.	4. ♋ Cancer.	The Crab.
	5. ♌ Leo.	The Lion.
	6. ♍ Virgo.	The Virgin.
Autumn Signs.	7. ♎ Libra.	The Balance.
	8. ♏ Scorpius.	The Scorpion.
	9. ♐ Sagittarius.	The Archer.
Winter Signs.	10. ♑ Capricornus.	The Goat.
	11. ♒ Aquarius.	The Water-Bearer.
	12. ♓ Pisces.	The Fishes.

These signs are named from the twelve constellations of the zodiac; with which the signs coincided in the time of the astronomer Hipparchus, about two thousand years ago. Owing to the precession of the equinoxes, that is to say, to the retrograde motion of the equinoxes along the ecliptic, each sign in the zodiac has, in the course of two thousand years, moved backward 30° into the constellation west of it; so that the sign Aries is now in the constellation Pisces, and so on.

THE SUN'S RIGHT ASCENSION AND DECLINATION.

(Washington—Apparent Noon.)

Date, 1930.	Ap'ar'nt Right Asc'ns'n	Apparent Declination	Date, 1930.	Ap'ar'nt Right Asc'ns'n	Apparent Declination	Date, 1930.	Ap'ar'nt Right Asc'ns'n	Apparent Declination	Date, 1930.	Ap'ar'nt Right Asc'ns'n	Apparent Declination
	h. m. s.	° ′		h. m. s.	° ′		h. m. s.	° ′		h. m. s.	° ′
Jan 1	18 46 4	− 23 1.7	Apr. 1	0 41 21	+ 4 27.1	July 1	6 39 41	+23 8.2	Oct. 1	12 28 36	− 3 5.5
2	18 50 29	22 56.6	2	0 45 0	50.2	2	6 43 49	4.1	2	12 32 13	28.7
3	18 54 54	51.0	3	0 48 38	+ 5 13.3	3	6 47 57	+22 59.6	3	12 35 51	52.0
4	18 59 17	45.0	4	0 52 17	36.2	4	6 52 5	54.6	4	12 39 29	− 4 15.2
5	19 3 42	38.6	5	0 55 56	59.1	5	6 56 12	49.3	5	12 43 7	38.3
6	19 8 5	31.7	6	0 59 35	+ 6 21.8	6	7 0 19	43.6	6	12 46 46	− 5 1.4
7	19 12 28	24.3	7	1 3 15	44.4	7	7 4 25	37.5	7	12 50 25	24.4
8	19 16 50	16.5	8	1 6 54	+ 7 6.9	8	7 8 31	30.9	8	12 54 4	47.4
9	19 21 12	− 22 8.3	9	1 10 34	29.3	9	7 12 37	24.0	9	12 57 44	− 6 10.2
10	19 25 33	− 21 59.6	10	1 14 14	51.6	10	7 16 43	16.8	10	13 1 24	33.0
11	19 29 54	50.5	11	1 17 54	+ 8 13.7	11	7 20 48	9.1	11	13 5 5	55.8
12	19 34 14	41.0	12	1 21 34	35.7	12	7 24 52	1.0	12	13 8 46	− 7 18.4
13	19 38 34	31.1	13	1 25 15	57.6	13	7 28 56	+21 52.6	13	13 12 28	40.9
14	19 42 52	20.8	14	1 28 56	+ 9 19.3	14	7 33 0	43.8	14	13 16 10	− 8 3.3
15	19 47 10	10.0	15	1 32 37	40.8	15	7 37 3	34.6	15	13 19 53	25.6
16	19 51 28	− 20 58.8	16	1 36 19	+ 10 2.2	16	7 41 5	25.1	16	13 23 36	47.8
17	19 55 45	47.3	17	1 40 1	23.4	17	7 45 7	15.2	17	13 27 20	− 9 9.9
18	20 0 1	35.3	18	1 43 44	44.5	18	7 49 9	4.9	18	13 31 5	31.8
19	20 4 16	23.0	19	1 47 27	+ 11 5.4	19	7 53 10	+20 54.3	19	13 34 50	53.6
20	20 8 31	10.2	20	1 51 10	26.1	20	7 57 11	43.3	20	13 38 36	− 10 15.3
21	20 12 45	− 19 57.1	21	1 54 54	46.6	21	8 1 11	32.0	21	13 42 23	36.8
22	20 16 58	43.6	22	1 58 38	+ 12 6.9	22	8 5 10	20.3	22	13 46 10	58.2
23	20 21 11	29.8	23	2 2 23	27.0	23	8 9 9	8.3	23	13 49 58	− 11 19.4
24	20 25 22	15.6	24	2 6 8	47.0	24	8 13 8	+19 56.0	24	13 53 46	40.4
25	20 29 33	1.0	25	2 9 54	+ 13 6.7	25	8 17 5	43.3	25	13 57 35	− 12 1.2
26	20 33 43	− 18 46.1	26	2 13 40	26.2	26	8 21 3	30.3	26	14 1 25	21.9
27	20 37 53	30.8	27	2 17 27	45.4	27	8 24 59	16.9	27	14 5 16	42.4
28	20 42 1	15.2	28	2 21 14	+ 14 4.5	28	8 28 55	3.3	28	14 9 7	− 13 2.6
29	20 46 9	− 17 59.3	29	2 25 2	23.3	29	8 32 51	+18 49.3	29	14 12 59	22.7
30	20 50 16	43.1	30	2 28 50	41.9	30	8 36 45	35.0	30	14 16 52	42.5
31	20 54 22	26.5				31	8 40 39	20.4	31	14 20 46	− 14 2.2
			May 1	2 32 39	+ 15 0.3						
Feb. 1	20 58 27	9.6	2	2 36 28	18.4	Aug. 1	8 44 33	5.5	Nov. 1	14 24 40	21.6
2	21 2 31	− 16 52.5	3	2 40 18	36.2	2	8 48 26	+17 50.3	2	14 28 35	40.7
3	21 6 35	35.0	4	2 44 8	53.8	3	8 52 18	34.9	3	14 32 31	59.7
4	21 10 38	17.3	5	2 47 59	+ 16 11.1	4	8 56 10	19.1	4	14 36 28	− 15 18.4
5	21 14 39	− 15 59.2	6	2 51 50	28.1	5	9 0 1	3.1	5	14 40 24	36.8
6	21 18 40	40.9	7	2 55 42	44.9	6	9 3 51	+16 46.8	6	14 44 24	55.0
7	21 22 41	22.3	8	2 59 35	+ 17 1.4	7	9 7 41	30.2	7	14 48 23	− 16 12.9
8	21 26 40	3.5	9	3 3 28	17.6	8	9 11 30	13.4	8	14 52 23	30.5
9	21 30 39	− 14 44.4	10	3 7 22	33.5	9	9 15 19	+15 56.3	9	14 56 24	47.9
10	21 34 36	25.1	11	3 11 16	49.1	10	9 19 7	38.9	10	15 0 26	− 17 5.0
11	21 38 33	5.5	12	3 15 11	+ 18 4.5	11	9 22 54	21.3	11	15 4 29	21.8
12	21 42 30	− 13 45.7	13	3 19 6	19.5	12	9 26 41	3.4	12	15 8 32	38.3
13	21 46 25	25.7	14	3 23 2	34.2	13	9 30 27	+14 45.4	13	15 12 37	54.5
14	21 50 20	5.5	15	3 26 58	48.6	14	9 34 13	27.0	14	15 16 42	− 18 10.4
15	21 54 14	− 12 45.0	16	3 30 56	+ 19 2.7	15	9 37 58	8.5	15	15 20 48	25.9
16	21 58 7	24.4	17	3 34 53	16.5	16	9 41 43	+13 49.7	16	15 24 55	41.2
17	22 1 59	3.5	18	3 38 51	29.9	17	9 45 27	30.7	17	15 29 3	56.1
18	22 5 51	− 11 42.4	19	3 42 50	43.0	18	9 49 11	11.4	18	15 33 12	− 19 10.7
19	22 9 42	21.2	20	3 46 50	55.8	19	9 52 54	+12 52.0	19	15 37 22	24.9
20	22 13 33	− 10 59.8	21	3 50 50	+ 20 8.2	20	9 56 37	32.4	20	15 41 32	38.8
21	22 17 23	38.2	22	3 54 50	20.3	21	10 0 19	12.5	21	15 45 43	52.3
22	22 21 12	16.4	23	3 58 51	32.1	22	10 4 1	+11 52.5	22	15 49 55	− 20 5.5
23	22 25 1	− 9 54.5	24	4 2 53	43.5	23	10 7 43	32.3	23	15 54 8	18.3
24	22 28 49	32.5	25	4 6 55	54.5	24	10 11 24	11.8	24	15 58 22	30.7
25	22 32 36	10.3	26	4 10 58	+ 21 5.2	25	10 15 4	+10 51.3	25	16 2 36	42.7
26	22 36 23	− 8 47.9	27	4 15 1	15.5	26	10 18 44	30.5	26	16 6 51	54.4
27	22 40 9	25.4	28	4 19 4	25.5	27	10 22 24	9.6	27	16 11 7	− 21 5.6
28	22 43 55	2.8	29	4 23 8	35.1	28	10 26 3	+ 9 48.5	28	16 15 23	16.5
			30	4 27 13	44.3	29	10 29 42	27.2	29	16 19 41	27.0
Mar. 1	22 47 40	− 7 40.1	31	4 31 18	53.1	30	10 33 21	5.9	30	16 23 59	37.0
2	22 51 25	17.3				31	10 36 59	+ 8 44.3			
3	22 55 9	− 6 54.3	June 1	4 35 23	+ 22 1.6				Dec. 1	16 28 17	46.6
4	22 58 53	31.3	2	4 39 29	9.6	Sept. 1	10 40 37	22.7	2	16 32 36	55.9
5	23 2 36	8.2	3	4 43 35	17.3	2	10 44 14	0.9	3	16 36 56	− 22 4.7
6	23 6 19	− 5 45.0	4	4 47 42	24.6	3	10 47 52	+ 7 38.9	4	16 41 17	13.0
7	23 10 1	21.7	5	4 51 48	31.5	4	10 51 29	16.9	5	16 45 38	21.0
8	23 13 43	− 4 58.4	6	4 55 56	38.0	5	10 55 5	+ 6 54.7	6	16 49 59	28.5
9	23 17 24	35.0	7	5 0 3	44.1	6	10 58 42	32.4	7	16 54 21	35.6
10	23 21 6	11.5	8	5 4 11	49.8	7	11 2 18	10.0	8	16 58 44	42.2
11	23 24 46	− 3 48.0	9	5 8 19	55.1	8	11 5 54	+ 5 47.6	9	17 3 7	48.4
12	23 28 27	24.4	10	5 12 27	+ 23 0.0	9	11 9 30	25.0	10	17 7 30	54.1
13	23 32 7	0.8	11	5 16 35	4.5	10	11 13 6	2.3	11	17 11 54	59.4
14	23 35 47	− 2 37.2	12	5 20 44	8.6	11	11 16 41	+ 4 39.5	12	17 16 19	− 23 4.2
15	23 39 26	13.5	13	5 24 53	12.3	12	11 20 17	16.7	13	17 20 43	8.6
16	23 43 6	− 1 49.9	14	5 29 2	15.6	13	11 23 52	+ 3 53.8	14	17 25 9	12.5
17	23 46 45	26.2	15	5 33 11	18.4	14	11 27 27	30.8	15	17 29 34	16.0
18	23 50 24	2.5	16	5 37 20	20.9	15	11 31 3	7.7	16	17 34 0	19.0
19	23 54 3	− 0 38.8	17	5 41 30	22.9	16	11 34 38	+ 2 44.6	17	17 38 26	21.5
20	23 57 41	− 0 15.1	18	5 45 39	24.6	17	11 38 13	21.5	18	17 42 52	23.5
21	0 1 20	+ 0 8.6	19	5 49 49	25.8	18	11 41 48	+ 1 58.2	19	17 47 18	25.1
22	0 4 58	32.3	20	5 53 59	26.6	19	11 45 24	34.9	20	17 51 45	26.2
23	0 8 37	56.0	21	5 58 8	27.0	20	11 48 59	11.6	21	17 56 12	26.9
24	0 12 15	+ 1 19.6	22	6 2 18	27.0	21	11 52 35	+ 0 48.3	22	18 0 38	27.0
25	0 15 53	43.2	23	6 6 28	26.5	22	11 56 10	24.9	23	18 5 5	26.7
26	0 19 31	+ 2 6.8	24	6 10 37	25.7	23	11 59 46	+ 0 1.6	24	18 9 32	26.0
27	0 23 10	30.3	25	6 14 47	24.4	24	12 3 21	− 0 21.8	25	18 13 58	24.7
28	0 26 48	53.8	26	6 18 56	22.7	25	12 6 57	45.2	26	18 18 25	23.0
29	0 30 26	+ 3 17.2	27	6 23 6	20.7	26	12 10 33	− 1 8.6	27	18 22 51	20.8
30	0 34 4	40.6	28	6 27 15	18.2	27	12 14 9	32.0	28	18 27 17	18.1
31	0 37 43	+ 4 3.9	29	6 31 24	15.3	28	12 17 46	55.4	29	18 31 43	15.0
			30	6 35 32	11.9	29	12 21 22	− 2 18.8	30	18 36 9	11.4
						30	12 24 59	42.1	31	18 40 35	7.4

THE SUN'S SEMI-DIAMETER AND HORIZONTAL PARALLAX.

(Washington—Apparent Noon.)

1930.	Semi-Diameter.	Equat. Horiz. Parallax.	1930.	Semi-Diameter.	Equat. Horiz. Parallax.	1930.	Semi-Diameter.	Equat. Horiz. Parallax.
	′ ″	″		′ ″	″		′ ″	″
Jan. 1	16 17.81	8.95	May 11	15 51.79	8.71	Sept. 8	15 54.64	8.74
11	17.66	8.95	21	49.79	8.69	18	57.14	8.76
21	16.94	8.94	31	48.16	8.68	28	59.83	8.78
31	15.73	8.93	June 10	46.98	8.67	Oct. 8	16 2.62	8.81
Feb. 10	14.17	8.92	20	46.12	8.66	18	5.31	8.83
20	12.16	8.90	30	45.73	8.66	28	7.99	8.86
Mar. 2	9.83	8.88	July 10	45.83	8.66	Nov. 7	10.50	8.88
12	7.35	8.86	20	46.28	8.66	17	12.68	8.90
22	4.64	8.83	30	47.21	8.67	27	14.60	8.92
April 1	1.86	8.81	Aug. 9	48.59	8.68	Dec. 7	16.14	8.93
11	15 59.18	8.78	19	50.25	8.70	17	17.15	8.94
21	56.49	8.76	29	52.29	8.71	27	17.75	8.95
May 1	53.99	8.73						

THE POLES OF THE EARTH.

The geographic poles, or points where the Earth's axis of rotation cuts the surface, are not absolutely fixed in the body of the Earth. The pole of rotation describes an irregular curve about its mean position. Two periods have been detected in this motion: (1) an annual period due to seasonal changes in barometric pressure, load of ice and snow on the surface and to other phenomena of seasonal character; (2) a period of about fourteen months due to the shape and constitution of the Earth. In addition there are small but as yet unpredictable irregularities. The whole motion is so small that the actual pole at any time remains within a circle thirty or forty feet in radius centered at the mean position of the pole.

The pole of rotation for the time being is of course *the* pole having a latitude of 90° and an indeterminate longitude.

The north magnetic pole may cover a region of considerable area, and the present approximate mean position is latitude 70.8° N. and longitude 96° W.

For the south magnetic pole, the position latitude 72.7° S. and longitude 156° E. has been tentatively adopted.

The magnetic poles are not stationary; but their motion is undoubtedly slow.

THE PLANETS AND THE SOLAR SYSTEM.

Name of Planet.	Mean Daily Motion.	Sidereal Revolution—Days.	Distance from Sun in Miles		Approx. Dist. from Earth Millions of Miles.	
			Maximum	Minimum	Maximum	Minimum
	″					
Mercury	14732.420	87.96925	43,355,000	28,566,000	136	50
Venus	5767.670	224.70080	67,653,000	66,738,000	161	25
Earth	3548.193	365.25636	94,452,000	91,342,000	....	....
Mars	1886.519	686.9797	154,760,000	128,330,000	248	35
Jupiter	299.128	4332.588	506,710,000	459,940,000	600	367
Saturn	120.455	10759.20	935,570,000	836,700,000	1028	744
Uranus	42.230	30685.93	1,866,800,000	1,698,800,000	1960	1606
Neptune	21.530	60187.64	2,817,400,000	2,769,600,000	2910	2677

Name of Planet.	Eccentricity of Orbit.*	Synodical Revolution—Days.	Inclination of Orbit to Ecliptic.*	Orbital Velocity. Miles Per Second.
			° ′ ″	
Mercury	0.2056203	116	7 0 12.4	29.73
Venus	0.0068064	584	3 23 38.2	21.75
Earth	0.0167385	....	.. ..	18.50
Mars	0.0933405	780	1 51 0.4	14.98
Jupiter	0.0483869	399	1 18 25.4	8.11
Saturn	0.0557863	378	2 29 28.0	5.99
Uranus	0.0471286	370	0 46 22.2	4.22
Neptune	0.0085526	367	1 46 35.0	3.37

Name of Planet.	Mean Longitude at the Epoch.*	Mean Longitude of the Perihelion.*	Annual Sidereal Motion.	Mean Longitude of the Ascending Node.	Annual Sidereal Motion.	Light at	
						Perihelion.	Aphelion.
	° ′ ″	° ′ ″	″	° ′ ″	″		
Mercury	18 21 14.94	76 21 58.8	+ 5.7	47 30 5.4	− 7.6	10.58	4.59
Venus	257 43 46.46	130 35 10.1	+ 0.5	76 2 58.6	− 17.9	1.94	1.91
Earth	99 26 4.41	101 44 11.8	+11.6	.....	.....	1.03	0.97
Mars	275 59 43.43	334 46 13.5	+16.0	49 1 3.7	−22.5	0.52	0.36
Jupiter	68 53 56.33	13 11 41.1	+ 7.7	99 44 28.2	−13.8	0.041	0.034
Saturn	273 36 4.36	91 40 34.2	+20.2	113 2 42.6	−18.9	0.012	0.010
Uranus	12 19 39.57	169 31 46.6	+ 7.8	73 38 28.3	−32.0	0.003	0.0025
Neptune	150 58 52.50	44 1 6.6	−18.5	131 0 31.2	−10.6	0.001	0.001

*Epoch 1930, January 0, Greenwich Mean Noon.

Sun and Planets.	Semi-Diameter. At Unit Distance.	Semi-Diameter. At Mean Least Dist.	In Miles (Mean S.-D.).	Volume. ⊕ = 1.	Mass. ⊕ = 1.	Density. ⊕ = 1.	Axial Rotation.	Gravity at Surface. ⊕ = 1.	Reflecting Power.	Probable Temperature.
	′ ″						D. H. M. S.		Pct.	° F.
Sun	15 59.6	....	432196	1300000	331950	0.26	25 9 7 12	27.9	....	+12,000
Mercury	3.3	5.4	1504	0.055	0.04	0.70	87 23 15 43	0.3	7	+ 450
Venus	8.4	30.4	3788	0.920	0.81	0.88	224 16 49 9	0.9	59	+ 68
Earth	....	....	3959	1.000	1.000	1.00	23 56 4	1.0	44	+ 59
Moon	15 32.6*	....	1080	0.020	.012	0.60	27 7 43 12	0.2	7	+ 50
Mars	4.7	8.9	2108	0.150	0.108	0.72	24 37 23	0.4	15	− 60
Jupiter	1 35.2	22.6	43341	1312.	316.94	0.24	9 55 41	2.6	56	−270
Saturn	1 19.0	9.2	36166	734.	94.9	0.13	10 14 24	1.2	63	−330
Uranus	34.3	1.9	15439	64.	14.66	0.23	11 5 ..	0.9	63	−380
Neptune	36.6	1.3	16468	60.	17.16	0.29	7 42 ..	1.1	73	−400

* At mean distance.

ECLIPSES IN 1930.

In the year 1930, there will be four eclipses, two of the sun and two of the moon.

1. A partial eclipse of the moon, April 13, 1930. Visible at Washington; the beginning visible generally in the southwestern part of Europe, northwestern part of Africa, the Atlantic Ocean, North America, South America, and the Pacific Ocean except the western part; the ending visible generally in the Atlantic Ocean, North America, South America, and the Pacific Ocean except the western part.

2. A central eclipse of the sun, April 28, 1930. Visible at Washington as a partial eclipse. The eclipse will be total in Northern California, Oregon, Idaho, Nevada, and western Utah. The central eclipse will be total for about thirty-eight minutes at the middle of its duration. For the rest of its duration it will be annular. The central eclipse will change from annular to total at 10:49 A.M. Pacific Time, on April 28th.

3. A partial eclipse of the moon, October 7, 1930. Invisible in the United States; the beginning and ending visible generally in Asia, Australia, the Indian Ocean, Europe, and Africa.

4. A total eclipse of the sun, October 21-22, 1930. Invisible in the United States. The path of totality crosses the South Pacific Ocean. The partial eclipse begins at sunset at Cape Horn, and begins at sunrise in eastern Australia.

POLE STAR, 1930.

MEAN TIME OF UPPER TRANSIT (AT WASHINGTON) AND POLAR DISTANCE OF POLARIS.

Date	Upper Transit	Polar Distance	Date	Upper Transit	Polar Distance	Date	Upper Transit	Polar Distance
	H. M. S.	° ′ ″		*H. M. S.*	° ′ ″		*H. M. S.*	° ′ ″
Jan. 1.....	6 53 6 P.M.	1 3 59	May 1.....	11 0 1 A.M.	1 4 18	Sept. 1.....	2 58 25 A.M.	1 4 18
Feb. 1.....	4 50 37 P.M.	1 3 57	June 1.....	8 58 29 A.M.	1 4 25	Oct. 1.....	1 0 48 A.M.	1 4 8
Mar. 1.....	3 0 4 P.M.	1 4 1	July 1.....	7 1 3 A.M.	1 4 28	Nov. 1.....	10 55 4 P.M.	1 3 56
Apr. 1.....	12 57 54 P.M.	1 4 9	Aug. 1.....	4 59 46 A.M.	1 4 25	Dec. 1.....	8 56 55 P.M.	1 3 45

Upper transit of Polaris, or of any star, occurs 3m. 56s. earlier each day. The interval between lower and upper transit of Polaris is 11h. 58m. 2s. In the United States, the greatest Eastern elongation of Polaris occurs 5h. 55m. before upper transit and 6h. 3m. after lower transit; while the greatest Western elongation occurs 5h. 55m. after upper transit and 6h. 3m. before lower transit.

NUMBERS AND EQUIVALENT LIGHT OF THE STARS.

Magnitude.	Number.	Equivalent No. 1st Magn.	Totals to Magnitude *m.*	Magnitude.	Number.	Equivalent No. 1st Magn.	Totals to Magnitude *m.*
− 1.6.....	Sirius.	11	..	9.0−10.0.....	174,000	69	380
− 0.9.....	*α* Carinae.	6	..	10.0−11.0.....	426,000	68	448
− 0.0.....	*α* Centauri.	2	..	11.0−12.0.....	961,000	60	508
0.0− 1.0.....	8	14	33	12.0−13.0.....	2,020,000	51	559
1.0− 2.0.....	27	17	50	13.0−14.0.....	3,960,000	40	599
2.0− 3.0.....	73	18	68	14.0−15.0.....	7,320,000	31	630
3.0− 4.0.....	189	19	87	15.0−16.0.....	14,040,000	22	652
4.0− 5.0.....	650	26	113	16.0−17.0.....	25,400,000	16	668
5.0− 6.0.....	2,200	35	148	17.0−18.0.....	38,400,000	10	678
6.0− 7.0.....	6,600	42	190	18.0−19.0.....	54,600,000	6	684
7.0− 8.0.....	22,550	56	246	19.0−20.0.....	76,000,000	3	687
8.0− 9.0.....	65,000	65	311	All fainter.....	.....	3	690

TELESCOPES.

Astronomical telescopes are of two kinds, refracting and reflecting.

In the first, the light falls upon a lens which converges the rays to a focus, where the image may be magnified by a second lens, called the eyepiece, or may be directly photographed.

The reflector consists of a concave mirror, generally of glass coated with silver, which throws the rays back toward the upper end of the telescope, where they fall on the eyepiece or on the photographic plate, as in the case of the refractor.

Since the rays of light do not pass through the mirror, far less perfect glass is required and reflectors can be made much larger than refractors.

For many kinds of celestial photography reflectors are better than refractors, but the latter is the best all-around instrument. It is not sensitive to changes of temperature and is the only one which can be used on the sun.

The largest and most active telescopes in the world are in America. They are, for refractors: The 40-inch of the University of Chicago, at the Yerkes Observatory (62 feet long); the 36-inch of the University of California, at the Lick Observatory, Mount Hamilton; the 30-inch photographic refractor of the University of Pittsburgh; the 26-inch instruments at the U. S. Naval Observatory, Washington, and at the University of Virginia.

There are several excellent instruments of 20-24 inches at different institutions.

The largest reflector yet constructed, 100 inches in diameter, is at the observatory of the Carnegie Institution on Mt. Wilson, California. This observatory has also a very fine reflector of 60 inches aperture.

By using a combination of auxiliary mirrors different focal lengths, even running as high as 150 feet, can be obtained with these instruments.

A splendid reflector of 72 inches is installed at the Dominion Astrophysical Observatory, Victoria, B.C.

The Perkins Observatory of the Ohio Wesleyan University at Delaware, Ohio, is installing a reflector of 61 inches. The glass disk for the mirror is 70 inches in diameter, 9 inches thick and weighs over a ton. It was cast by the United States Bureau of Standards, and is the largest single piece of optical glass ever made in the United States.

Harvard Observatory has a 60-inch reflector at Cambridge, Mass. and has just built a new one for its station in South Africa.

Other active reflectors are: The 40-inch of the Lowell Observatory, Flagstaff, Arizona; the 37½-inch of the University of Michigan, Ann Arbor; the 36-inch of the Lick Observatory, at Mt. Hamilton, and another of the same size at its southern station at Santiago, Chili; a 24-inch at the Yerkes Observatory, and a 24-inch at the Harvard Observatory.

All of the refractors given above were constructed by Alvan Clark & Sons, except the third, that of the Allegheny Observatory, Pittsburgh, which was figured by Brashear.

The principal large telescopes in use in Europe are: The 30-inch refractor at the Observatory of Pulkova, Russia; the 32-inch at Meudon, France; the 28-inch at the Royal Observatory, Greenwich, England.

Reflectors of large size are in use as follows: A 30-inch at Hamburg, and at Heidelberg.

Photographic refractors having a four lens objective are smaller in size and shorter in length. The best known of these are: t he 27-inch refractor of the University of Michigan, at Bloemfontein, South Africa; the 26-inch refract or of Yale University, at Johannesburg, South Africa ; the 24-inch of the Harvard Observatory at its station in South Africa; two of 16 inches at Heidelberg and at the Harvard Observatory; and the 10-inch Bruce telescope at the Yerkes Observatory.

The light-gathering power of a telescope is proportional to the area of its lens or mirror. The 40-inch Yerkes refractor increases the amount of light forty thousand times that received by the eye.

The magnifying power of a telescope is proportional to its length as well as to the shortness of focus of its eyepiece.

Thus the use of different eyepieces yields various magnifying powers, but those exceeding 1,000 are seldom used because of the trembling of the earth's atmosphere.

METEORITES.

(From a Bulletin of the American Museum of Natural History, N. Y.)

Meteorites, as we know them, are bodies of iron or stone, ranging in size from particles of dust up to masses of 30 tons weight, that circle through space like little planets. Ordinarily they are too small to be seen, but when they enter the earth's atmosphere, as thousands of them do daily, they become visible through being made hot from the friction of the air.

The small meteorites burn up when far above the earth and are the familiar "shooting" stars; the larger masses, known as meteors during their glowing passage through the air, often reach the earth as meteorites.

These falls are accompanied by dazzling light and usually, or often, by violent explosions, due to the breaking up of the mass, and so loud that they have been heard at a distance of sixty to one hundred miles.

The molten particles given off by meteors as they hurtle blazing through the air fall like rain in the form of minute drops and when this occurs over the ocean these particles sink to the bottom, and at great depths, where not disturbed by currents, this cosmic dust, as it was termed by Sir John Murray, has, in time accumulated in places to form a perceptible, if small portion of the ocean floor.

The largest meteorite of which the date of fall is known is the one which fell at Knyahinya, Hungary, on June 9, 1866. It weighed 644 pounds.

An iron meteorite found in 1921 in the desert of Adrar, in Mauretania, is said to be 300 feet long.

A meteorite weighing many tons has been found buried in limestone, near Gibeon, Grootfonstein, Southwest Africa.

The Bacubirito meteorite is 13 feet 1 inch long, 6 feet 4 inches wide, and 5 feet 4 inches high. It was found in 1863 at Bacubirito, in the State of Sinaloa, Mexico, and is still there.

Among the meteorites in the American Museum of Natural History are—

Ahnighito, weight 36½ tons; brought from Greenland by Peary in 1897; called the Tent by the Eskimo, christened Ahnighito by Marie Ahnighito Peary. Presented, together with the Woman and Dog by Mrs. Morris K. Jesup, 1905.

The Woman, one of the Cape York iron stones; weight, 3,000 lbs., found by Esquimos.

The Dog, one of the Cape York meteorites, weight 1,100 pounds. For centuries the Dog stood watch over the woman on an island in Melville Bay, Greenland.

Williamette, the largest found in the United States; discovered in 1902, near Portland; 10 ft. long; weight, 15½ tons; deeply pitted on one side.

Forest City (Iowa), which fell at 5.15 p.m. on Friday, May 2, 1890. Its flight was accompanied by thunder and explosions heard 100 miles away. Fragments were scattered over an area 1 mile wide and 2 miles long. The fragment in the museum weighs 75 lbs.

Holbrook, a stony meteorite, is one of those that fell in a shower of fragments, 2,000 of which are in the collection of the museum. They range in size from 1/90 of an ounce up of 14 2/3 pounds and have a collective weight of 485 pounds. The fall took place on July 12, 1912.

Long Island is collectively the largest stony meteorite; Selma, from Alabama, weighing 300 pounds, is the heaviest single stone in the United States, the largest known being a stone of the Knyahina fall, weighing 645 pounds, now in the British Museum.

First Officer N. Levy of the American steamer President Harding reports to the U. S. Hydrographic Survey, that on May 4, 1929, at 12.02 a.m., eastern standard time, in lat. 40° 37′ N., lon. 72° 04′ W., a meteor was observed, apparently only a ship length to starboard. On account of the cloudy condition of the sky it was impossible to determine accurately the bearing or course of the meteor, but it bore approximately N. by W. and appeared to be traveling to the eastward.

The meteor was exceptionally brilliant, its light exceeding that of daylight, and was visible for about 2/3 seconds. Barometer, 29.72 inches; air temperature, 44° F.

Victor A. Rapport, of New Haven, Conn., reports that near midnight on May 3, 1929, he observed a great ball of fire descending from northeast to east and leaving sparks in its wake; color, yellowish white. Several minutes later a distinct report as of blasting was heard. The light was sufficiently intense as to cast shadows of trees and buildings on the ground.

HALLEY'S AND OTHER COMETS.

Of the great number of comets which have temporarily visited our solar system or have become permanent members of it none has surpassed Halley's in historical associations. It has a record dating back to B. C. 240; its visitations spread alarm and consternation throughout Europe during the Middle Ages, it was the first whose return was predicted by an Astronomer Royal of England, and will, therefore, for these reasons, be an object of great scientific interest for all time. Its periodic time is 76.8 years, and in April, 1910, it made the perihelion passage for the twenty-ninth time.

ENCKE'S COMET.

The second of the periodic comets to be discovered was Encke's, as Halley's was the first. Encke's Comet has the shortest period known—namely, about 40 months. The observed visitations, from January, 1819, to September, 1924, form an uninterrupted series, thirty-three in number.

Encke's is unique among comets in that its motion is constantly accelerating and its period is decreasing in proportion, being now 1,203 days as compared with 1,205 days in 1819. At first this was ascribed to a resisting medium, but it is more probably due to repeated passage of the comet through a cloud of meteors.

COMETS OF 1843 AND 1882.

In the last 100 years only two comets have been brilliant enough to be seen by day with the unaided eye. Of these one was in February, 1843, the other in September, 1882. Together with the comet of 1668 and that of 1887, they form a comet group; each member, at perihelion, nearly brushes the sun's surface, that of 1843 having a velocity of 366 miles per second and passing halfway around the sun in two hours. These visitors are expected to return after six or seven centuries. The four comets were probably a single body until too close an encounter with the sun resulted in disruption.

DONATI'S COMET.

This was the finest comet of the nineteenth century and is known as the typical comet. In October, 1858, its tail reached halfway from the horizon to the zenith. Its period is 2,000 years.

COMETS THAT HAVE MADE AT LEAST TWO PERIHELION PASSAGES.

Name.	Due to Return.	Period (In Years)	Year of Discovery.	Perihelion Distance.	Aphelion Distance.	Inclination to Ecliptic.	Long. of Asc. Node on Ecliptic.	From Asc. Node to Perihelion.
						Deg.	*Deg.*	*Deg.*
Tempel II	Oct., 1930	5.17	1873	1.32	4.87	13	121	187
Brorsen	June, 1928	5.46	1846	0.59	5.61	29	102	15
Encke	May, 1931	3.30	1786	0.34	4.09	13	335	185
Tempel-Swift	June, 1931	5.68	1869	1.15	5.21	5	290	114
Perrine	Mar., 1929	6.45	1896	1.17	5.76	5	242	167
Tempel I	July, 1931	6.54	1867	2.09	4.90	11	73	169
D'Arrest	May, 1930	6.54	1851	1.27	5.73	16	146	174
Wolf	Aug., 1932	6.80	1884	1.59	5.59	25	207	173
Borrelly	Oct., 1932	6.93	1904	1.40	5.87	30	77	352
Brooks	April, 1932	7.10	1889	1.96	5.43	6	18	344
Faye	Jan. 1933	7.44	1843	1.66	5.97	11	206	199
Tuttle	Feb., 1937	12.15	1790	1.03	9.54	55	270	207
Westphal	1975	61.73	1852	1.25	29.98	43	347	57
Pons-Brooks	1955	71.56	1812	0.78	33.70	74	254	199
Olbers	1960	72.65	1815	1.20	33.62	45	85	65
Halley	1986	76.02	240 B. C.	0.59	35.32	162	57	112

GLACIERS.

(By Dr. Chester A. Reeds, Curator of Geology, American Museum of Natural History, N. Y.)

Present-day glaciers are formed on those portions of the earth's surface that are permanently above the snow-line. This line varies locally, even in the same latitude, being in some places higher than in others, but generally speaking, it is of the nature of an elliptical surface surrounding the earth with its longest diameter in the equatorial belt, and its shortest in the polar regions, where it touches sea level.

From the Arctic to the Antarctic circles this cold surface rises upward in a broad dome 16,000 to 18,000 feet high over the tropics, and cuts a number of lofty peaks and mountain ranges whose upper levels receive all their moisture in the form of snow.

Glaciers consequently have a wide distribution. They occur in Greenland, which is covered with an entire sheet of ice, except for the marginal ribbon of land, which is usually from five to twenty-five miles in width with a few places where the edge of the ice is 60 to 100 miles from the shore. Ice caps and valley glaciers are found in Baffin Land, Ellesmere Land, and a few of the islands to the westward, in Iceland, Norway, Sweden, Spitsbergen, Franz Joseph Land and Novaya Zemlya. Glaciers of the Alpine or valley type occur in the Old World in the Alps, Pyrenees, Caucasus, Himalayas, Tian Shan and East Sayan mountains of Central Asia, and the high peaks on the Equator in East Central Africa.

In North and South America glaciers occur in the high mountain ranges facing the Pacific Ocean. They are most fully developed in Alaska, and in Chile and Argentina, where they face moisture-laden westerly winds. In New Zealand numerous lakes, waterfalls and glaciers, one eighteen miles long, are to be found in the south island. In the south polar region, the Antarctic continent is not only covered with a great ice cap, but it affords the largest glaciers in the world.

While the facilities and accommodations for seeing the 1,155 glaciers of the Alps are unsurpassed, it should be noted that most of the glaciers are small, some of them being only a few hundred yards in length. The largest of these is the Aletsch, which is ten miles long, and with its snow field, fifteen miles. It is about a mile wide, and terminates about 4,000 feet below the snow-line, which is at an elevation of 8,500 feet.

Little is known as to their thickness, but it is estimated that they attain a depth of from 800 to 1,200 feet. As to the rate of motion there is a considerable difference. The smaller ones may be quiescent, while the larger ones move at the rate of several feet a day. The Mer de Glace, one of the largest, was observed in 1912 to have a daily rate of 18 inches near the sides, much less at the margins, and about 27 inches in the central axial portion.

IN THE CAUCASUS.

Large and small valley glaciers of the Alpine type are also found in the Caucasus Mountains, where the snow-line appears at 8,500 feet at the western and 14,000 feet at the eastern end. Numerous large valley glaciers occur in south central Asia, in the Himalayas, and the Tian Shan Mountains, with a snow-line at 16,000 feet at the south and several thousand feet higher along the northern margins.

In the Himalayas, the Rose glacier, which is forty five miles long and two and a half to two and three-quarters miles wide, is the longest glacier in Asia and is comparable in length with the large glaciers in Alaska. In the Tian Shan Mountains the largest glacier is the Imylchek, which is reported to be forty and a half miles long and one and a quarter to two and a quarter miles wide.

The glaciers of Alaska are the largest in the world, except those in the polar regions. The broad sustained mountain range bears thousands of them; a few hundred have received names; some have been partly mapped, but many have never been seen. Beginning near the sixty-third parallel, they increase in size and depth until the lofty region between Mount Fairweather and Mount St. Elias is reached, where a considerable number discharge into the waters of the ocean. Between latitude 56 and 60 degrees there are probably 5,000 glaciers, hundreds of large size descending through the forests, with more than twenty-five discharging into the sea.

Icebergs are given off from them, but due to the intricate labyrinth of channels and high-walled fjords, few of them reach the open ocean before melting.

Through British Columbia, the broad mountain chain is generally glacier-bearing. The upper branches of nearly every one of the main canyons are occupied by glaciers, which gradually diminish in size southward.

In Washington and Oregon groups of active glaciers still exist on all of the highest mountains, particularly on Mounts Jefferson, Adams, Saint Helens, Hood, Rainier and Baker. Of these, Mount Rainier is the highest and iciest. Twenty-four glaciers from seven to fifteen miles long radiate from its snow-covered cap to form the sources of the principal streams. One of these rivers, arising from the snout of the longest glacier at an elevation of 4,500 feet, pours a stream opaque with glacial mud into the head of Puget Sound.

"In California there are about 65 small residual glaciers in the Sierra Nevada Mountains, between latitudes 36 degrees 30 minutes and 39 degrees distributed singly or in small groups on the north sides of the highest peaks at an elevation of about 11,000 to 12,000 feet above the level of the sea—all remnants of the grand glaciers that once covered the range.

Between latitudes 37 and 38 degrees they form the highest sources of the San Joaquin, Toulome, Merced and Owens Rivers.

Mount Shasta, near the northern boundary of California, has five shrinking glacier remnants, the largest about three miles in length.

In South America there are many glaciers in the Andes, even beneath the Equator itself; and though these glaciers are small and mostly confined to the highest peaks, toward their southern end along Smyth Channel and in the Strait of Magellan they are large and flow far down the slopes and at several places enter the sea.

The snow-line of the Andes is highest in parts of Peru and Bolivia, where it lies at about 17,500 feet. Its general elevation from the extreme north to Patagonia is 14,500 to 16,500 feet, but along the Patagonian frontier it sinks rapidly, being 5,000 feet in Central Chile, 2,300 in Southern Chile and 1,600 in Tierra del Fuego.

The snow-line is generally about 2,500 feet lower on the east than on the west side of the mountains except in Southern Chile, where it is lower on the west side.

In Antarctica snow and ice cover the land so completely and to such great thickness that it has been impossible to determine whether it is one great continent or a series of islands covered with great glaciers. In numerous places glacier tongues and shelf ice appear about the margin of the continent. Furthermore, a zone of pack ice about ten degrees in width, which encircles the continent, offers a serious obstruction to those who would approach it.

It is a large continent with margins coinciding roughly with the Antartic circle, and having an estimated area varying from 3,000,000 to 5,000,000 square miles. So little land is exposed that solar radiation has no effect upon the snow and ice masses during the long dark Winters, and but little during the summer months. The average temperature at widely separated points on the margin of the continent is 29 degrees Fahrenheit during the summer and—35 degrees Fahrenheit during the winter, with maximums of—45 degrees Fahrenheit.

There is no melting and probably no other form of precipitation than that of snow, which has been estimated to be from seven to ten inches annually. It is difficult, however, to take such observations, owing to the drifting of loose snow by the wind.

The depth of the inland ice is unknown, but it may well be thousands of feet thick. Amundsen and Scott, after crossing the level ice of the Great Ice Barrier, climbed up from 1,000 to 8,000 feet over huge glaciers, between mountain peaks approximating 11,300 feet high, to an ice-covered plateau, the greatest elevation of which was 9,860 feet.

The elevation at the South Pole as noted by Scott was 9,070 feet.

The numerous glacier outlets from this ice plateau to the Great Ice Barrier below vary as to size. Through one of them passes the Beardmore Glacier, which is more than 125 miles long and from ten to twenty miles wide, with a total area of at least 5,000 square miles. This is the largest valley glacier that has been recorded anywhere.

The Great Ice Barrier is different from these glaciers in many ways. Various explorers have shown that it is afloat for at least 400 miles from east to west along its outer margin on the Ross Sea. It exposes a seaward cliff from fifty to 280 feet above the water, and forms a vast plain of ice extending southward about 400 miles, along the foot of the high mountains bordering South Victoria Land.

The numerous glaciers, which move down from this high land to the barrier, cause the ice of the Barrier to move forward toward the Ross Sea at the rate of 1,500 feet per year.

THE MOON.

The moon completes a circuit around the earth in a period whose mean or average length is 27 days 7 hours 43.2 minutes; but in consequence of its motion in common with the earth around the sun, the mean duration of the lunar month—that is, the time from new moon to new moon—is 29 days 12 hours 44.05 minutes, which is called the moon's synodical period.

If the earth were motionless in space the moon's orbit would be nearly an ellipse, having the earth in one of the foci; hence the distance from the earth varies during the course of a lunar month.

The mean distance from the earth is 238,857 miles. The maximum distance, however, may reach 252,715 miles, and the least distance to which the moon can approach the earth is 221,466 miles.

Its diameter is 2,160 miles, and if we deduct from her distance from the earth the sum of the two radii of the earth and moon—viz., 3,963 and 1,080 miles, respectfully—we shall have for the nearest approach of the surfaces of the two bodies 216,423 miles.

Its form is that of a serpentine curve, always *concave* toward the sun, and its plane is inclined to the plane of the earth's orbit at an angle of 5° 9′.

These points of intersection with the ecliptic are called nodes, and it is only at or near them that eclipses can occur.

The nodes have a retrograde motion, which causes them to make an entire revolution in 18 years 281 days 21 hours 22 minutes and 46 seconds.

Both sun and moon return to a node after 18 years and 11 days, so that an eclipse is followed by another of the same general character at the end of this period.

The moon always presents the same face to the earth, as is evident from the permanency of the various markings on her surface. This proves that the moon revolves on an axis, and the time of rotation is exactly equal to the time of revolution around the earth—viz., 27.32166 days.

The moon's axis is not perpendicular to the plane of her orbit, but deviates therefrom by an angle of about 6° 41′.

By reason of irregular motion in her orbit, we see more of the eastern or western edge at one time than at another.

The moon's surface contains about 14,657,000 square miles, or nearly four times the area of Europe; the volume is 1-49 and mass 1-81 that of the earth, or about 3 2-5 that of water.

At the lunar surface gravity is only 1-6 of what it is at the earth.

The centre of gravity of the earth and moon, or the point about which they both actually revolve in their course around the sun, lies *within* the earth; it is 1,050 miles below the surface.

The tides are caused mainly by the moon, the tide-raising power of moon and sun being as 11 to 5.

THE MOON'S PHASES, 1930. (Standard Time.)

1930.	Phase.	Day	Eastern Standard Time Boston, New York, Etc.	Central Standard Time Chicago, St. Louis, Etc.	Mountain Standard Time Denver, Salt Lake City, Etc.	Pacific Standard Time San Francisco, L. Angeles, Etc.	Alaska Standard Time Sitka, Juneau, Etc.
			H. M.	H. M.	H. M.	H. M.	H. M.
Jan.	First Quarter..	7	10 11	9 11	8 11	7 11	5 11
	Full Moon	14	5 21	4 21	3 21	2 21	12 21
	Last Quarter..	21	11 07	10 07	9 07	8 07	6 07
	New Moon...	29	2 07	1 07	12 07	11 07	9 07
Feb.	First Quarter..	6	12 26	11 26	10 26	9 26	7 26
	Full Moon....	13	3 39	2 39	1 39	12 39	12d10 39
	Last Quarter..	20	3 44	2 44	1 44	12 44	12d10 44
	New Moon...	28	8 33	7 33	6 33	5 33	3 33
March	First Quarter..	7	11 00	10 00	9 00	8 00	6 00
	Full Moon....	14	1 58	12 58	11 58	10 58	8 58
	Last Quarter..	21	10 13	9 13	8 13	7 13	5 13
	New Moon...	30	12 46	29d11 46	29d10 46	29d 9 46	29d 7 46
April	First Quarter..	6	6 25	5 25	4 25	3 25	1 25
	Full Moon....	13	12 48	12d11 48	12d10 48	12d 9 48	12d 7 48
	Last Quarter..	20	5 08	4 08	3 08	2 08	12 08
	New Moon...	28	2 08	1 08	12 08	11 08	9 08
May	First Quarter .	5	11 53	10 35	9 53	8 53	6 53
	Full Moon....	12	12 29	11 29	10 29	9 29	7 29
	Last Quarter .	20	11 22	10 22	9 22	8 22	6 22
	New Moon...	28	12 37	27d11 37	27d10 37	27d 9 37	27d 7 37
June	First Quarter .	3	4 56	3 56	2 56	1 56	11 56
	Full Moon....	11	1 12	12 12	10d11 12	10d10 12	10d 8 12
	Last Quarter .	19	4 00	3 00	2 00	1 00	11 00
	New Moon...	26	8 47	7 47	6 47	5 47	3 47
July	First Quarter .	2	11 03	10 03	9 03	8 03	6 03
	Full Moon....	10	3 01	2 01	1 01	12 01	10 01
	Last Quarter .	18	6 29	5 29	4 29	3 29	1 29
	New Moon...	25	3 42	2 42	1 42	12 42	10 42
Aug.	First Quarter..	1	7 26	6 26	5 26	4 26	2 26
	Full Moon....	9	5 58	4 58	3 58	2 58	12 58
	Last Quarter .	17	6 31	5 31	4 31	3 31	1 31
	New Moon...	23	10 37	9 37	8 37	7 37	5 37
	First Quarter .	30	6 57	5 57	4 57	3 57	1 57
Sept.	Full Moon ...	7	9 48	8 48	7 48	6 48	4 48
	Last Quarter .	15	4 13	3 13	2 13	1 13	11 13
	New Moon...	22	6 42	5 42	4 42	3 42	1 42
	First Quarter..	29	9 58	8 58	7 58	6 58	4 58
Oct.	Full Moon....	7	1 56	12 56	11 56	10 56	8 56
	Last Quarter..	15	12 12	14d11 12	14d10 12	14d 9 12	14d 7 12
	New Moon...	21	4 48	3 48	2 48	1 48	11 48
	First Quarter .	29	4 22	3 22	2 22	1 22	11 22
Nov.	Full Moon....	6	5 28	4 28	3 28	2 28	12 28
	Last Quarter .	13	7 27	6 27	5 27	4 27	2 27
	New Moon...	20	5 21	4 21	3 21	2 21	12 21
	First Quarter .	28	1 18	12 18	27d11 18	27d10 18	27d 8 18
Dec.	Full Moon....	5	7 40	6 40	5 40	4 40	2 40
	Last Quarter .	12	3 07	2 07	1 07	12 07	10 07
	New Moon...	19	8 24	7 24	6 24	5 24	3 24
	First Quarter .	27	10 59	9 59	8 59	7 59	5 59

THE MOON'S PERIGEE AND APOGEE.

(Eastern Standard Time. A. M. light figures: P. M. black.)

PERIGEE, 1930.

	D.	H.		D.	H.
January	14	7	July	26	5
February	12	8	August	23	3
March	12	3	September	20	12
April	9	6	October	19	3
May	4	2	November	15	1
May	31	1	December	9	9
June	27	10			

APOGEE, 1930.

	D.	H.		D.	H.
January	1	11	July	13	9
January	28	11	August	9	2
February	24	8	September	5	5
March	24	12	October	3	4
April	21	8	October	30	9
May	19	3	November	27	6
June	15	8	December	25	3

Each month the moon is said to be in perigee when nearest to the earth and in apogee when furthest from the earth.

The average time from perigee to perigee, or from apogee to apogee, is 27d. 13h. 18m. 33s; and this period is known as the anomalistic month.

The moon's distance when in perigee or apogee is not exactly the same in different months but varies considerably according to the phase and the month of the year.

The distance is least when the full moon nearest to January 1 occurs at the time of perigee.

The distance is greatest when the new moon nearest to January 1 occurs at the time of apogee.

COMETS BELONG TO OUR OWN SOLAR SYSTEM.

Comets, according to Prof. N. T. Bobrovnikoff of the Lick Observatory, University of California, are not visitors.

"We have evidence on one hand," he says, "that comets are true members of our solar system; they do not come from inter-stellar space. On the other hand, their age seems to be incompatible with the age of the major planets; no comet could have survived 10,000,000,000 years (the estimated age of the solar system). It is possible to reconcile these results by postulating the capture of comets by the sun a comparatively short time ago, not exceeding 1,000,000 years.

"We may think that the sun appropriated them during one of its passages through diffuse clouds of obscuring matter. Such a theory has been developed by F. Nolke on entirely different grounds. His estimate of the span of time between the adoption of comets by the solar system and the present is from 50,000 to 100,000 years.

"The sun is traveling through space with the velocity of about twenty kilometers a second. This means it covers distance covered by light during one year in 15,000 years. It came from the region of Orion where agglomerations of meteoric matter are suspected. A million years ago our solar system was some seventy light years away from its present position in the general direction of Orion. These considerations give a certain weight to the capture theory of comets.

"Nolke goes so far as to suggest the possible explanation of the earth's glacial periods by the action of diffuse matter through which the sun once passed. We may note here that there are indications that meteorites were less abundant in the early geological epochs. The conspicious absence of meteorites from the strata older than 1,000,000 years has been interpreted by some investigators as an argument for their terrestrial origin. It may with equal right be regarded as an indication of the absence of meteorites from the solar system before the quaternary epoch.

"In their obedience to the law of disintegration, comets form a system all members of which follow the same career with the same ultimate fate. The matter in comets must be in a very peculiar state of excitation which does not occur often in the universe. Yet all comets have fundamentally the same spectrum, regardless of their orbital elements. These facts constitute strong evidence for the common origin of comets.

"The system of comets is closed; that is, we have no influx of fresh comets coming from the depths of the universe. The disintegration of comets is an irreversible process. There is no building up of new comets from the meteoric and gaseous matter diffused in space.

"Comets are gradually losing their power to form a tail and their gaseous envelopes disappear in the course of time. They are ultimate sources of meteors in our solar system, and also may be responsible for the presence in it of larger bodies, like asteroids."

A closed season for comets, predicted by the Lick Observatory Astronomer, will take away from the starry firmament one of its most popular occasional attractions.

THE MILKY WAY AND THE UNIVERSE.

The Sun is one of the relatively small stars in the Milky Way. So Prof. Harlow Shapley, director of the Harvard University Observatory told the American Association for the Advancement of Science, at its 1929 convention, at New York City.

There are approximately 30,000,000,000 stars in this home circle, arranged in what Dr. Shapley called a discoidal system, the general shape of this star mass being that of a thin watch, or of two plates held together face to face. Studies of the last year indicate that the diameter of our galaxy is 200,000 light years, a light year being 6,000,000,000,000 miles.

It has been established by foreign astronomers, according to the speaker, that this star mass turns around and around like a grindstone, completing a circle once every 300,000,000 years. The earth is a distance of 50,000 light years from the hub of this wheel of stars. The hub or center of gravity of the mass is in the southern constellation Sagittarius, where a dense swarm of stars is located.

The ten billions stars in these parts, however, form only a very trifling part of the universe, as it is now unfolding before the researches of Dr. Shapley and others engaged in taking soundings in space. The natural partiality of astronomers for the home galaxy formerly exaggerated its importance, but it is now known to be merely one of many thousands of equally interesting galaxies. In the past year, Dr. Shapley said, several thousand new galaxies have been discovered at Harvard alone.

These galaxies, according to Dr. Shapley, are not independent organizations, but are merely units in larger organizations which he called galaxies of galaxies. The nearest of these galaxies of galaxies, he said, is eleven million light years from here. It is situated in the constellation of Coma and Virgo. It contains about 250 constituent galaxies. These are galaxies of a dwarf type. They apparently measure only from five to twenty thousand light years in diameter.

Forty-five separate clouds of galaxies have been studied at Harvard during the last year. Some contain only a few galaxies, others contain several hundred.

Dr. Shapley then asked the question whether these clouds of galaxies, or galaxies of galaxies, formed other super-organizations—that is, whether there exist galaxies of galaxies of galaxies.

Dr. Shapley said his studies indicated that space is transparent.

He added that observation seems to show that the universe is *closed*; that every part of it is related by the force of gravity or the Einstein space effect. It was found that the light from the distant nebulae varied from that on earth.

Every wave length of light from these greatest distances was broadened—the greater the distance the greater the broadening. The wave lengths of light from stars which are traveling outwardly, or away from the earth, are broadened, and this effect is used as a speedometer in telling how fast the stars were traveling.

Used on a distant nebula, this speedometer indicated that it was traveling at the rate of 2,500 miles a second, an unheard-of rate of speed even for astronomy. Mathematicians worked over this and other results to prove that the distant nebulae are in some manner tangled up in the outer folds of the universe, so that their light waves are being broadened by the Einstein effect rather than by their speed.

PLANETARY CONFIGURATIONS. 1930.

(Eastern Standard Time. A.M. light figures: P.M. black figures.)

	D.	H.	M.				
Jan.	1	9	54	☌	☿	☾	☿ N. 3° 23′
	2	12	—	☌	♀	☌	♀ N. 0° 33′
	3	2	—	☌	♀	♭	♀ S. 0° 57′
	3	7	—		♁		in perihelion.
	3	1	—	☌	♂	♭	♂ S. 1° 28′
	5	7	—		☿		great. elong. E. 19° 15′
	9	8	—		☿		in ♑
	11	3	8	☌	♃	☾	♃ S. 3° 4′
	12	11	—		☿		stationary.
	14	11	—		☿		in perihelion.
	17	4	28	☌	♆	☾	♆ S. 4° 15′
	21	8	—	☌	☿	☉	inferior.
	22	11	—	☌	♀	☿	☿ N. 4° 25′
	26	7	53	☌	♭	☾	♭ N. 5° 1′
	28	3	33	☌	♂	☾	♂ N. 3° 57′
	29	7	29	☌	♀	☾	♀ N. 4° 2′
	31	9	—		♃		stationary.
Feb.	2	7	—		☿		stationary.
	2	9	—		♀		in aphelion.
	6	12	—	☌	♀	☉	superior.
	7	11	17	☌	♃	☾	♃ S. 3° 10′
	13	2	43	☌	♆	☾	♆ S. 4° 9′
	15	4	—		☿		great. elong. W. 26° 14′
	17	5	—		☿		in ♈
	23	7	20	☌	♭	☾	♭ N. 5° 19′
	26	1	30	☌	☿	☾	☿ N. 3° 58′
	26	6	25	☌	♂	☾	♂ N. 4° 6′
	26	3	—	□	♃	☉	
	27	11	—		☿		in aphelion.
	28	5	56	☌	♀	☾	♀ N. 2° 40′
Mar.	1	5	—	☌	☿	♂	☿ S. 0° 31′
	7	9	4	☌	♃	☾	♃ S. 3° 27′
	13	12	10	☌	♆	☾	♆ S. 4° 13′
	21	3	30		☉		enters ♈, Spring com.
	22	6	6	☌	♭	☾	♭ N. 5° 34′
	27	11	1	☌	♂	☾	♂ N. 3° 24′
	29	6	25	☌	☿	☾	☿ N. 1° 6′
	31	3	6	☌	♀	☾	♀ N. 0° 4′
Apr.	1	8	—	☌	☿	☉	superior.
	3	9	11	☌	♃	☾	♃ S. 3° 46′
	7	8	—		☿		in ♑
	9	7	25	☌	♆	☾	♆ S. 4° 19′
	12	10	—		☿		in perihelion.
	19	3	36	☌	♭	☾	♭ N. 5° 41′
	21	10	—		♭		stationary.
	21	12	—		♀		in ♑
	22	4	—	☌	☿	♀	☿ N. 2° 27′
	22	8	—		♂		in perihelion.
	25	4	29	☌	♂	☾	♂ N. 1° 51′
	27	3	—	☌	☿	♀	☿ N. 2° 34′
	27	3	—		☿		great. elong. E. 20° 33′
	30	4	14	☌	☿	☾	☿ N. 0° 22′
	30	6	5	☌	♀	☾	♀ S. 2° 8′
May	1	12	12	☌	♃	☾	♃ S. 4° 3′
	6	12	55	☌	♆	☾	♆ S. 4° 20′
	9	5	—		☿		stationary.
	12	10	—		♆		stationary.
	16	4	—		☿		in ♉
	16	11	1	☌	♭	☾	♭ N. 5° 37′
	17	1	—	☌	♀	♃	♀ N. 1° 21′
	19	12	—	☌	☿	☉	inferior.
	22	11	—	□	♆	☉	
	24	8	58	☌	♂	☾	♂ S. 0° 12′
	25	4	—		♀		in perihelion.
	26	3	—		☿		in aphelion.
	27	7	16	☌	☿	☾	☿ S. 5° 11′
	29	6	0	☌	♃	☾	♃ S. 4° 18′
	30	2	22	☌	♀	☾	♀ S. 3° 9′
June	1	5	—		☿		stationary.
	2	6	38	☌	♆	☾	♆ S. 4° 13′
	12	3	54	☌	♭	☾	♭ N. 5° 27′
	14	9	—		☿		great. elong. W. 23° 16′
	20	11	—	☌	♃	☉	
	22	10	27	☌	♂	☾	♂ S. 2° 9′
	24	10	35	☌	☿	☾	☿ S. 5° 25′
	26	1	43	☌	♃	☾	♃ S. 4° 32′
	28	7	16	☌	♀	☾	♀ S. 3° 16′
	30	2	27	☌	♆	☾	♆ S. 4° 0′
	30	10	—	☍	♭	☉	
July	2	7	—		♁		in aphelion.
	4	7	—		☿		in ♑
	5	6	—	☌	☿	♃	☿ N. 0° 22′
	9	10	—		☿		in perihelion.
	9	6	48	☌	♭	☾	♭ N. 5° 20′
	15	5	—	☌	☿	☉	Superior.
	15	7	—	☌	♀	♆	♀ N. 0° 52′
	21	7	51	☌	☌	☾	☌ S. 3° 35′
	23	9	56	☌	♃	☾	♃ S. 4° 48′
	26	10	22	☌	☿	☾	☿ S. 3° 15′
	27	12	56	☌	♆	☾	♆ S. 3° 48′
	28	11	44	☌	♀	☾	♀ S. 2° 42′
Aug.	5	9	—	☌	☿	♆	☿ N. 0° 15′
	5	9	21	☌	♭	☾	♭ N. 5° 19′
	11	1	—		♀		in ♉
	12	3	—		☿		in ♉
	19	12	56	☌	☌	☾	☌ S.4 ° 25′
	20	4	54	☌	♃	☾	♃ S. 5° 4′
	22	9	—		☿		in aphelion.
	22	9	—		♂		in ♑
	24	1	10	☌	♆	☾	♆ S. 3° 41′
	25	5	32	☌	☿	☾	☿ S. 4° 56′
	25	12	—		☿		great. elong. E. 27° 20′
	27	3	47	☌	♀	☾	♀ S. 2° 2′
Sept.	2	1	37	☌	♭	☾	♭ N. 5° 25′
	8	3	—		☿		stationary.
	9	6	—		♭		stationary.
	13	6	—		♀		great. elong. E. 46° 22′
	15	2	—		♀		in aphelion.
	17	1	40	☌	♂	☾	♂ S. 4° 40′
	17	8	48	☌	♃	☾	♃ S. 5° 17′
	20	1	20	☌	♆	☾	♆ S. 3° 39′
	21	3	—	☌	☿	☉	inferior.
	22	1	17	☌	☿	☾	☿ S. 5° 46′
	23	1	37		☉		enters ♎, Autumn com.
	25	3	30	☌	♀	☾	♀ S. 2° 3′
	26	8	—	☌	♂	♃	♂ N. 0° 43′
	29	9	41	☌	♭	☾	♭ N. 5° 30′
	29	12	—		☿		stationary.
	30	6	—		☿		in ♑
Oct.	5	9	—		☿		in perihelion.
	7	—	—		☾		Par. ecl. vis. at Wash.
	7	6	—		☿		great. elong. W. 17° 58′
	13	8	—	□	♃	☉	
	14	8	13	☌	♃	☾	♃ S. 5° 21′
	15	9	43	☌	♂	☾	♂ S. 4° 18′
	17	11	34	☌	♆	☾	♆ S. 3° 38′
	18	1	—		♀		greatest brilliancy
	20	9	17	☌	☿	☾	☿ N. 1° 11′
	24	10	23	☌	♀	☾	♀ S. 2° 23′
	26	8	16	☌	♭	☾	♭ N. 5° 31′
	30	7	—		♃		in ♑
Nov.	2	4	—		♀		stationary.
	6	10	—	☌	☿	☉	superior.
	7	12	—		♃		stationary.
	8	2	—		☿		in ♉
	11	3	8	☌	♃	☾	♃ S. 5° 15′
	12	11	49	☌	♂	☾	♂ S. 3° 19′
	14	7	0	☌	♆	☾	♆ S. 3° 31′
	18	4	—	☌	☿	♀	☿ N. 2° 35′
	18	9	—		☿		in aphelion.
	20	11	47	☌	♀	☾	♀ N. 0° 5′
	20	9	28	☌	☿	☾	☿ N. 2° 14′
	22	1	—	☌	♀	☉	inferior.
	23	9	44	☌	♭	☾	♭ N. 5° 26′
	28	12	—	□	♆	☉	
Dec.	2	4	—		♀		in ♑
	8	7	21	☌	♃	☾	♃ S. 5° 2′
	8	11	—		♆		stationary.
	10	5	16	☌	♂	☾	♂ S. 1° 53′
	11	12	46	☌	♆	☾	♆ S. 3° 17′
	11	10	—		♀		stationary.
	14	7	—	☌	☿	♭	☿ S. 2° 33′
	17	6	46	☌	♀	☾	♀ N. 5° 43′
	19	10	—		♂		stationary.
	19	12	—		☿		great. elong. E. 20° 11′
	20	11	48	☌	♭	☾	♭ N. 5° 21′
	21	12	42	☌	☿	☾	☿ N. 3° 39′
	27	1	—		☿		stationary.
	27	6	—		☿		in ♑
	28	11	—		♀		greatest brilliancy.

STAR TABLE, 1930.

FOR IDENTIFYING THE PRINCIPAL FIXED STARS.

STAR.	Magnitude	Parallax	Light Years	Right Ascen.	Declination.
		"		H. M.	° ′
α Andromedæ (Alpheratz)	2	0.05	65	0 4.8	+ 28 42
β Cassiopeiæ	2	0.07	50	0 5.4	+ 58 46
l Pegasi	2	0.01	300	0 9.6	+ 14 48
α Phœnicis	2	0.06	55	0 22.8	− 42 41
γ Cassiopeiæ (Schedir)	2	0.02	150	0 36.5	+ 56 9
β Ceti	2	0.04	80	0 40.1	− 18 22
ρ Cassiopeiæ	2	0.04	80	0 52.5	+ 60 20
δ Andromedæ	2	0.05	65	1 5.8	+ 35 15
ε Cassiopeiæ	2	0.07	50	1 21.2	+ 59 52
α Eridani (Achernar)	0	0.05	65	1 35.1	− 57 36
α Ursæ Min (Pole Star)	2	0.01	300		
β Arietis	2	0.07	50	1 50.8	+ 20 28
γ Andromedæ	2	0.02	150	1 59.6	+ 42 0
α Arietis	2	0.05	65	2 3.2	+ 23 8
β Trianguli	3	0.01	300	2 5.4	+ 34 39
o Ceti (Mira)	2	0.07	50	2 18.8	− 3 18
α Ceti	2	0.02	150	2 58.6	+ 3 49
γ Persei	3	0.01	300	2 59.7	+ 53 14
α Persei	1	0.02	150	3 19.3	+ 49 37
δ Persei	3	0.01	300	3 37.9	+ 47 34
η Tauri (Alcyone)	3	0.01	300	3 43.3	+ 23 53
ζ Persei	2	0.01	300	3 49.7	+ 31 11
ε Persei	3	0.01	300	3 53.2	+ 39 49
γ Eridani	3	0.02	150	3 54.8	− 13 42
ε Tauri	3	0.03	100	4 24.5	+ 19 2
α Tauri (Aldebaran)	1	0.06	55	4 31.9	+ 16 22
η Orionis	3	0.13	25	4 46.0	+ 6 50
λ Aurigæ	2	0.02	150	4 57.4	+ 33 3
θ Aurigæ	3	0.01	300	5 1.6	+ 41 8
β Eridani	2	0.05	65	5 4.4	− 5 11
β Orionis (Rigel)	0	0.00	500	5 11.2	− 8 17
α Aurigæ (Capella)	0	2.0	0.07	50	5 11.5	+ 45 56
ι Orionis (Bellatrix)	1	0.02	150	5 21.4	+ 6 17
β Tauri	1	0.03	100	5 21.9	+ 28 33
δ Orionis	2	0.00	500	5 28.4	− 0 21
α Leporis	2	0.02	150	5 29.6	− 17 52
ι Orionis	2	0.00	500	5 32.0	− 5 57
ε Orionis	1	0.01	300	5 32.7	− 1 13
ζ Tauri	3	0.01	300	5 33.5	+ 21 6
ζ Orionis	2	0.00	500	5 37.2	− 1 59
κ Orionis	2	0.01	300	5 44.4	− 9 42
α Orionis (Betelgeux)	1	0.02	150	5 51.4	+ 7 24
β Aurigæ	2	0.04	80	5 54.4	+ 44 57
θ Aurigæ	2	0.03	100	5 54.9	+ 37 13
β Canis Maj	2	0.01	300	6 19.6	− 17 55
α Argus (Canopus)	− 0	0.02	150	6 22.4	− 52 39
γ Geminorum	1	0.05	65	6 33.7	+ 16 28
α Canis Majoris (Sirius)	− 1	0.37	9	6 42.1	− 16 37
ε Canis Maj	1	0.0	0.01	300	6 55.9	− 28 53
Δ Canis Maj	2	0.0	0.01	300	7 5.5	− 26 17
A Geminorum (Castor)	1	6.0	0.07	50	7 30.1	+ 32 3
A Canis Min. (Procyon)	0	5.0	0.31	10	7 35.6	+ 5 24
B Geminorum (Pollux)	1	2.0	0.10	33	7 41.0	+ 28 12
P Ursæ	2	9.0	0.02	150	8 4.6	+ 24 6
λ Ursæ	2	2.0	0.03	100	9 9.4	+ 48 9
λ Hydræ	2	2.0	0.03	100	9 24.1	− 8 21
A Leonis Regulus	1	3.0	0.06	55	10 4.6	+ 12 19
γ Leonis	2	6.0	0.02	150	10 16.1	+ 20 12
B Ursæ Maj	2	4.0	0.06	55	10 57.6	+ 56 45
Ursæ Maj	2	0.0	0.05	65	10 59.4	+ 62 8
Δ Leonis	2	6.0	0.07	50		
B Leonis (Denebola)	2	2.0	0.09	36	11 45.5	+ 14 58
Ursæ Maj	2	3.0	0.02	150	11 50.2	+ 54 5
A Crucis	1	6.0	0.02	150	12 22.7	− 62 45
B Corvi	2	8.0	0.03	100	12 30.7	− 23 1
γ Virginis	2	9.0	0.07	50	12 38.1	− 1 4
B Crucis	1	5.0	0.01	300	12 43.6	− 59 18
ε Ursæ Majoris (Alioth)	1	7.0	0.08	55	12 51.0	+ 56 20
ζ Ursæ Majoris (Mizar)	2	4.0	0.04	80	13 21.1	+ 55 17
A Virginis (Spica)	1	2.0	0.01	300	13 21.5	− 10 48
η Ursæ Maj. (Alkaid)	1	9.0	0.01	300	13 44.8	+ 49 40
H Bootis	2	8.0	0.10	33	13 51.4	+ 18 45
B Centauri	0	9.0	0.04	80	13 58.9	− 60 2
θ Centauri	2	3.0	0.05	65	14 2.6	− 36 2
A Bootis (Arcturus)	0	2.0	0.10	33	14 12.5	+ 19 33
A Centauri	0	1.0	7.6	4	14 34.8	− 60 33
K Bootis	2	7.0	0.02	150	14 41.9	+ 27 22
B Ursæ Min	2	2.0	0.04	80	14 50.9	+ 74 26
A Coronæ Borealis	2	3.0	0.05	65	15 31.7	+ 26 57
A Serpentis	2	8.0	0.04	80	15 40.8	+ 6 39
Δ Scorpii	2	5.0	0.00	500	15 56.3	− 22 25
B Scorpii	2	9.0	0.00	500	16 1.4	− 19 37
A Scorpii (Antares)	1	2.0	0.02	150	16 25.1	− 26 17
B Herculis	2	8.0	0.02	150	16 27.2	+ 21 38
A Trianguli Australis	1	9.0	0.03	100	16 41.2	− 68 54
E Scorpii	2	4.0	0.04	80	16 48.6	− 34 10
H Ophiuchi	2	6.0	0.03	100	17 6.4	− 15 38
Δ Scorpii	1	7.0	0.01	300	17 28.9	− 37 3
A Ophiuchi	2	1.0	0.05	65	17 31.7	+ 12 36
ι Draconis	2	4.0	0.02	150	17 55.0	+ 51 30
A Lyræ (Vega)	0	1.0	0.12	27	18 34.6	+ 38 43
A Aquilæ (Altair)	0	9.0	0.20	16	19 47.4	+ 8 41
γ Cygni	2	3.0	0.00	500	20 19.7	+ 40 2
A Pavonis	2	1.0	0.01	300	20 20.1	− 56 58
α Cygni (Deneb)	1	3.0	0.01	300	20 39.0	+ 45 2
E Pegasi	2	5.0	0.02	150	21 40.7	+ 9 33
A Piscis Australis	1	3.0	0.14	23	22 53.8	− 30 0

To find the time when star is on meridian, subtract R. A. M. S. of the sun table below from the star's Right Ascension, first adding 24h. to the latter, if necessary; mark this result P. M. if less than 12h.; but if greater than 12h. subtract 12h. and mark the remainder A. M. Thus, on January 1, Sirius is on the meridian at 12.02 A. M., approximately.

Our universe—the space marked out by the distance to the outermost star of the Milky Way—is believed to be 350,000 light years across.

A light year is the distance that light travels in a year, moving at the rate of 186,324 miles a second. It is the yardstick of modern astronomy.

A light year is in round numbers six trillion miles, and the distance across our universe is taken as 350,000 times six trillion miles.

RIGHT ASCENSION OF MEAN SUN, 1930.

(At Washington—Mean Noon.)

Date.	R. A. M. S.	Date.	R. A. M. S.	Date.	R. A. M. S.	Date.	R. A. M. S.	Date.	R. A. M. S.	Date.	R. A. M. S.
	H. M.		H. M.		H. M.		H. M.		H. M.		H. M.
Jan. 1	18 42.5	March 2	22 39.0	May 1	2 35.6	June 30	6 32.2	Aug. 29	10 28.7	Oct. 28	14 25.3
11	19 21.9	12	23 18.5	11	3 15.0	July 10	7 11.6	Sept. 8	11 8.1	Nov. 7	15 4.7
21	20 1.3	22	23 57.9	21	3 54.5	20	7 51.0	18	11 47.6	17	15 44.1
31	20 40.8	April 1	0 37.3	31	4 33.9	30	8 30.4	28	12 7.0	27	16 23.5
Feb. 10	21 20.2	11	1 16.7	June 10	5 13.3	Aug. 9	9 9.9	Oct. 8	13 6.4	Dec. 7	17 3.0
20	21 59.6	21	1 56.2	20	5 52.7	19	9 49.3	18	13 45.8	17	17 42.4

The Right Ascension of Mean Sun increases 3.913 to 4 less (gain)

TABLE OF MAGNETIC DECLINATION.

Or Variation of Compass for January, 1929—With the Annual Change in 1926 for Selected Places in the United States.

A plus (+) sign to the annual change denotes that the declination is increasing, and a minus (—) sign the reverse. (Specially prepared for The World Almanac in the office of the United States Coast and Geodetic Survey.)

State or Territory.	Station.	Approx. Lat.	Approx. Long.	Var't'n Jan., 1929.	An. Ch.
		° ′	° ′	° ′	′
Ala.	Montgomery	32 22	86 18	2 55 E	0
	Mobile	30 41	88 09	5 05 E	+1
	Huntsville	34 44	86 35	4 02 E	—1
Alaska	Sitka	57 03	135 20	30 22 E	—1
	Kodiak	57 48	152 24	23 44 E	—1
	St. Michael	63 29	162 01	20 34 E	—3
	Dutch Harbor	53 53	166 32	16 10 E	—2
	Kiska	51 59	182 28	6 45 E	—3
Ariz.	Prescott	34 34	112 30	14 40 E	—1
	Yuma	32 44	114 37	14 41 E	—1
	Nogales	31 20	110 56	13 43 E	0
Ark.	Little Rock	34 44	92 16	7 03 E	0
Cal.	Sacramento	38 34	121 30	17 14 E	—1
	San Francisco	37 48	122 25	18 16 E	—1
	Los Angeles	34 04	118 15	15 49 E	—1
	San Diego	32 43	117 12	15 06 E	—1
Col.	Denver	39 45	105 00	14 22 E	—2
Conn.	Hartford	41 46	72 40	12 59W	+5
	New Haven	41 18	72 55	12 07W	+5
Del.	Dover	39 09	75 31	8 30W	+4
D. of C.	Washington	38 53	77 00	6 36W	+4
Fla.	Tallahassee	30 26	84 17	2 29 E	+1
	Jacksonville	30 20	81 39	1 00 E	0
	Key West	24 33	81 48	2 46 E	+1
Ga.	Atlanta	33 44	84 22	1 30 E	—1
	Savannah	32 05	81 05	0 16 E	—1
Idaho	Boise	43 37	116 12	19 20 E	—2
Ill.	Springfield	39 50	89 39	3 48 E	—3
	Chicago	41 47	87 35	2 24 E	—4
Ind.	Indianapolis	39 47	86 10	0 27 E	—3
	Fort Wayne	41 06	85 08	0 54W	+3
Iowa	Des Moines	41 36	93 36	7 25 E	—3
	Keokuk	40 23	91 23	5 24 E	—3
Kansas	Topeka	39 02	95 43	9 02 E	—2
	Ness City	38 28	99 54	11 23 E	—2
Ky.	Lexington	38 04	84 30	0 15W	+2
	Paducah	37 05	88 37	4 10 E	—1
	Louisville	38 15	85 42	0 32 E	—2
La.	Baton Rouge	30 27	91 11	6 35 E	+1
	New Orleans	30 00	90 05	6 13 E	+1
	Shreveport	32 30	93 45	7 32 E	+1
Me.	Bangor	44 48	68 48	19 22W	+4
	Portland	43 39	70 17	16 45W	+5
	Eastport	44 54	66 59	21 26W	+4
Md.	Annapolis	38 59	76 29	7 26W	+4
	Baltimore	39 16	76 35	7 31W	+4
Mass.	Boston	42 22	71 04	14 59W	+5
	Pittsfield	42 27	73 17	13 19W	+5
Mich.	Lansing	42 44	84 32	1 33W	+4
	Detroit	42 21	83 03	2 43W	+4
	Marquette	46 33	87 22	0 43 E	—5
Minn.	St. Paul	44 58	93 05	7 54 E	—4
	Duluth	46 46	92 04	7 30 E	—5
Miss.	Jackson	32 19	90 12	6 31 E	+1
	Oxford	34 22	89 33	5 43 E	0
Mo.	Jefferson City	38 35	92 09	6 58 E	—2
	St. Louis	38 38	90 16	4 43 E	—2
	Kansas City	39 07	94 38	8 58 E	—2
Mont.	Helena	46 37	112 02	19 38 E	—3
Neb.	Lincoln	40 49	96 42	9 40 E	—3
	Omaha	41 16	95 58	9 10 E	—3
Nev.	Carson City	39 10	119 46	18 06 E	—1
	Eureka	39 31	115 58	17 26 E	—1
N. H.	Concord	43 12	71 29	15 09W	+5
N. J.	Trenton	40 13	74 44	10 03W	+5
N. M.	Santa Fe	35 41	105 57	13 24 E	—1
N. Y.	Albany	42 40	73 45	13 07W	+5
	New York	40 43	74 00	11 00W	+5
	Ithaca	42 27	76 29	9 14W	+5
	Buffalo	42 55	78 54	8 00W	+5
N. C.	Raleigh	35 47	78 38	3 25W	+2
	Wilmington	34 15	77 56	3 07W	+2
N. D.	Bismarck	46 48	100 47	14 16 E	—4
	Pembina	48 58	97 15	10 09 E	—5
Ohio	Columbus	40 00	83 00	2 02W	+3
	Cleveland	41 30	81 42	4 55W	+4
	Cincinnati	39 08	84 25	0 30 E	—3
Okla.	Atoka	34 24	96 09	8 50 E	0
	Guthrie	35 53	97 25	9 53 E	—1
Ore.	Portland	45 31	122 41	23 17 E	—2
Pa.	Harrisburg	40 16	76 53	8 17W	+4
	Philadelphia	39 58	75 10	9 30W	+4
	Allegheny	40 29	80 01	5 26W	+4
R. I.	Providence	41 50	71 24	14 16W	+5
S. C.	Columbia	34 00	81 02	0 37W	+1
	Charleston	32 47	79 56	1 28W	+1
S. D.	Pierre	44 22	100 22	12 30 E	—3
	Yankton	42 53	97 23	10 46 E	—3
Tenn.	Nashville	36 09	86 48	3 22 E	—1
	Knoxville	35 56	83 57	0 40W	+1
	Memphis	35 08	90 03	5 30 E	—1
Texas	Austin	30 17	97 44	9 12 E	+1
	San Antonio	29 27	98 28	9 50 E	+1
	Houston	29 47	95 20	8 45 E	+1
	Galveston	29 18	94 47	8 24 E	+2
	El Paso	31 46	106 29	12 50 E	+1
Utah	Salt Lake	40 46	111 54	17 08 E	—2
	Ogden	41 13	112 00	17 52 E	—2
Vt.	Montpelier	44 15	72 32	16 14W	+5
	Burlington	44 28	73 12	14 45W	+5
Va.	Richmond	37 32	77 26	5 25W	+3
	Norfolk	36 52	76 17	6 02W	+3
	Lynchburg	37 25	79 09	4 02W	+3
Wash.	Olympia	47 02	122 54	23 42 E	—2
	Walla Walla	46 04	118 21	21 39 E	—2
W. Va.	Charleston	38 21	81 38	3 14W	+3
	Wheeling	40 03	80 44	2 43W	+4
Wis.	Madison	43 04	89 25	3 52 E	—4
	Milwaukee	43 04	87 53	2 18 E	—4
	La Crosse	43 50	91 14	4 37 E	—4
Wyo.	Cheyenne	41 08	104 49	14 56 E	—2

EXTREME VALUES.

Maine	N. E. corner			22 35W	+3	Alaska	N. E. corner			40 20 E	—1

DEPENDENCIES.

Cuba	Havana	23 08	82 22	3 39 E	+2	H. I.	Honolulu	21 18	157 52	11 17 E	+1
	Santiago	20 00	75 50	0 45 E	—2		Hilo	19 44	155 05	9 35 E	+1
P'rtoRico	San Juan	18 29	66 07	4 32W	+7	Philippines	Manila	14 35	120 58 E	0 39 E	—1
	Ponce	17 59	66 40	4 15W	+7						

FOG DURATION AVERAGES.

The following table shows the average hours of fog per year at various U. S. Lighthouse Service Stations.

Station.	Hours	Station.	Hours	Station.	Hours
Moose Peak, Me	1,644	The Cuckoids, Me	1,297	Humboldt Bay, Cal	1,086
Petit Manan, Me	1,607	Seguin, Me	1,278	Great Round Shoal, Mass	1,086
Libby Islands, Me	1,574	Swiftsure Bank, Wash	1,272	Pollock Rip, Mass	1,084
Whitehead, Me	1,511	Pollock Rip Slue, Mass	1,243	Bass Harbor Head, Me	1,084
Mount Desert, Me	1,418	Calumet Harbor, Ill	1,174	Isle au Haut, Me	1,083
Egg Rock, Me	1,404	Blunts Reef, Cal	1,166	Point Arena, Cal	1,059
Great Duck Island, Me	1,393	Nash Island, Me	1,162	Two Bush Island, Me	1,048
Point Reyes, Cal	1,384	San Francisco, Cal	1,148	Pemaquid Point, Me	1,039
Scotch Gap, Alaska	1,378	Cape Hinchinbrook, Alaska	1,134	Tenants Harbor, Me	1,017
West Quoddy Head, Me	1,374	Bonita Point, Cal	1,122	Nantucket Shoal, Mass	1,016
Matinicus Rock, Me	1,361	Manana Island, Me	1,109	San Luis Obispo, Cal	1,010
Little River, Me	1,300	Point Cabrillo, Cal	1,087		

The absolute maximum record is that at Seguin, Me., 2,734 hours in 1907, equivalent to about 30 per cent. of the entire year, 8,760 hours.

The maximum observed on the Great Lakes was at Calumet Harbor, near Chicago, Ill., where 2,269 hours of fog occurred in 1913, amounting to about 26 per cent. of the year.

This and other stations near large cities are affected somewhat by smoke in the vicinity.

The highest Pacific Coast record was observed in 1916 on San Francisco Light Vessel, Cal. being 2,221 hours, or about 25 per cent. of the year.

LATITUDE AND LONGITUDE TABLE.

(LONGITUDE RECKONED FROM GREENWICH.)

Specially prepared for THE WORLD ALMANAC by the United States Coast and Geodetic Survey.

	Lat.	Long.
	° ′ ″	° ′ ″
Acapulco, Mex., Lt	16 49 10 N.	99 55 50 W.
Adelaide, S. Australia*	34 55 38 S.	138 35 02 E.
Aden, Arabia	12 47 16 N.	44 59 8 E.
Albany, N. Y.*	42 39 13 N.	73 46 46 W.
Algiers, Algeria*	36 47 50 N.	3 2 6 E.
Allegheny, Pa.*	40 28 58 N.	80 1 21 W.
Alexandria, Egypt, Lt	31 11 43 N.	29 51 40 E.
Amherst, Mass.*	42 21 56 N.	72 31 28 W.
Ann Arbor, Mich.*	42 16 49 N.	83 43 50 W.
Annapolis, Md.*	38 58 53 N.	76 29 8 W.
Archangel, Russia	64 32 06 N.	40 33 30 E.
Arequipa, Peru*	16 22 28 S.	71 32 56 W.
Armagh, Ireland*	54 21 13 N.	6 38 51 W.
Astoria, Ore	46 11 19 N.	123 49 42 W.
Asuncion, Paraguay	25 22 00 S.	57 45 00 W.
Athens, Greece*	37 58 20 N.	23 43 15 E.
Atlanta, Ga.‡	33 44 58 N.	84 23 18 W.
Attu Island, Alaska	52 56.01 N.	173 12 24 W.
Augusta, Me.‡	44 18 26 N.	69 46 56 W.
Austin, Texas‡	30 16 28 N.	97 44 26 W.
Bahia, Brazil	13 00 37 S.	38 32 6 W.
Baltimore, Md.*	39 17 52 N.	76 37 16 W.
Barnegat, N. J., Lt	39 45 52 N.	74 06 24 W.
Batavia, Java*	6 07 40 S.	106 48 38 E.
Baton Rouge, La. (Barracks)	30 27 23 N.	91 11 25 W.
Belize, Brit. Honduras	17 30 00 N.	88 13 00 W.
Belle Isle Ltd, Lab	51 53 00 N.	55 22 10 W.
Berkeley, Cal	37 52 24 N.	122 15 42 W.
Berlin, Germany*	52 30 17 N.	13 23 42 E.
Bermuda (Ireland Id. Dock Yard)	32 19 22 N.	64 49 34 W.
Berne, Switzerland*	46 57 09 N.	7 26 26 E.
Bismarck, No. Dak.‡	46 49 11 N.	100 46 51 W.
Bogota, Colombia*	4 35 55 N.	74 04 52 W.
Bolivar Point, Tex. Lt	29 21 59 N.	94 46 01 W.
Bomb'y(Col'ba) India*	18 53 36 N.	72 48 56 E.
Bonn, Germany*	50 43 45 N.	7 5 48 E.
Bordeaux(Floriac) Fr.*	44 50 07 N.	0 31 22 W.
Boston St. H'se, Mass	42 21 28 N.	71 3 50 W.
Brazos River, Tex. Lt	28 54 56 N.	95 19 31 W.
Briery Knob, W. Va	38 08 40 N.	80 20 40 W.
Brisbane, Queensland*	27 28 00 S.	153 01 33 E.
Brussels (Uccle), Belg	50 47 56 N.	4 21 30 E.
Buenos Aires, Arg't'na	34 36 00 N.	58 26 W.
Buffalo, N. Y. (C. H.)	42 53 03 S.	78 52 41 W.
Calcutta, India	22 33 25 N.	88 20 12 E.
Callao, Peru, Lt	12 08 15 N.	77 14 45 W.
Cambridge, England*	52 12 52 N.	0 5 40 E.
Cambridge, Mass.*	42 22 48 N.	71 7 45 W.
Canton, China, Lt	23 06 35 N.	113 16 30 E.
Cape Ann, Mass., N. Lt	42 38 21 N.	70 34 31 W.
Cape Blanco, Ore., Lt	42 50 15 N.	124 33 46 W.
Cape Canaveral, Fla. Lt	28 27 37 N.	80 32 37 W.
Cape Charles, Va. Lt	37 07 22 N.	75 54 24 W.
Cape Cod, Mass., Lt	42 02 23 N.	70 3 38 W.
Cape Elizabeth, Me., Lt	43 33 58 N.	70 12 02 W.
Cape Fear, N. C., Lt	33 50 47 N.	77 57 58 W.
Cape Flattery, Wash. Lt	48 23 31 N.	124 44 09 W.
Cape Hatteras, N. C., Lt	35 15 17 N.	75 31 16 W.
Cape Henlopen, Del., Lt	38 46 39 N.	75 05 10 W.
Cape Henry, Va., Lt	36 55 35 N.	76 0 27 W.
Cape Hinchinb'k, Alas. Lt	60 14 05 N.	146 39 06 W.
Cape Horn	55 38 41 S.	67 16 15 W.
Cape Lookout, N.C. Lt	34 37 22 N.	76 31 29 W.
Cape May, N. J., Lt	38 55 59 N.	74 57 39 W.
Cape Mendocino, Cal. Lt	40 26 26 N.	124 24 21 W.
Cape of Good Hope*	33 56 04 S.	18 28 42 E.
Cape of Good Hope, Lt	34 21 12 S.	18 29 26 E.
Cape Prince of Wales	65 33 30 N.	168 00 00 W.
Cape Romain, S.C. Lt	33 01 08 N.	79 22 26 W.
Caracas, Venezuela	10 31 00 N.	66 56 00 W.
Carloforte, Sardinia*	39 08 09 N.	8 18 44 E.
Carson City, Nev.‡	39 09 51 N.	119 45 56 W.
Catania, Sicily*	37 30 13 N.	15 05 10 E.
Cayenne, Fr. Guiana	4 53 00 N.	52 19 00 W.
Charleston, S.C., Lt	32 41 43 N.	79 55 2 W.
Charleston, W. Va. (Old Capitol Bldg.)	38 21 02 N.	81 37 57 W.
Charlottet'wn, P.E.I. Lt	46 11 36 N.	63 06 58 W.
Charlottesville, Va.	38 02 01 N.	78 31 20 W.
Cherbourg, France*	49 38 54 N.	1 38 8 W.
Cheyenne, Wyo.‡	41 08 25 N.	104 49 11 W.
Chicago, Ill.*	41 50 01 N.	87 36 42 W.
Cincinnati, Ohio*	39 08 20 N.	84 25 21 W.
Clinton, N. Y.*	43 03 17 N.	75 24 21 W.
Colombo, Ceylon, Lt	6 55 40 N.	79 50 40 E.
Colon, Panama, Lt	9 22 09 N.	79 54 42 W.
Columbia, S. C.‡	34 00 01 N.	81 01 59 W.
Columbus, O.*	39 59 50 N.	83 00 39 W.
Constantinople (Seraglio Pt. Lt.)	41 00 35 N.	29 1 14 E.
Copenhagen, Denm'k*	55 41 13 N.	12 34 40 E.
Cordova, Argentina*	31 25 16 S.	64 12 03 W.
Dehra Dun, India*	30 18 52 N.	78 02 57 E.
Demerara(Geo't'wn) Lt	6 49 20 N.	58 11 30 W.
Denver, Colo*	39 40 36 N.	104 56 36 W.
Des Moines, Ia.*	41 36 00 N.	93 37 39 W.
Dover, Del. (C'th'se)	39 09 21 N.	75 31 25 W.
Dry Tortugas, Fla. Lt	24 37 59 N.	82 55 13 W.
Dublin, Ireland*	53 23 13 N.	6 20 16 W.
Duluth, Minn. (Hi.Sch.)	46 47 21 N.	92 06 00 W.
Dutch Harbor, Alaska	53 53 00 N.	166 35 00 W.
Eagle Pass, Tex	28 42 39 N.	100 30 24 W.
Edinburgh, Scotland*	55 57 23 N.	3 10 46 W.
El Paso, Tex. (C'th'se)	31 45 30 N.	106 29 02 W.
Fairbanks, Alaska	64 50 53 N.	147 43 33 W.
Father Point, Que., Lt	48 21 35 N.	68 27 40 W.
Fayal Id. (Horta)	38 31 45 N.	28 37 39 W.
Fernandina, Fla., (C.H.)	30 40 14 N.	81 27 42 W.
Fire Island, N. Y., Lt	40 37 57 N.	73 13 08 W.
Florence(Arxetri*) Italy	43 45 14 N.	11 15 20 E.
Funchal Lt., Madeira	32 37 43 N.	16 54 52 W.
Galveston Cathedral	29 18 14 N.	94 47 26 W.
Gay Head, Mass. Lt	41 20 55 N.	70 50 08 W.
Geneva, Switzerland*	46 11 59 N.	6 9 9 E.
Genoa, Italy*	44 25 09 N.	8 55 20 E.
Geo'town, Brit. Guiana	6 48 00 N.	58 07 00 W.
Gibraltar (Europa Pt.) Lt.	36 06 25 N.	5 20 42 W.
Glasgow, Scotland*	55 52 43 N.	4 17 39 W.
Grays Harbor, Wash	46 53 19 N.	124 06 57 W.
Greenwich, England*	51 28 38 N.	0 0 0
Guam	13 26 22 N.	144 38 52 E.
Guatemala, Guatemala	14 40 00 N.	90 32 00 W.
Halifax Dockyard*	40 39 38 N.	63 35 22 W.
Hamburg, Germany*	35 32 51 N.	9 58 22 E.
Hanover, N. H.*	43 42 15 N.	72 17 0 W.
Harrisburg, Pa. (Old Capitol Bldg.)	40 15 51 N.	76 52 54 W.
Hartford, Conn‡	41 45 51 N.	72 40 58 W.
Havana (Morro Lt.)	23 09 26 N.	82 21 28 W.
Helena, Mont. (C'th'se)	46 35 18 N.	112 02 08 W.
Helsingfors, Finland*	60 09 42 N.	24 57 16 E.
Hongkong, China*	22 18 13 N.	114 10 28 E.
Honolulu (Reef, Lt.)	21 17 55 N.	157 51 54 W.
Indianapolis, Ind.‡	39 46 11 N.	86 09 36 W.
Ithaca, N. Y.*	42 26 47 N.	76 29 0 W.
Jacksonv'le, Fla. (C'th.)	30 19 35 N.	81 39 17 W.
Jamaica, West Indies*	18 24 51 N.	77 52 22 W.
Jefferson City, Mo.‡	38 34 47 N.	92 10 20 W.
Johannesburg, Transvaal*	26 10 55 S.	28 04 30 E.
Jupiter Inlet, Fla	26 56 54 N.	80 04 56 W.
Kan. City, Mo. (Pr. Ch.)	39 05 56 N.	94 35 13 W.
Key West, Fla., Lt	24 33 02 N.	81 48 4 W.
Kingston (Port Royal Flagstaff), Jamaica	17 55 56 N.	76 50 34 W.
La Plata, Argentina*	34 54 32 S.	57 56 12 W.
Laredo, Tex. (N. Wireless Tower)	27 30 25 N.	99 31 07 W.
Leiden, Netherlands*	52 09 20 N.	4 29 3 E.
Leningrad, Russia*	59 56 32 N.	30 17 51 E.
Liege, Belgium*	50 37 6 N.	5 33 51 E.
Lima, Peru	12 03 00 S.	77 00 00 W.
Lisbon, Portugal*	38 42 31 N.	9 11 10 W.
Little Rock, Ark. (Custom House)	34 44 56 N.	92 16 24 W.
Liverpool, England*	53 24 05 N.	3 4 20 W.
Los Angeles (City H'l)	34 03 13 N.	118 14 33 W.
Los Angeles H'b'r, C. Lt	33 42 31 N.	118 15 03 W.
Louisv'le, Ky. (C'th'se)	38 15 16 N.	85 45 38 W.
Madison, Wis.*	43 04 37 N.	89 24 28 W.
Madras, India*	13 04 08 N.	80 14 46 E.
Madrid, Spain*	40 24 30 N.	3 41 16 W.
Managua, Nicaragua	12 09 00 N.	86 15 00 W.
Manila, Lt.*	14 34 41 N.	120 58 33 E.
Marseilles, France*	43 18 19 N.	5 23 39 E.
Melbourne, Vict.*	37 49 53 S.	144 58 28 E.
Mobile, Ala. (C'th'se)	30 41 23 N.	88 02 25 W.
Monrovia, Liberia, Lt	6 19 00 N.	10 50 0 W.
Montauk Pt., N.Y. Lt	41 04 16 N.	71 51 27 W.
Montevideo, Uruguay	34 54 33 S.	56 12 51 W.
Montgomery, Ala.‡	32 22 40 N.	86 18 02 W.
Montreal, Canada*	45 30 20 N.	73 34 39 W.
Moscow (Presnia) Russia*	55 45 20 N.	37 34 15 E.
Mt. Belknap, Utah	38 25 10 N.	112 24 43 W.
Mt. Cheenanaw, Ala	33 29 08 N.	85 48 31 W.
Mt. Conness, Cal	37 58 03 N.	119 19 14 W.
Mt. Desert, Me. Lt	43 58 08 N.	68 07 44 W.
Mt. Elbert, Col	39 07 04 N.	106 26 41 W.
Mt. Hamilton, Cal.*	37 20 26 N.	121 38 44 W.
Mt. Harvard, Col	38 55 38 N.	106 19 13 W.
Mt. Helena, Cal	38 40 11 N.	122 37 58 W.
Mt. Hood, Ore	45 22 26 N.	121 41 42 W.
Mt. Marcy, N. Y.	44 06 46 N.	73 55 27 W.

LATITUDE AND LONGITUDE TABLE—*Continued.*

	Lat.	Long.
	° ′ ″	° ′ ″
Mt. McKinley, Alaska	63 03 59 N.	151 00 44W.
Mt. Mitchell, N. C.	35 45 53 N.	82 15 55W.
Mt. Quray, Col.	38 25 22 N.	106 13 27W.
Mt. Rainier, Wash.	46 51 11 N.	121 45 47W.
Mt. St. Elias, Alaska	60 17 29 N.	140 55 43W.
Mt. Shasta, Cal	41 24 34 N.	122 11 38W.
Mt. Tamalpais, Cal.	37 55 28 N.	122 35 45W.
Mt. Washington, N.H	44 16 14 N.	71 18 14W.
Munich, Germany*	48 08 46 N.	11 36 30 E.
Nain, Labrador	56 32 45 N.	61 40 14W.
Naples, Italy	40 51 46 N.	14 15 26 E.
Nashville, Tenn.*	36 08 54 N.	86 48 03W.
Nassau, Bahamas, Lt.	25 05 37 N.	77 21 58W.
Natal, So. Africa*	29 50 47 S.	30 0 18 E.
Navesink, N. J. Lt	40 23 46 N.	73 59 09W.
Neuchatel, Switzerl'd*	46 59 51 N.	6 57 28 E.
New Haven, Conn.*	41 19 22 N.	72 55 9W.
New Orleans, (St. Patrick's Ch.), La	29 56 53 N.	90 4 10W.
New York City (Col. U.)	40 48 35 N.	73 57 30W.
Nice, France*	43 43 17 N.	7 18 3 E.
Norfolk (Navy Yd.) Va.	36 49 33 N.	76 17 46W.
North Cape, Norway	71 11 00 N.	25 40 0 E.
Northfield, Minn.*	44 27 42 N.	93 8 58W.
Northampton, Mass.*	42 19 02 N.	72 38 16W.
Odessa, Ukrainia	46 28 37 N.	30 45 33 E.
Ogden, Utah	41 13 08 N.	111 59 56W.
Okla. City, Okla. (Ch.)	35 28 34 N.	97 30 06W.
Oslo, Norway*	59 54 44 N.	10 43 22 E.
Olympia, Wash.‡	47 02 09 N.	122 54 09W.
Omaha, Neb. (Pr. Ch.)	41 15 43 N.	95 56 15W.
Ottawa, Canada*	45 23 39 N.	75 43 0W.
Oxford (Univ.) Eng.*	51 45 34 N.	1 15 6W.
Padua, Italy*	45 24 01 N.	11 52 16 E.
Panama (Cathedral)	8 57 06 N.	79 32 9W.
Paramaribo, Dutch Gui.	5 48 00 N.	55 12 0W.
Paris, France*	48 50 11 N.	2 20 14 E.
Pensacola, Fla. Lt.	30 20 46 N.	87 18 28W.
Philadelphia, Pa.*	39 58 02 N.	75 16 42W.
Pikes Peak, Colo.	38 50 26 N.	105 02 37W.
Point Arena, Cal. Lt.	38 57 19 N.	123 44 24W.
Point Barrow†	71 23 30 N.	156 27 0W.
Point Concep'n, Cal. Lt.	34 26 56 N.	120 28 13W.
Point Loma, Cal.	32 39 55 N.	117 14 32W.
Point Pinos, Cal. Lt.	36 38 01 N.	121 55 59W.
Point Reyes, Cal. Lt.	37 59 45 N.	123 01 21W.
Port au Prince, Haiti	18 32 N.	72 19 00W.
Port Louis, Mauritius	20 08 46 S.	57 29 26 E.
Port Said, Egypt, Lt.	31 15 41 N.	32 18 45 E.
Port Stanley, Falkl'd Is.	51 41 10 S.	57 51 30W.
Portland, Me.	43 39 29 N.	70 15 20W.
Portland, Ore. (C'th'se)	45 31 00 N.	122 40 39W.
Potsdam, Germany*	52 22 56 N.	13 3 58 E.
Poughkeepsie, N. Y.*	41 41 18 N.	73 53 24W.
Prague, Czechoslovakia	50 05 16 N.	14 25 4 E.
Princeton, N. J.*	40 20 58 N.	74 39 24W.
Providence, R. I.*	41 49 46 N.	71 24 24W.
Quebec, Canada*	46 47 59 N.	71 13 10W.
Quito, Ecuador*	0 14 00 S.	78 29 33W.
Raleigh, N. C. (Triangulation)	35 46 47 N.	78 38 19W.
Richmond, Va.	37 32 16 N.	77 26 4W.
Rio de Janeiro, Brazil*	22 54 24 S.	43 10 21W.
Rochester (Bausch & Lamb), N. Y.	43 10 37 N.	77 37 24W.
Rockland, Me. (C. Ch)	44 06 24 N.	69 06 37W.
Rome (Royal Univ.)*	41 53 34 N.	12 29 4 E.
Sabine Bank, La. Lt.	29 28 20 N.	93 43 21W.
Sacramento, Cal.‡	38 34 37 N.	121 29 34W.

	Lat.	Long.
	° ′ ″	° ′ ″
Saigon, Coohin-China*	10 46 47 N.	106 42 12 E.
St. Augustine, Fla. Lt.	29 53 07 N.	81 17 20W.
St. Helena Island	16 55 00 S.	5 43 3 E.
St. John's, Newf'd'l'd	47 34 02 N.	52 40 54W.
St. Louis, Mo.*	38 38 03 N.	90 12 20W.
St. Simon, Ga. Lt	31 08 02 N.	81 23 38W.
Salem, Oregon	44 56 19 N.	123 01 44W.
Salt Lake City, Utah (Temple)	40 46 15 N.	111 53 28W.
San Diego, Cal.	32 43 21 N.	117 9 40W.
San Francisco, Cal.*	37 47 28 N.	122 25 44W.
San Jose, Costa Rica	9 55 00 N.	84 10 00W.
San Juan, Porto Rico	18 25 00 N.	66 05 00W.
San Luis, Argentina*	33 17 46 S.	66 20 30W.
San Luis Obispo, Cal. Lt.	35 09 38 N.	120 45 37W.
San Salvador, Salvador	13 42 N.	89 13 00W.
Sand Island, Ala. Lt.	30 11 15 N.	38 03 02W.
Sandy Hook, N. J., Lt.	40 27 42 N.	74 0 9W.
Santa Domingo, S. Dom.	18 28 00 N.	69 55 00W.
Santiago, Chile*	33 26 42 S.	70 41 30W.
Santiago de Cuba, Lt.	19 57 29 N.	75 52 3W.
Savannah (Exec. Spire), Ga.	32 04 53 N.	81 5 22W.
Seattle (Univ.) Wash.	47 39 42 N.	122 18 32W.
Shanghai, China	31 14 41 N.	121 28 56 E.
Ship Shoal, La. Lt.	28 54 52 N.	91 04 15W.
Silver Mt., S. Pk., Cal.	38 32 39 N.	119 45 17W.
Sitka, Alaska	57 02 53 N.	135 20 22W.
Springfield, Ill†	39 47 57 N.	89 39 18W.
Stockholm, Sweden*	50 20 33 N.	18 3 30 E.
Suakin, E. Africa, Lt.	19 07 00 N.	37 19 9 E.
Sucre, Boliviz	19 18 00 S.	64 44 00W.
Sydney, N. S. W.*	33 51 42 S.	151 12 20 E.
Tacubaya, Mex.*	19 24 18 N.	99 11 40W.
Tampa, Fla. (C'th'se)	27 56 53 N.	82 27 28W.
Tampico, Mexico	22 15 00 N.	97 50 00W.
Tanana, Alaska	65 10 10 N.	152 5 24W.
Tashkent, Turkestan*	41 19 31 N.	69 17 42 E.
Tegucigalpa, Hond'ras	14 04 00 N.	87 17 00W.
Tillamook Rock, Ore. Lt.	45 56 16 N.	124 01 05W.
Tokyo, Japan*	35 39 17 N.	139 44 33 E.
Topeka, Kan.†	39 02 54 N.	95 40 42W.
Toronto, Canada*	43 40 01 N.	79 23 54W.
Trinidad Head, Cal. Lt.	41 03 08 N.	124 09 02W.
Tunis (Goletta, Lt.)	36 48 19 N.	10 18 32 E.
Tybee, Ga. Lt.	32 01 19 N.	80 50 45W.
Upsala, Sweden*	59 51 29 N.	17 37 32 E.
Urbana, Ill.	40 06 20 N.	88 13 28W.
Utrecht, Netherlands*	52 05 10 N.	5 7 45 E.
Valdez C. H., Alaska	61 06 50 N.	146 16 15W.
Valparaiso, Chile	33 01 52 S.	71 38 42W.
Venice, Italy*	45 26 10 N.	12 20 32 E.
Vera Cruz, Mex. Lt.	19 12 30 N.	96 7 57W.
Victoria, B. C., Lt.	48 25 26 N.	123 23 32W.
Vienna, Austria*	48 13 55 N.	16 20 21 E.
Walla Walla, Wash., (Courtho'se)	46 03 55 N.	118 20 51W.
Warsaw, Poland*	52 13 05 N.	21 1 48 E.
Washington, D C.*	38 55 14 N.	77 3 57W.
Wellesley, Mass.*	42 17 35 N.	71 18 10W.
Wellington, N. Z.*	41 17 04 S.	174 46 4 E.
West Point, N. Y.	41 23 22 N.	73 57 39W.
Wheeler Peak, Nev.	38 59 10 N.	114 18 48W.
Williams Bay (Yerkes*) Wis.	42 34 13 N.	88 33 18W.
Williamstown, Mass.*	42 42 30 N.	73 12 30W.
Yaquina Head, Ore. Lt.	41 40 38 N.	124 04 43W.
Yokohama, Japan	35 26 41 N.	139 39 0 E.
Zanzibar (E. Consulate)	6 00 43 S.	39 11 8 E.
Zurich, Switzerland*‡	47 22 38 N.	8 33 4 E.

* Observatories. † Highest latitude in U. S. territory Lt. lighthouse. ‡ State capitol.

To find the value in hours, minutes and seconds divide the degrees minutes and seconds by 15.

Latitude of a place is its angular distance from the equator and is measured by an arc of the meridian between the zenith and the equator. Longitude of a place is measured by the arc of the equator, intercepted between the prime meridian and the meridian passing through the place, or by the angle at the pole between these two meridians.

There is a periodic shifting of the latitude of the poles of the earth, according to many scientists. The movement is difficult to detect because of the small area over which the pole shifts—the size of a baseball diamond.

UNITED STATES NAVAL OBSERVATORY, WASHINGTON, D. C.

The Naval Observatory at Washington, D. C., maintains continuous observations of the sun, moon, planets, and fundamental stars for the determination of absolute positions, including the position of the equator and the equinox among the stars, and essential contributory observations.

It also prepares and publishes the American Ephemeris and Nautical Almanac, and derives and disseminates the standard time of the United States.

Other astronomical investigations of general or special scientific value, either independently or in cooperation with other observatories, are undertaken so far as time, opportunity, and the demands of the principal observational work of the Observatory admit.

In addition, the Observatory provides for the development, supply, upkeep, and repair of chronometers, compasses, sextants, and other nautical instruments which afford means of safe navigation to naval vessels and aircraft.

The Observatory's time signals, based on precise star observations, are sent out at 3 A. M., noon, and 10 P. M., Eastern Standard Time, on telegraph-control lines which operate automatically the radio stations at Arlington and Annapolis, and in addition at noon those at Key West and San Diego.

NEW YORK (GOVERNOR'S ISLAND) TIDE TABLES FOR 1930.

(Eastern Standard Time. Meridian 75° W. Prepared by U. S. Coast and Geodetic Survey.)

January.				February.				March.				April.				May.				June.			
	High		Low		High		Low		High		Low		High		Low		High		Low		High		Low	
Day	Time		Time	Day	Time		Time	Day	Time		Time	Day	Time		Time	Day	Time		Time	Day	Time		Time	
	h.	*m.*	*h.*	*m.*	*h.*	*m.*	*h.*	*m.*	*h.*	*m.*	*h.*	*m.*	*h.*	*m.*	*h.*	*m.*	*h.*	*m.*	*h.*	*m.*		*h.*	*m.*	*h.*	*m.*
1	8	44	2	46	1	9	21	3	36	1	8	28	2	40	1	9	04	3	29	1	9	30	3	57	1	11	22	5	36
W	**9**	**13**	3	32	Sa	**9**	**49**	**4**	**11**	Sa	**8**	**50**	**3**	**04**	Tu	**9**	**24**	3	**28**	Th	**9**	**49**	3	**46**	Su	**11**	**34**	**5**	**38**
2	9	18	3	24	2	9	51	4	11	2	8	56	3	13	2	9	40	4	07	2	10	18	4	46	2	. .	. .	6	33
Th	**9**	**48**	**4**	**11**	Su	**10**	**21**	**4**	**41**	Su	**9**	**19**	3	**33**	W	**10**	**02**	**4**	**09**	F	**10**	**37**	**4**	**34**	M	**12**	**27**	**6**	**44**
3	9	48	4	02	3	10	25	4	48	3	9	25	3	47	3	10	21	4	50	3	11	11	5	42	3	0	35	7	32
F	**10**	**23**	**4**	**50**	M	**10**	**58**	**5**	**11**	M	**9**	**49**	**4**	**00**	Th	**10**	**46**	**4**	**39**	Sa	**11**	**32**	**5**	**32**	Tu	**1**	**36**	**7**	**54**
4	10	24	4	40	4	11	04	5	30	4	9	53	4	23	4	11	10	5	42	4	. .	. .	6	45	4	1	44	8	30
Sa	**11**	**00**	**5**	**27**	Tu	**11**	**42**	**5**	**44**	Tu	**10**	**26**	**4**	**28**	F	**11**	**38**	**5**	**28**	Su	**12**	**17**	**6**	**44**	W	**2**	**43**	**9**	**02**
5	10	59	5	23	5	11	50	6	23	5	10	38	5	03	5	. .	. .	6	48	5	0	38	7	51	5	2	53	9	27
Su	**11**	**42**	**6**	**06**	W	. .	. .	**6**	**26**	W	**11**	**08**	**5**	**03**	Sa	**12**	**09**	**6**	**35**	M	**1**	**39**	**8**	**04**	Th	**3**	**45**	**10**	**06**
6	11	42	6	13	6	0	32	7	29	6	11	23	5	52	6	0	42	8	05	6	1	56	8	56	6	3	50	10	22
M	. .	. .	**6**	**46**	Th	**12**	**45**	**7**	**24**	Th	**11**	**58**	**5**	**46**	Su	**1**	**28**	**8**	**06**	Tu	**2**	**59**	**9**	**19**	F	**4**	**41**	**11**	**02**
7	0	28	7	12	7	1	33	8	45	7	. .	. .	6	58	7	2	04	9	19	7	3	14	9	56	7	5	01	11	13
Tu	**12**	**30**	**7**	**31**	F	**1**	**53**	**8**	**36**	F	**12**	**18**	**6**	**46**	M	**3**	**07**	**9**	**30**	W	**4**	**09**	**10**	**25**	Sa	**5**	**34**	**11**	**58**
8	1	23	8	16	8	2	45	9	58	8	0	59	8	20	8	3	33	10	21	8	4	24	10	51	8	5	56	. .	. .
W	**1**	**26**	**8**	**23**	Sa	**3**	**15**	**9**	**53**	Sa	**1**	**30**	**8**	**11**	Tu	**4**	**25**	**10**	**40**	Th	**5**	**07**	**11**	**24**	Su	**6**	**22**	**12**	**03**
9	2	23	9	23	9	4	02	11	03	9	2	18	9	33	9	4	45	11	20	9	5	24	11	42	9	6	47	0	48
Th	**2**	**31**	**9**	**19**	Su	**4**	**40**	**11**	**01**	Su	**3**	**05**	**9**	**40**	W	**5**	**28**	**11**	**41**	F	**6**	**00**	. .	. .	M	**7**	**06**	**12**	**50**
10	3	25	10	25	10	5	13	. .	. .	10	3	46	10	45	10	5	46	. .	. .	10	6	18	0	18	10	7	35	1	36
F	**3**	**41**	**10**	**22**	M	**5**	**49**	**12**	**02**	M	**4**	**34**	**10**	**52**	Th	**6**	**21**	**12**	**11**	Sa	**6**	**46**	**12**	**30**	Tu	**7**	**50**	**1**	**35**
11	4	27	11	23	11	6	14	0	04	11	5	00	11	43	11	6	39	0	36	11	7	03	1	08	11	8	19	2	22
Sa	**4**	**52**	**11**	**16**	Tu	**6**	**50**	**12**	**55**	Tu	**5**	**41**	**11**	**53**	F	**7**	**19**	**12**	**58**	Su	**7**	**30**	**1**	**16**	W	**8**	**30**	**2**	**20**
12	5	27	. .	. .	12	7	10	1	00	12	6	02	. .	. .	12	7	28	1	26	12	7	55	1	57	12	9	01	3	05
Su	**5**	**57**	**12**	**17**	W	**7**	**44**	**1**	**46**	W	**6**	**38**	**12**	**36**	Sa	**7**	**54**	**1**	**43**	M	**8**	**12**	**2**	**00**	Th	**9**	**[illegible]**	**3**	**04**
13	6	24	0	13	13	8	01	1	54	13	6	57	0	49	13	8	14	2	15	13	8	38	2	41	13	9	40	3	48
M	**6**	**57**	**1**	**11**	Th	**8**	**35**	**2**	**34**	Th	**7**	**29**	**1**	**24**	Su	**8**	**37**	**2**	**27**	Tu	**8**	**52**	**2**	**44**	F	**9**	**46**	**3**	**45**
14	7	19	1	08	14	8	51	2	46	14	7	46	1	42	14	8	58	3	01	14	9	21	3	25	14	10	21	4	31
Tu	**7**	**53**	**2**	**03**	F	**9**	**25**	**3**	**22**	F	**8**	**16**	**2**	**40**	M	**9**	**18**	**3**	**10**	W	**9**	**31**	**3**	**26**	Sa	**10**	**17**	**4**	**28**
15	8	11	2	04	15	9	38	3	38	15	8	33	2	31	15	9	41	3	47	15	10	02	4	11	15	11	00	5	14
W	**8**	**47**	**2**	**54**	Sa	**10**	**13**	**4**	**08**	Sa	**9**	**01**	**2**	**55**	Tu	**9**	**59**	**3**	**53**	Th	**10**	**11**	**4**	**09**	Su	**10**	**57**	**5**	**12**
16	9	03	2	57	16	10	27	4	30	16	9	19	3	20	16	10	24	4	33	16	10	43	4	55	16	11	40	5	55
Th	**9**	**42**	**3**	**44**	Su	**11**	**01**	**4**	**55**	Su	**9**	**46**	**3**	**39**	W	**10**	**39**	**4**	**36**	F	**10**	**49**	**4**	**54**	M	**11**	**33**	**5**	**58**
17	9	55	3	53	17	11	16	5	24	17	10	04	4	09	17	11	07	5	21	17	11	26	5	42	17	. .	. .	6	38
F	**10**	**37**	**4**	**35**	M	**11**	**51**	**5**	**43**	M	**10**	**29**	**4**	**22**	Th	**11**	**20**	**5**	**23**	Sa	**11**	**3[illegible]**	**4**	**51**	Tu	**12**	**22**	**6**	**45**
18	10	48	4	49	18	. .	. .	6	19	18	10	48	4	58	18	11	55	6	11	18	. .	. .	6	32	18	0	12	7	20
Sa	**11**	**32**	**5**	**26**	Tu	**12**	**08**	**6**	**34**	Tu	**11**	**14**	**5**	**98**	F	. .	. .	**6**	**14**	Su	**12**	**14**	**6**	**34**	W	**1**	**07**	**7**	**38**
19	11	42	5	48	19	0	45	7	18	19	11	35	5	49	19	0	07	7	07	19	0	13	7	22	19	0	55	8	05
Su	. .	. .	**6**	**19**	W	**1**	**05**	**7**	**28**	W	. .	. .	**5**	**56**	Sa	**12**	**51**	**7**	**12**	M	**1**	**09**	**7**	**31**	Th	**1**	**54**	**8**	**35**
20	0	29	6	49	20	1	43	8	19	20	0	01	6	43	20	1	03	8	05	20	1	04	8	14	20	1	45	8	50
M	**12**	**40**	**7**	**12**	Th	**2**	**11**	**8**	**28**	Th	**12**	**27**	**6**	**50**	Su	**1**	**57**	**8**	**15**	Tu	**2**	**09**	**8**	**31**	F	**2**	**46**	**9**	**33**
21	1	27	7	51	21	2	46	9	21	21	0	54	7	43	21	2	10	9	03	21	2	00	9	05	21	2	43	9	37
Tu	**1**	**42**	**8**	**07**	F	**3**	**18**	**9**	**28**	F	**1**	**31**	**7**	**51**	M	**3**	**05**	**9**	**18**	W	**3**	**05**	**9**	**28**	Sa	**3**	**38**	**10**	**30**
22	2	27	8	53	22	3	48	10	20	22	1	57	8	45	22	3	14	9	58	22	2	59	9	53	22	3	46	10	25
W	**2**	**46**	**9**	**03**	Sa	**4**	**21**	**10**	**25**	Sa	**2**	**42**	**8**	**55**	Tu	**4**	**04**	**10**	**14**	Th	**3**	**57**	**10**	**23**	Su	**4**	**32**	**11**	**25**
23	3	25	9	53	23	4	45	11	13	23	3	05	9	45	23	4	11	10	46	23	3	58	10	38	23	4	48	11	16
Th	**3**	**48**	**9**	**58**	Su	**5**	**17**	**11**	**17**	Su	**3**	**50**	**9**	**56**	W	**4**	**53**	**11**	**06**	F	**4**	**43**	**11**	**13**	M	**5**	**25**	. .	. .
24	4	20	10	48	24	5	34	. .	. .	24	4	08	10	40	24	5	00	11	29	24	4	48	11	20	24	5	48	0	17
F	**4**	**46**	**10**	**50**	M	**6**	**04**	**12**	**00**	M	**4**	**46**	**10**	**50**	Th	**5**	**35**	**11**	**51**	Sa	**5**	**25**	. .	. .	Tu	**6**	**17**	**12**	**08**
25	5	11	11	39	25	6	17	0	05	25	5	00	11	28	25	5	43	. .	. .	25	5	37	0	00	25	6	46	1	09
Sa	**5**	**38**	**11**	**39**	Tu	**6**	**45**	**12**	**43**	Tu	**5**	**34**	**11**	**38**	F	**6**	**14**	**12**	**08**	Su	**6**	**06**	**12**	**01**	W	**7**	**10**	**1**	**00**
26	5	57	. .	. .	26	6	55	0	48	26	5	45	. .	. .	26	6	22	0	34	26	6	24	0	45	26	7	43	1	59
Su	**6**	**24**	**12**	**25**	W	**7**	**20**	**1**	**23**	W	**6**	**16**	**12**	**11**	Sa	**6**	**47**	**12**	**45**	M	**6**	**46**	**12**	**42**	Th	**8**	**01**	**1**	**52**
27	6	39	0	24	27	7	28	1	26	27	6	25	0	22	27	6	58	1	14	27	7	10	1	30	27	8	36	2	50
M	**7**	**04**	**1**	**09**	Th	**7**	**53**	**2**	**00**	Th	**6**	**50**	**12**	**50**	Su	**7**	**20**	**1**	**20**	Tu	**7**	**28**	**1**	**23**	F	**8**	**52**	**2**	**45**
28	7	17	1	07	28	8	00	2	05	28	7	00	1	03	28	7	34	1	54	28	7	55	2	16	28	9	30	3	40
Tu	**7**	**42**	**1**	**49**	F	**8**	**23**	**2**	**34**	F	**7**	**23**	**1**	**25**	M	**7**	**53**	**1**	**54**	W	**8**	**12**	**2**	**07**	Sa	**9**	**43**	**3**	**40**
Ch	7	51	1	47						29	7	31	1	41	29	8	12	2	33	29	8	41	3	03	29	10	25	4	31
Ch.	**8**	**17**	**2**	**27**						Sa	**7**	**53**	**1**	**58**	Tu	**8**	**28**	**2**	**29**	Th	**8**	**58**	**2**	**53**	Su	**10**	**36**	**4**	**36**
Clif.	8	23	2	20						30	8	02	2	17	30	8	50	3	14	30	9	31	3	51	30	11	22	5	22
Colon	**8**	**49**	**3**	**04**						Su	**8**	**23**	**2**	**28**	W	**9**	**07**	**3**	**06**	F	**9**	**45**	**3**	**43**	M	**11**	**29**	**5**	**34**
Colon,	53		3	01						31	8	32	2	52						31	10	24	4	47					
Columbus			3	39						M	**8**	**51**	**2**	**59**						Sa	**10**	**37**	**4**	**38**					
Constantin																													

(Seraglio—Add 1 hour for Daylight Saving Time. First line each day is for morning tides.

NEW YORK CITY (GOVERNOR'S ISLAND) TIDE TABLES (Continued).

Day	July. High Time	July. Low Time	Day	August. High Time	August. Low Time	Day	September. High Time	September. Low Time	Day	October. High Time	October. Low Time	Day	November. High Time	November. Low Time	Day	December. High Time	December. Low Time
	h. m.	*h. m.*		*h. m.*	*h. m.*		*h. m.*	*h. m.*		*h. m.*	*h. m.*		*h. m.*	*h. m.*		*h. m.*	*h. m.*
1	.. ..	6 14	1	1 06	7 32	1	2 50	9 00	1	3 30	9 34	1	4 35	10 46	1	4 30	10 57
Tu	12 18	6 34	F	1 48	8 18	M	3 17	9 51	W	3 45	10 15	Sa	4 41	11 07	M	4 34	11 02
2	0 26	7 08	2	2 07	8 28	2	3 54	9 59	2	4 25	10 29	2	5 15	11 31	2	5 08	11 42
W	1 18	7 37	Sa	2 40	9 18	Tu	4 17	10 46	Th	4 33	11 03	Su	5 22	11 45	Tu	5 18	11 41
3	1 25	8 02	3	3 10	9 24	3	4 51	10 53	3	5 12	11 16	3	5 52	.. ..	3	5 46	.. ..
Th	2 17	8 40	Su	3 45	10 18	W	5 10	11 36	F	5 23	11 47	M	6 00	12 14	W	6 01	12 25
4	2 29	8 57	4	4 14	10 20	4	5 42	11 43	4	5 53	.. ..	4	6 25	0 22	4	6 24	0 18
F	3 16	9 42	M	4 42	11 13	Th	5 57	.. ..	Sa	6 03	12 01	Tu	6 36	12 54	Th	6 43	1 07
5	3 35	9 52	5	5 14	11 15	5	6 26	0 21	5	6 30	0 26	5	6 57	0 56	5	7 01	0 57
Sa	4 13	10 41	Tu	5 36	.. ..	F	6 38	12 28	Su	6 39	12 43	W	7 10	1 32	F	7 24	1 50
6	4 37	10 45	6	6 06	0 05	6	7 06	1 04	6	7 04	1 03	6	7 29	1 30	6	7 42	1 37
Su	5 07	11 37	W	6 24	12 06	Sa	7 15	1 11	M	7 14	1 23	Th	7 46	2 12	Sa	8 08	2 35
7	5 35	11 37	7	6 52	0 51	7	7 41	1 42	7	7 35	1 37	7	8 02	2 03	7	8 25	2 20
M	5 58	.. ..	Th	7 06	12 52	Su	7 50	1 52	Tu	7 44	2 01	F	8 22	2 52	Su	8 55	3 22
8	6 27	0 28	8	7 36	1 35	8	8 13	2 18	8	8 04	2 10	8	8 39	2 3	8	9 12	3 08
Tu	6 45	12 27	F	7 45	1 37	M	8 21	2 30	W	8 14	2 37	Sa	9 05	3 34	M	9 48	4 12
9	7 15	1 16	9	8 13	2 16	9	8 43	2 52	9	8 33	2 40	9	9 21	3 17	9	10 02	4 01
W	7 28	1 14	Sa	8 21	2 18	Tu	8 49	3 06	Th	8 46	3 14	Su	9 49	4 23	Tu	10 45	5 06
10	7 58	2 01	10	8 48	2 54	10	9 11	3 22	10	9 05	3 10	10	10 09	4 04	10	10 57	4 01
Th	8 10	2 00	Su	8 53	2 57	W	9 17	3 41	F	9 22	3 52	M	10 44	5 16	W	11 50	6 02
11	8 39	2 43	11	9 22	3 31	11	9 40	3 51	11	9 41	3 41	11	11 02	5 00	11	11 58	6 10
F	8 47	2 42	M	9 23	3 35	Th	9 50	4 17	Sa	10 03	4 35	Tu	11 47	6 17	Th	.. ..	7 01
12	9 17	3 24	12	9 52	4 05	12	10 14	4 19	12	10 24	4 19	12	.. ..	6 11	12	1 00	7 21
Sa	9 23	3 23	Tu	9 52	4 12	F	10 25	4 56	Su	10 50	5 24	W	12 05	7 22	F	1 07	8 00
13	9 55	4 04	13	10 20	4 36	13	10 53	4 50	13	11 15	5 06	13	1 05	7 30	13	2 10	8 30
Su	9 54	4 03	W	10 21	4 48	Sa	11 08	5 40	M	11 45	6 25	Th	1 19	8 24	Sa	2 19	8 57
14	10 29	4 42	14	10 52	5 05	14	11 37	5 29	14	.. ..	6 08	14	2 23	8 45	14	3 13	9 35
M	10 25	4 42	Th	10 57	5 26	Su	11 58	6 35	Tu	12 14	7 34	F	2 34	9 23	Su	3 26	9 52
15	11 04	5 18	15	11 28	5 34	15	.. ..	6 20	15	0 57	7 29	15	3 30	9 51	15	4 10	10 36
Tu	10 56	5 21	F	11 36	6 09	M	12 32	7 43	W	1 25	8 43	Sa	3 43	10 16	M	4 28	10 44
16	11 35	5 52	16	.. ..	6 08	16	0 59	7 29	16	2 22	8 51	16	4 30	10 51	16	5 04	11 30
W	11 32	6 02	Sa	12 12	7 01	Tu	1 38	8 57	Th	2 46	9 46	Su	4 45	11 09	Tu	5 25	11 34
17	.. ..	6 26	17	0 24	6 52	17	2 16	8 53	17	3 42	10 02	17	5 23	11 46	17	5 54	.. ..
Th	12 12	6 49	Su	1 02	8 05	W	2 56	10 06	F	4 00	10 44	M	5 42	11 58	W	6 18	12 21
18	0 11	7 02	18	1 18	7 51	18	3 44	10 10	18	4 45	11 05	18	6 14	.. ..	18	6 41	0 23
F	12 56	7 42	M	2 03	9 16	Th	4 14	11 06	Sa	5 03	11 35	Tu	6 34	12 38	Th	7 08	1 11
19	0 57	7 43	19	2 26	9 04	19	4 59	11 16	19	5 42	.. ..	19	7 00	0 45	19	7 25	1 10
Sa	1 45	8 44	Tu	3 14	10 25	F	5 21	.. ..	Su	6 01	12 01	W	7 23	1 23	F	7 56	1 58
20	1 53	8 34	20	3 48	10 19	20	6 00	0 01	20	6 34	0 23	20	7 44	1 30	20	8 08	1 57
Su	2 42	9 48	W	4 29	11 27	Sa	6 20	12 16	M	6 53	12 54	Th	8 11	2 16	Sa	8 38	2 43
21	2 56	9 35	21	5 07	11 27	21	6 55	0 51	21	7 22	1 11	21	8 28	2 18	21	8 49	2 41
M	3 46	10 51	Th	5 37	.. ..	Su	7 15	1 12	Tu	7 43	1 46	F	8 58	3 03	Su	9 23	3 25
22	4 07	10 39	22	6 15	0 25	22	7 48	1 40	22	8 08	1 58	22	9 12	3 04	22	9 29	3 26
Tu	4 51	11 51	F	6 38	12 29	M	8 06	2 05	W	8 32	2 36	Sa	9 46	3 51	M	10 04	4 11
23	5 22	11 43	23	7 14	1 18	23	8 35	2 27	23	8 54	2 44	23	9 55	3 52	23	10 08	4 11
W	5 55	.. ..	Sa	7 34	1 26	Tu	8 55	2 56	Th	9 20	3 25	Su	10 34	4 40	Tu	10 46	4 56
24	6 29	0 46	24	8 08	2 08	24	9 22	3 14	24	9 39	3 30	24	10 41	4 40	24	10 46	4 58
Th	6 54	12 42	Su	8 26	2 22	W	9 44	3 47	F	10 10	4 15	M	11 24	5 30	W	11 22	5 41
25	7 31	1 40	25	9 01	2 57	25	10 10	4 01	25	10 25	4 19	25	11 28	5 33	25	11 24	5 48
F	7 49	1 39	M	9 17	3 15	Th	10 34	4 39	Sa	11 02	5 06	Tu	.. ..	6 21	Th	.. ..	6 26
26	8 25	2 32	26	9 50	3 44	26	10 58	4 50	26	11 15	5 11	26	0 19	6 29	26	0 18	6 39
Sa	8 42	2 35	Tu	10 08	4 04	F	11 26	5 33	Su	11 57	6 01	W	12 19	7 13	F	12 05	7 12
27	9 20	3 22	27	10 39	4 32	27	11 49	5 41	27	.. ..	6 07	27	1 15	7 28	27	1 07	7 35
Su	9 34	3 30	W	10 57	5 02	Sa	.. ..	6 28	M	12 06	6 56	Th	1 13	8 05	Sa	12 51	7 58
28	10 14	4 11	28	11 30	5 21	28	0 22	6 36	28	0 58	7 06	28	2 12	8 24	28	1 56	8 32
M	10 25	4 25	Th	11 49	5 57	Su	12 45	7 26	Tu	1 07	7 52	F	2 07	8 53	Su	1 43	8 44
29	11 05	5 00	29	.. ..	6 11	29	1 25	7 36	29	1 59	8 07	29	3 03	9 19	29	2 45	9 26
Tu	11 17	5 21	F	12 22	6 54	M	1 46	8 25	W	2 08	8 48	Sa	3 00	9 40	M	2 40	9 29
30	11 59	5 50	30	0 45	7 05	30	2 29	8 36	30	2 58	9 04	30	3 48	10 10	30	3 36	10 20
W	.. ..	6 18	Sa	1 18	7 53	Tu	2 48	9 22	Th	3 05	9 39	Su	3 48	10 22	Tu	3 39	10 16
31	0 10	6 40	31	1 47	8 02				31	3 50	9 53				31	4 21	11 10
Th	12 52	7 17	Su	2 17	8 52				F	3 56	10 25				W	4 36	11 02

Note—Add 1 hour for Daylight Saving Time. First line each day is for morning tides.

TIME OF HIGH WATER AT POINTS ON THE ATLANTIC COAST.

The standard time of high water at the following places may be found approximately for each day by adding to or subtracting from the time of high water at Governor's Island, N. Y., the hours and minutes annexed. To the result add 1 hour for Daylight Saving Time.

	H.	M.		H.	M.		H.	M.
Albany, N. Y.	add	9	45	Key West, Fla.	add	2	20	Portland, Me.	add	2	50
Annapolis, Md.	add	9	00	League Island, Pa.	add	5	25	Portsmouth, N. H.	add	3	10
Atlantic City, N. J.	sub.		55	Marblehead, Mass.	add	2	55	Poughkeepsie, N. Y.	add	4	45
Baltimore, Md.	add	11	00	Nahant, Mass.	add	2	55	Providence, R. I.	sub.		10
Bar Harbor, Me.	add	2	30	Nantucket, Mass.	add	4	15	Richmond, Va.	add	8	55
Beaufort, S. C.	add		35	Newark, N. J.	add	1	05	Rockaway Inlet, N. Y.	sub.		30
Block Island, R. I.	sub.		15	New Bedford, Mass.	sub.		20	Rockland, Me.	add	2	40
Boston, Mass.	add	3	00	Newburyport, Mass.	add	3	40	Rockport, Mass.	add	2	50
Bridgeport, Conn.	add	3	05	New Haven, Conn.	add	2	55	Salem, Mass.	add	2	55
Bristol, R. I.	sub.		20	New London, Conn.	add	1	15	Sandy Hook, N. J.	sub.		30
Cape May, N. J.	sub.		05	Newport, R. I.	sub.		30	Savannah, Ga.	add		50
Charleston, S. C.	sub.		15	Norfolk, Va.	add	1	25	Southport, N. C.	sub.		25
Eastport, Me.	add	2	35	Norwich, Conn.	add	2	00	Viney'd Hav'n, Mass.	add	3	30
Fernandina, Fla.	add		25	Old Pt. Comfort, Va.	add		50	Washington, D. C.	sub.		05
Gloucester, Mass.	add	2	50	Philadelphia, Pa.	add	5	55	Watch Hill, R. I.	add		50
Hell Gate Light, N. Y.	add	2	10	Plymouth, Mass.	add	3	00	West Point, N. Y.	add	3	25
Isle of Shoals, N. H.	add	2	55	Point Lookout, Md.	add	4	55	Wilmington, N. C.	add	1	55
Jacksonville, Fla.	add	1	30								

Example—To find the approximate standard time of high tide at Atlantic City, N. J., on any day, find first the time of high water at New York City under the desired date, and then subtract 55 minutes, as in the above table; the result will be the time of high water that is required.

AVERAGE RISE AND FALL OF TIDE.

Places.	Feet.	Inch.	Places.	Feet.	Inch.	Places.	Feet.	Inch.
Balboa, Panama	12	6	Mobile, Ala	1	5	San Diego, Cal.	3	11
Baltimore, Md.	1	2	New London, Conn.	2	6	Sandy Hook, N. J.	4	8
Boston, Mass.	9	5	New Orleans, La.	None	None	San Francisco, Cal.	3	11
Charleston, S. C.	5	2	Newport, R. I.	3	6	Savannah, Ga.	6	6
Colon, Panama	0	11	New York, N. Y.	4	5	Seattle, Wash.	7	7
Eastport, Me.	18	2	Old Pt. Comfort, Va.	2	6	Tampa, Fla.	1	10
Galveston, Tex.	1	0	Philadelphia, Pa.	5	2	Washington, D. C.	2	11
Key West, Fla.	1	2	Portland, Me.	8	11			

Spring tide at Eastport, Me., 21 feet; at the head of the Bay of Fundy, N. S., 50 feet; in the Bristol Channel, England, 42 feet; on the coast of Wales, 36 ft. These are typical cases.

VISIBILITY AT SEA

Height Above Sea Level.	Distance of Visibility.		Height Above Sea Level.	Distance of Visibility.		Height Above Sea Level.	Distance of Visibility.		Height Above Sea Level.	Distance of Visibility.	
Feet.	*Stat. Miles.*	*Naut. Miles.*	*Feet.*	*Stat. Miles.*	*Naut. Miles.*	*Feet.*	*Stat. Miles.*	*Naut. Miles.*	*Feet.*	*Stat. Miles.*	*Naut. Miles*
5	2.96	2.55	45	8.87	7.67	85	12.20	10.54	150	16.20	14.00
10	4.18	3.61	50	9.35	8.08	90	12.55	10.84	200	18.71	16.16
15	5.12	4.43	55	9.81	8.43	95	12.89	11.14	250	20.92	18.07
20	5.92	5.11	60	10.25	8.85	100	13.23	11.43	300	22.91	19.80
25	6.61	5.71	65	10.67	9.21	110	13.87	11.99	350	24.75	21.38
30	7.25	6.26	70	11.07	9.56	120	14.49	12.52	400	26.46	22.86
35	7.83	6.76	75	11.46	9.90	130	15.08	13.03	450	28.06	24.24
40	8.37	7.23	80	11.83	10.22	140	15.65	13.52	500	29.58	25.56

Under normal atmospheric conditions the visibility of a light depends upon its height and intensity, the distance due to the former being known as the geographic range, and to the latter as the luminous.

As a rule, for the principal lights the luminous range is greater than the geographic, and the distance from which the principal lights are visible is limited by the horizon only, and under some conditions of atmospheric refraction, the glare or loom of the light and occasionally the light itself may be visible far beyond the computed geographic range.

Roughly speaking, the distance of visibility in nautical miles is equal to eight-sevenths of the square root of the height of the light above sea level.

The actual curvature of the surface of the earth for the first mile is about 9 inches, and increases at first approximately as the square of the distance.

A light 130 feet high is seen just at the horizon; what, under ordinary atmospheric conditions, is its distance from the observer?

	Nautical Miles.
From table, distance corresponding to 130 feet height	13.03
Add distance corresponding to height of eye above sea level, say 15 feet	4.43
Distance of light	17.46

HEIGHT ABOVE SEA LEVEL OF CERTAIN LIGHTHOUSES.

Station.	H't.	Station.	H't.	Station.	H't.
	Feet.		*Feet.*		*Feet.*
Cape Mendocino, Cal.	422	Point Borinquen, P. R.	292	Staten Island, N. Y.	231
Makapuu Pt., Hawaii	420	Seal Rocks, Alaska	285	Chapel Hill, N. J.	221
Navassa Island, W. I.	395	Point Sur, Cal.	270	Cape Disappoint., Wash.	220
Hams Bluff, Virgin Islands	394	Cape San Juan, P. R.	260	Cape Meares, Ore.	217
Farallon, Cal.	358	Aunuu Island, Samoa	250	Kilauea Point, Hawaii	216
East Chugach, Alaska	325	Navesink, N. J.	246	Alcatraz, Cal.	214
Culebrita Island, P. R.	305	Cape Blanco, Ore.	245	Molokai, Hawaii	213
Judge Bergs Range, V. I.	302	Orote Point, Guam	240	Grand Island, Mich.	205
Muertos Island, P. R.	297	Cape Hinchinbrook, Alaska	235	Heceta Head, Ore.	205
East Forelands, Alaska	296	Columbia River, Wash.	234	Block Island, S. E., R. I.	201
Point Reyes, Cal.	294	Mona Island, P. R.	231	Cape Stephens, Alaska	200

The Fire Island, N. Y. Light is 167 ft. high; visible 19 nautical miles.

WEATHER SIGNALS.

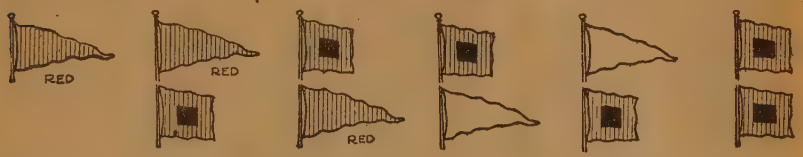
The Weather Bureau, United States Department of Agriculture, furnishes, when practicable for the benefit of all interests dependent upon weather conditions, the "Forecasts" which are prepared daily at the Central Office in Washington, D. C., and certain designated stations. These forecasts are telegraphed to stations of the Weather Bureau, railway officials, postmasters, and many others, to be communicated to the public by telegraph, telephone, radio, and mail, and, to a limited extent, by steam whistles.

Whistle Signals.—A warning blast of from fifteen to twenty seconds' duration is sounded to attract attention. After this warning the longer blasts (of from four to six seconds' duration) refer to weather, and shorter blasts (of from one to three seconds' duration) refer to temperature; those for weather are sounded first.

Blasts.	Indicate.
One long	Fair weather.
Two long	Rain or snow.
Three long	Local rain or snow.
One short	Lower temperature.
Two short	Higher temperature.
Three short	Cold wave.

The forecast messages are telegraphed at the expense of the Weather Bureau to places where they are distributed to nearby and local communities; they are furnished to individuals or firms at the regular commercial rates and sent "collect."

Small Craft, Storm and Hurricane Warnings. All square flags shown here are red with black center when displayed as warnings.



Small Craft Warning—A red pennant indicates that moderately strong winds that will interfere with the safe operation of small craft are expected. No night display of small craft warnings is made.

Northeast Storm Warning—A red pennant *above* a square red flag with black centre displayed by day, or two red lanterns, one above the other, displayed by night, indicates the approach of a storm of marked violence with winds beginning from the *northeast*.

Southeast Storm Warning—A red pennant *below* a square red flag with black centre displayed by day, or one red lantern displayed by night, indicates the approach of a storm of marked violence with winds beginning from the *southeast*.

Southwest Storm Warning—A white pennant *below* a square red flag with black centre displayed by day, or a white lantern *below* a red lantern displayed by night, indicates the approach of a storm of marked violence with winds beginning from the *southwest*.

Northwest Storm Warning—A white pennant *above* a square red flag with black centre displayed by day, or a white lantern *above* a red lantern displayed by night, indicates the approach of a storm of marked violence with winds beginning from the *northwest*.

Hurricane, or Whole Gale Warning—Two square flags, red with black centres, one above the other, displayed by day, or two red lanterns, with a white lantern between, displayed by night, indicate the approach of a tropical hurricane, or of one of the extremely severe and dangerous storms which occasionally move across the Great Lakes or up the Atlantic Coast.

DEFINITIONS OF WINDS.

A *gale* is any wind exceeding certain limiting velocities. In practice gales are subdivided into *fresh, strong* and *whole*. A fresh gale is any wind having force 8 in the Beaufort Scale. (Force 8 is equivalent to a velocity of approximately 47 to 54 m.p.h. while a whole gale may have a speed of 55 to 63 m.p.h.)

Whirlwind: any limited mass of air in violent whirling motion. Whirlwinds range in degree of violence from the common dust whirl that may be observed at street corners due to opposing winds to that of the dry dust whirlwind, an intermediate form seen at times of still air in hot desert regions, and from that form up to the most violent whirling storm known—the tornado, which see.

Tornado: A violent whirling storm of extremely small diameter characterized by a pendant whirling funnel-shaped cloud that progresses rapidly across the country in a rather narrow path that in general is marked by the total destruction of objects in its course. The force of the wind in the vortex of a tornado is too great to measure; trees are uprooted or twisted off and the remnants scattered over the landscape, frame-buildings are demolished and those of more enduring construction are severely damaged, heavy objects may be carried up into the funnel cloud only to be dropped to the ground a little farther on.

Cyclone: This term is persistently applied to the tornado, just described. Properly speaking a cyclone is an area of low barometric pressure, often circular or oval in form and usually with gentle to fresh winds, though in cases the winds may and do reach gale force. The direction of the winds of a cyclone, viz., toward and around the center of the area of low pressure in a direction contrary to the movement of the hands of a clock as it lies face up on a table, commonly referred to as counterclockwise, is what gave the name "cyclone" to storms of this character.

Cyclones are divided into two main groups, *tropical* and *extra-tropical* according to the latitude of origin. Tropical storms originate near but not on the equator and they are known under different names in various parts of the world· thus in the Far East they are known as *typhoons* or *baguios* and in the West Indies as *hurricanes*. There is no essential difference between a typhoon and a hurricane. The characteristics of a tropical cyclone are violent winds, intense rainfall, the presence of a calm spot at the center of the storm (the "eye" of the storm) and the absense of an anticyclone

Extra-tropical cyclones are as their name implies the storms of the temperate zone, they are also known simply as LOWS, or barometric depressions, they are of great geographic extent some having diameters of 1,000 miles in length. The tornado occurs, mostly, in the southeast quadrant of a cyclone.

EARTHQUAKE VIBRATIONS

A violent shock makes the whole earth tremble, vigorously in the vicinity of the origin and with decreasing amplitude at more distant points. Hundreds or thousands of miles from the source the dying impulse, imperceptible to our senses, may be recorded faithfully by a delicate seismograph mounted on bedrock.

What can strike a blow sufficiently hard to shake the earth? Heavy volcanic explosions give rise to earthquakes, but a far more common cause is the abrupt snapping of the rocky crust under enormous strain. Movements on such breaks, known to geologists as *faults*. occur at frequent intervals in many parts of the earth.

Three distinct kinds of impulses move outward from the locus of such a shock; two kinds penetrating into the earth, and the third traveling around the circumference.

One of the throughwaves, called the *primary* or *longitudinal* wave, travels with a velocity of several miles a second. Arriving at the position of a distant seismograph, it produces the first preliminary tremor, making a slight vibration on the record

The other throughwave, called the *secondary* or *transverse* wave, moves at a distinctly slower rate, and reaches the seismograph later than the primary, to set up the second preliminary tremor.

The third impulse, traversing the longer route along the curvature of the earth, is the last to reach the station. This wave is the most vigorous of the three, and sets the arm of the seismograph swinging widely.

NORMAL TEMPERATURE AND RAINFALL.

(Prepared in the office of the Chief of the Weather Bureau, U. S. Department of Agriculture.)

States and Territories.	Stations.	Mean Temperature. Jan.	Mean Temperature. July	Record High-est.	Record Low-est.	Mean Ann'l Precip'n (Ins.)	States and Territories.	Stations.	Mean Temperature. Jan.	Mean Temperature. July	Record High-est.	Record Low-est.	Mean Ann'l Precip'n (Ins.)
Ala	Mobile	52	81	103	— 1	61.6	Neb	Omaha	22	77	110	—32	27.8
Ariz	Phoenix	51	90	119	12	7.8	Nev	Winnemucca	29	71	104	—28	8.5
Ark	Little Rock	41	81	106	—12	48.4	N. C	Charlotte	41	78	103	— 5	46.0
Cal	San Francisco	50	58	101	29	22.0	N. D	Bismarck	8	70	108	—45	16.3
Col	Denver	30	72	105	—29	14.0	N. H	Concord	22	68	102	—35	37.5
Conn	New Haven	28	72	101	—14	45.5	N. J	Atlantic City	32	72	104	— 7	40.6
D. of C.	Washington	33	77	106	—15	42.2	N. M	Santa Fe	29	69	97	—13	14.3
Fla	Key West	70	84	100	41	38.1	N. Y	N. Y. City	31	74	102	—13	43.0
Ga	Atlanta	43	78	102	— 8	48.3	Ohio	Cincinnati	30	75	105	—17	38.6
Idaho	Boise	30	73	121	—28	13.1	Okla	Oklahoma	36	81	108	—17	31.2
Ill	Chicago	25	74	103	—23	32.9	Ore	Portland	39	67	104	— 2	41.6
Ind	Indianapolis	28	76	106	—25	39.9	Pa	Philadelphia	33	76	106	— 6	40.4
Iowa	Dubuque	19	74	106	—32	32.9	R. I	Block Island	31	68	92	— 6	41.3
Kan	Wichita	31	79	107	—22	30.1	S. C	Charleston	50	81	104	7	45.2
Ky	Louisville	34	79	107	—20	43.3	S. D	Pierre	16	75	110	—40	16.6
La	New Orleans	54	82	102	7	57.5	Tenn	Nashville	39	79	104	—13	47.2
Me	Portland	22	68	103	—21	41.9	Tex	Galveston	54	83	100	8	44.8
Md	Baltimore	34	77	105	— 7	42.6	Utah	Salt Lake C.	29	76	103	—20	16.1
Mass	Boston	28	72	104	—14	40.1	Vt	Burlington	19	70	100	—28	31.6
Mich	Detroit	24	72	104	—24	32.0	Va	Norfolk	41	79	105	2	44.1
Minn	St. Paul	13	72	104	—41	27.2	Wash	Seattle	40	63	98	3	34.0
Miss	Vicksburg	48	81	104	— 1	51.9	W. Va	Parkersburg	32	75	106	—27	39.4
Mo	St. Louis	31	79	107	—22	37.4	Wis	Milwaukee	21	70	102	—25	30.1
Mont	Helena	20	66	103	—42	13.6	Wyo	Cheyenne	26	67	100	—38	15.0

The minus (—) sign indicates temperature below zero Fahrenheit thermometer registration.

THERMOMETERS.

Comparative Scales.

Reaumur.	Centigrade.	Fahrenheit.	
80°	100°	212°	Water Boils at Sea-Level.
76	95	203	
72	90	194	
68	85	185	
63.1	78.9	174	
60	75	167	Alcohol Boils.
56	70	158	
52	65	149	
48	60	140	
44	55	131	
42.2	52.8	127	Tallow Melts.
40	50	122	
36	45	113	
33.8	42.2	108	
32	40	104	
29.3	36.7	98	Blood Heat.
28	35	95	
25.8	32.2	90	
24	30	86	
21.3	26.7	80	
20	25	77	
16	20	68	
12.4	15.3	60	Temperate.
10.2	12.8	55	
8	10	50	
5.8	7.2	45	
4	5	41	
1.3	1.7	35	
0	0	32	Water Freezes.
— 0.9	— 1.1	30	
— 4	— 5	23	
— 5.3	— 6.7	20	
— 8	—10	14	
— 9.8	—12.2	10	
—12	—15	5	
—14.2	—17.8	0	Zero Fahr.
—16	—20	— 4	
—20	—25	—13	
—24	—30	—22	
—28	—35	—31	[Freezes.
—32	—40	—40	Mercury

RULES FOR FORETELLING THE WEATHER.

Adapted for Use with Aneroid Barometers.

A Rising Barometer.

A rapid rise indicates unsettled weather.

A gradual rise indicates settled weather.

A rise with dry air and cold increasing in Summer indicates wind from the northward; and if rain has fallen, better weather may be expected.

A rise with moist air and a low temperature indicates wind and rain from the northward.

A rise with southerly winds indicates fine weather.

A Steady Barometer

with dry air and seasonable temperature indicates a continuance of very fine weather.

A Falling Barometer.

A rapid fall indicates stormy weather.

A rapid fall with westerly wind indicates stormy weather from the northward.

A fall with a northerly wind indicates storm, with rain and hail in Summer, and snow in Winter.

A fall with increased moisture in the air, and heat increasing, indicates wind and rain from the southward.

A fall with dry air and cold increasing in Winter indicates snow.

A fall after very calm and warm weather indicates rain with squally weather.

The barometer rises for northerly winds, including from northwest by north to the eastward for dry or less wet weather, for less wind, or for more than one of these changes, except on a few occasions, when rain, hail or snow comes from the northward with strong wind.

The barometer falls for southerly wind, including from southeast by south to the westward, for wet weather, for stronger wind or for more than one of these changes, except on a few occasions, when moderate wind, with rain or snow, comes from the northward.

44,000 THUNDER STORMS OCCUR DAILY ON EARTH.

At any one moment, statistics show, there are on an average about 1,800 thunder storms in progress in the world, giving 300,000 lightning flashes an hour, or 100 a second, says the London Daily Mail.

These are among the figures contained in a report issued by the Air Ministry meteorological office on "The Distribution of Thunder Storms Over the Globe." The earth will experience 16,000,000 thunder storms a year, or 44,000 daily.

From more than 3,000 stations observations are being made of thunder storms. At certain tropical stations distant thunder is so common the observer may not be aware of its occurrence.

Java is probably the most thundery region of the earth.

Areas where thunder is rarely or never heard include the Arctic and Antarctic regions.

WEATHER WISDOM.

A gray, lowering sunset, or one where the sky is green or yellowish-green, indicates rain. A red sunrise, with clouds lowering later in the morning, also indicates rain. A halo occurring after fine weather indicates a storm. A corona growing smaller indicates rain; growing larger, fair weather. A morning rainbow is regarded as a sign of rain; an evening rainbow of fair weather. A deep-blue color of the sky, even when seen through clouds, indicates fair weather, a growing whiteness an approaching storm. Fogs indicate settled weather. A morning fog usually breaks away before noon. Unusual clearness of the atmosphere, unusual brightness or twinkling of the stars, indicates rain. The first frost and last frost are usually preceded by a temperature very much above the mean.

ABSOLUTE ZERO—ABSOLUTE TEMPERATURE.

The zero points on the Fahrenheit, Centigrade, and Reaumur thermometer scales are simply arbitrary. Absolute zero—the point at which bodies on the earth are entirely devoid of heat—exists at 459.4 degrees below the Fahrenheit and 273.1 degrees below the Centigrade zero points. This is the beginning of what is known in dynamic meteorology as Absolute Temperature, as determined by observations of the contraction of gases when cooled, and from thermo-dynamical considerations. Thus, water freezes at 273.1 degrees of Absolute Temperature on the Centigrade scale of registration.

MONTHLY MEAN TEMPERATURE AND PRECIPITATION.

UNITED STATES CITIES (TEMP., FAHRENHEIT; PRECIPITATION, IN INCHES).

Stations.	Jan.		Feb.		Mar.		April		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
	T.	P.	T.	P.	T.	P.	T.	P.	T.	P.	T.	P.	T.	P.	T.	P.	T.	P.	T.	P.	T.	P.	T.	P.
Albany	23	2.4	24	2.5	33	2.6	47	2.5	59	2.9	68	3.4	73	3.4	71	3.7	63	3.1	52	2.7	39	2.8	28	2.6
Asheville	35	3.1	38	3.2	45	4.0	54	3.0	63	3.4	69	3.9	72	4.3	70	4.2	65	3.0	55	2.8	45	2.2	38	3.2
Atlanta	43	5.0	45	4.8	52	5.3	61	3.6	70	3.5	76	3.7	78	4.6	77	4.4	72	3.0	63	2.6	52	3.0	45	4.7
Bismarck	8	0.4	10	0.4	24	0.9	42	1.5	54	2.3	64	3.4	70	2.2	67	1.8	58	1.2	45	0.9	28	0.6	15	0.6
Boston	28	3.6	29	3.4	36	3.6	46	3.3	57	3.2	66	2.9	72	3.5	70	3.6	63	3.1	54	3.2	42	3.3	32	3.4
Buffalo	25	3.3	24	3.0	31	2.6	43	2.6	55	3.1	64	2.8	70	3.0	69	3.1	62	2.9	52	3.3	39	3.0	30	3.4
Charleston	50	3.0	52	3.0	57	3.0	64	2.5	73	3.0	79	4.6	81	6.9	81	6.5	77	4.5	68	3.3	58	2.1	52	2.7
Chicago	25	1.9	27	2.1	36	2.6	48	2.8	58	3.5	68	3.3	74	3.3	73	3.2	66	3.1	55	2.5	41	2.4	30	2.0
Cincinnati	30	3.5	33	3.0	41	3.9	52	3.1	63	3.7	71	3.7	75	3.3	74	3.4	67	2.6	56	2.5	42	2.8	33	3.0
Cleveland	26	2.5	27	2.5	35	2.7	46	2.4	58	3.1	67	3.1	71	3.4	70	2.8	64	3.3	54	2.8	41	2.6	31	2.4
Dallas	46	2.4	50	2.3	57	2.9	65	4.3	72	4.5	81	3.9	84	2.9	84	2.8	78	2.7	68	2.7	57	2.5	47	2.4
Denver	30	0.4	33	0.5	39	1.0	47	2.1	56	2.2	66	1.4	72	1.7	71	1.4	63	1.0	51	1.0	40	0.6	32	0.7
Detroit	24	2.1	25	2.2	33	2.4	46	2.5	58	3.2	67	3.6	72	3.3	70	2.8	64	2.9	52	2.4	39	2.4	29	2.4
Galveston	54	3.4	56	2.8	62	2.7	69	3.1	75	3.4	81	4.4	83	3.7	83	4.3	80	5.6	73	4.4	63	3.3	56	3.8
Helena	20	0.9	23	0.6	32	0.8	44	1.1	52	2.3	59	2.3	66	1.1	65	0.8	57	1.2	45	0.9	33	0.7	24	0.8
Jacksonville	55	2.8	58	3.0	63	2.9	69	2.4	75	4.0	80	5.3	82	6.7	82	5.8	78	7.4	71	4.5	62	2.0	56	3.0
Juneau	27	6.9	30	5.3	34	5.2	41	5.4	48	5.2	54	3.7	57	5.3	55	7.4	50	10.9	43	10.4	35	8.4	31	7.4
Kansas City	28	1.2	31	1.8	43	2.5	55	3.1	65	4.6	74	5.0	78	4.1	77	4.1	69	4.6	58	2.9	44	1.8	32	1.3
Los Angeles	55	3.1	56	3.1	58	2.8	59	1.0	62	0.4	66	0.1	70	0.0	71	0.0	69	0.2	65	0.7	61	1.2	57	2.6
Memphis	41	4.8	44	4.4	52	5.3	62	4.8	71	4.2	78	3.6	81	3.2	79	3.4	74	2.8	63	2.7	52	4.2	44	4.5
Miami	66	2.5	67	1.8	70	2.2	73	3.1	76	6.2	80	6.9	81	5.4	81	6.2	80	8.3	77	8.4	72	2.9	68	1.7
Mobile	52	4.8	55	5.3	60	6.0	66	4.6	74	4.3	80	5.4	81	6.9	81	6.9	78	5.0	69	3.6	59	3.6	52	5.0
New Orleans	54	4.3	57	4.2	63	4.7	69	5.2	75	4.6	81	5.9	82	6.4	82	5.8	79	5.0	71	3.3	62	3.1	56	4.8
New York	31	3.7	31	3.8	38	3.6	49	3.2	61	3.2	69	3.3	74	4.2	73	4.3	67	3.4	56	3.5	44	3.0	35	3.6
Oklahoma City	36	1.2	40	1.1	50	2.0	60	3.3	68	4.9	76	3.7	81	2.9	80	2.9	73	3.0	62	2.9	49	1.9	39	1.5
Philadelphia	33	3.3	34	3.3	41	3.4	52	3.0	63	3.3	71	3.2	76	4.2	75	4.6	68	3.1	58	2.8	46	2.7	36	3.4
Phoenix	51	0.8	55	0.8	61	0.7	67	0.4	75	0.1	84	0.1	90	1.1	88	1.0	83	0.8	71	0.5	60	0.7	52	1.0
Pittsburgh	31	3.0	32	2.6	40	3.0	51	2.9	62	3.2	71	3.8	75	4.0	73	3.2	66	2.6	56	2.5	43	2.3	34	2.9
St. Louis	31	2.3	35	2.6	44	3.4	56	3.8	67	4.3	75	3.8	79	3.0	78	3.0	70	3.5	59	2.7	45	2.8	35	2.2
St. Paul	13	0.9	16	0.9	29	1.4	46	2.4	58	3.3	67	4.1	72	3.6	69	3.0	61	3.1	49	2.2	32	1.3	19	1.1
Salt Lake	29	1.3	34	1.5	42	2.0	50	2.0	57	1.9	67	0.8	76	0.5	74	0.8	64	1.0	52	1.4	41	1.4	32	1.4
San Antonio	52	1.5	55	1.6	63	1.8	69	3.2	75	3.2	81	2.5	84	2.2	84	2.4	79	3.0	70	2.2	60	1.9	54	1.6
San Francisco	50	4.5	52	3.8	54	3.1	55	1.6	57	0.8	58	0.2	58	0.0	59	0.0	61	0.4	60	1.1	56	2.4	51	4.0
Santa Fe	29	0.7	33	0.8	40	0.8	47	1.0	56	1.3	65	1.1	69	2.4	67	2.3	61	1.4	50	1.2	39	0.7	31	0.7
Seattle	40	4.9	41	3.9	45	3.0	49	2.4	54	1.9	59	1.3	63	0.6	63	0.7	58	1.8	51	2.8	46	5.0	42	5.6
Sioux City	18	0.7	21	0.8	33	1.2	48	2.7	60	4.0	70	4.0	74	3.5	72	3.1	63	3.0	51	1.8	35	1.0	23	0.9
Sitka	32	7.5	34	6.1	37	5.4	43	5.6	47	3.9	52	3.3	55	4.1	56	7.1	52	10.2	46	11.8	39	9.2	35	8.9
Spokane	28	2.2	31	1.8	40	1.2	48	1.1	56	1.4	63	1.3	69	0.7	68	0.6	59	0.9	47	1.2	38	2.1	31	2.2
Washington	33	3.6	35	3.3	43	3.8	53	3.3	64	3.7	72	4.1	77	4.7	75	4.0	68	3.2	57	2.8	45	2.4	37	3.3

At Colon, Canal Zone, the rainfall in the wet season averages 116.3 inches.

The temperature at Colon averages 79 to 80 degrees throughout the year.

The hottest place on earth is the town of Azizia, in Tripoli, about 25 miles south of the Mediterranean. There the temperature in the summer of 1924 was recorded at 136.4 degrees, Fahrenheit.

The temperature, July 10, 1913, was 134.1 at Greenland Ranch, Death Valley, Cal.

FOREIGN CITIES (TEMP., FAHRENHEIT; PRECIPITATION, IN INCHES).

Stations.	Jan.		Feb.		Mar.		April.		May.		June.		July.		Aug.		Sept.		Oct.		Nov.		Dec.	
	T.	P.	T.	P.	T.	P.	T.	P.	T.	P.	T.	P.	T.	P.	T.	P.	T.	P.	T.	P.	T.	P.	T.	P.
Athens	46	2.2	48	1.5	52	1.5	59	0.9	68	0.8	76	0.4	81	0.3	80	0.4	74	0.6	65	1.8	57	3.0	50	2.5
Auckland	67	2.4	67	3.1	66	2.7	61	3.1	57	4.6	54	5.0	52	5.1	52	4.3	54	3.7	57	3.5	60	3.4	64	2.8
Belgrade	29	1.1	34	1.3	43	1.8	52	2.2	62	2.8	67	3.1	72	2.8	70	1.8	63	1.7	45	2.4	43	1.7	34	1.6
Berlin	31	1.5	32	1.5	37	1.9	46	1.4	55	1.7	62	2.5	65	2.7	63	2.2	57	1.7	48	2.0	38	1.9	33	1.9
Bordeaux	41	2.8	43	2.3	47	2.5	53	2.6	58	2.9	64	3.2	68	2.0	68	2.2	64	2.6	55	3.7	47	3.7	41	2.9
Brest	44	3.3	44	3.0	46	2.2	51	2.1	55	1.9	60	2.0	64	2.1	64	2.1	61	3.1	54	3.6	48	3.8	45	3.2
Brussels	34	2.2	36	1.8	40	2.0	47	1.7	53	2.3	60	2.5	63	3.1	62	3.1	58	2.7	50	2.9	41	2.7	36	2.6
Bucharest	25	1.3	29	1.2	40	1.7	51	2.0	62	2.4	68	3.6	73	2.6	72	3.0	64	1.4	54	1.5	40	1.8	29	1.7
Budapest	28	1.5	32	1.1	40	1.9	51	2.0	60	2.4	67	2.7	70	2.0	68	2.1	61	2.0	51	2.2	39	2.2	31	2.1
Buenos Ayres	74	3.0	73	2.5	70	4.6	62	3.0	56	2.8	51	2.7	50	2.2	52	2.4	56	3.0	61	3.6	67	2.8	71	3.9
Christiania	24	1.2	24	0.9	30	1.1	40	1.1	51	1.7	60	2.0	63	3.3	61	2.9	53	3.0	42	2.6	32	1.9	26	1.3
Constantinople	41	3.4	41	2.7	46	2.4	53	1.7	62	1.2	70	1.3	74	1.1	74	1.7	68	2.0	62	2.5	53	4.0	46	4.8
Copenhagen	31	1.3	31	1.1	34	1.3	42	1.1	51	1.5	59	2.0	62	2.6	61	2.4	55	2.4	47	2.4	38	1.9	33	1.5
Dublin	42	2.1	42	1.9	43	2.0	47	2.0	52	2.1	58	2.0	60	2.6	59	3.1	56	3.1	49	2.9	45	2.6	42	2.3
Edinburgh	38	1.9	39	1.7	40	1.5	45	1.5	50	1.9	56	2.2	55	2.8	58	2.8	54	2.4	47	2.5	41	2.4	39	2.2
Hamburg	32	1.9	33	1.7	37	3.0	45	1.7	53	2.2	60	3.1	63	3.4	62	3.0	56	2.6	48	2.6	39	2.3	34	2.4
Jerusalem	45	6.5	47	5.0	51	4.1	59	1.6	67	0.2	70	0.0	73	0.0	73	0.0	70	T.	66	0.4	56	2.3	49	5.7
Liege	35	2.1	37	1.9	41	2.0	49	2.0	57	2.4	64	2.8	67	2.9	66	3.2	59	2.5	52	2.7	41	2.5	37	2.5
Lille	36	2.1	38	1.8	41	2.2	48	1.6	54	2.2	60	2.3	63	2.8	63	2.5	58	2.5	50	3.0	42	2.8	37	2.5
Lima	71	T.	73	T.	73	T.	70	T.	66	T.	62	0.2	61	0.3	61	0.5	61	0.5	62	0.1	66	T.	70	T.
London	38	2.0	40	1.6	42	1.7	48	1.7	54	1.9	60	2.2	63	2.4	62	2.4	58	2.4	50	2.7	43	2.3	39	2.1
Lyons	35	1.3	38	1.4	43	2.1	51	2.6	57	3.3	64	3.3	68	3.4	67	3.3	61	3.0	52	3.8	42	2.6	35	1.9
Montevideo	73	3.2	71	2.4	68	3.5	63	3.4	57	3.0	52	3.3	51	3.3	51	2.7	56	3.1	60	3.7	65	3.0	70	3.1
Moscow	12	1.1	15	0.9	23	1.2	38	1.5	54	1.9	59	2.0	66	2.8	60	2.9	51	2.2	38	1.4	28	1.6	17	1.5
Naples	47	3.4	49	2.8	51	3.0	57	2.4	64	1.9	71	1.3	75	0.7	76	1.2	71	2.8	63	4.3	54	4.8	49	4.3
Ostend	36	2.0	38	1.6	42	1.9	47	1.5	53	1.9	59	1.9	63	2.2	63	2.9	60	2.8	51	2.6	44	3.1	39	2.3
Paris	36	1.4	38	1.1	43	1.5	50	1.5	55	1.8	62	2.1	65	2.0	64	1.8	58	1.9	50	2.1	42	1.9	37	1.6
Leningrad	15	0.9	17	0.8	24	0.9	36	0.9	48	1.7	59	1.8	64	2.7	61	2.7	51	2.0	40	1.7	29	1.4	20	1.2
Rome	44	2.9	47	2.3	51	2.5	57	2.3	64	2.2	71	1.5	76	0.6	76	1.1	70	2.7	62	4.1	52	4.4	46	3.3
Sofia	27	1.5	30	1.4	39	1.5	50	2.0	59	3.4	65	3.2	69	2.7	68	2.1	61	1.9	52	2.4	40	1.9	31	1.4
Stockholm	27	0.8	26	0.7	29	0.8	38	0.9	47	1.4	57	1.4	62	2.3	60	2.4	53	1.8	43	2.0	35	1.4	28	1.1
Sydney	71	3.5	71	4.7	69	5.2	65	5.4	58	5.2	54	5.4	52	4.5	55	3.1	59	2.9	64	2.9	67	3.0	70	2.5
Tokio	37	2.0	38	2.0	44	4.3	54	5.3	52	5.9	69	6.3	75	5.6	78	4.6	72	7.5	62	3.2	50	4.3	41	2.3
Trieste	39	2.4	41	2.2	46	2.4	54	3.1	62	3.8	69	4.0	73	3.0	72	3.5	66	4.8	58	6.1	48	4.1	42	2.9
Valencia	45	1.3	45	1.2	46	1.5	48	1.5	52	1.7	56	0.8	58	0.5	59	0.4	56	3.0	52	3.3	48	2.0	45	1.9
Valparaiso	63	...	64	...	61	0.6	58	0.3	55	4.6	53	2.4	53	6.6	53	3.9	54	0.7	57	0.3	60	0.2	63	0.1
Vienna	29	1.3	32	1.5	39	2.0	49	2.0	57	2.8	64	2.8	67	2.6	66	2.7	59	1.7	50	2.0	38	1.9	31	1.9
Vladivostock	6	0.1	13	0.2	27	0.3	39	1.1	49	1.3	57	1.5	66	2.2	70	3.5	61	2.4	48	1.6	30	0.5	14	0.2
Warsaw	24	1.2	27	1.1	33	1.3	45	1.5	55	1.9	63	2.7	65	3.0	64	3.1	56	1.9	46	1.7	35	1.5	27	1.4

More than 7¼ inches of rain fell in 18 minutes on July 7, 1889, at Curtea de Weges, in Roumania, according to records compiled by Prof. Alexander McAdie.

MONTHLY MEAN HUMIDITY AT UNITED STATES CITIES.

(Data by the Weather Bureau, Department of Agriculture.)

STATION.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
	P.ct.	P.ct.	P.ct.	P.ct.	P.ct.	P.ct.	P.ct.	P.ct.	P.ct.	P.ct.	P.ct.	P.ct.	P.ct.
Abilene, Tex.	66	63	57	58	63	60	58	59	64	64	66	68	63
Albany, N. Y.	80	79	76	68	68	70	70	74	77	78	78	78	75
Amarillo, Tex.	64	66	54	55	58	61	61	62	64	64	64	68	62
Atlanta, Ga.	76	72	70	66	66	70	76	78	74	69	70	75	72
Bismarck, N. Dak.	74	74	72	64	65	70	66	66	67	70	75	74	70
Boise, Idaho	77	70	62	53	54	50	38	38	45	56	66	78	57
Boston, Mass.	72	69	69	68	70	72	71	74	76	74	73	71	72
Buffalo, N. Y.	79	79	76	72	72	74	72	72	74	74	76	78	75
Charlotte, N. C.	72	69	69	64	66	72	76	79	76	70	69	72	71
Chicago, Ill.	82	80	77	72	72	72	70	74	72	72	76	80	74
Cleveland, Ohio	78	76	76	71	70	70	70	72	74	73	75	76	74
Denver, Col.	54	56	53	50	54	50	52	50	48	50	50	55	52
Des Moines, Iowa	79	78	72	66	66	69	68	70	73	70	72	78	72
Dodge City, Kan.	72	71	64	60	65	66	64	64	65	66	68	70	66
Dubuque, Iowa	81	81	76	68	68	70	68	72	75	74	76	81	74
Duluth, Minn.	82	80	76	70	70	74	73	76	77	76	80	82	76
Eastport, Me.	76	76	77	76	80	82	83	82	82	80	78	76	79
El Paso, Tex.	47	40	30	26	24	30	46	48	48	46	47	48	40
Fresno, Cal.	81	72	68	58	50	39	32	34	42	54	66	80	56
Galveston, Tex.	84	85	86	84	80	79	78	78	77	76	80	82	81
Green Bay, Wis.	78	77	75	70	70	70	70	73	76	76	76	78	74
Harrisburg, Pa.	75	72	70	62	66	76	70	72	76	74	72	74	72
Havre, Mont.	81	83	76	63	64	63	58	58	64	69	76	80	70
Helena, Mont.	70	69	62	54	56	55	48	46	54	59	64	70	59
Huron, S. Dak.	82	81	74	66	64	68	66	68	67	68	72	80	72
Indianapolis, Ind.	80	77	72	66	67	67	66	68	70	69	73	78	70
Jacksonville, Fla.	82	79	78	74	76	80	81	83	84	82	82	82	80
Kansas City, Mo.	74	76	70	62	68	68	68	68	70	66	68	74	70
Knoxville, Tenn.	77	72	70	65	68	74	76	79	76	74	74	77	74
Lander, Wyo.	70	69	62	56	56	52	50	50	54	62	65	72	60
Little Rock, Ark.	73	70	68	68	72	72	74	75	74	72	70	72	72
Los Angeles, Cal.	64	68	71	72	75	75	75	74	72	70	63	60	70
Louisville, Ky.	74	72	68	63	64	66	66	68	69	68	69	72	68
Lynchburg, Va.	73	71	70	64	70	74	74	78	79	78	72	72	73
Miami, Fla.	79	77	74	72	74	76	76	78	78	78	75	79	76
Mobile, Ala.	80	78	80	77	76	77	80	82	80	76	78	80	79
Montgomery, Ala.	76	74	72	68	68	71	76	78	74	72	72	76	73
New Orleans, La.	79	78	78	76	74	76	78	80	79	75	78	79	78
New York, N. Y.	74	71	70	68	70	72	72	74	76	72	72	72	72
Northfield, Vt.	80	78	76	70	71	75	78	82	84	82	81	81	78
North Platte, Neb.	74	72	68	64	64	68	67	68	66	66	69	73	68
Oklahoma, Okla.	73	71	67	65	72	70	69	67	68	68	70	74	70
Omaha, Neb.	76	75	70	63	65	66	65	68	68	66	69	75	69
Oswego, N. Y.	84	84	78	72	72	74	74	74	76	74	77	82	76
Palestine, Tex.	74	73	72	72	76	74	74	74	74	72	72	74	74
Parkersburg, W. Va.	81	80	76	69	70	74	74	76	78	76	77	80	76
Phoenix, Ariz.	54	50	44	34	27	23	37	43	38	40	50	52	41
Port Huron, Mich.	82	82	78	74	72	74	72	74	78	78	80	82	77
Portland, Ore.	84	78	74	70	70	68	64	66	72	78	83	85	74
Rapid City, S. Dak.	70	72	68	60	60	60	54	54	54	58	64	68	62
Red Bluff, Cal.	80	71	67	58	49	42	34	36	42	52	66	78	56
St. Louis, Mo.	75	74	71	66	68	68	67	66	70	68	70	74	70
St. Paul, Minn.	79	79	73	64	63	67	66	70	72	71	74	79	72
Salt Lake City, Utah.	72	68	58	48	46	38	34	37	40	52	62	72	52
San Antonio, Tex.	66	65	64	68	70	68	68	67	68	66	68	67	67
San Francisco, Cal.	80	78	76	76	78	80	84	85	80	77	78	78	80
Santa Fe, N. Mex.	58	56	46	40	37	36	40	51	49	50	52	58	49
Sault Ste. Marie, Mich.	86	85	82	74	72	74	78	80	84	84	84	85	80
Seattle, Wash.	85	80	76	72	72	71	69	72	76	82	86	86	77
Shreveport, La.	73	70	69	70	73	74	76	75	74	72	72	73	73
Spokane, Wash.	83	76	66	57	56	52	46	44	54	66	80	84	64
Springfield, Ill.	78	77	73	67	68	68	67	70	73	70	73	77	72
Springfield, Mo.	78	76	71	68	71	74	73	74	74	70	72	76	72
Tampa, Fla.	82	80	79	74	75	80	82	84	84	80	81	82	80
Vicksburg, Miss.	73	70	68	69	72	75	80	81	77	72	71	72	74
Walla Walla, Wash.	84	80	71	60	58	54	42	42	56	67	76	84	65
Washington D. C.	72	68	68	64	70	73	74	77	79	76	72	72	72
Williston, N. Dak.	83	82	77	63	62	64	60	60	64	68	77	81	70
Wilmington, N. C.	77	76	78	74	78	80	82	85	84	80	78	77	79
Winnemucca, Nev.	75	68	60	49	48	40	32	32	38	50	59	73	52

Inquiry by experts of the Mayo Foundation indicates that rheumatic persons can "sense" the approach of rain.

Humidity and rainfall are closely related, and both are governed by altitude and by proximity to large bodies of water.

In the Temperate Zone there is more rainfall at sea level than in the mountains.

Figures represent mean of the 8 A. M. and 8 P. M. relative humidity, seventy-fifth meridian time, for the period 1889 to 1913, inclusive. A few of the stations have a shorter record.

EXTREMES OF PRECIPITATION AND SNOWFALL AT NEW YORK (INCHES).

MONTH	PRECIPITATION. Greatest in 24 Hrs	Day.	Year.	SNOWFALL.* Greatest in 24 Hours	Day.	Year.	MONTH	PRECIPITATION. Greatest in 24 Hrs	Day.	Year.	SNOWFALL.* Greatest in 24 Hrs	Day.	Year.
Jan.	2.48	8–9	1884	13.[illegible]	[illegible]–14	1910	July	3.80	26	1872	0	.....	.....
Feb.	3.25	11–12	1886	17.8	[illegible]–18	1893	Aug.	5.05	16–17	1909	0	.....	.....
March	3.60	25–26	1876	16.5	[illegible]	1888	Sept.	6.17	23	1882	0	.....	.....
April	3.72	5–6	1886	10.2	[illegible]	1915	Oct.	9.40	8–9	1903	0.4	30	1925
May	4.17	7–8	1908	T.	[illegible]	1891	Nov.	3.62	15–16	1892	8.8	26–27	1898
June	3.88	14–15	1917	0	[illegible]	.....	Dec.	2.93	13–14	1909	14.0	26–27	1890

* Records extending to winter of 1884–[illegible] on. T," trace, less than 0.1 inch.

NEW YORK CITY WEATHER RECORDS FOR 1928.

(Compiled under the direction of James H. Scarr, United States Meteorologist.)

DAILY PRECIPITATION, 1928, AT NEW YORK (INCHES).

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug	Sept.	Oct.	Nov.	Dec.
1	...	.06	.13	...	.03	...	...	.11	...	...	...	...	17	T.	.02	T.	T.	T.	...	...	.54	...	...	.18
2	...	...	T.	...	...	.02	...	...	T.	...	.06	...	18	...	.58	.56	...	.75	.26	...	.11	.01	.73	.04	.18
3	...	T.	T.	...	...	T.	...	†	.56	...	.29	.01	19	.52	T.	...	T.	.01	1.21	...	...	1.26	.28	.14	...
4	...	...	...	...	...	.75	.06	...	...	...	.35	...	20	T.	T.	...	...	.10	.01	.25	...	.21	...	...	T.
5	...	.19	...	...	...	.54	1.33	T.	...	.16	...	.17	21	.03	...	...	.35	...	.13	...	...	...	.03	...	...
6	...	...	...	...	T.	.50	1.53	.14	.48	...	...	...	22	...	.12	.09	1.06	...	.21	.62	.78	...	.05	...	...
7	...	.46	T.	T.	.01	T.	...	.01	.01	...	...	...	23	...	.88	...	1.02	.01	.02	.08	.13	...	...	...	...
8	T.	.95	...	.08	...	...	...	...	...	...	.18	.19	24	.41	...	...	.15	...	.55	...	.03	...	.09	...	...
9	.01	.03	.57	...	.30	.51	...	...	...	...	...	T.	25	.09	...	T.	T.	...	...	...	.12	.17	T.	...	...
10	...	...	...	...	.04	.99	1.10	...	...	...	...	...	26	...	...	...	...	.25	.04	.28	.71	.01	T.	T.	...
11	...	.11	.35	.09	...	.01	.04	...	...	...	...	...	27	...	...	T.	.47	.28	...	.29	.34	...	T.	...	.10
12	...	.02	.17	...	.01	.97	...	...	...	.05	...	...	28	.26	...	...	.89	.02	...	.45	T.	...	.01	...	.02
13	T.	.01	...	...	...	.67	...	.22	T.	...	...	...	29	.03	.01	.12	.03	...	.97	...	.01	.09	...	...	...
14	...	1.05	.03	.14	...	.35	.19	...	...	...	...	T.	30	...	...	.89	T.	.13	†	...	.09	.34	...	.97	...
15	...	T.	...	...	...	...	...	...	...	...	...	...	31	.01	...	T.	...	T.	...	...	T.	...	...	...	...
16	.05	...	.01	...	...	...	T.	...	T.	T.	T.	...													

"T," trace, less than .01 inch. † Showers in vicinity.

The weather recording instruments at the city of New York are located on top of the tall building at 17 Battery Place, where the bureau has its headquarters.

The degrees of heat registered therefore often are slightly lower than shown by thermometers in the "canon" streets in lower Manhattan, especially around noon.

DAILY MAXIMUM AND MINIMUM TEMPERATURES AT NEW YORK CITY, 1928.

Day.	Jan.		Feb.		Mar.		April.		May.		June.		July.		Aug.		Sept.		Oct.		Nov.		Dec.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	47	13	38	29	43	30	47	31	66	53	73	56	82	64	77	68	72	59	62	45	60	41	56	42
2	25	11	32	20	38	26	50	38	67	52	79	64	84	68	89	70	72	59	62	51	56	48	49	39
3	28	15	40	21	35	21	48	36	75	52	72	57	88	68	90	73	75	67	73	53	58	51	51	41
4	29	13	52	33	38	20	68	43	80	56	65	54	89	70	90	76	74	61	76	55	57	48	53	38
5	37	18	45	24	34	20	77	53	68	51	61	54	85	68	90	75	68	57	74	60	53	43	51	32
6	45	29	30	14	34	17	74	55	66	48	80	53	76	63	75	65	62	58	71	58	61	48	39	29
7	55	39	40	22	46	27	65	52	59	44	71	60	82	61	72	63	70	59	69	52	61	46	39	28
8	51	43	48	38	44	27	58	42	61	48	75	57	91	64	82	68	75	60	61	47	52	36	38	25
9	46	40	49	36	38	29	50	37	58	43	76	60	92	74	87	71	82	61	73	58	47	35	31	24
10	45	34	38	32	39	26	44	35	74	48	67	57	83	68	88	70	73	63	67	53	49	36	40	23
11	52	36	38	29	39	31	45	35	71	53	67	55	82	70	78	71	81	64	74	52	51	43	48	30
12	47	38	37	24	54	35	56	33	59	44	74	56	87	68	73	63	84	60	83	58	44	37	47	38
13	54	39	39	20	51	40	64	46	58	41	75	62	78	68	79	62	84	70	77	52	50	37	51	39
14	48	40	49	30	54	40	61	45	67	45	82	64	76	70	85	67	74	63	61	45	54	38	53	39
15	53	30	49	36	45	34	59	32	67	53	73	60	81	65	90	71	67	61	64	46	64	45	51	41
16	39	23	45	37	38	31	49	28	71	58	73	57	85	67	86	69	77	65	70	59	70	54	50	43
17	48	32	44	37	48	30	45	33	64	55	79	57	87	70	73	64	79	65	80	66	68	55	58	46
18	45	37	38	26	39	32	54	34	59	54	80	59	87	70	85	70	69	59	80	65	71	57	57	32
19	46	36	29	14	39	30	77	42	60	54	70	60	88	73	81	68	61	55	79	64	68	52	44	31
20	42	16	39	21	43	29	54	36	62	54	68	60	88	64	79	65	74	61	65	50	52	35	43	35
21	24	14	26	14	44	32	47	39	69	53	63	56	75	63	75	66	73	60	63	46	43	31	39	22
22	34	16	39	20	44	34	45	38	64	50	63	55	74	65	69	62	69	58	63	51	48	36	32	20
23	47	29	35	39	50	37	47	39	66	51	61	54	85	69	69	61	70	55	71	56	42	34	37	25
24	50	35	50	28	68	39	59	36	62	50	80	60	85	68	72	65	64	50	59	47	44	34	45	27
25	52	24	28	12	69	55	50	40	63	46	85	65	84	71	78	70	61	46	56	42	41	25	50	32
26	42	22	25	6	60	43	54	39	65	51	80	69	80	68	77	69	55	43	49	36	33	21	48	34
27	31	18	42	20	56	31	49	39	61	54	77	68	80	68	80	69	60	43	48	34	42	29	48	37
28	30	20	37	24	49	27	47	38	67	55	81	66	84	69	83	71	58	48	59	44	44	34	47	37
29	29	17	50	30	45	33	58	38	70	56	76	64	76	63	88	72	56	50	48	35	48	39	45	34
30	27	13	...	...	41	33	68	50	68	56	82	68	76	72	88	74	54	49	44	31	56	41	38	30
31	34	19	...	...	41	29	...	...	72	52	...	...	79	63	77	63	...	...	...	55	39	...	...	41	29
	41	26	40	25	45	31	56	39	66	51	74	60	83	67	81	61	70	58	66	50	53	40	46	33

EXTREMES OF PRESSURE AND TEMPERATURE AT NEW YORK (DEGREES).

Month.	Pressure.				Temperature.			
	Highest.	Date.	Lowest.	Date.	Maximum.	Date.	Minimum.	Date.
January	31.01	27, 1927	28.61	3, 1913	67	12, 1890	— 6	10, 1875
February	31.00	1, 1920	28.70	6, 1896	69	5, 1890	— 7	5, 1918
March	30.95	18, 1913	28.38	1, 1914	80	21, 1921	3	5, 1872
April	30.68	13, 1911*a*	29.14	2, 1884	91	27, 1915	12	1, 1923
May	30.52	18, 1914*b*	29.13	4, 1893	95	31, 1895	34	1, 1880
June	30.56	2, 1883	29.34	26, 1902	97	6, 1899	45	2, 1907
July	30.51	7, 1892	29.46	3, 1909	99	3, 1898	50	15, 1873
August	30.44	19, 1913	29.29	24, 1893	102	7, 1918	51	27, 1885
September	30.61	7, 1888	29.19	30, 1920	100	7, 1881	39	30, 1912
October	30.66	17, 1883	28.06	25, 1925	88	1, 1881*d*	29	31, 1917
November	30.80	19, 1891	28.70	13, 1904	74	1, 1882*e*	7	30, 1875
December	30.93	28, 1896	28.96	28, 1923	68	23, 1891	—13	30, 1917

(*a*) Also in 1895, 12th day. (*b*) Also in 1903, 2d day. (*d*) Also in 1879, 16th day. (*e*) Also in 1909. 12th day. (*f*) Also in 1876, 1st day.

MONTHLY AND ANNUAL MEAN TEMPERATURES AT NEW YORK (DEGREES).

YEAR.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	An'ual
1871....	30.4	31.8	43.6	53.6	60.8	69.1	71.9	73.0	69.8	54.9	39.3	29.0	51.6
1872....	29.4	30.3	28.9	47.3	61.1	70.6	76.0	75.5	65.2	55.3	40.4	27.4	50.6
1873....	28.1	28.8	35.6	45.7	56.0	68.8	73.5	71.4	64.9	56.3	37.3	36.3	50.2
1874....	34.5	31.4	38.0	41.3	58.2	70.0	73.6	70.6	68.1	55.1	42.8	33.8	51.4
1875....	25.3	25.2	32.6	42.6	58.5	67.5	72.7	71 9	64.4	52.3	38.9	33.0	48.6
1876....	33.9	31.8	35.2	46.1	58.0	70.7	76.4	72.5	61.8	49.7	44.5	25.1	50.5
1877....	27.6	35.6	36.6	48.0	59.0	68.8	73.8	74.3	66.2	56.6	45.5	39.3	52.6
1878....	32.1	34.6	43.8	52.7	58.2	65.8	74.6	72.9	67.0	57.4	43.6	32.4	52.9
1879....	26.8	27.6	38.4	45.9	60.8	68.8	73.1	70.9	63.2	59.8	43.1	37.3	51.3
1880....	39.8	36.3	35.7	48.7	64.8	70.7	73.2	70.7	65.7	53.8	39.7	27.7	52 2
1881....	25.8	29.5	36.9	46.0	60.2	64.2	72.6	73.1	72.2	59.1	46.3	40.7	52.2
1882....	30.5	35.6	39.8	46.1	53.5	68.2	73.8	71.7	66.9	58.5	41.7	32.2	51.5
1883....	27.8	31.4	33.6	46.6	59.1	69.5	73.3	70.8	63.1	53.7	45.0	33.7	50.6
1884....	26.2	35.1	37.5	47.6	58.8	68.7	70.1	71.5	69.6	56.1	43.2	34.6	51.6
1885....	29.2	23.1	29.7	47.7	56.2	67.3	74.2	70.8	64.1	54.5	44.8	36.0	49.8
1886....	28.5	28.5	36.9	50.3	58.5	65.6	72.9	71.0	67.1	56.5	45.3	30.8	51.0
1887....	30.1	33.7	34.3	47.7	62.9	68.2	76.7	71.4	63.1	54.7	43.7	36.1	51.9
1888....	26.0	31.8	32.9	48.4	59 3	71.8	72.6	74.8	66.2	51.2	46.8	36.0	51.5
1889....	37.6	28.0	41.5	51.6	62.0	70.4	73.5	71.5	65.8	52.0	46.9	41.4	53.5
1890....	40.2	40.4	37.5	51.0	60.6	70.4	73.4	72.3	66.8	55.5	45.9	31.4	53.8
1891....	34.7	37.5	37.8	52.0	59.9	69.6	70.8	73.6	70.1	54.2	43.8	41 8	53.8
1892....	30.3	33.0	34.6	49.9	59.4	72.0	74.8	73.9	66.0	55.4	42.6	31.3	51.9
1893....	23.3	29.6	36.2	47.8	59.0	69.4	74.8	74.4	64.4	57.6	44.2	35.1	51.3
1894....	34.6	29.6	44.5	49.6	60.8	70.6	76.1	72 8	69.8	57.2	42.2	36.8	53.7
1895....	30.1	25.2	36.4	47.7	59.4	70.0	70.8	73.8	69.7	51.9	46.0	36.9	51.4
1896....	27.6	30.2	32.1	50.4	63.8	66.5	73.4	73 0	64.8	51.9	48.0	32 1	51.2
1897....	29.4	32.6	39.2	48.6	59.3	65.2	72.8	71.0	65.4	56.3	44.1	35.8	51.6
1898....	32.2	33.0	43.7	46.8	56.6	68.9	74.1	74.3	68.9	57.6	44.6	34.4	52.9
1899....	30.8	26.9	38.4	49.6	61.0	72.2	73.8	73.6	65.2	58.2	45.4	36.4	52.6
1900....	33.2	31.6	35.0	51.1	60.8	71.4	76.4	76.8	70.8	60.8	48.7	35.2	54.3
1901....	31.5	25.6	38.6	49.4	58.6	71.4	78.1	75.6	68.4	56.0	89.7	34.4	52.3
1902....	29.2	28.5	44.0	50.6	60.2	68.2	73.6	71.4	65.9	56.9	50.0	32.2	52.6
1903....	30.6	34.4	47.5	52.2	64.1	64.0	74.2	69.2	65.4	56.6	41.4	30 1	52.5
1904....	24.1	25.0	36.4	46.4	63.6	69.2	73.6	72.2	65.9	53.3	41.4	28.2	49.9
1905....	27.5	24.6	40.0	49.8	60.5	68.8	75.4	72.2	66.8	56.9	43.8	37 7	52.0
1906....	37.3	31.2	34.9	51.7	61.8	71.5	74.8	75.3	70.2	56.1	44.9	32.7	53.5
1907....	32.2	24.4	40.8	45.0	55.3	66.2	74.8	72.0	67.8	52.5	45.2	37.8	51.2
1908....	32.0	28.1	41.4	50.6	61.3	71.6	76.8	72.5	67.8	59.6	44.7	35.2	53.5
1909....	33.2	37.3	38.3	49.5	60.4	70.5	73.4	71.6	65.6	53.2	47.7	31.4	52.7
1910....	32.4	31.4	44.7	54.0	60.2	68.0	77.8	72.2	68.4	58.2	41.6	28.0	53.1
1911....	34.8	31.4	37.6	48.2	63.6	68.3	76.0	71.8	66.6	55.6	41.4	39.2	52.9
1912....	23.5	28.4	36.8	49.0	60.7	68.4	74.0	70.7	65.9	58.5	46.6	38.5	51.8
1913....	40.0	30.9	44.0	51.0	60.2	69.2	75.0	72.7	64.6	58.2	46.9	38.8	54.3
1914....	31.4	25.3	35.8	46.6	63.6	67.6	71.1	73.7	66.2	59.0	44.0	31.5	51.3
1915....	34.1	35.2	36.4	53.4	57.7	66.6	72.5	70.4	69.0	56.7	45.4	33.5	52.6
1916....	35.4	27.7	32.2	47.1	59.8	64.2	73.8	73.6	66.0	57.2	44.8	33.8	51.3
1917....	32.4	27.8	38.7	47.2	53.2	68.3	74.1	74.6	63.0	52.0	41.2	25.0	49.8
1918....	21.6	29.6	41.2	49.8	64.0	66.4	72.7	74.8	62.8	58.6	45.7	39.0	52.2
1919....	35.2	34.7	42.0	48.8	61.0	69.7	74.0	70.2	66.5	58.4	44.4	30.0	51.5
1920....	24.1	29.1	40.6	47.7	57.8	67.6	72.5	72.8	67.4	60.4	44.2	37.8	51.8
1921....	33.6	34.8	48.3	55.0	60.4	70.3	76.2	70.9	71 0	56.2	45.0	33.8	54.6
1922....	29.0	34.5	41.3	51.0	63.6	70.6	72.7	71.4	67.4	57.6	45.4	34 3	53.2
1923....	31.0	27.1	37.0	49.4	59.3	72.0	72.3	71.3	67.0	55.6	45.4	42.0	52.4
1924....	32.5	29.2	38.7	48.1	56.2	66.8	72.6	72.9	63.0	56.8	44.1	34.0	51 2
1925....	29.1	38.5	43.6	51.2	58.2	73.2	72.5	71.9	67.5	49.9	43.7	34.5	52.8
1926....	31.8	29.4	35.1	46.0	58.5	64.8	73.2	72.8	64.8	54.2	44.0	29.2	50.3
1927....	30.2	36.6	42.6	47.7	58.0	65.8	73.0	67.5	66.8	58.7	48.6	36.6	52.7
1928....	33.8	32.9	38.3	47.5	58.4	66.6	75.0	74 4	63.8	57.8	46.6	39.4	52.9
Means	30.9	30.9	38.3	48.8	59.8	68.7	73.9	72.5	66.4	55.9	44.2	34.3	52.0

SNOWFALL AT NEW YORK CITY (INCHES)

SEASON.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April.	May.	Total.
1884–85.	0	T.	9.4	4.6	16.7	5.9	T.	0	36.6
1885–86.	T.	0.1	0.3	18.6	4.7	0.2	T.	0	23 9
1886–87.	0	T.	21.9	9.3	11.9	2.3	4.1	0	49.5
1887–88.	0	0.3	9.0	11.7	3.5	22.1	T.	0	46.6
1888–89.	0	0.9	T.	3.0	7.0	11.0	0	0	21.9
1889–90.	0	0.1	7.5	T.	4.0	21.3	1.2	0	34.1
1890–91.	0	T.	19.3	11.9	4.2	4.3	T.	T.	39.7
1891–92.	0	T.	T.	13.1	0.5	10.9	3.0	0	36 5
1892–93.	0	12.3	3 4	20.3	32.0	6.6	3.0	0	77.6
1893–94.	0	0	8.0	10.2	37.9	T.	T.	0	56.1
1894–95.	0	0.7	8.2	12 3	8.2	5.8	1.0	0	36.2
1895–96.	0	T.	T.	3 0	8.8	28.5	1.7	0	42.0
1896–97.	0	3.8	12.6	11.7	8.8	2.2	T.	0	39.1
1897–98.	0	1.5	2.9	8.7	2.5	1.9	2.6	0	20.1
1898–99.	0	14.0	1.1	6.1	27.5	9.6	T.	0	58.3
1899–00.	0	T.	0.2	0.8	11.4	7.7	T.	0	20.1
1900–01.	0	T.	0.5	2.9	5.8	T.	0	0	9.2
1901–02.	0	0.6	1.1	9.4	13.4	6.8	0	0	31.3
1902–03.	0	0	9.6	5.9	10.5	0	T.	0	26.0
1903–04.	T.	T.	7.7	15.2	5.6	4.4	0.1	0	33.0
1904–05.	0	0.5	27.8	19.3	7 2	3.0	T.	0	57.8
1905–06.	0	T.	0.7	3.0	5.0	13.4	T.	0	22.1
1906–07.	T.	T.	0.5	10.9	21.1	13.8	6.1	0	52.4
1907–08.	0	T.	4.4	10.6	13.7	3.5	T.	0	32.2
1908–09.	0	0.6	5.1	9.5	1.4	4.1	T.	0	20.7
1909–10.	0	1.0	11.4	16.6	5.3	0.4	0	0	34.7
1910–11.	0	T.	3.9	1.1	12 5	2.8	0.7	0	26.0
1911–12.	0	1.0	7.3	9.0	1.8	4 2	T.	0	23.3
1912–13.	0	0.8	11.8	0.3	2.4	0.1	T.	0	15.4
1913–14.	0	0	0.3	1.2	14.1	21.5	T.	0	37.1
1914–15.	0	0	2.4	4.0	2 5	7.7	10.2	0	26 8
1915–16.	0	T.	8.1	0.7	11.4	23.8	3.3	0	47.3
1916–17.	0	T.	13.7	5.9	12.2	11.4	6.5	0	49.7
1917–18.	0	0.3	11.7	13.6	3.5	0.6	2.6	0	32 3
1918–19.	0	0	0.4	0.3	0.7	1.9	T.	0	3.3
1919–20.	0	T.	7.9	7.8	24.2	5.7	T.	0	45.6
1920–21.	0	T.	1.5	2.6	13.5	T.	0.1	0	17.7
1921–22.	0	T.	7.3	9.9	6.7	3.3	0	0	27.2
1922–23.	0	1.0	6.0	21.8	17.4	6.2	0	0	52.4
1923–24.	0	0	1.2	2.5	10.7	3.0	8 0	0	25.4
1924–25.	0	T.	0.9	26.2	0.8	T.	0	0	27.9
1925–26.	0.4	0.2	0.9	3.2	25 7	1.2	T.	0	31.6
1926–27.	T.	T.	10.6	5.5	3.6	0.1	0.2	0	20.1
1927–28.	0	T.	2.4	3.1	4.0	4.8	T	0	14.3
1928–29.	T.	T.	2.3	1.9	8.8	0.3	T.	0	13.3

In 1888, the "Blizzard" of March 12 deposited 16.5 inches of snow in twenty-four hours, but the storm covered more than a day and the total snowfall exceeded twenty inches.

MONTHLY AND ANNUAL PRECIPITATION AT NEW YORK (INCHES).

YEAR.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	An'ual
1876....	1.21	5.39	7.90	3.79	3.94	2.87	5.72	2.97	5.24	1.68	4.40	2.29	47.40
1877....	3.55	1.67	6.65	3.18	0.73	3.31	3.86	2.54	1.33	7.69	5.48	0.95	40.94
1878....	4.53	3.40	4.02	1.93	3.73	2.91	5.26	7.30	3.20	1.71	3.74	4.93	46.66
1879....	3.05	2.74	2.04	4.06	2.23	3.42	3.39	5.17	1.45	0.58	2.22	5.86	36.21
1880....	2.19	2.11	4.66	3.18	0.82	1.69	6.67	4.40	2.26	2.81	2.40	4.15	37.34
1881....	5.41	5.06	6.78	1.00	2.33	6.23	1.31	1.56	1.38	2.10	2.87	4.37	40.40
1882....	6.15	4.36	2.32	2.15	4.21	2.82	2.75	1.63	14.51	1.69	1.80	2.22	46.61
1883....	3.22	4.58	1.63	3.82	3.03	4.00	3.37	2.29	3.57	4.27	1.65	3.40	38.83
1884....	6.07	5.09	4.43	2.66	4.35	4.16	6.14	8.56	0.15	3.63	3.44	6.66	55.34
1885....	3.50	6.09	1.19	2.44	2.22	1.86	3.04	7.70	0.72	5.62	5.05	2.69	42.12
1886....	5.02	5.90	3.54	4.95	6.53	3.01	2.57	1.18	1.79	3.90	4.61	3.73	46.73
1887....	4.19	5.26	3.51	3.67	0.99	7.70	6.75	3.66	2.30	2.36	2.04	4.20	46.63
1888....	5.14	4.03	5.64	3.57	4.87	1.68	1.27	6.35	7.40	4.14	4.81	4.05	52.95
1889....	5.38	3.07	4.09	5.90	3.25	2.38	9.63	3.39	7.43	2.53	9.82	1.81	58.68
1890....	2.95	3.86	6.67	2.58	3.11	4.19	3.96	4.06	8.21	6.46	0.82	5.43	52.30
1891....	5.73	4.69	4.22	2.37	3.10	1.18	4.11	5.87	2.12	2.69	2.06	3.30	41.44
1892....	5.61	1.27	4.62	2.36	4.30	2.97	2.45	3.90	0.87	0.63	8.28	1.64	38.90
1893....	3.56	7.81	4.47	6.36	5.06	2.56	1.26	7.18	2.27	5.28	3.71	3.49	56 01
1894....	2.70	5.15	1.69	2.51	3.90	0.86	2.89	1.54	8.04	5.83	3.83	5.23	44.17
1895....	5.62	0.82	2.80	2.92	2.04	2.57	4.40	4.12	0.95	4.04	3.58	1.87	35.73
1896....	1.25	5.50	6.13	1.24	2.01	6.38	4.45	2.46	3.04	1.71	2.12	1.70	37.99
1897....	3.51	2.72	2.51	2.96	5.91	2.98	9.52	3.14	1.64	0.72	4.44	4.83	44.27
1898....	3.95	4.06	2.92	3.23	5.55	1.28	4.76	3.12	1.28	6.14	5.90	2.93	45.12
1899....	4.08	5.46	6.78	1.23	1.14	1.83	6.20	3.90	5.89	2.05	2.13	1.37	42.06
1900....	4.18	5.16	3.18	2.06	4.05	3.36	4.33	2.69	2.36	4.17	4.26	1.98	41.78
1901....	2.07	0.86	5.18	6.82	7.01	0.94	5.41	6.88	2.33	2.20	1.31	6.05	47.06
1902....	2.28	5.78	4.32	3.51	1.23	5.91	3.12	3.29	3.59	6.66	1.19	6.19	47.07
1903....	3.44	3.83	3.65	2.88	0.33	7.42	3.23	5.96	2.60	11.55	0.90	2.81	48.60
1904....	3.38	2.18	3.44	3.94	1.61	2.70	4.31	7.13	3.18	3.21	2.62	3.87	41.57
1905....	3.93	2.79	3.65	2.45	1.12	4.18	6.01	5.23	7.11	2.67	1.67	3.67	44.48
1906....	2.98	2.57	5.58	5.78	4.67	1.70	3.21	3.68	2.54	4.30	1.28	3.53	41.82
1907....	3.26	2.52	3.80	3.89	4.08	3.29	1.18	2.48	8.00	3.82	5.05	3.91	45.28
1908....	3.84	5.36	2.15	1.82	9.10	1.70	4.33	5.65	1.60	1.92	0.75	3.21	41.43
1909....	3.33	4.31	3.19	5.93	1.72	3.17	1.98	7.94	2.66	0.74	1.58	5.00	41.55
1910....	5.61	4.07	0.86	4.53	1.66	5.10	0.23	2.13	1.43	3.79	4.62	1.95	35.98
1911....	2.27	3.17	2.87	3.06	0.91	4.63	1.55	7.38	1.51	5.38	4.22	3.39	40.34
1912....	1.86	2.06	5.68	3.61	3.94	1.17	3.26	2.77	3.38	4.32	2.21	4.24	38.50
1913....	2.77	2.18	5.17	5.32	2.51	1.43	3.02	1.84	5.28	10.56	1.91	2.40	44.39
1914....	3.69	3.27	4.55	2.67	1.97	1.83	5.13	2.18	0.20	1.92	2.08	4.01	33.50
1915....	5.61	5.03	1.14	2.10	3.23	3.66	4.60	5.37	2.52	2.25	1.09	4.23	40.83
1916....	1.08	4.49	3.71	3.28	3.49	3.94	3.44	0.59	2.98	0.63	1.57	3.97	33.17
1917....	2.44	1.70	3.38	2.35	3.29	5.57	5.96	1.79	2.74	5.68	0.68	3.70	39.28
1918....	3.41	1.98	1.51	3.78	3.37	4.12	3.61	1.70	3.54	0.83	2.04	3.70	33.59
1919....	3.35	3.45	4.69	2.55	3.81	2.23	7.93	7.74	3.60	3.17	3.33	2.53	48.38
1920....	2.23	6.56	4.16	4.44	2.88	6.19	4.78	4.91	3.24	0.77	3.56	5.09	48.81
1921....	1.65	4.90	2.21	2.88	3.45	3.25	3.10	3.87	2.96	0.74	3.48	1.89	34.38
1922....	2.46	2.97	4.35	1.96	3.24	7.86	6.55	5.32	3.05	1.17	1.16	3.29	43.38
1923....	5.97	2.33	4.08	2.07	1.58	1.86	4.68	1.12	2.34	4.65	2.26	3.78	36.72
1924....	3.56	3.84	1.65	4.53	5.23	2.74	1.30	6.99	3.16	0.30	2.04	2.38	37.72
1925....	5.30	1.92	3.25	1.73	2.43	2.31	6.05	1.64	1.87	4.13	2.56	3.33	36.52
1926....	2.52	5.46	2.52	1.76	2.45	2.47	7.47	7.57	5.51	5.11	3.12	3.72	49.68
1927....	1.95	3.33	1.18	2.66	3.67	3.13	5.93	8.05	3.84	8.82	3.95	3.39	49.90
1928....	1.41	4.35	2.54	4.71	1.98	6.12	7.72	4.26	3.36	1.27	2.16	0.85	40.73
Means	3.55	3.71	3.72	3.32	3.16	3.36	4.39	4.45	3.40	3.53	3.10	3.37	43.07

The heaviest rainfall in twenty-four hours at New York City in the last sixty years was 9.40 inches on Oct. 8-9, 1903; the next heaviest was 6.17 inches on Sept. 23, 1882.

WIND VELOCITY AT NEW YORK (MILES PER HOUR).

MONTH.	Max. Veloc'y.	Direction.	Day.	Year.	MONTH.	Max. Veloc'y.	Direction.	Day.	Year.
January	90	w	25	1928	July	88	nw	23	1914
February	96	sw	22	1912	August	76	nw	12	1900
March	92	nw	28	1919	September	80	s	30	1920
April	84	nw	23	1912	October	84	nw	10	1925
May	90	nw	27	1914	November	77	nw	16	1924
June	76	nw	2	1926	December	90	nw	26	1915

VELOCITY OF WINDS (PER HOUR) IN THE UNITED STATES.

Stations.	Avg.	High.	Stations.	Avg.	High.	Stations.	Avg.	High.
	Miles	*Miles*		*Miles*	*Miles*		*Miles*	*Miles*
Abilene, Tex	10	66	Fort Smith, Ark	7	74	Pensacola, Fla	..	120
Albany, N. Y	7	70	Galveston, Tex	11	93	Philadelphia, Pa	10	75
Alpena, Mich	10	72	Havre, Mont	9	74	Pittsburgh, Pa	11	70
Atlanta, Ga	10	66	Helena, Mont	7	70	Point Reyes, Calif	20	120
Bismarck, N. D	10	74	Huron, S. D	11	72	Portland, Me	8	61
Boston, Mass	10	72	Jacksonville, Fla	8	75	Red Bluff, Cal	6	60
Buffalo, N. Y	13	96	Keokuk, Iowa	8	63	Rochester, N. Y	9	78
Cape Hatteras, N. C	..	105	Key West, Fla	..	110	St. Louis, Mo	11	80
Cape Henry, Va	..	105	Knoxville, Tenn	6	84	St. Paul, Minn	11	102
Cape Lookout, N. C	..	138	Louisville, Ky	8	74	Salt Lake City, Utah	7	68
Charlotte, N. C	6	72	Lynchburg, Va	5	63	San Diego, Cal	6	54
Chattanooga, Tenn	7	64	Memphis, Tenn	8	73	Sand Key, Fla	..	115
Chicago, Ill	15	84	Miami, Fla	..	125	San Francisco, Cal	10	64
Cincinnati, Ohio	7	54	Mobile, Ala	7	115	Santa Fe, N. M	7	53
Cleveland, Ohio	12	73	Montgomery, Ala	6	54	Savannah, Ga	8	88
Denver, Col	7	75	Mt. Washington, N.H.	33	186	Spokane, Wash	6	52
Detroit, Mich	11	87	Nashville, Tenn	9	75	Tatoosh Isle, Wash	..	110
Dubuque, Iowa	6	60	New Orleans, La	8	86	Toledo, Ohio	11	84
Duluth, Minn	13	78	New York City, N. Y	17	96	Vicksburg, Miss	6	62
Eastport, Me	11	78	North Head, Wash	..	150	Washington, D. C	7	68
El Paso, Tex	11	78	Omaha, Neb	9	66	Wilmington, N. C	8	68

Record of the Year.

Chronology, Dec. 11, 1928—Dec. 11, 1929.

1928—DECEMBER

Dec. 11—The Prince of Wales arrived at London from his African hunting trip and was greeted at Buckingham Palace by his father, King George, suffering from pneumonia. On Dec. 12 the surgeons cut into the right side of the King's chest and drained it.

—The Buenos Aires police discovered and prevented a plot to bomb U. S. president-elect Hoover's train on its approach from Chile. The train left Santiago, stopped overnight at Los Andes, crossed the Andes Mountains on Dec. 12, and arrived at Buenos Aires, Argentina, on Dec. 13, and was formally welcomed on Dec. 14. He reached Montevideo, Uruguay, on Dec. 16; he boarded the American battleship Utah at Montevideo on Dec. 18, arriving at Rio de Janeiro, Brazil, on Dec. 21; on Dec. 22 he addressed the Brazil Congress and the Supreme Court and he spoke also at a state dinner at the Presidential Palace. He left Rio on Dec. 23 on the Utah, reaching Norfolk and Washington on Jan. 6, 1929.

—Commander Richard Byrd's ship City of New York radioed from the Antartic that the existence of Scott Island had been confirmed.

Dec. 12—Rumania's first free election gave the government of Julius Maniu, leader of the National Peasant Party, 85 per cent of all the votes. The remainder chiefly went to the Liberals and the Hungarians. The Communists and anti-Semites did not poll a sufficient ballot to win any representation.

—Princess Marie Louise d'Orleans, former wife of the Prince of Bourbon, was married to Walter F. Kingsland Jr. of New York, at Chichester, England.

—Armed robbers got $104,500 in an armored car that had just left the Yonkers, N. Y., post office.

Dec. 13—Ex-Mayor J. C. Hundley, 76, and his wife, Luella, 57, were shot to death at their home, Carbondale, Pa.

—At Canton, Ohio, confessing to her husband that she was the young woman who killed Vernard E. Fearn, a coal operator, Mrs. Margaret Heldman, 21, of Lorain, Ohio, committed suicide.

Dec. 14—Thomas ("Red") Moran, a N. Y. City police slayer, was executed at Sing Sing prison.

Dec. 15—At Portsmouth, England, Gene Tunney, Captain in the Reserve Corps of the U. S. Marines, presented a silver cup sent to the British force by the Marine Corps as a token of friendship and mutual admiration, and led in silent prayer for the recovery of King George.

—Goro Graziano and his bride, of Canarsie, were shot to death at a wine-stocked bungalow near Belmont Park, L. I. They had been "taken for a ride." On April 16, 1929, a jury at Mineola found Frankie Plaia and Mike Sclafonia guilty of the murder.

Dec. 16—The strike in the banana region of Colombia ended when the Communist leader, Alberto Castrillon, was killed by troops.

—At Santa Barbara, Cal., a woman set out to cook a pot of beans and got a Schubert melody. The voice of a radio announcer burst through the steam of a quiet kitchen and the strains of "Ave Maria" followed. The beans were simmering on an electric range.

REBELLION IN AFGHANISTAN.

Dec. 17—A rebellion has begun in Afghanistan, attributed to the King's drastic Westernization reforms and to Queen Souriya's desire to abolish purdah, or the seclusion of women. Women and children who took refuge at the British legation were removed by airplanes. On Jan. 11, 1929, the King withdrew his "reforms" and a committee of 50 was appointed to review laws passed by Parliament.

—Bolivia reported that she had ordered fighting at the border stopped and Paraguay agreed to accept the mediation offer of the International Conference of American States on Conciliation and Arbitration, in session in Washington. Bolivia, Dec. 18, agreed to arbitration.

—The S-4 (sunk a year ago in collision, with loss of 40, and raised) was sunk off Block Island in 55 feet of water in a naval test of her safety devices. The craft was raised on Dec. 19.

—At N. Y. City, Governor Smith laid the cornerstone of the new $6,000,000 State Office Building which when completed, will cover the square block bounded by Centre, Worth, Leonard and Baxter Streets, just north of the new County Court House.

HONORS FOR THE WRIGHTS.

—A monument to commemorate the first airplane flight of Wilbur and Orville Wright (Dec. 17, 1903) was unveiled at Kitty Hawk, N. C., and the cornerstone of the government's memorial was laid. Orville Wright, surviving brother, was present. In the Science Museum at South Kensington, in London, beneath the wings of the Wright brothers' first airplane 100 leaders and pioneers in British aviation held a dinner to commemorate the first flight by the Wrights at Kitty Hawk.

Dec. 18—Congress appropriated $32,500,000 for prohibition enforcement in the next fiscal year.

—Grover A. Whalen was sworn in as Police Commissioner of N. Y. City, succeeding Joseph A. Warren.

Dec. 19—At Nanking an Anglo-Chinese tariff treaty was signed by Sir Miles Lampson, the British Minister, and Dr. C. T. Wang, the Chinese Foreign Minister.

—There are now over 900,000 cases of influenza in this country.

—The body of Capt. B. J. Marden, British explorer, missing since he started several months ago on a conquest of the Aconcagua, the highest peak on the American continent, has been found on the mountain, in the Andes, at a height of 14,760 feet.

—Martinez de Pinillos and Lieutenant Zegarra, Peruvian good-will flyers, completed a non-stop flight over the peaks of the Andes from Santiago, Chile, to Buenos Ayres.

—Trading in securities on the New York Produce Exchange opened.

—The Wilkins-Hearst Antartic Expedition, commanded by Capt. Sir Hubert Wilkins, during a 1,200-mile flight in a land plane from Deception Island, has been able to establish that Graham Island is separated from the polar continent by an ice-filled channel.

Dec. 20—Two new theatres—the Ethel Barrymore, on W. 47th St., and Proctor's, on E. 58th St., were opened at N. Y. City.

—Pope Pius celebrated the close of the 49th year of his priesthood by opening the new Vatican library, to which The Carnegie Foundation contributed.

—Air mail pilot I. J. McGinn died in crash of plane in snowstorm at Huron, O.

—Vincent Rice, 17, who strangled to death Alice Joost, 15, on Staten Island, was sentenced to 20 years to life in state prison.

Dec. 21—Fire partly destroyed the Riverside Baptist Church under construction at 122nd St. and Riverside Drive, N. Y. City. Rev. Harry E. Fosdick, pastor, John D. Rockefeller, Jr., chief donor.

BOULDER DAM BILL SIGNED.

—President Coolidge signed the Boulder Canyon Dam bill providing for a reclamation, flood control and power project on the Colorado River. Under the measure the government is to supply $165,000,000 for the construction work in Black Canyon on the Nevada-Arizona boundary.

—At Tokio, the Home Ministry dissolved the Tokio Municipal Council on the grounds that with 25 members held on charges of corruption, it found difficulty in forming a quorum.

—State's Attorney Fachot, prosecutor in the recent trials of the Alsatian autonomists, was shot at Paris by an assailant who surrendered with the words: "I killed him to save Alsace-Lorraine."

—At Carmi, Ill., the almost headless body of Miss Anna Preher, 45, a grade school teacher and secretary-treasurer of the White County Teachers' Institute, was found in her home. An effort had been made to burn the house by setting fire to bed clothing.

—George Graham Rice (Jacob Simon Herzig), who was convicted of mail fraud in the sale of the stock of the Idaho Copper Corporation, was sentenced at N. Y. City to four years in the Atlanta Penitentiary and fined $5,000 by Federal Judge Knox. Walter K. Yorston, president of the Idaho Corporation, was sentenced to nine months, and The Wall Street Iconoclast was fined $10,000. Sentence of the Idaho Corporation, also convicted, was suspended for five years.

Dec. 22—Premier Mussolini dissolved the 27th Italian Parliament until after the 1929 general elections.

—President Coolidge restored citizenship rights to former Representative John W. Langley of Kentucky, who served a prison term for aiding the obtaining of liquor withdrawal permits.

Dec. 23—In Brooklyn, where robbers raided a poker game in Peter Cardones flat, on 9th Ave. near Greenwood Cemetery, the host shot 2 of the in-

vaders to death. A thug killed one of the players and another player tumbled out of a window in the fight and died.

—The new Japanese Parliament opened at Tokio.

—The U. S. Shipping Board steamer Casper was destroyed by fire after striking a rock in the Baltic Sea, off Finland; 2 died.

Dec. 24—At Washington, the nation's Christmas Eve festivities were opened by President Coolidge, who touched the button that lighted the Community Christmas Tree in Sherman Square. In doing so he sent greetings to the people of the United States.

Dec. 25—President and Mrs. Coolidge ate their Christmas dinner at the White House, then left by train, for Brunswick, Ga., whence, on Dec. 26, they went by boat to Sapelo Island, Ga., 11 miles at sea, where they became guests of Howard E. Coffin, Detroit auto maker, on his extensive estate where Mr. Coolidge shot pheasants and wild turkeys. They ended their vacation on Jan. 1, 1929, returning to Washington on Jan. 2.

—At Mexico City, President Emilio Portes Gil issued an order for the abolition of summary executions.

TO BETTER PROHIBITION ENFORCEMENT.

—Major Chester P. Mills, formerly Federal Prohibition Administrator for the N. Y. District, is the winner of the $25,000 prize offered by W. C. Durant for "the best and most practicable plan for making the Eighteenth Amendment effective." The plan offered by Mills presented in detail his method of preventing the diversion of industrial alcohol at its source, which he held to be mainly responsible for the bootlegger.

The winner of the $5,000 school prize is Malcolm D. Almack, representing the Palo Alto (Cal.) High School. Under the terms of the contest $1,000 goes to the boy and $4,000 to his school.

The bark City of New York, with Commander Richard Byrd, arrived at the Antarctic ice barrier in Ross Sea.

—A boundary treaty signed at Rio de Janeiro between Brazil and Bolivia, fixes definitely a common frontier in places which were not included in the treaties of 1867 and 1903. This boundary line starts between the source of the Rapirao River and the Arroyo Bahia, continuing directly to the mouth of the latter at Chipamanu and then to the mouth of the Acre River. The line will follow the Madeira River, between the rivers Beni and Mamore up to the Abuma River, running equidistant from the margins of the stream. Brazil will have jurisdiction over the islands closer to its shore, and Bolivia retains the islands closer to its bank.

The treaty also includes plans for a railroad which will connect Cochabamba and Santa Cruz de Las Sierras, extending from there to the ports on the Amazon and Paraguay Rivers.

STUDENT DRINKING.

Dec. 26—Drinking among high school and college students goes on mostly at parties, dances, hotels and in parked automobiles, according to the findings in a survey announced by the Methodist Board of Temperance, Prohibition and Public Morals.

Dec. 27—The age of the earth was estimated at a billion years by a scientist at the opening, at N. Y. City, of the 85th meeting of the Amer. Assoc. for the Advancement of Science.

Dec. 28—David Ware, 50, a negro, beheaded with a razor State Trooper Peter Gladeyes, 22, who had arrested him near Robbinsville, N. J. The negro fled to the forest. Later he was pursued by 150 state troopers, 200 American Legion men, other posses, bloodhounds, airplanes, and an Army balloon. He was found Dec. 30 at Carteret, N. J. and, after conviction, was executed on May 31, 1929.

Dec. 29—Mrs. Mary Parks Arnold, 72 (widow of Francis R. Arnold and mother of Miss Dorothy Arnold, who on Dec. 12, 1910, when 17, vanished from her home at N. Y. City) died of heart disease.

Dec. 30—Fire destroyed the steamship Paul Lecat at its dock, Marseilles, France; loss, $4,000,000.

Dec. 31—Near Parchman, Miss., Charley Shepherd, negro trusty, who escaped from the State Prison Farm after murdering a guard and abducting the murdered man's daughter, was burned to death on a plantation. He was tied to logs and they and his body were soaked with gasoline.

—At Riverside, Cal., Mrs. Sarah Louise Northcott pleaded guilty to the murder of Walter Collins, one of four boys alleged to have been tortured and murdered in the Northcott chicken ranch, and was sentenced to life imprisonment.

LIFE SENTENCE IN LIQUOR SELLING.

—At Lansing, Mich., because she had been convicted of selling liquor four times, Mrs. Etta Mae Miller was sentenced in Circuit Court to life imprisonment in the Detroit House of Correction. A jury, composed of eight men and four women, deliberated thirteen minutes and reported it found her an "habitual criminal," as defined by Michigan's new criminal code. Under the code a life sentence was mandatory.

1929—JANUARY

Jan. 1—Franklin D. Roosevelt, Dem., was sworn in at 12.01 a.m., at Albany, as Governor of New York, succeeding Alfred E. Smith, Dem. The Legislature opened on Jan. 2 and in joint session heard him deliver his first annual message. The session ended on Mch. 28.

—Police raids on speakeasies, cabarets and bootleggers, took some of the "wet" out of the New Years' celebration at N. Y. City.

—Gen. Jose Maria Moncada was inaugurated president of Nicaragua, at Managua.

—"Tex" (George Lewis) Rickard, 58, N. Y. sports promoter, was operated on at Miami, Fla., for appendicitis. There was a second operation. He died on Jan. 6 and his body, in a $15,000 (2,200-lb.) bronze coffin was taken to N. Y. City, where it lay in state Jan. 8-9, and then was buried, Jan. 9, at Woodlawn Cemetery.

Jan. 2—Presidential electors in all the states met at their respective Capitals and cast their official ballots, which then were sent to the U. S. State Dept.

—The Broadway Theatre closed, at N. Y. City. It opened in 1888 with the first American production of "La Tosca." On its stage Edwin Booth and Sir Henry Irving made their farewell Broadway appearances. One of the biggest and most important attractions to be staged there was "Ben Hur."

NIAGARA FALLS AGREEMENT.

—The construction of works in the Niagara River above Niagara Falls to preserve and improve the scenic beauty of the Falls, but permit a larger diversion of water for power purposes, was authorized in a convention signed at Ottawa by William Mackenzie King, Prime Minister of Canada, and William Phillips, the American Minister.

Jan. 3—Congress reassembled after the holidays.

—At Washington, the Pan American Conference on Arbitration and Conciliation brought to a successful conclusion its efforts to obtain a peaceful settlement of the Bolivian-Paraguayan dispute and at the same time agreed on two multilateral treaties to prevent future outbreaks of hostilities in the Western Hemisphere. These treaties were signed on Jan. 5. They exclude Tacna-Arica and Honduras—Guatemala boundary disputes.

A protocol of conciliation of the controversy between Paraguay and Bolivia was signed by representatives of the two countries.

—The German Minister of the Interior ordered ended by arbitration the strike of 50,000 men at shipyards, which began 3 months ago.

—The Rockefeller Foundation and the Laura Spelman Rockefeller Memorial were consolidated into a new philanthropic corporation, to be known as the Rockefeller Foundation, with total net assets of $264,602,447.

—The French steamer Malakoff sank in gale off the west coast; 38 lost.

—At London, the wedding of the Hon. Mrs. Clive Lawrence and Lord Hailsham (Douglas M. Hogg), Lord Chancellor of England, took place in the Chapel of Henry VII in Westminster Abbey.

INFLUENZA GERMS STOLEN.

Jan. 4—A thief took glass tubes containing 100,000,000 influenza germs from a doctor's auto at London.

—At Columbia, S. C., George Palmer and John Brown, negroes, were executed in the electric chair at the State prison for the murder of Charlie Loy, a Chinese laundryman.

—Dr. Karl Unger, president of the German Anthroposophist Society, which has 10,000 members, was assassinated at Nuremberg when he entered the Luitpold Hall to deliver a lecture.

Jan. 5—Army Lieuts. D. C. Johnson and H. J. Osterman died in plane crash near Heathsville, Va. An air mail (Boston-N. Y.) pilot was killed in plane fall near Stafford Springs, Conn.

Jan. 6—Following formation of a non-partisan cabinet headed by Gen. Peter Zivkovitch, King Alexander, at Belgrade, suspended the Jugo-Slav Constitution and dissolved the Chamber of Deputies; on Jan. 24 he disbanded the Radical, Democrat and other political parties.

Jan. 7—President Coolidge entertained his old friend, James Lucey, the philosopher cobbler of Northampton, Mass., and Mr. Lucey's son at luncheon at the White House. The invitation was extended 7 years ago.

ENDURANCE FLIGHT RECORD.

—At Los Angeles the Army endurance flight plane, the Question Mark, landed at 2.07.01 p.m., after a record-breaking flight of 150 hours 40 minutes and 15 seconds. The ship flew continuously for more than six and a quarter days, having taken off here on New Year's morning.

—Sale of the Brooklyn Daily Eagle to Frank E. Gannett was announced.

—Jersey City, Mayor Frank Hague's arrest by the New Jersey Legislature more than a month ago on a charge of contempt, resulting from his refusal to testify before the Case legislative investigating committee, was declared illegal and void in a decision by Vice Chancellor John J. Fallon.

—At Lansing, Mich., the habitual criminal section of the State criminal code was upheld by the State Supreme Court when it affirmed the conviction of Fred Palm, a Lansing bootlegger The code makes a life sentence mandatory upon conviction of four felonies.

Jan 8—By a vote of 247 to 78 the House sustained the right of James M. Beck to a seat as Representative from the First Dist. of Penn. Beck, former Solic. Gen. of the U. S., was elected to the House in 1926 from the old Vare District in Phila. The fight on his right to the seat began Dec. 5, 1927.

—John R. Voorhis, 99, Grand Sachem of the Tammany Soc. laid the cornerstone of the new Tammany Hall, 17th St. and 4th Ave. (at Union Sq. E.) N. Y. City.

GEN. BOOTH DEPOSED.

—The first High Council meeting in the history of the Salvation Army began, at Sunbury, England, on Jan. 9. Gen. Bramwell Booth, from his sick room there, appointed a commission to take over his duties temporarily. He was formally asked on Jan. 11 to resign, but he demurred, and on Jan. 17 the High Council, 55 to 8, declared him unfit for office. A court, at London, on Jan. 30, reinstated him, because he had been deposed without a hearing.

Jan. 9—Documents purporting to show that Senators Borah and Norris had received $100,000 each from the Soviet Ambassador in Paris were simultaneously revealed and denounced as false in the Senate by a committee report. The report, which was unanimous, was made by Senator Reed of Pennsylvania as chairman of the special committee which last year investigated documents showing alleged payments of $1,215,000 by Mexico to Senators Borah, Norris, La Follette and Heflin. The charges were declared absolutely false, and the documents utter forgeries, just as the committee had held last year that the so-called Mexican documents were forgeries.

—At York, Pa., John H. Blymyer, York "powwow doctor," was convicted of first degree murder of Nelson H. Rehmeyer, recluse farmer and alleged sorcerer, and the penalty was fixed by the jury at life imprisonment. John Curry, 14, got a life sentence.

—After ten years of control the La Follette wing of the Republican Party was routed from leadership in the Wisconsin Legislature.

—Postmaster General H. S. New flew from Miami to Havana and back at the opening of the U. S.-Cuba air mail. The Miami-Porto Rico air mail line also began.

Jan. 10—Influenza and grip, which have overswept the United States have reached England, Scotland, and Germany.

—Julio Mella, Cuban communist student agitator, was assassinated at Mexico City.

—Dr. A. C. Millspaugh resigned as Financial Adviser and General Receiver for Haiti because of clashes with American officials over their alleged extravagance.

Jan. 11—Lieut. H. R. Angell and 7 army companions were killed when the airplane C-2 nose-dived at Royalton, Pa., on its way back to Washington, D.C.

—Dr. Ransom H. Sartwell, Supt. of the State Hospital for Mental Diseases, was shot in the back and killed through a window of his cottage at Howard, R. I.

—Testimony that the National Electric Light Assoc. had contributed $80,000 between 1924 and 1928 to the Gen. Fed. of Women's Clubs, and that it also had paid $600 each for twenty-four magazine articles, was presented to the Federal Trade Commission.

—Yang Yu-ting, for many years Chang Tso-lin's chief of staff and, next to the dictator, the most powerful man in Manchuria, has been arrested at Mukden by order of Chang Hsueh-liang and summarily executed.

—Mrs. George Herman Ruth, estranged wife of "Babe" Ruth, America's baseball idol, was burned to death when fire swept the home of Dr. Edward H. Kinder, a dentist at Watertown, Mass. She bequeathed $5 to Ruth and left $50,000 to her adopted child, Dorothy, 9. The Ruths had no children of their own.

Jan. 12—President-elect Hoover, at Washington, was the principal speaker in a radio broadcast back and forth across the continent celebrating the official opening of the Great Northern Railway's eight-mile tunnel in the Cascade Mountains, east of Seattle, Wash. While the President-elect was speaking a fast passenger train ran through the new bore, the longest railway tunnel in the Western world.

—By Premier Mussolini's order, the police raided the Rome Bourse and arrested speculators who were "bears" on Italian national bonds.

—At Fort Worth, Tex., fire believed to have been of incendiary origin destroyed the First Baptist Church, of which the Rev. Dr. J. Frank Norris, Fundamentalist leader and reform crusader, is pastor.

Jan. 13—There are now 2,000,000 unemployed in Germany, of whom 1,702,000 are supported regularly by the Government.

—Gen. Jacob A. Slaschoff, a leader of the Russian White Army in 1919 has been assassinated at Moscow.

—Helen Hasken, 18, died at the Girl's Welfare Home, Albuquerque, N. Mex., from an alleged overdose of "twilight sleep" drug in punishment for having escaped from the institution.

Jan. 14—A "bankruptcy ring" at N. Y. City is under inquiry, owing to one of the receivers having fled after stealing funds. On Jan. 17 the Federal judges at N. Y. announced that a trust company hereafter will act as receiver in all bankruptcy cases.

AFGHANISTAN'S KING QUITS.

—King Amanullah of Afghanistan has abdicated in favor of his brother, Sirdar Inayatullah, and has fled from Kabul by airplane and joined Queen Soraiya at Kandahar. The brother, Inayatullah, quit the throne on Jan. 17, and was succeeded by the rebel leader, Bacha Sakao, who was proclaimed Habibullah Khan. He was once a water-boy.

—The U. S. Supreme Court ruled that Chicago must proceed as expeditiously as possible to dispose of its sewage in such manner as to require the diversion of no water from Lake Michigan for purely sanitation purposes. It will be within the power and discretion of Congress, however, to increase the volume of diversion eventually to the present amount, or more, to aid navigation in the projected lakes to the gulf waterway.

—A 2,000-ton, 45-ft. wave boarded the 56,600-ton steamer Majestic, at sea, bound for N. Y., killed a member of the crew, stove in a forward hatch, and flooded one of the holds, smashing and wrecking everything in its way.

—An earthquake in Suiyuan Province, north of Pekin, China, killed several hundred.

SENATE RATIFIES PEACE PACT.

Jan. 15—The Kellogg-Briand multi-lateral treaty renouncing war as a national policy was ratified by the U. S. Senate, 85 to 1. Senator Blaine of Wisconsin, a progressive Republican, cast the sole vote against approval.

—Morgan F. Larson, Rep., of Perth Amboy, was inaugurated as Governor of New Jersey.

Jan. 16—Edgar D. Maple, vice-president of the People's Natl. Bank, Sullivan, Ind., was shot to death at the bank; $4,000 was missing from the vault.

Jan. 17—Earthquakes destroyed the city of Cumana, Venezuela, killing 25. It was previously leveled by shocks in 1530, 1766, 1797, and 1853.

—W. G. Gribbel, 48, manufacturer, shot and killed Police Inspector J. W. Blackburn who had been called to the Gribbel home at Chestnut Hill, Philadelphia to take him to a sanitarium.

Jan. 18—Lieutenant Commissioner William Haines, vice-president of the Salvation Army High Council, collapsed and died at Sunbury-on-Thames following receipt of the news that the Court of Chancery in London had restrained the council from further action in choosing a new General.

—At Paris, Gen. Alexander Pavlovitch Koutiapoff was confirmed in the leadership of the military organization founded by the Grand Duke Nicholas, who died last week at Antibes, by a meeting of leaders of the Russian anti-Soviet movement.

—At Barbentane, in France, 500 Roman Catholic parishioners, led by the Mayor and Municipal Council, forced the doors of the church and carried inside the body of Ayme Ligrans, who died without the last rites because he remained a supporter of the condemned Action Francaise; 8 days later Archbishop Riviere closed the edifice and suspended services.

Jan. 19—At Lawrenceville, N. J., Dana Dawes adopted son of Vice-President Charles G. Dawes,

was among fifty students at Lawrenceville School who were forced to flee for their lives when fire destroyed Rufus Dawes House, a dormitory given to the school in 1920 by the Vice-President as a memorial to his deceased son.

—The Fifth U. S. Marines (700) left Tientsin, China, for home.

Jan. 20—50 were killed and 100 wounded in election riots in the Mexican State of Hidalgo.

Jan. 21—Police Commissioner Whalen put in effect in the theatre district, N. Y. City, his keep-going, no-parking, no-turn auto plan combined with "staggered" theatre hours.

—President-elect Hoover, wife and party, left Washington for a vacation in Florida. They reached Miami on Jan. 22. He caught his first sail fish, 45 lbs., on Jan. 31, on the edge of the gulf stream. They left Florida on Feb. 18 for Washington.

—Ex-Gov. Smith of N. Y. stopped off at Savannah, Ga., on his way to Florida. He got to Miami on Jan. 27, and on Jan. 29 called on Mr. Hoover and wished him luck in the White House. From Florida the Smiths went to Havana. They returned to N. Y. City on Mch. 6.

OKLAHOMA GOVERNOR IMPEACHED.

—The Oklahoma Senate suspended from office Governor Henry S. Johnston, after it had received five articles of impeachment voted by the House of Representatives. On Mch. 20 the Governor by a vote of 35 to 9 was adjudged by the Senate to be incompetent and was removed from office, and was succeeded by Lieut.-Gov. W. J. Holloway.

—Near Basra, Iraq., Arabian tribesmen swooped down on two automobiles by which a party of Americans, including Charles R. Crane, former United States Minister to China, was traveling to Koweit, and shot dead one of its members, the Rev Henry A. Bilkerd, a missionary of the Reformed Church in America. The Iraq Cabinet resigned.

—Paul Jaworski, bandit, who said he had killed 7 in holdups, was executed at the prison, Bellefonte, Pa.

—Fire destroyed 400 houses at Tatavia, a north suburb of Constantinople.

Jan. 22—Because the average jury will not convict, the U. S. Govt. has announced at N. Y. City that it has dropped 30 conspiracy charges against booze-selling night clubs.

—The "Blue" defense, and the "Black" or enemy fleets of the U. S. Navy began a war game in the Panama Canal Zone, which ended on Jan. 27. It showed, it was announced, need for more light cruisers.

—Dr. Nicholas Murray Butler, president of Columbia University, announced that Columbia had leased its so-called "Upper Estate," occupying practically all of the three blocks from 48th to 51st Sts., between Fifth and Sixth Aves., to John D. Rockefeller, Jr. for a monumental group of new buildings of which the proposed new Metropolitan Opera House is expected to be the nucleus.

FLORIDA'S CREW RESCUED.

—The Amer. tanker Dannedarke, 32 aboard, and the Italian freighter Florida, 32 aboard, called for help 700-800 miles east of the Virginia Capes. Those on the Florida were rescued by the steamer America, under Capt. Geo. Fried, who reached New York City with them on Jan. 26; the official welcome and parade was on Jan. 28.

—Near Bellevue, O., 19 were killed in collision in snowstorm of a Lake Shore electric express car and a bus on a double grade crossing. All except two of the dead and injured were passengers on the bus.

Jan. 23—$50 a year to provide delicacies for the prisoners in the death-house at Sing Sing prison is bequeathed by the late Sophie Lyons Burke, "underworld queen" of N. Y. and Chicago.

—At Camden, N. J., the Salt Lake City was launched, the first U. S. cruiser built under the terms of the 1922 Limitation of Armament Conference Pact.

—Mistaking a circle of white-clad Hindu soldiers for a target, a British India Royal bombing plane on the Afghan frontier killed 11, also 16 horses.

Jan. 24—John D. Rockefeller, Jr., wife and son were dined at Cairo, Egypt, by Prince Mohammed Ali.

—Three youths, ranging in ages from 19 to 22 years, all members of the "pants gang," died in the electric chair in Sing Sing for the murder of Patrolman William E. Kelly, who surprised them at a drug store hold-up on Nostrand Avenue, Brooklyn, on Jan. 31, 1928. They were Isadore Helfant, Harry Dreitzer and Israel Fischer.

Jan. 25—Oscar W. Underwood, 66, lawyer, died at his estate, Woodlawn, Va., near Washington. Born in Kentucky, he represented Alabama in the U. S. House, 1894-1915, and in the U. S. Senate, 1916-1928.

—At Moscow a pact was signed between Germany and Soviet Russia; the two States pledge themselves to submit all disputes between them to a joint commission.

Jan. 26—14 were killed in a coal mine explosion at Kingstown, W. Va.

—The Chicago Auditorium, which opened on Dec. 10, 1889 with Gounod's Romeo and Juliet, closed with the same opera.

—The U. S. and Hungary signed at Washington a treaty of arbitration and conciliation.

—W. K. Hale was convicted at Pawhuska, Okla., of murdering Henry Roan, a wealthy Osage Indian, and was sentenced to life imprisonment.

HEAVY SNOW FALLS IN EUROPE.

—All Central and Eastern European countries are enveloped in snow averaging three feet deep. No such fall in more than thirty years. From all parts of the Balkans and Central European States come reports of damage and big financial losses to municipalities.

—The "Maharanee of Indore," formerly Miss Nancy Ann Miller of Seattle, Wash., who was married last year to the former Maharajah Tukoji Rao, after being converted to the Hindu religion, gave birth to a daughter at Saint Germain, near Paris.

Jan. 27—William Hohenzollern, ex-Emperor of Germany, celebrated in regal splendor, with full court costumes, his 70th birthday, at his castle at Doorn, in Holland. He wore a Field Marshal's uniform. The ex-Crown Prince and other former royalties were present.

—Yeshiva (Jewish) College was formally opened, at N. Y. City.

—A treaty between the U. S. and Japan to aid in the prevention of smuggling alcoholic beverages into the United States was ratified by the Senate, which also ratified a treaty between the U. S. and Czechoslovakia for a reciprocal relations regarding naturalization of their nationals. A pact for a convention between the U. S. and Panama for amicable adjustment of claims by citizens of each country against the other also was ratified.

—In a snowstorm at Mostar, capital of Herzegovina, lightning struck the tower of the mosque, wrecking the edifice.

—At Boulder, Col., J. E. Kirkbride, former Deputy District Attorney, killed his sick wife and himself in a "mercy murder"; bequeathed hatred to his enemies and love to his friends in his will, dated the day before the tragedy.

Jan. 28—Rev. Elmo L. Bateman, ex-pastor of the Hilton Christian Church of Maplewood, N. J., convicted on Jan. 14 on a charge of criminal libel for having circulated a false Knights of Columbus oath, was fined $250 in the Court of Quarter Session in Newark.

—Revolutionary outbreaks in Spain were most severe at the walled city of Real, 100 miles south of Madrid where the Royal Artillery revolted and seized the place. The trouble spread to the Navy, on Jan. 31 shots were fired at the Papal Nuncio, Mgr. Frederico Tedeschini, when he was walking in the grounds of the royal palace.

—Tom ("Pop") Cheek, 103 (born, he said, in Va., July 25, 1825), for 92 years on the turf, as stable boy, jockey, trainer and owner, died in his racing stable at Oriental Park, Havana, after his horse, Basha, had lost a race.

Jan. 29—The German Ambassador, Baron von Prittwitz, and Dr. Nicholas Murray Butler, president of Columbia University, addressed a group of more than 100 guests at the opening of the new Deutsches Haus, West 117th Street, N. Y. City.

EINSTEIN'S NEW THEORY.

Jan. 30—At Berlin, Prof. Albert Einstein's new theory amalgamating the fundamental principles of relativistic mechanics and that of electricity in a single formula, was issued by the Prussian Academy of Sciences, asserting that there is only one substance—the field. Einstein deduces that this single universal law contains electric and gravitational components, all of which it connects with a single formula.

—At Berlin, safeblowers entered the Disconto Gesellschaft, one of the five largest banks in Germany, through a tunnel. Using blow-torches, they opened and robbed safe deposit boxes, taking money, jewels and securities. The loss exceeded $500,000.

Jan. 31—Italy, by royal decree, approved the Kellogg anti-war pact.

—The well-dressed man should have at least twenty suits in his wardrobe, a dozen hats, eight overcoats and twenty-four pairs of shoes, the fashion board of the National Association of Merchant Tailors declared today in a report to its convention, at Philadelphia. A man of social position should have six sack suits a season, two full-dress suits, a

single and a double-breasted Tuxedo suit and evening clothes in tropical weight for Summer wear, according to the report.

FEBRUARY

Feb. 1—Col. Charles A. Lindbergh flew from Mineola, N. Y., to Jacksonville, Fla., refueled, flew to Miami; and, on Feb. 4 (his 27th birthday) he opened the U. S.-Central America air mail service by carrying with 3 companions, a load of mail from Miami to Havana and thence to Belize, British Honduras; on Feb. 5 he flew to Tela, Honduras and Managua, Nicaragua; on Feb. 6 he landed at his journey's end, Colon, Panama.

—Frank M. Ferrari, President of the City Trust Co., died at New York City. Soon thereafter the concern went to smash.

—At Franklin, La., Mrs. Ada Bonner Leboeuf and Dr. Thomas E. Dreher were hanged for the murder of the woman's husband, James Leboeuf, of Morgan City, who was shot to death and then flung into Lake Palourde, July 1, 1927.

Feb. 2—At Geneva, the League of Nations Advisory Commission on Opium, in its report, names great chemical firms which have been frequently caught in the illegal traffic, names League members who have refused to co-operate, and reveals that manufacturers have found a way to evade treaty restrictions by converting narcotics into chemical salts which can easily be changed back to their original form. It declares that there is a movement for establishment of more drug factories in Turkey, Hungary, Persia, Russia and Jugo-Slavia, where narcotics are either beyond international control or opium is easily obtainable.

Feb. 3—A revolt against the dictatorship of Premier Primo de Rivera has broken out in the city of Valencia with resulting bloodshed and the proclamation of martial law. Part of the garrison attempted to liberate former Premier Jose Sanchez Guerra from the military prison. On Feb. 9 political free speech was forbidden.

—There are renewed Moslem uprisings in the Province of Kansu, western China.

ALL EUROPE SNOWBOUND.

Feb. 4—All Europe is storm or snow-bound, with 44 deaths to date, including 26 on a foundered steamer, the Deister, off Portugal. The Kiel Canal is closed by ice. Many ships are aground, all Danish ferry routes subjected to serious delays and train traffic is disordered. Millions of wild fowl have been killed by the cold. A landslide at Alma Aata, in Russian Turkestan, swept eleven to their deaths. Constantinople was buried under the snow deposited by the worst blizzard in 25 years. There were many wrecks in the Black Sea. Arctic weather conditions were reported from Bosnia and Herzegovina with suffering acute In Central Europe and the Balkans wolves maddened by hunger were an additional danger to rural residents and were reported to have invaded towns and villages. The citizens formed vigilance committees to drive off the marauders. Because of drift ice on the Rhine and Waal, most boat bridges had been removed and ferry service was suspended, thus virtually isolating North Holland from the South for all vehicular traffic.

—Several prisoners died in an 8-day hunger strike at Kovno, Lithuania.

—Houdon's life-cast bust of George Washington, which vanished from the N. Y. State Capitol at Albany in the 1911 fire was restored to Gov. F. D. Roosevelt, by Irwin Thomas of the Evening World, who had traced it to a farm near Binghamton, where it had been buried.

COAST TO COAST AIRFLIGHT RECORD.

—Capt. Frank Hawks left Los Angeles in an airplane at 8.37.30 p.m. (E. S. T.) and landed at Roosevelt Field, L. I., on Feb. 5 at 2.59.29 p.m.—2,700 miles, non-stop, in 18 h. 21 min. 59 sec.—the record.

—Production of the new Ford reached the first million when Model A engine No. 1,000,000 came off the assembly line in the Rouge plant of the Ford Motor Company. It required seven years and two months to produce the first million Model T motors, while the first million Model A engines were made since Oct. 20, 1927.

15 CRUISERS AUTHORIZED.

Feb. 5—The U. S. Senate, 68 to 12, passed the bill authorizing 15 new 10,000-ton cruisers and an airplane carrier, all to cost $274,000,000. Effort to carry out the President's wishes by eliminating the provision that the construction of all the cruisers shall be begun within three years at the rate of five cruisers a year were unsuccessful. The bill was passed unanimously by the House on Feb. 7, and was signed by the President on Feb. 13.

—At Annapolis the Maryland House of Delegates killed the prohibition enforcement bill.

—At Bombay, India, 5 Pathans were slain by a mob of Hindu mill hands, who suspected them of kidnapping children for sacrificial purposes. Casualties totaled 80 by Feb. 7, when troops arrived.

—Eamon de Valera, the Irish Republican leader, was arrested while trying to cross the Ulster border at Goraghwood with the intention of opening a Gaelic bazaar in Belfast; on Feb. 8 he was sentenced to 30 days in jail.

—At Berlin, Baron Ehrentried Gunther von Huenfeld, who with Capt. Hermann Koehl and Major Fitzmaurice flew across the Atlantic from Ireland in the airplane Bremen, April 12-13, 1928, died in a sanitarium. For years he had been suffering from stomach trouble and had undergone several operations.

—Clinton S. Carnes, who rose from ex-convict to a position of prominence as treasurer of the Southern Baptist Home Mission Board and decamped after nine years, leaving a shortage estimated at nearly a million dollars, pleaded guilty to embezzlement, at Atlanta, Ga., and was sentenced to from five to seven years' imprisonment.

—King George of England signed the first state papers since his appointment of the Royal Commission to act for him in his illness, 64 days ago. He was removed by auto ambulance, on Feb. 9, from Buckingham Palace, London, to the mansion of one of his subjects, at Bognor, on the southeast coast of England.

U. S.—CANAL ZONE AIR MAIL.

Feb. 6—The first air mail between the U. S. and the Canal Zone arrived exactly on scheduled time when Col. Charles A. Lindbergh as pilot for the Pan-American Airways, Inc., landed his big Sikorsky amphibian plane at France Field at 4 p.m. almost to the second. On a flight made from Miami, Fla., via Havana, with overnight stops at Belize, British Honduras, and Managua, Nicaragua, and intermediate stops at Tela and Tegucigalpa, Honduras, and Punta Arenas, Costa Rica, and David, Panama, he covered an estimated total distance of more than 2,000 miles.

—At Berlin, the Reichstag, 287 to 127, ratified the Kellogg Paris) Peace Pact.

Feb. 7—At Riverside, Calif., a jury found Gordon Stewart Northcott guilty of killing Nelson Winslow, Lewis Winslow, and another lad, a Mexican, in 1928, at his chicken ranch at Wineville.

—Members of the New York Stock Exchange, by a vote of almost 6 to 1, approved increasing the membership from 1,100 to 1,375 by the creation of 275 seats.

—Mexico exiled 174 men and women, convicts, to its penal colony, to the Three Marias Islands off the State of Nayarit.

—The Massachusetts State Senate, 26 to 6, passed a resolution asking Congress to repeal the 18th (Prohibition) Amendment.

Feb. 8—At N. Y. City, John Beiznik, 23, an honor graduate of one of the high schools, whose career as a burglar and robber had averaged less than $25 a week, was sentenced to 15 to 30 years in state prison.

—The executive committee of the U. S. Lawn Tennis Assoc., meeting at Boston, reinstated as an amateur William T. ("Big Bill") Tilden, who was suspended on Aug. 24, 1928 because of his newspaper articles on the title play at Wimbledon, England.

—At Los Angeles, Dist. Atty. Asa Keyes was convicted of taking bribes in the trial of the Julian Petroleum Corp. promoters. He was sentenced to 1 to 14 years in prison.

—Edwin Denby, ex-Secretary of the Navy, died at Detroit. He resigned during the oil scandals. His estate was about $35,000.

ASSASSIN TORAL EXECUTED.

Feb. 9—An army firing squad at Mexico City executed Jose de Leon Toral, cartoonist, who, on July 17, 1928, assassinated Gen. Alvaro Obregon, president-elect. The Supreme Court, on Feb. 6, had refused a new trial.

—The N. Y. Stock and Curb Exchanges did not open in order to give brokerage houses, etc., a chance to catch up with bookkeeping.

—At Moscow, Soviet Russia signed with four neighboring countries a protocol making immediately effective among them the terms of the Kellogg pact for renunciation of war. Maxim Litvinoff, Assistant Commissar of Foreign Affairs, signed for Russia; Minister Pater, for Poland; Minister Osolsk, for Latvia; Minister Selpama, for Estonia; and Roumania Minister to Poland Devilla signed for his country.

Feb. 10—The train on which the Mexican president, Emilio Portes Gil, was a passenger, was dynamited at 7 a.m., between the stations of Comonfort and

Rinconcillo in the State of Guanajuato. A bomb which had been placed on the track at the entrance to a bridge exploded, killing the fireman.

LINDBERGH-MORROW ENGAGEMENT ANNOUNCED.

—Col. C. A. Lindbergh left Panama with air mail on his return flight to the U. S., via the same route, reaching Havana on Feb. 12 and Miami, Fla., on Feb. 13. As he landed in Cuba, his engagement was announced to Miss Anne Spencer Morrow, daughter of D. W. Morrow, U. S. Ambassador to Mexico. The mail arrived at N. Y. City by 2 planes, early on Feb. 15. The Colonel got there, by easy stages from Florida, on Feb. 17. He was forced down on the beach, in fog, near Cape Hatteras.

—At Palermo, Italy, Prince Christopher of Greece, husband of the late Mrs. William B. Leeds, and Princess Francoise were united in matrimony by the Podesta in the Orleans Palace, where the Duke of Orleans, predecessor of the bride's father, as claimant of the French crown, died in 1926.

VATICAN-ITALIAN TREATY SIGNED.

Feb. 11—The Papal State, extinct since 1870, was recreated under the name of the State of the Vatican City. This was done under the terms of three documents signed at Rome, in the Hall of the Popes, in the Lateran Palace, by Premier Mussolini for the Kingdom of Italy and by the Papal Secretary of State, Cardinal Gasparri, acting for Pius XI. The gold pen was supplied by the Pope.

These three documents comprised a treaty mutually recognizing the Holy See and the Kingdom of Italy as separate and independent sovereignties, a concordat regulatirg the future activities of the Roman Catholic Church in Italy, and a financial convention granting to the papacy an indemnity of $87,500,000 for the losses entailed through the events of 1870. (See elsewhere in the Almanac for details.)

—Ten days after the death of F. M. Ferrari, President of the City Trust Co., the five business places of that company, at N. Y. City, were closed by the State Department of Banking.

—President-elect Hoover and family, Henry Ford, and Harvey S. Firestone helped Thomas A. Edison celebrate his 82nd birthday, at Fort Myers, Fla. Edison announced that he had found a rubber weed that could grow in 7 months and could be mowed like wheat, and that Ford would try out the weeds on his 22,000-acre plantation in Georgia.

Ford announced he would endow with $5,000,000 the Edison Institute of Technology and the Museum of American Industries, at Dearborn, Mich.

—The Experts Committee on War Reparations opened at Paris, with Owen D. Young as Chairman and J. P. Morgan as another American member.

—The new treaty between the United States and the Nationalist Government of China, recognizing the right of that government to complete control of its customs tariffs, was ratified by the Senate.

Feb. 12—Lily Langtry, 77, famous English beauty and actress, wife of Sir Hugo Gerald de Bathe, died at her winter home at Monte Carlo, on the Mediterranean. She was the daughter of Rev. W. C. Le Breton, was born on the Isle of Jersey, and her maiden name was Emslie Charlotte. Her first husband was Edward Langtry. They were divorced in 1897. She married de Bathe in 1899 when she was 47 and he was 28. She was buried on the Isle of Jersey.

—Fire destroyed the Town Hall at Leyden, Holland, built in 1595, with all its antiquities and archives.

—Leon Trotzky, ex-War Minister of Soviet Russia, expelled from the USSR, arrived at Constantinople and he and his family were quartered at the suburb of Pera.

Feb. 13—The Austrian Parliament was suspended for two weeks by Chancellor Seipel because of the cold weather. Schools are closed throughout Germany and Austria. Hundreds of gypsies in the Balkans have frozen to death.

—The U. S. House Judiciary Committee referred to the Attorney-General the resolution offered by Representative La Guardia accusing Judge Francis A. Winslow of the Southern District of New York of various acts of misconduct in office and seeking an inquiry to determine whether the jurist should be exonerated or impeached. A Federal Grand Jury inquiry was begun at N. Y. City. Judge Winslow resigned and the President accepted the resignation on April 1. Winslow said he had done no wrong but he felt his usefulness had been impaired.

—President Juan Gomez of Venezuela, accompanied by an escort, was riding in his automobile in the environs of Maracay, seventy miles by road from Caracas, the capital of Venezuela. Six men opened fire on the car, but the escort returned the shots and all the conspirators were killed.

—The Salvation Army High Council, at London, again deposed, 52 to 5, Gen. Bramwell Booth as Commander-in-Chief, and elected, 42 to 17, Commissioner Edward J. Higgins as his successor.

—Herbert Hoover was officially declared elected President and Senator Charles Curtis Vice-president at a joint session of the House and Senate held in conformity with the constitutional requirement to count the electoral vote.

SEVEN CHICAGO GANGSTERS MASSACRED.

Feb. 14—At Chicago, posing as policemen, gunmen trapped seven members of the North Side "mob" of George ("Bugs") Moran in a garage on North Clark Street, disarmed them and then shot six of them to death and fatally wounded the seventh with sawed-off shotguns and machine guns fired at a range of two feet.

Feb. 15—Melville E. Stone, 80, counselor of The Associated Press since his retirement as general manager of the organization in 1921 after twenty-eight years as its directing genius, died at his home, N. Y. City.

—President-elect Hoover visited the Florida Everglades. Heading a caravan of automobiles, Mr. Hoover traveled through sections which in the last three years have been practically wrecked by wind and water, with a loss of more than 2,000 lives.

—Explosions on the water front at Buenos Aires, Argentina, consumed 500 English automobiles that had just been imported. Several score American machines also were destroyed, but a big shipment of 900 cars that had just been landed from an American vessel escaped.

—The Interstate Commerce Commission approved the plan submitted by a committee of railway executives under which the Railway Express Agency, which has been incorporated by eighty-six Class I railroads, will on March 1 acquire and operate practically the entire express business of the country.

PRIESTS IN MEXICO TO REGISTER.

Feb. 16—Bishop Miguel M. De La Mora, acting head of the Catholic Church in Mexico, gave permission to the priests of Mexico to register their residences with the Ministry of Governacion. President Gil on Feb. 12 issued an indict calling upon priests to register within fifteen days or be declared rebels.

—Edward Lawrence Doheny, Jr., the oil man's 36-year-old son, who figured in the Teapot Dome investigation of 1924 as the messenger who carried the "little black bag" containing $100,000 to former Secretary Albert B. Fall, was shot to death in a bedroom in his Beverly Hills, Calif., mansion by his secretary and companion, Theodore Hugh Plunkett, 34. The latter then killed himself by firing a bullet through his brain.

Feb. 17—The weather smiled unexpectedly on the opening of the Port Newark Airport as New York's air mail terminal, replacing Hadley Field, at New Brunswick, N. J.

Feb. 18—Herbert Hoover returned to Washington from Florida, and Sec. of State Kellogg, in an identic note delivered to diplomatic representatives of all governments which have signed the World Court protocol, invited their governments to conduct an informal exchange of views among themselves with a view to admitting the United States into membership and participation in the court.

—Fifty persons were injured, six seriously, and 1,200 affected by smoke and fumes, when the third car of a seven-car Hudson Tube train, bound for Hoboken from N. Y., caught fire about 1,000 feet west of the Christopher Street station, at a point under Morton and West Streets.

Feb. 19—At London, cries of "pronounce it" in the House of Commons greeted the attempts of Sir Robert Thomas, Liberal member for Anglesea, to obtain for the village of Llanfairpwllgyngwyllgogerychwyrndrobwillllandysiliogogoch the services of a Welsh-speaking postmaster.

Feb. 20—Foreign Secretary Sir Austen Chamberlain informed the House of Commons that American proposals for naval limitation put forward in Secretary of State Kellogg's note to Great Britain, Sept. 28, are "inacceptable."

—Spain carried out dissolution of its artillery corps, apparently without disorder except at Segovia where cadets made a demonstration. Troops throughout the kingdom were confined to their barracks in order that there might be no interference when officers of other branches relieved those of the artillery, of their commands.

—At Northampton, Mass., 4 army trucks arrived with goods shipped from Washington by President Coolidge.

Feb. 21—Six months to 3 years in prison was the sentence passed on Mrs. Dorothy Leonard, who stabbed and fatally wounded her husband, Patrolman Michael Leonard, in their home, Flushing, N. Y., on Sept. 15, 1928.

—Col. C. A. Lindbergh has been appointed technical adviser to the aeronautics branch of the U. S. Dept. of Commerce, at $25 a day when on duty.

Feb. 22—President Coolidge in his last public address as Chief Executive presented George Washington as the best business man of his day, pointed out the necessity and dangers of educational specialization, said the United States is at peace with the world, and urged continued national "detachment" as necessary to world peace. He delivered his address at the commencement exercises at George Washington University. He said it was Jefferson and not Washington who spoke of "entangling alliances."

VARE DENIED SENATE SEAT.

—The committee which investigated the Pennsylvania and Illinois election scandals of 1926, recommends that the seat in the Senate which Mr. Vare has been waiting to occupy since the present Congress convened in December, 1927, be denied him.

—The Irish Free State Parliament approved the Kellogg Pact, 83 to 50; it was approved, at Ottawa, by the Canadian House of Commons, the Senate having already approved.

—The Mexican Government has promised to capture the bandits who seized for ransom and then killed J. M. Underwood and C. C. Aiesthorpe, American employes of the Guanajuato Reduction and Mines Co. Their bodies are in the American hospital at Guanajuato; 10 bandits were caught and killed on Feb. 28.

Feb. 23—The Prince of Wales sold at auction at London, his 12 hunting horses for $20,980.

—George Haldeman flew from Windsor, Ont., near Detroit, to Havana, Cuba, 1,404 miles, in 12 hours, 56 minutes, non-stop.

—A military coup in China by Li Tsung-yen, leader of the Kwangsi faction, has overturned the government of Hunan Province and a new government, named from Hankow, has been instituted without consulting Nanking. In Shantung the fighting is already known to have accounted for 700 dead and 2,000 wounded and the sound of guns has been audible at Chefoo for forty-eight hours.

—At Manila, a vast crowd bade good-by to Gov. Gen. Henry L. Stimson when he left for Washington to take a place in the Hoover Cabinet. He left his pet parrot, "The Old Soak," behind, but it followed him, in a cage, to Washington, in June.

—At Washington, reversing its action of yesterday, the Senate voted 48 to 32 against an amendment to the naval appropriation bill withholding funds necessary to maintain marines in Nicaragua, and a few minutes later passed the bill without a roll-call.

JOAN OF ARC CELEBRATION.

—In France, all the bells of the Department of the Meuse, those bells in whose chimes she heard the voices of the saints, rang out at 4 p.m. to celebrate that day and minute, five centuries ago, when Joan of Arc rode out from Vaucouleurs for Chinon to begin the great adventure which crowned King Charles at Rheims, liberated France, and ended for her on the burning faggots in the market place of Rouen.

—Near Cranford, N. J., there was found the blazing body of a woman who had been shot to death and tossed to a roadside snowbank, where the slayer had ignited the gasoline-soaked clothing of his victim. The body was identified on April 11 as that of Mrs. Mildred Mowry of Greenville, Pa., widow of a steel worker, a trained nurse. On April 11 the police arrested at his home at Elizabeth, Henry Colin Campbell (real name Close), 55, civil engineer and ad writer, who said he married the woman on Aug. 23, 1928, at Elkton, Md., under the name of Dr. Richard M. Campbell, though he had a wife and 3 children. He killed her, he said, to get rid of her. He was put on trial at Elizabeth on June 10 convicted, and sentenced to death.

—Marshall McCormack, deposed Mayor of Herrin, Ill., convicted of conspiracy to violate the national prohibition act, was sentenced to two years in Leavenworth Federal Prison and a fine of $3,000.

Feb. 24—Col. C. A. Lindbergh, alone in a 4-passenger car, flew from Eagle Pass, Tex. to Mexico City, and motored to Cuernavaca, 50 miles, to visit his fiancee, Miss Anne Spencer Morrow, daughter of the American Ambassador, Dwight W. Morrow.

—Five British airplanes carried the staffs of the Italian and French and English legations from Kabul, Afghanistan, to Peshawur, India.

Feb. 25—Tornadoes killed 17 at Duncan, Miss., and 11 more in Tex. and Ark.

—Jack Dempsey, boxer, reported that an intruder, intent on kidnapping, shot at him in the home of Harry Mohr, Miami Beach, Fla.

—Women friends of the wife of President Coolidge called at the White House and gave her a diamond brooch and chain.

—The South African Parliament refused to give the voting privilege to negroes.

—The Spanish dictator, Primo de Rivera, summarily removed Jose Cruz Conde as Governor of Seville.

—The Rev. Newell Dwight Hillis, 70, pastor emeritus of Plymouth Congregational Church, Brooklyn—Beecher's old church—died from paralysis at his home, Bronxville.

—At Los Angeles, Martin Aguirre, 71, last of the old-time sheriffs of California, who generally used a bowie knife instead of a revolver to maintain order, died in his sleep.

Feb. 26—There was no bloodshed at the Chicago aldermanic election. The Thompson "machine" keeps control of the board.

—At N. Y. City, David H. Gladstone, 60, and Merrill E. Gates Jr., 52, attorneys, were sentenced to prison for eighteen months and one year, respectively, for embezzling funds entrusted to them as receivers and trustees in bankruptcy. Each had pleaded guilty.

—A national referendum on the question of modifying the Volstead law was approved by the Wisconsin Legislature.

—Mother Superior Maria Planematch of the Ostrog Convent near Damilograd, Montenegro, was stabbed to death by an unidentified man who escaped. She was a relative of the late King Nicholas.

Feb. 27—At Valbuena Flying Field, Mexico City, the Travel Air monoplane City of Wichita, after carrying Charles A. Lindbergh and his fiancee, Miss Anne Morrow, on a flight, overturned and was wrecked in a cloud of dust as the trans-Atlantic flyer tried to land it. Loss of a wheel in taking off at some place on this journey caused the accident.

—Overriding a special message from Gov. Roosevelt, Dem., the N. Y. Legislature, which is Republican, passed the $249,556,986 Budget bill.

—Nationalist China signed, at Nanking, the Kellogg Pact.

—Orville Wright was presented by Secretary Davis at the War Department with the Distinguished Flying Crosses awarded by Congress to him and posthumously to his brother, Wilbur. Secretary Davis in making the presentation read the citations accompanying the award and Mr. Wright expressed his thanks.

JONES BILL PASSED.

Feb. 28—The U. S. House of Representatives, 283 to 90, passed the Jones bill to punish first offenses against the Prohibition law by a $10,000 fine or five years' imprisonment, or both, in the discretion of the court. The measure was accepted by the House in the form that it was passed by the Senate, Feb. 19, by a vote of 65 to 18, and it was signed by President Coolidge on Mch 2.

—To keep their nerve at normal a day after their crash, Col. Lindbergh and Miss Morrow, in a borrowed plane, made several flights from Mexico City. His right shoulder was in a bandage, so he drove the biplane with his left arm.

—William Walker, England's oldest man, died at Nottingham at 108. On his one hundredth birthday Walker ate five meals and when his health finally failed his only regret was that he could not continue having his daily half pint of beer and his favorite meat, pork, to which he attributed his long life.

—Major Thomas F. Lynch, said to be the oldest civilian employe of the army, left that service after 47 years at a ceremony at Governors Island. For the last 40 years he has been custodian of the Army Building on Whitehall Street, N. Y. City.

MARCH

Mch. 1—The French Chamber of Deputies, 570 to 10, ratified the Kellogg anti-war pact.

OIL TRUCE IN RUSSIA.

—"The most important English and American firms operating in the British oil market—including Sir Henri Deterding's company (the Royal Dutch)—have agreed to the establishment of normal trade relations with the Soviet Oil Corporation," says I. G. Sokolnikoff, director of the Soviet Oil Syndicate, in an interview at Moscow, in Isvestia.

—The railroads of this country, under the name of the Railway Express Agency, Inc., formally took title to the business of the American Railway Express Company, which is now left without a business or executive.

—Henry Hanson, American resident manager of the San Nicholas Mining and Milling Company at

Vocas, Durango, and C. W. Reid, a British subject employe, were captured by Mexican bandits. T. L. Carnahan, American mining engineer, was kidnapped on Mch. 18 at La Noria, in Zocatecas. Two American mining men, J. M. Underwood and C. C. Alesthorpp, were kidnapped and killed, Mch 12.

Mch. 2—At Washington, 11 nations deposited their ratifications of the Kellogg Anti-War Treaty with the State Department, thereby completing the final act in their pledge for the renunciation of war.

—A jury at N. Y. City failed to agree in the suit of Mrs. Harry Hahn against Sir Joseph Duveen, for $500,000, because he said her painting "La Belle Ferronniere," was only a copy of a Leonardo da Vinci in the Louvre Gallery, Paris.

REVOLUTION STARTS IN MEXICO.

Mch. 3—In Mexico a revolutionary movement got under way in the state of Vera Cruz, in the southeast, and in Sonora and the mountain states of Sinaloa, Chihuahua, Laguna, Durango, Coahuila, Jolisco, Michoacan, Colina and Guanajuato. The movement is directed by Gen. J. M. Aguirre, Gen. F. R. Manzo, and Gen. J. G. Escobar. The rebels captured Monterey on Mch 5, and the federals took Orizaba and Esperanza, thereby isolating Vera Cruz. The federals on Mch. 6 retook Monterey, and on Mch. 7 they regained Vera Cruz, but on Mch. 8 they lost Juarez, and also Mazatlan. They recovered Mazatlan the next day.

—At Rome, condemnation of Gen. Umberto Nobile, commander of the Italia expedition to the Arctic last year, but vindication of Commanders Mariano and Zappi, who were with Dr. Finn Malmgren on the trip to find aid for their companions on which the latter died, was pronounced by the committee of inquiry into the Italian polar expedition, which tendered its findings to Premier Mussolini on Mch. 13. Nobile announced his resignation from the Air Service.

—Hundreds arrived at Washington by airplanes to attend the Hoover inaugural. They came, men, women, and children, in big and little planes, from all over the country.

—A jury at Denver found Miss Farice King, a nurse at the General Hospital, guilty of murder in having shot a patient, policeman "Robert Evans," when she recognized him as John C. Bobzine, who had jilted her 6 years before.

HOOVER'S INAUGURATION.

Mch. 4—Herbert C. Hoover of Calif., and Charles Curtis of Kansas were sworn in at the Capitol at Washington as President and Vice-President, succeeding Calvin Coolidge of Mass., and Charles G. Dawes of Ill. It rained on the vast crowd. In his inaugural address, broadcasted over 117 long-wave and three short-wave radio stations, all over the United States and the world, Mr. Hoover urged law enforcement. Thirty airplanes, the dirigible Los Angeles, and 4 blimps wheeled overhead. The Curtis ceremonies were held in the Senate chamber; those for Mr. Hoover on the Capitol's east portico. Ex-President and Mrs. Coolidge went from the Capitol to a train and reached their old home, Northampton, Mass, at 1.10 a.m. on March 5. The Inaugural Parade was a big one; also the Inaugural Ball.

—Explosions in the Bulgarian Army arsenal at Sofia killed 28, mostly women; hurt 30.

—Pres. Coolidge in the forenoon signed the bill extending the life of the Federal Radio Commission on to Jan. 1, 1930.

—Poison liquor has killed 13 at Peoria, Ill.

Mch. 5—The U. S. Senate met in special session. The decision of President Hoover not to send the name of Secretary Mellon to the Senate for confirmation led to the Senate's adoption of a resolution directing the Judiciary Committee to investigate first whether Mellon could legally hold over from the Coolidge Administration, and second, whether he was disqualified from office under a law barring Cabinet officers from being directly or indirectly interested in trade or commerce. While Mellon's name was not presented, nor that of Secretary of Labor Davis, the names of the eight remaining Cabinet members were sent to the Senate, which confirmed them in a thirty-five minute executive session, without opposition. Later, the committee decided Mellon had the legal right to hold over.

—At Tokio, Senji Yamamoto, 40, a leader and deputy who had worked his way through high school at Vancouver, B. C., by doing odd jobs and later became a university professor, was assassinated by a reactionary who objected to the deputy's activities.

—The Court, at Newport, R. I., granted, on the ground of non-support, a divorce to Muriel Vanderbilt Church from Frederick Cameron Church, Jr. They were married there on July 25, 1925. There are no children.

Mch. 6—Thomas Taggart, 72, long the Democratic leader of Indiana, and for a time U. S. Senator, died at his Indianapolis home.

—A landslide in the Valley of St. Vincent, Madeira Island, swept 9 houses into the river and thence to sea, drowning 40.

Mch. 7—An announcement in Mexico that President Hoover had decided to permit the sale of arms to the Mexican Government, if the latter requested it, was received with great rejoicing in the capital.

—Thomas (Fatty) Walsh, body-guard of Arnold Rothstein, slain N. Y. City gambler, was shot to death in an early morning card row in a hotel room at Coral Gables, Fla. Arthur L. Clark of N. Y. City, was wounded during the fracas.

—At N. Y. City, the amended complaint in the suit of the heirs and next of kin of John Nicholas Emerick for two-thirds of the proceeds of the estate of the first John Jacob Astor, estimated at $39,000,000, was dismissed by Federal Judge Thacher. The complaint alleged that Emerick, furrier and merchant, made Astor a one-third partner in his business in 1787 and later made him trustee of his estate for ninety years, when it was to be divided among the descendants of Emerick's brothers, Christopher and Valentine. It was alleged that this was not done and that no accounting ever had been made. Emerick died in 1816 and Astor in 1848.

ROCKEFELLER WON IN STANDARD OIL FIGHT.

—John D. Rockefeller, Jr. and his financial friends (Rockefeller is in Egypt—it was a proxy fight) dominated the annual meeting, at Whiting, Ind., of the Standard Oil Co. of Indiana, and turned out Col. Robert W. Stewart as chairman of the board. 5,510,313 shares were voted for the Rockefeller slate and 2,954,986 shares for the Stewart ticket; 31,337 shareholders voted for Stewart, 15,204 voted against. Only 300 stockholders were present. Stewart's place as director was filled by the election of W. M. Burton, ex-pres. of the concern.

—A verdict of murder in the first degree was returned by a jury in General Sessions, N. Y. City, against Frederick W. Edel, 39, an ex-convict, for the slaying of Mrs. Emeline O. Harrington, an actress, with a hammer in her apartment, West 190th St., Dec. 23, 1927. It was the first case in fifteen months in which a first degree murder verdict had been returned in this county. He was given the death sentence March 14.

—Voting more than 60 per cent of the outstanding stock, or 210,000 shares, a group identified with du Pont interests wrested control of the Childs Co. string of restaurants from William Childs, founder of the firm, at the annual stockholders' meeting, at N. Y. City, and elected a board of nine directors in sympathy with the reforms proposed.

Mch. 8—Arms, 10,000 rifles, surplus U. S. war supplies, 10,000,000 rounds of ammunition, and commercial airplanes (20), were made available by action of the Dept. of State at Washington, for purchase by and shipment to the Mexican Government.

—The Council of the League of Nations, in secret session at Geneva, referred to a committee Elihu Root's proposed revision of the covenant terms under which the U. S. might or could join the World Court. The Root formula was approved on Mch. 18 by the League's committee of jurists.

Mch. 9—Col. C. A. Lindbergh opened the 500-mile air mail line between Mexico City and Brownsville, Tex. With a heavy cargo of mail and 9 passengers, he left the Capitol at 7.56 a.m., stopped at Tampico, and landed at Brownsville at 1.34 p.m. He flew back with 13 passengers, on Mch. 10, in 5 hours, 18 minutes, including a stop at Tampico. Three of the mail sacks were stowed under the wings and were not found until April 9. On Mch. 14 he again flew the mail from Mexico City to Brownsville. Thence he flew to Long Beach, Calif.

—An airplane carrying mail flew over the Andes, from Santiago, Chile, to Buenos Aires, Argentina. It was piloted by Count de la Vault, Pres. Internat'l. Aeronatical Fed.

Mch. 10—The first national quinquennial assembly or first general conference of the General Fascist staff, 5,000 in number, was held at Rome, and presided over by Premier Mussolini. It included the prefects of all the 92 provinces, the Podestas (as Fascism now calls its Mayors) of all the provincial capitals, members of the Fascist Grand Council, 150 Fascist Senators, generals of the army, admirals of the navy, members of the directorate of the Fascist party, editors of all daily and weekly newspapers, all "Deputies designate" in the forthcoming Chamber. To this group of men—women were almost completely absent—the Premier summarized his accomplishments, hailed the Vatican

accord, and assured religious tolerance to non-Catholics.

—The Rev. Joseph A. Riccardi, 34, Roman Catholic priest, was shot to death in the doorway of his church, at Canton, O.

AUTOMOBILE SPEED RECORD.

Mch. 11—At Daytona Beach, Fla., Major H. O. D. Segrave, the English racing driver, established a new world's automobile speed record when he drove his 900-horsepower Golden Arrow car two ways over the beach course at an average speed of 231.36246 miles an hour. His mark excels by 23.81 miles an hour that of 207.55 miles an hour made here on April 22, 1928, by Ray Keech in the 1,500-horsepower triplex built by J. M. White of Philadelphia.

—President Portes Gil's spokesmen expresses pleasure that "Catholic leaders" have not identified themselves with the Mexican revolt. The rebellion has no connection with religion, it is asserted. Washington will never recognize the Mexican insurgents, says Secretary Kellogg. The rebel general, Simon Aguirre, was captured and shot by a firing squad at Santa Lucretia, Vera Cruz.

Mch. 12—At Mexico City, the government announced that it had confiscated property belonging to prominent rebel leaders and would auction it to help defray costs of suppressing the revolution. At Juarez, Chihuahua, Mexico, Gen. Gonzalo Escobar, commander in chief of the rebel forces, in a decree announced that the law affecting religious orders in Mexico, is abolished in territory under revolutionist control.

—President Hoover, at the White House, stated to the newspaper correspondents: "There will be no leases or disposal of government oil lands, no matter what category they may lie in; of government holdings or government control, except those which may be made mandatory by Congress. In other words, there will be complete conservation of government oil in this administration." Orders to this effect were given out to all Land Offices.

—120 died in fire and stampede at movie theatre, in a village in Vladimir Province, Russia.

—The 2nd Ave. trolley line, N. Y. City, ended its receivership, begun in 1908.

BIBLE KILLED SEEKING AUTO RECORD.

Mch. 13—At Daytona Beach, Fla., Lee Bible, automobile mechanic and dirt track racer, rode to death and took another life with his own when J. M. White's 1,500-horsepower Triplex, in which he was attempting to set a new world's automobile speed record, leaped from the course just after finishing the measured mile and plunged into the sand dunes. Charles Traub, a Pathé News photographer, was hit and instantly killed by the car in its plunge from the speedway.

—Anti-Rivera riots and strikes by students at Madrid, Barcelona, and elsewhere in Spain have resulted in 10 deaths. The universities affected were closed by royal decree, Mch. 16 to May 20.

—The services performed by Newton D. Baker as Secretary of War during the World War were recognized by the War Department with the presentation of a Distinguished Service Medal to him by Secretary Good.

—At Columbus, O., Bert B. Buckley, former State Treasurer, was sentenced to two years six months and one day in the Federal penitentiary at Atlanta and fined $1,000 on charges of conspiracy to bribe a Federal officer.

—An accomplice in the theft of $500,000 from the steamer Leviathan last June, Frederic Rybar, was sentenced by a Vienna court to 18 months in prison.

—The Belgian Chamber of Deputies unanimously ratified the Kellogg pact. The Senate had already done so. The two Chambers of the Swedish Riksdag, or national Parliament, have voted unconditional approval of Sweden's adherence to the pact.

Mch. 14—President Hoover issued an executive order that all future decisions of the Commissioner of Internal Revenue dealing with tax refunds in excess of $20,000 shall be open for public inspection.

—Floods in Pea River and White Water Creek isolated and partly submerged the town of Elba, Ala. Food was sent there by airplane. Then the people were rescued. The town of Geneva later was evacuated ahead of the flood. Deaths in the flood area totaled 16.

—At Chicago, Maj. Thornton Anthony Mills, friend of hoboes and storm center of the New England Congregational Church until he was ousted as its pastor, died from poison he swallowed with suicidal intent. He was a son of Benjamin Fay Mills, eminent as an orator and evangelist and an associate of Dwight L. Moody.

—Plantation fires in Cuba, in Camaguey and Oriente provinces have destroyed over 32,000,000 lbs. of sugar cane.

Mch. 15—George W. Olvaney handed to the Executive Committee his resignation as leader of Tammany Hall.

—The Mexican federal army, under ex-pres. Calles, captured the City of Durango, with no casualties.

—At Logan, W. Va., Mrs. Levisa Hatfield, 87, widow of "Devil Anse" Hatfield, who gained renown in the Hatfield-McCoy feud in the eighties, died at her home of pneumonia.

—The first Federal House of Detention was opened at N. Y. City (West and 11th Sts.).

LEGATION WINE SEIZED.

—Arrest in Washington of the American driver of a commercial truck loaded with sixty cases of wines and liquors for the Siamese Legation despite the fact that one of the secretaries of the embassy, armed with full credentials, was a passenger on the vehicle, created a stir in diplomatic row. The contents of the wagon were delivered by the driver. The Treasury Dept. on Mch. 22 issued an order giving complete immunity to wines and liquors imported for diplomatic use, and naming Baltimore as the proper port of entry.

Mch. 16—At N. Y. City, Federal Judge Thomas D. Thatcher, who presided at the investigation of the bankruptcy case in which Stewart Eaton, stepson of Federal Judge Francis A. Winslow, was given an automobile from the assets of the charge of E. Bright Wilson, appointee of the Judge, amended his written opinion as to Eaton. The amendment disbars Eaton from practice in the Federal Court along with Wilson, who is also disbarred.

—12 steel forts, six armored cars, a machine-gun car, eighty guards, twenty mounted policemen, forty foot-policemen, two squads of detectives, eighty bank policemen and a detail of sharp-shooters guarded $2,500,000,000 moved across La Salle St., Chicago, from the Continental Nat'l. Bank & Trust Co., to the Ill. Merchants Trust Co.

Mch. 17—Federal Mexican planes bombed the city of Torreon, killing 2 non-combatants. Fighting began east of that city between Federals under Gen. Ortiz and rebels led by Gen. J. G. Escobar, who evacuated Torreon on Mch. 18, fleeing to the north.

—For the second time in two weeks the Jersey meadows that surround Port Newark Airport added to the roll of air dead, when thirteen flying sightseers were killed and two others seriously injured, one fatally, in the crash of a Colonial Airways Wright-motored Ford about a mile from the flying field. The plane, trying to make a forced landing, crashed into a gondola car loaded with sand. It was flying with a thirty-mile tail wind and struck at 100 miles an hour. The victims were crushed in the cabin. The pilot, Lou Foote, 32, of Newark, and a Brooklyn friend with him in the cockpit, were thrown clear of the wreck.

—At Berlin, negotiations between General Motors Corporation and the Opel works were concluded when an agreement was signed by Alfred P. Sloan and Fritz von Opel, whereby General Motors receives a majority of Opel shares.

—The Flonzaley (string) Quartet ended its 25-yr. career at Town Hall, N. Y. City.

Mch. 18—Prince George, the King's youngest son, has been retired from the navy in order to begin duties at the Foreign Office, it was announced at Buckingham Palace, London.

—Harry Miner's Bowery Theatre, a landmark of "Little Old New York," was destroyed by fire.

Mch. 19—The first conviction in a Federal Court, at N. Y. City, under the Jones amendment to the Volstead Law, was that of Ernest Dougall, an ex-Lieut. in the 69th Reg't., who got 3 months for selling drinks to customers at an "inn" on W. 50th St.

—An estate appraised at $56,914,260, exclusive of real property, was left by Rodman Wanamaker, merchant, of New York and Philadelphia, who died March 9, 1928, according to the inventory filed by the executors today with the Registrar of Wills at Norristown, Pa.

—The N. Y. Court of Appeals, at Albany, ruled that ex-Police Commissioner Richard Enright of N. Y. City is entitled to a yearly pension of $3,750, dating from Jan. 1, 1926.

—A sentence of two and a half to five years in Sing Sing was imposed in General Sessions, N. Y. City, on William H. Pilkington, 29, who while manager of the American branch of Joshua Hoyle & Son, Ltd., English cotton converters, in the last three years stole $129,000 of the firm's funds.

DEATH OF MARSHALL FOCH.

Mch. 20—Sitting in an armchair at a window of his home in the old Quarter St. Germain, Paris, looking out across a peaceful garden at the sun setting

behind Les Invalides, Marshall Ferdinand Foch died at 5.50 p.m.

"Allons y" ("Let's go") were his last words. 1,000,000 marched past the body under the Arch of Triumph and 2 died and 100 were hurt in the heat and crush. The remains were placed in the Cathedral of Notre Dame where, on Mch. 26, the funeral was held and the body was laid in the Invalides, where Napoleon is entombed.

—Arbitration and conciliation treaties with Belgium were signed at Washington.

—A Mexican rebel force began attack on the city of Mazatlan, on the Pacific Coast. Gen. J. M. Aguirre, leader of the rebel forces at Vera Cruz, when it surrendered to the Federals on Mch. 7, was captured at Aguacatillo and was executed Mch. 21, by a firing squad at Almagres. His son is a student at a military school at Chester, Pa. Mexican navy officers at Vera Cruz were arrested on treason charges. The rebels were defeated at Mazatlan, Mch. 25, after a 3-day attack.

—17 were killed, 30 hurt, in a head-on collision of passenger trains of Canadian National Railway, at Drocourt, Ont. A colonist car behind the engine of the west-bound train was crushed.

—Sam Sacco, 36, ex-convict, reformed crook, protege of the Marshall Stillman Movement, was shot to death in revenge by gangmen who smashed into his flat at Ravenswood, N. Y. City. They also killed his wife. Both were in bed.

Mch. 21—The first royal wedding in 340 years united the reigning families of Norway and Sweden. Crown Prince Olaf of Norway took as his bride Princess Martha of Sweden.

—Explosion in the Kinloch coal mine at Parnassus, south-western Pennsylvania, killed 46; 266 escaped by walking 5 miles underground to an old exit.

—At N. Y. City, Blair & Co., Inc., announced consolidation with the Bank of America. This followed the recent union of the Guaranty Trust Co. with the Nat'l. Bank of Commerce, and of the Hanover Nat'l Bank with the Central Union Trust Co.

THE "I'M ALONE" CAPTURE.

Mch. 22—The British auxiliary schooner I'm Alone of Belize, suspected of being a contraband carrier, was sunk off the Louisiana coast by a Coast Guard craft, the Dexter. One member of its crew was drowned. The others, including Capt. J. T. Randall, were carried to New Orleans in irons. The British Gov't. protested. The U. S. Gov't. asserted the order to heave-to was given within 12 miles of the American Gulf coast and the pursuit was continuous 200 miles out into the Gulf. This was O. K. under the Tariff Act of 1922, it is stated officially. The drowned sailor, Leon Maingoy, was a French citizen. The Canadian Gov't, on April 9, entered formal protest with the American State Dept. On April 25, the two governments agreed to arbitrate the case.

—The Jugo Slav Government ordered the Latin alphabet to be used.

—The Parliament of Finland ratified the Kellogg anti-war pact.

Mch. 23—France lost another of her military geniuses by the death of Gen. Maurice Sarrail, whose name stands for his defense of Verdun at the outbreak of the war in 1914. Gen. Sarrail, who had been weakened by months of pleurisy, died at his residence on the Boulevard Pereire, Paris. He was buried in the Invalides, on Mch. 28.

—Tornadoes and floods caused 50 deaths in six States. The greatest loss of life was in Tennessee, where twenty were dead at Harriman, with two bodies recovered; seven at Rockwood, members of a Boy Scout troop, and three at Webster. Four of the deaths were in Kentucky.

—Chi Kunghuan, provincial government councilor in Peking and long a prominent figure in the republican movement in China, was assassinated in front of his home after alighting from a rickshaw.

Mch. 24—Italians turned out to participate in the general election for the first "Corporative Parliament," which will represent each art, craft, trade, profession and pursuit to which the citizens dedicate their activities instead of geographical divisions of the country.

Of the 9,650,570 qualified to vote for the 400 Deputies, 8,506,576 were for the Fascist ticket and 136,198 were against; 999,830 did not vote.

—150,000 celebrated Palm Sunday by visiting the airports around N. Y. City, and thousands took short flights; 300,000 went to the beaches.

ZEPPELIN VISITS EGYPT.

—The dirigible Graf Zeppelin left Friedrichshafen, Germany, for a non-stop flight over the Mediterranean and the Near East. She turned homeward at 8 p.m., on Mch. 26, having reached her goal at forty-seven miles east of Gaza and thirty miles north of El Arisch, near the Egyptian-Palestine border. The Zeppelin passed over Jerusalem, dropping mailbags at Tel-Aviv, and continuing on toward Syria, and the Egyptian boundary. She got back home on Mch. 28, having flown 5,040 miles in 81½ hours.

Mch. 25—The Spanish airplane, Jesus del Gran Poder (Capt.'s Francisco Jiminez and Ignacio Iglesias) left Seville, and flew to Bahia, Brazil, landing there on Mch. 26 at 8.30 a.m.—4,100 miles in 43 hours and 48 minutes. They flew on Mch. 28 to Rio de Janeiro; on April 2 they landed at Montevideo, whence they flew to Buenos Aires; and, on April 12, to Santiago, Chile.

—John L. Campion, 32, and 3 passengers were killed when his airplane, bound from Columbus, O. to N. Y. City, crashed in a fog in mountain treetops near Mt. Gretna, Pa.

—At Ottawa, Ont., lightning struck the buildings of Parliament twice. One bolt hit the huge granite Peace Tower, rocking it perceptibly and putting out of order the tower elevators.

—President Hoover has begun daily medicine-ball exercise in the White House grounds, 7-7.30 a.m., south lawn.

—Another economy step was taken by the President when the seven horses quartered at the White House stables were turned over to the War Dept. to be used at Fort Myer, Va. The black charger presented to President Coolidge at the beginning of his administration and used by him only once, when he was filmed trotting down Potomac Driveway, was sent to Northampton, Mass. It was his personal property. The Presidential yacht Mayflower, abandoned by the President, has been sent to the Philadelphia Navy Yard, where it will be removed from commission.

—Nash Rockwood, for 13 years Saratoga County Judge, was sentenced at N. Y. City to 3 months' imprisonment and $2,500 fine for failure to file income tax returns. He had pleaded guilty on Feb. 27.

KILLING OF MRS. DE KING.

—Prohibition agents shot to death Mrs. Gerald de King in a raid on her home at Aurora, Ill.; they beat de King on the head; the son shot a raider; a jug of wine was captured in the cellar.

—The steamship Cristobal arrived at N. Y. City from the Canal Zone, bringing a party of returning Congressmen, including W. M. Morgan, a "dry" member from Newark, O., who, a customs inspector stated under oath, had said he had in his baggage 2 bottles of whiskey and 2 of champagne, which his wife wanted for her father. Morgan got an order from the Custom House giving his baggage free entry and it was not opened by the inspector. Morgan, in public statements, denied he had or had said he had any liquor in his baggage.

Mch. 26—A brief but violent tumble in stock prices at N. Y. City shook out uncounted thousands of scared "margin" gamblers. Professional traders and big investors rushed in on a recovery wave; 8,246,740 shares were dealt in on the Stock Exchange as against 6,954,000 on Nov. 23, 1928. Banks stiffened the market on Mch. 27 by lending at 15 per cent. Daily interest charges total over $2,280,000. Among those who publicly announced lending to prevent a possible crisis was Charles E. Mitchell, pres. Nat'l City Bank and a director of the Federal Reserve Bank.

—Fire damaged the uncompleted North German Lloyd 46,000-ton liner Europa at Hamburg.

—President Hoover gave notice that the South must purge itself of its dealers in Federal patronage.

—Explosion of 3,000 lbs. of nitroglycerine at the du Pont plant at Gibbstown, N. J., killed 2 employes, hurt scores and smashed windows at Camden and Philadelphia.

—The Prince of Wales attended the funeral of Marshal Foch at Paris, then flew to London by airplane.

Mch. 27—The directors of the American Petroleum Institute met at N. Y. City and agreed to restrict production in 1929 to the 1928 basis. Later, the U. S. Atty. Gen. ruled that such an agreement was illegal.

—Greece and Jugoslavia signed, at Belgrade, a friendship treaty.

—Marshall Chang seized from the Nationalists the City of Chefoo, China.

—The Ecuador Congress, 42 to 8, elected Isidro Ayora as president. He has been Provisional President since the 1925 coup.

—George McManus, who is under indictment for the murder of Arnold Rothstein at a N. Y. City hotel on November 4, 1928, was released in bail of $50,000 in Supreme Court because of the failure of District Attorney Banton to bring him to trial.

NEW YORK LEVIES A GASOLINE TAX.

Mch. 28—The N. Y. Legislature adjourned sine die after laying a 2c.-a-gallon tax on gasoline, raising income tax exemptions and abolishing a direct tax. It began on Jan. 2.

—Col. Henry L. Stimson of New York took the oath of office as Secretary of State.

—Mrs. Laura B. Sutton, divorcee, vanished from her home at Los Angeles. Later, her headless body was found in the river near that city. Still later, the head was found.

Mch. 29—Crowds traveled to Lake Nemi from Rome to view the first of Caligula's famous galley to appear above the surface of the lake. They have been immersed 1,900 years. About two inches of a beam which formed part of the poop of one of the galleys is now visible.

—The body of a girl, found in the Connecticut River at Longmeadow, near Springfield, Mass., was identified, by the teeth, as that of Frances St. John Smith, 18, of N. Y. City, a freshman student at Smith College, Northampton, Mass., who vanished from there on Jan. 13, 1928. Autopsy showed death due to drowning.

—At Chicago, Rev. Charles A. Erkenswick was shot and fatally wounded in the courtyard of his church by the father of two boys who believed the priest responsible for the arrest of the boys on charges of robbing church poor-boxes.

—After a plea by Briand, Foreign Minister, the French Senate ratified the Pact of Paris outlawing war by a unanimous vote. The Chamber had previously approved the treaty with only the Communists and one extremist of the Right dissenting.

—A federal warrant was issued at Chicago charging Congressman M. A. Michaelson of that city with importing, transporting and possessing liquor, alleged to have brought from Cuba to Jacksonville, Fla., through Key West, Jan. 3-6, 1928. The indictment was found in Oct., 1928, but was not made public. The accused surrendered, and was tried and acquitted.

Mch. 30—Mexican rebels under Gen. Escobar fought Federal troops near Escalon, in the State of Chihuahua. The main engagement at Jiminez, in Chihuahua, was begun on April 1. Another rebel force was defeated at La Cruz on the West Coast, on April 1. Rebels on April 2 dropped bombs in Naco, Ariz., wounding an American.

—A plane from Los Angeles, carrying pilot D. R. Everitt, Jr., R. L. Balke, George Nico and T. J. Kelly, dashed, in a fog, against the mountain side of a high pass, and was destroyed with all aboard.

—An armed cutter of the Customs Service stopped and searched, in N. Y. Harbor, a yacht on which were Stuyvesant Fish and his family.

DEATH OF AMBASSADOR HERRICK.

Mch. 31—Myron T. Herrick, 74, former Governor of Ohio, and American Ambassador to France under four presidents, died at Paris of heart failure. He had been in bed two days, but had suffered from fatigue and slight cold for several days before he was willing to "give in to a slight cold," as he put it. The body was buried at Cleveland, O., on April 15, Col. C. A. Lindbergh accompanied the body from N. Y. City.

—The airplane Southern Cross, carrying Capt. Charles Kingsford-Smith and 3 companions, left Australia for England, but was forced down near Port George Mission, where the crew were discovered on April 12. Lieut. Keith Anderson and Robert Hitchcock in their place vanished on a search for the SouthernCross, and were forced down in the Taninie Desert, and perished there. They were found on April 21.

APRIL

April 1—The receiver for the Kansas City Joint Stock Land Bank, announced that a 100 per cent. assessment, aggregating $3,800,000, on the institution's 1,800 stockholders has been levied by the U. S. Farm Loan Board. The assessment was made on the receiver's recommendation. The bank's deficit was $6,498,812.62.

—At Atlanta, Ga., the State permitted George R. Harsh of Milwaukee and Richard G. Gallogly of Atlanta, former Oglethorpe University students, to plead guilty to the murder of two men in attempted hold-ups here last Fall and each was sentenced to imprisonment for life.

—Prussia formally annexed the old principality of Waldeck. This reduces the number of states in the Reich to 17.

April 2—The Mexican army under ex-Pres. Calles fought the rebels at Jiminez under Gen. Escobar. Among those killed in action was former Provisional President Eulalio Gutierrez, who rose in rebellion in his native State of Coahuila simultaneously with the revolt of other insurgent chiefs.

—At Santa Domingo, Dominican Republic, Charles G. Dawes and his group of American experts met the Cabinet of President Horacio Vasquez of the Dominican Republic and started to reorganize the government's finances. They finished on April 23 and left for N. Y. after filing their proposals with the Dominican Gov't.

—Michigan revoked its famous "life-for-a-pint" law when Gov. F. W. Green signed the Watson bill, eliminating 120 "minor" felonies from the list of crimes which draw the life penalty for fourth offenders.

—The Gorgas Laboratory for Tropical Research, at Panama City, was dedicated.

—At Amman, Emir Abdullah formally opened the first Legislative Assembly of the Transjordania Government, the town being decorated with banners, national flags and floral arches in celebration.

April 3—One of the bloodiest battles fought since the Mexican revolution got under way on March 3 took place at La Reforma, 12 miles north of Jimenez, when 5,000 Federal cavalry, led by Gen. Juan A. Almazan in person, overtook 3,500 rebel infantry whose northern retreat was held up there by a burned bridge. 1,000 were killed, 500 wounded, 2,000 captured.

PRECEDENCE FOR MRS. GANN.

—Vice-president Curtis announced that he would decline to accept a ruling made by Frank B. Kellogg just before he retired as Secretary of State that Mrs. Dolly Curtis Gann, the Vice-President's sister and wife of Edward Everett Gann, a Washington lawyer, would be seated after the wives of foreign Ambassadors and Ministers at official dinners and other functions.

—The auxiliary schooner Nomad was rescued by the Coast Guard at the mouth of Delaware Bay. The Captain, John D. Schofield, had fallen overboard. The crew and owner, J. H. Ross, were helpless.

—Mgr. Ignaz Seipel resigned as Chancellor of Austria.

April 4—Police Commissioner Whalen blamed prohibition for the increase in crime in this city, declared there were 32,000 "speakeasies" in New York, warned against the "hostess problem" which is "verging on vice conditions that were wiped out years ago," and scored "sob sister" judges who criticize police strong-arm tactics against criminals, in an address at a Rotary Club luncheon at the Waldorf.

—Twenty persons were killed and more than 100 were injured, many seriously, in a railway accident to the Bucharest-Jassy express near Boboca, Rumania. The cause was the wrong setting of a switch. As the train was rounding a curve on a high embankment it ran off the lines, being entirely derailed.

April 5—Governor Roosevelt signed the bill reducing the N. Y. State income tax by increasing the exemptions for single persons from $1,500 to $2,500 and for heads of families or married persons from $3,500 to $4,000.

—The Chinese National troops recaptured Hankow City.

DEATH TOLL OF PROHIBITION ENFORCEMENT.

—It was disclosed officially that since the Eighteenth Amendment became effective in 1920, 190 persons have been killed in the enforcement of the prohibition laws. Of these, 135 were citizens killed by prohibition agents and 55 were prohibition agents who met death in the line of duty. The figures for the nine years are:
In 1920, agents 6, citizens 5; 1921, agents 8, citizens 14; 1922, agents 12, citizens 13; 1923, agents 4, citizens 17; 1924, agents 2, citizens 22; 1925, agents 5, citizens 20; 1926, agents 6, citizens 17; 1927, agents 5, citizens 16; 1928, agents 7, citizens 10; 1929, agents none, citizens 1.

April 6—President Hoover went fishing, near Madison, Va.

—Mexican rebels attacked Naco, 75 bombs were found strewn along the tracks of the Southern Pacific Ry.

—The French liner Paris, outbound, stuck in the mud off Bay Ridge, Brooklyn, but was pulled off after 26 hours. On April 18, on her return voyage from Havre, the Paris went aground on Eddystone Rock near Plymouth, England. She pulled herself off on flood tide, discharged some of the passengers at Plymouth, then returned to Havre and docked for repairs of holes in her hull.

—Mahasha Rajpal, Hindoo author of the pamphlet "The Merry Prophet," which ridiculed Mahomet, was stabbed to death at Lahore, India.

—10 persons were killed in a fire at the Kirkwood Hotel, Des Moines, Ia.

April 7—A post office employee, seeking promotion,

made a "dud" bomb, and then "discovered" it at N. Y. City.

April 8—The U. S. Supreme Court refused to authorize the Interborough Rapid Transit Co. (N. Y. City) to charge a 7-cent fare. Thereupon the company prepared to seek relief from the state courts.

—The U. S. Shipping Board turned over to the U. S. Lines, a private concern, the steamship Leviathan, at N. Y. City. On her next trip to Europe the boat carried liquor to be sold to passengers on the return (west) trip only.

—Bombs were thrown from the gallery of the Indian Parliament at Delhi, injuring several members.

—The Canario Copper promoters, at N. Y. City, were sentenced to prison—John T. and Herbert C. Locke, 3 yrs. each; and G. F. Shurtleff, 4 yrs.

—The U. S. Supreme Court affirmed the 3-months' jail sentence passed on Harry F. Sinclair, convicted of contempt of the U. S. Senate in refusing to answer questions about Teapot Dome Oil. Sinclair, on April 17, petitioned for a rehearing which, on April 22, was denied.

—At Juarez, Gen. Jose G. Escobar was proclaimed, by the rebels, Provisional President of Mexico.

April 9—The Mexican rebel forces evacuated Chihuahua City.

MRS. GANN WON OUT.

—U. S. Secretary of State Stimson told the diplomatic corps in a letter to Sir Esme Howard, the British Ambassador, that the decision as to how Mrs. Edward Everett Gann, hostess and sister of Vice-President Curtis, or any other American officials and their wives should be received in their embassies rested wholly with the members of the corps. At the same time, in another letter to Vice-President Curtis, Secretary Stimson declared that for the State Department to attempt to settle questions of social precedence in Washington was inconsistent with its important government duties, and that he had issued instructions to the department to give no further advice or suggestions in such matters.

The Diplomatic Corps met and agreed to give Mrs. Gann the rank of a Vice-President's wife, and this she had on April 11 at the dinner given by the Chilean Ambassador, Carlos G. Davilae. After going to the table on the arm of the Chilean Ambassador, Mrs. Gann sat at the right, the place that would ordinarily be accorded the wife of the Vice-President, thereby taking precedence over the wives of all foreign diplomatic representatives present.

April 10—A tornado in Arkansas killed 25 at Swifton, 6 at Lorado, 25 at other places, injured 200, swept several hamlets away and did $1,500,000 damage.

—Ex-President Coolidge has accepted a membership in the board of directors of the N. Y. Life Ins. Co. He will serve on the agency committee. No salary is attached but he will receive $50 in gold for each directors' meeting he attends and $20 in gold at each committee meeting, plus free transportation to and from and 2 days' board.

—Farrell Frazer and 4 others were killed in an airplane crash at Tampico, Mex.

TEXAS GUINAN ACQUITTED.

April 11—At N. Y. City, Texas Guinan, night club hostess, indicted under the Volstead Act with ten men who pleaded guilty and are awaiting sentence, was acquitted by a jury before Federal Judge Thomas. She had been charged with maintaining a nuisance at the Salon Royale. Ten other attaches were fined.

—A jury in the Federal court at Chicago found sixteen members and officials of the Chicago Association of Candy Jobbers guilty of violating the Sherman anti-trust law. Eighteen others were found not guilty.

April 12—Declaring that the Legislature had "deliberately violated the spirit and letter of the Constitution" in its treatment of his Executive budget bill, Governor Roosevelt of N. Y. approved that measure with the exception of certain items which he vetoed in order to get a court ruling on the controversy between him and the Republican fiscal leaders.

—The Indian Legislature, at Delhi, passed a bill providing for the deportation of all non-Indian Communists and for a strict supervision of agitators.

—The Mexican rebel general, F. R. Manzo, with 15 of his staff, crossed into U. S. territory, at Nogales, Ariz., and were interned.

—At Belgrade, Jugoslavia, King Alexander, by royal ecree, retired General P. Pesitch, Chief of the General Staff and the highest military officer of the kingdom, three Army Corps commanders and 33 other officers.

—1,000 Chinese radical agitators are reported to have been executed by machine-gun fire during the past week in a campaign by the Canton authorities to stamp out radicalism here. Accused of instigating Communist agitation, 30 of the Nationalist Sun Yat-sen University were arrested, court-martialed and shot.

April 13—Premier Kasimir Bartel, of Poland, resigned and was succeeded by Maj. Kasimir Switalskizx, Minister of Education.

—A Scots Guardsman vanished from his sentry post outside Buckingham Palace, London. Later he walked to Aberdeen and surrendered. A court martial on June 3 discharged him from the army and sentenced him to 112 days at hard labor.

—At Detroit, A. H. Kreider, president of one of the airplane companies, was instantly killed, Capt. Alan E. T. Bruce, a pilot, was fatally injured, and William C. Naylor, an aviation engineer, was seriously injured in a collision of two airplanes over the Ford Airport. 8,000 persons, who had assembled for an air circus, witnessed the accident.

—The Tennessee House, 41 to 15, defeated a bill which the State Senate had passed and which required public school teachers to read a passage from the scriptures to their pupils every day.

—At Cincinnati, the U. S. Court sent 148 prohibition-law violators, including 3 women, to jail for terms averaging 2 years; 21 were fined $5,000 apiece.

April 14—At Madrid, 70,000 subjects, representing patriotic societies in all parts of the country, registered protest against the strike of the Madrid University students and other recent manifestations of opposition to the government.

April 15—The Seventy-first Congress convened in extraordinary session at the call of President Hoover to attend to farm relief and to take up tariff revision. Col. Nicholas Longworth, Rep. of Cinn., was reelected Speaker of the House.

BRITAIN TAKES TAX OFF TEA.

—The British Gov't announced in the House of Commons, in submitting the Budget, that the import tax on tea, in effect since the reign of Queen Elizabeth, would be abolished on and after April 22. This lowers the cost to consumers 8 cents a pound. Last year's consumption was 10 lbs. per capita.

—A Papal commission for authentic interpretation of the code of canon low, of which Cardinal Gasparri is chairman, has decided that applicants for the annulment of marriage may no longer plead "conditions imposed prior to celebration of the rite."

—The Board of Tax Appeals, at Washington, held that a deficiency assessment of $10,041,932 against the Wanamaker estate, levied as a Federal estate tax, should be eliminated on the ground that, in making a gift of the majority of his holdings to his son, Rodman Wanamaker, in 1920, Mr. Wanamaker had not acted in contemplation of death. The total amount of this gift had been fixed at $41,764,241.04, but later a readjustment was made, fixing the fair market value on Dec. 12, 1922, the date of Mr. Wanamaker's death, at $36,790,376.17.

—The Preparatory Disarmament Commission held its opening meeting at Geneva.

April 16—In his message to Congress, President Hoover's specific recommendations were:

Agricultural relief through a farm board which will assist co-operative associations and will have Government funds to be used for this purpose.

Tariff readjustment to aid such industries as have fallen behind in the race for prosperity, with a possible change of the present system of valuation of imported goods.

Repeal of the national origins provision of the Immigration Law, now set to go into operation July 1.

Emergency legislation for the census of 1930, which will carry action on the law for reapportionment of the House.

—The Senate confirmed the nomination of ex-Vice-President Charles G. Dawes to be Ambassador to Great Britain.

—U. S. Secretary of State Stimson in letter to Matthew Woll, Vice-President Amer. Fed. of Labor, said: "No change is under contemplation in the policy of this government with regard to the recognition of the present regime in Russia.

—President Portes Gil, in a statement addressed to Federal and State officials, labor leaders, educators and others throughout the republic calls on them to aid in an educational drive to create an effective sentiment in Mexico against alcoholic drinks.

—At Washington, without discussion and with one dissenting vote, the congress of the Daughters of the American Revolution sustained the ruling of the national board expelling Mrs. Helen Tufts Baille of Cambridge, Mass., for having criticized publicly the circulation among the Daughters of

so-called blacklists of prominent men and women.
—The Indian States Committee, headed by Sir Harcourt Butler, recommends that no federation be established between the native States and British India without the Prince's consent. The committee adds that any such federation is far in the future and that talk of democratic government by the Indian Legislature is premature.

"BABE" RUTH WEDS.

April 17—George Herman (Babe) Ruth, widower, baseball player, married Mrs. Claire Hodgson, widow, at 5.55 a.m., at the R. C. Church of St. Gregory, W. 90th St., N. Y. City.
—Angelo Paino, Brooklyn sewer contractor, was found guilty of having aided and abetted an attempt to bribe Borough President Harvey of Queens with a $10,000 note by a jury in the Queens County Court. He was sentenced to 4 to 8 yrs. in prison.
—12 were killed, including the engineer, when a fast passenger train from Paris for Cologne hit a freight near Hal, Belgium.
April 18—At Detroit, Mich., the three-story brick house on West Forest Avenue, in which Colonel Charles A. Lindbergh was born, has been bought by the Swedish Engineering Society and will be preserved as a memorial to the aviator.
—At N. Y. City, Helen Morgan, actress and night club entertainer, was acquitted by a jury before Federal Judge Edwin S. Thomas of a charge of maintaining a common nuisance under the national prohibition act at Helen Morgan's Summer Home. Seven employees at the place were fined.
—Masked men smashed the Union headquarters of the textile mill strikers at Gastonia, N. C.
—A Boston jury has again upheld the "obscene book" law, under which many recent novels have been barred, Donald S. Friede, a New York publisher, being found guilty of violating that statute in the sale two years ago of Theodore Dreiser's "An American Tragedy."
At N. Y. City, on April 19, the Court of Special Sessions overruled a magistrate in declaring Miss R. Hall's novel "The Well of Loneliness" not obscene.
April 19—At Philadelphia, David Steinhardt, attorney, of New York, and ousted trustee and receiver in bankruptcy, ended his life in his hotel room a few moments before the arrival of two U. S. Attorneys from N. Y.
—Sudden death at Paris of Lord Revelstoke (John Baring), a director of the Bank of England, halted the German Reparations Conference.
—A gun explosion (155-millimeter) in army target practice at Ft. Kamehameha, Oahu Island, killed 4 enlisted men and blew the arm off another.
—The British General Electric Co., Ltd., announced abandonment of the plan to exclude American stockholders from the new issue of shares.
—At Coronado, Calif., a mid-air collision of planes killed 4 naval fliers—Lieut. W. K. Patterson, Ensigns H. Bassett, Jr., and H. R. Sheehan, and radio operator H. H. Brown.
—The new 30,000-ton steamship Statendam reached N. Y. City on her first trip from Europe.
April 20—Opening Italy's new Parliament, Victor Emmanuel III declared that, inasmuch as successive disarmament conferences have hitherto proved abortive, it is henceforth the duty of the State to "take measures for defense, to render the mother country powerful and therefore respected." Power and respect, the King hastened to add, do not exclude a sincere foreign policy of peace, but rather favor it.
April 21—Daylight saving time began in Great Britain at 2 a. m. It ends on the first Saturday in October.

EXPORT DEBENTURE PLAN KILLED.

—Backed by written opinions by the Secretary of the Treasury, Commerce, and Agriculture, President Hoover has told C. L. McNary, Chairman of the Senate Committee on Agriculture, that the export debenture plan for farm relief is costly, uneconomical, and unworkable. On April 25 the House, 367 to 34, passed the administration's farm relief bill (no debenture), which provides for the creation of a Federal Farm Board of six members with a revolving fund of $500,000,000 for loans to agricultural organizations, for stabilization of corporations to act as farm marketing agencies.
On May 8 the Senate, 47 to 44, refused to strike the debenture clause out of the bill, and, on May 14, passed the measure including the export debenture clause, 53 to 33. The bill then went to conference, the debenture feature was cut out and the amended measure passed the House (no roll call) on June 7.
The Senate, on June 11, rejected, 46 to 43, the conference report which eliminated debentures, and was rebuked by President Hoover in a public statement accusing that body of blocking farm relief. The House, on June 13, rejected again the export debenture clause by 250 to 113. The Senate, on June 14, passed the conference bill without the debenture clause, 73 to 8, and President Hoover signed the measure on June 15.
—An army pursuit collided in mid-air, at San Diego, Calif., with a cabin passenger plane; 6 were killed, including Lieut. Howard Keefer.
—Rome celebrated its 2,682d birthday and the whole of Italy celebrated Labor Day, formerly observed on May 1. The transfer to April 21 was made by Premier Mussolini soon after he took office. The ceremony was marked by the entry into the Fascist militia of almost 100,000 young Avanguardisti, a kind of apprentice Fascist. They ranged in age from 12 to 16 years.
—The 70-ft. statue of Columbus, by Mrs. Gertrude Vanderbilt Whitney, was dedicated, at Palos, Spain.
—In Greece, elections for a reorganized Senate resulted in a victory for Premier Venizelos. Among the 92 elected Senators there were 72 belonging to his party. The election of 20 Royalists, mainly at Athens and Piraeus, indicates progress in the Royalist strength as compared with the last elections for the Chamber, when the Royalist block obtained only 10 per cent of the total votes.

HOOVER ON OBEDIENCE TO LAW.

April 22—With clinched fist, President Hoover told the Associated Press, at N. Y. City, that enforcement of and obedience to the laws is now the dominant national issue and problem. Prohibition, he asserted, is responsible for only 8 per cent of the major crimes. All crime, he said, had increased in the United States, from murder to forgery, to the point where life and property in this country were relatively more unsafe than in any other civilized country in the world. He added:
"A surprising number of our people, otherwise of responsibility in the community, have drifted into the extraordinary notion that laws are made for those who choose to obey them. And in addition, our law-enforcement machinery is suffering from many infirmities arising out of its technicalities, its circumstances, its involved procedures, and too often, I regret, from inefficient and delinquent officials."
—At Geneva, Ambassador Hugh S. Gibson presented before the Preparatory Disarmament Commission an American offer for settlement of naval controversies by applying the idea of "equivalent" tonnage.
—Frank H. Warder resigned and was succeeded by Joseph A. Broderick as N. Y. State Supt. of Banks.
—King George of England issued a message expressing gratitude at his recovery.
—The Mexican states of Chihuahua and Coahuila were restored from rebel to Federal control.
April 23—The Tammany Hall executive committee, consisting of the men and women district leaders, voted (12 1/6 to 10 1/3) to accept John F. Curry as leader of the organization in place of George W. Olvany, resigned. Curry's opponent in the voting was Edward J. Ahearn. Curry is district leader in the 5th A. D.
—The Illinois House, 77 to 65, agreed to submit prohibition enforcement repeal to the public vote.
—By German Govt. decree, the name of Emden has now been made a title of honor that may be added as a suffix to their family name by all living survivors of the German cruiser Emden's officers and crew.
—With a pamphlet on sex which she had originally written eleven years ago for her two sons, then 11 and 14, as the sole evidence presented against her, Mrs. Mary Ware Dennett of Astoria, gray-haired, was convicted in the Federal Court in Brooklyn of sending obscene matter through the mail. She was fined $300.
April 24—Fire destroyed the Public Library at Dunkirk, France, with 90,000 volumes and many manuscripts.
—Shortages in the accounts of the New York County Clerk have been found by Commissioner of Accounts James A. Higgins, who said that clerks in the office had systematically diverted funds through a system of bookkeeping.
—The German dirigible, Graf Zeppelin, cruised over Portugal, Spain, and Morocco. The trip from Friedrichshafen lasted 57 hours and covered 3,400 miles.
—In Denmark, parliamentary elections were won by the Cabontes (Social Democrats) who are for disarmament. A new Cabinet was formed by Theo. Stauning.
—Rev. Walter Covelyou of Petosky, Mich., the Rev. Clement Seybold of Dunkirk, N. Y., and the Rev. Godfrey Holbein of Baltimore, Md., Roman Catholic missionaries from the Passionist Monastery at Union Hill, N. J., were slain by Chinese bandits at Chenki, Hunan Province.

TORNADOES IN THE SOUTH.

April 25—Tornadoes killed 4 at Cochran, Ga., 18 at Metter, Ga.; 34 at Statesboro, Ga.; 2 at Dexter, Ga.; 2 at Rentz, Ga.; and 5 in So. Carolina—property loss, $1,500,000.

—The U. S. war cruiser, Pensacola, 10,000 tons, was launched at the Brooklyn Navy Yard.

—Mrs. Lillian Arkel-Smith who masqueraded for years as a man and married a woman, under false pretences, was sentenced, at London, to 9 months in jail.

April 26—At the Preparatory Disarmament Commission, at Geneva, Hugh S. Gibson, for the U. S., withdrew objection to including trained reserves as army effectives.

—At Sacramento, Cal., Superior Judge Carlos S. Hardy of Los Angeles was acquitted by the Senate, sitting as an impeachment court, on all charges of misdemeanors in office as set forth in the Assembly's four articles of impeachment among which were included allegations of activities on behalf of Aimee Semple McPherson, the Los Angeles evangelist.

—At Washington, prohibition was debated in the House for the first time in the special session, the discussion reaching a climax over the killing there by a policemen of Ottmer Fleming, 21, driver of a liquor-laden automobile. Applause arose as Representative Holaday, Rep., of Ill., told of the circumstances marking the shooting.

—At Meridian, Miss., Perry W. Howard, negro Republican national committeeman, and formerly an Assistant Attorney General in Washington, and James G. Buchanan and George F. McClelland were acquitted of violating the patronage act by a jury in Federal court.

—At Paterson, N. J., Arthur (Dapper Don) Collins, found guilty of conspiracy to defraud, was sentenced to three years in the State prison and a $1,000 fine.

—The monoplane which left the Cranwell Airdrome in Lincolnshire on April 24 landed at Karachi, India, after flying 50 hours and 48 minutes, in the course of which it covered about 4,130 miles, Karachi is 1,170 miles short of the plane's goal, Bangalore, and 287 miles short of the record held by Italy.

—$250,000 in jewels were stolen from the suite of Anton Jurgens, a wealthy manufacturer, in a West End, London, hotel.

April 27—The charred, still-burning body of a young woman who had been strangled to death was found under a blossoming apple tree in a field bordering the Ardsley Road near Greenburg, Westchester County, N. Y. The remains were later identified as those of Mrs. Dorothy Heinzelman Peacox, 20, who had been separated two months from her husband, Earl Francis Peacox, of Mt. Vernon. She had been rooming in Manhattan. Peacox was arrested and confessed the slaying.

—The Benedictine Monastery at Monte Cassino, Italy, celebrated its 1400th anniversary.

—At N. Y. City three pieces of furniture made at Philadelphia about 1770 were auctioned—the Van Pelt Chippendale carved mahogany highboy, $44,000; a Benj. Randolph Chippendale armchair, $33,000; a carved mahogany chest-on-chest, $26,000.

—At Budapest, Dr. Emil Schreiner, former Austro-Hungarian Consul General in Chicago, was shot dead while driving home from Soprom, Hungary, in an automobile with his wife and mother-in-law. Frau Schreiner was fatally injured.

April 28—Daylight saving time began at New York City.

—Mrs. Murphy, 46, the (N. Y. City) Central Park Zoo's hippopotamus, died in the tank she had occupied for so many years. She had been in bad health for a long while.

—A Croatian professor and a student were shot by Jugoslavian gendarmerie as they tried to escape and fell dead across the Austro-Jugoslavian frontier line near Loitschach and international complications result.

CERTAIN NEWSPAPER DEALS.

April 29—At Boston, Archibald R. Graustein of New York, president of the International Paper and Power Co., appeared before the Rules committee of the Massachusetts Legislature and explained the company's purchase of a half interest in The Boston Herald and Traveler and the paper company's relations to power and gas interests in Massachusetts. Asserting that he had nothing to say as to the policies of The Herald-Traveler, the witness declared it would be bad business and "idiotic" for the International Paper and Power Co., which controls the New England power system, to attempt to use The Herald-Traveler to influence public opinion or to elect Legislatures favorable to the company's power interests. He listed his company's interest in newspapers as follows:

Brooklyn Daily Eagle—$1,954,000 in notes and 400 shares of common stock of the Brooklyn Daily Eagle Corporation.

Albany (N. Y.) Knickerbocker Press and Evening News—$450,000 in preferred and 3,000 shares of common stock.

Ithaca (N. Y.) Journal News—A contingent interest of $300,000 in notes.

Boston Herald and Boston Traveler—10,248 shares of common stock at $525 per share.

Chicago Journal—$1,000,000 of debentures and $600,000 of preferred stock of the Bryan-Thomason Newspapers, Inc., and 10,000 shares of the common stock of this paper.

Chicago Daily News—$250,000 worth of preferred stock and 5,000 shares of common stock.

Augusta (Ga.) Chronicle, Columbia (S. C.) Record and Spartansburg (S. C.) Herald-Journal-published by William Lavarre and Harold Hall—$855,000 in notes secured by the stock of these newspapers.

On May 4, Frank E. Gannett announced in an editorial in "The Brooklyn Daily Eagle" that he had delivered to the International Paper and Power Company a check for "better than $2,700,000" to retire all of the International's investment in "The Eagle," "The Knickerbocker Press," of Albany; "The Albany News" and "The Ithaca Journals News," which are among the seventeen newspapers controlled by him.

—Fausto Topete, Ricardo Topete, Eduardo Garcia, and Ramon Iturbe, Mexican rebel commanders, fled across the border into Nogales, Ariz. Nogales, Sonora was abandoned to Mex. federal troops. Agua Prieta surrendered on May 1.

—4 were killed, 8 seriously injured when an Interborough steel subway train which had been "keyed by" a danger signal at 170th St., on Jerome Ave., Bronx, crashed into the rear of a wooden car "L" train, also southbound, in the morning rush hour. The accident occurred on the "L" structure.

—King George of England made Gen. Bramwell Booth, former head of the Salvation Army, a Companion of Honor.

—At Madison, Wis., 48 hours after she had urged another man on in a murderous attack on her husband, Mrs. Rose Pope, 30, was sentenced to prison for twenty years. Phil Poister, 26, who attacked her husband, John Pope, 38, a farmer, with acid and a wooden mallet, received a similar sentence.

April 30—Fire destroyed the Chamber of the Bulgarian Parliament, at Sofa, including the paintings of Bulgarian kings and queens.

EASTMAN'S GIFT TO LONDON.

—Tributes were paid to American generosity by the Prince of Wales and Premier Stanley Baldwin when the Prince laid the cornerstone of the new $1,000,000 Eastman Dental Clinic, the gift of George Eastman of Rochester, N. Y., to the poor families in London.

—Mayor Walker laid the cornerstone of the new Museum of the City of New York, at Fifth Avenue and 103d Street.

—At Jerusalem, Nathan Straus realized another of his ambitions and added to his philanthropic deeds with the formal opening of the Nathan and Lina Straus Health Centre, presented to the Hadassah medical organization.

—300,000 acres of farming and forest land belonging to the sovereign family Princes of Liechtenstein have been expropriated by the Czechoslovakian Government under the national land reform scheme. The estates have been in possession of the Liechtensteins since 1620, when the Hapsburgs confiscated the lands of Czech nobles after the battle of White Mountain.

—Mrs. James Joseph (Gene) Tunney, wife of the retired heavyweight boxing champion, underwent an operation for appendicitis on the Island of Brioni, in the Adriatic, where she is staying with her husband.

MAY

May 1—May Day was observed throughout the world by Socialists, Communists, and the labor elements. Eight persons were killed, seventy-three others seriously injured, and 700 arrests were made in Berlin. Kovno reported several dead and many hurt. Paris police made 3,287 arrests, stopping all parades; a majority of factory workers stayed away from work. Moscow celebrated with a parade of the Soviet military forces to the tune of the "Internationale."

New York City radicals observed the day without disorders, 27,000 attending a Socialist mass meeting at Madison Square Garden and 5,000 taking part in a Communist parade.

—William A. De Groot was dismissed by President

Hoover as U. S. Attorney for the Eastern District of New York, with offices in Brooklyn. He was succeeded by Howard W. Ameli.

—The final banquet was held at the Waldorf-Astoria Hotel, N. Y. City. Auction of the furnishings was begun. The building is to be torn down. The last day's proceeds were given to the poorer employees.

—At Moscow, Joseph V. Stalin submitted his resignation as Secretary General to the sixteenth All-Soviet Communist Party Convention. The delegates declined to accept Stalin's resignation. They appointed T. Molotoff, one of the Secretaries of the Central Committee of the Communist Party, substitute to Stalin.

—At Termini Imerese, Sicily, the Mafia trial involving 161 defendants ended in a verdict of guilty for 150 persons, with sentences running as high as 23 years' imprisonment. The trial lasted nine months.

May 2—Tornadoes killed 30. At Rye Cove, Va., a school house was demolished and 12 were killed. One was killed at Culpepper, Va., 2 at Embreeville, Tenn., 2 at Jacksonville, Fla. Two walls of the Columbus, O., jail were blown down, killing two prisoners. A blizzard swept over Missouri and Illinois, leaving three to six inches of snow.

—At Tokio, the Emperor of Japan went to the railway station personally to greet the Duke of Gloucester, King George's third son, who is on an official mission, on behalf of King George, to invest the Emperior with the Order of the Garter. The order was bestowed on May 3, as was the Order of the Chrysanthemum on the Duke. He left Japan on May 23 for Vancouver, B. C., and returned to England through Canada.

MAY DAY RIOTS IN BERLIN.

—Renewal at Berlin of May Day riots by Reds caused 3 deaths with 20 severely wounded. On May 3 deaths numbered 8. The district affected is Neukeelln, a suburb. It was under martial law for several days.

May 3—Gen. J. Gonzalo Escobar, the rebel "provisional president of Mexico," fled across the international frontier by airplane to El Paso, Tex.

—Earthquakes in the Khorassan district of northwest Persia killed 2,000 and destroyed 700 buildings at Shirwan and Bujnard near the Persian border. On May 25, quakes in Angorra killed 65 near Sivas and destroyed 1,400 houses.

May 4—At Cleveland, O., Marion Talley, mid-west American girl who rose to grand opera stardom at nineteen, sang her swan song after four season as a prima donna of the Metropolitan Grand Opera Company. Her final appearance was in the roie of "Lucia di Lammermoor."

—Salvador Ateca, a Spaniard, of Juarez, was arrested at N. Y. City, with $750,000 in gold, currency, and securities in his possession as he was about to leave for Spain. The Mexican Government had complained that the money was rebel loot from Juarez banks. After 60 days he was acquitted and released and most of the money was returned to him.

May 5—At Rome, Rev. Daniel J. Heffernan, of Billerica, Mass., died of heart disease in St. Peter's Basilica a few hours after achieving his lifelong ambition to say a mass in that famous church. The death of the priest saddened the visit of the party of 250 Boston pilgrims, led by Cardinal O'Connell, of which he was a member.

—The wreckage of hundreds of automobiles was strewn along England's main roads and 14 persons were dead tonight as a result of the sudden breaking of the long drought, which turned the polished highways, already slippery from months of accumulation of grease, into skating rinks.

SINCLAIR IN JAIL.

May 6—Harry F. Sinclair, 53, head of the Sinclair Consolidated Oil Corporation, entered the District of Columbia jail and asylum at 9.45 p.m. to serve his 90-day sentence for contempt of the Senate as the outcome of the long investigation of the naval oil reserve leases.
He was reelected, on May 15, chairman of the Sinclair Consolidated Oil Corp.

—At Alamogordo, N. Mex., the 700,000-acre Tres Ritos Ranch of Albert B. Fall, ex-Sec. of the Interior was bid in at sheriff's sale for $168,250 by a representative of Edward L. Doheny, oil man.

—At Kovno, Lithuania, an assassin who attempted to shoot Premier Augustin Waldemaras, killed one of his aides and seriously wounded two other persons. He missed both the Premier and his wife. The assailant, a student, was caught and on May 24 was shot by a firing squad.

—The court at Freehold, N. J., passed a 30-year sentence on Joseph Farruggio, married, with 12 children, who killed Harold Johnson, 15, when the lad refused to wed one of the Farruggio girls.

—J. W. Kendrick, 17, a student at Emory and Henry College, was fatally shot near Abington, Va., when an auto containing him and two other students failed to halt for a booze search by deputy sheriffs.

May 7—Atlanta, Ga., Thomas W. Miller, former Alien Property Custodian, was released on parole from the Federal penitentiary, where he has been serving a sentence of eighteen months for conspiracy to defraud the government.

MEXICAN REVOLT COLLAPSED.

—U. S. troops on emergency duty along the Mexican frontier, were ordered to their home stations by Maj. Gen. William Lassiter, Commanding General of the Eighth Corps Area.
Fernando de la Cueva, styling himself "General-in-Chief of the Army of Liberation in the South," and his chief-of-staff, José Cleofas de Leon, were put to death in the cemetery of the town of Iguela in the State of Guerrero after trial by court-martial. The Escobar revolt collapsed because of insufficient funds and panic in its forces created by Federal airplanes, according to Gen. Fausto Topete, former Governor of Sonora.

May 8—At N. Y. City, Calvin Coolidge and Alfred E. Smith both attended their first board meetings of insurance companies to the directorates of which they have just been elected. Mr. Coolidge was unanimously elected a director of the New York Life Insurance Company, while Mr. Smith filled a similar position with the Consolidated Indemnity and Insurance Company.

—All France was represented at Orleans by the highest dignitaries of Church and State, by her Marshals, Generals, magistrates and academicians, and by more than 100 civil organisations to pay tribute to St. Joan of Arc, whose victory there 500 years ago preserved the nation's independence. Paris celebrated on May 12.

—At a secret sitting the Norwegian Parliament decided to annex the island of Jan Mayen, in the Polar Ocean between Spitsbergen and Greenland, found in 1611 by Dutch explorers and since then mostly used as a base by the Norwegians and Danes. Its only inhabitants are meteorologists and wireless operators, but it is a base for the Norwegian whale hunters.

—Clyde O. Rouse, Washington policeman whose killing of Ottmer H. Fleming, twenty-one years old, a suspected rumrunner, brought applause from the House of Representatives when it heard an account of the affair, was exonerated by the District Grand Jury.

May 9—M. A. Michaelson, Representative in Congress from Illinois, charged with violation of the national prohibition laws in bringing liquor from Cuba to the United States, was found not guilty in the U. S. Court at Key West, Fla. The defendant, on the stand, had denied ownership of the six trunks seized in the Jacksonville terminal station on January 2, two of which are said to have contained liquor.

—At Seville, Spain, the Ibero-American Exposition was opened by King Alfonso.

—The total eclipse of the sun was observed by astronomers in the southern Philippines and other South Sea places. The event had been timed to within half a second.

—Miss Helen Wills, tennis star, of California, was among those presented to Queen Mary in the ballroom of Buckingham Palace, London.

—The motorship, Lafayette, of the French Line, was launched at St. Nazaire—21,500 tons, 600 ft. long, 84 ft. wide, 30 ft. 6 in. deep, 20,000 horsepower.

MORE NEWSPAPER DEALS.

May 10—Testimony that loans of $870,000 by the International Paper and Power Co. entirely financed the purchase of four Southern newspapers was given before the Federal Trade Commission by William La Varre and Harold Hall of New York, who recently acquired The Augusta (Ga.) Chronicle, The Columbia (S. C.) Record and The Spartanburg (S. C.) Herald and Journal.
In all their negotiations with newspaper owners, the testimony showed, Mr. Hall and Mr. La Varre did not reveal that the International Paper and Power Co. supplied the money for the transactions. The other papers for which the negotiations failed were named by Mr. La Varre as The Greensboro (N. C.) Record, The Asheville (N. C.) Times and Citizen, The Charlotte (N. C.) News and Observer, The Raleigh (N. C.) Times, The Macon (Ga.) Telegraph, The Columbus (Ga.) Inquirer-Sun and The Atlanta, (Ga.) Constitution.

—In prorogating the British Parliament which began in 1924, King George by proxy (Lord Chancellor Hailsham) said he hoped for a world-wide reduction in armament.

—Forest fire has destroyed 40 children, 20 adults, and the village of Xochilapa, in Guerrero, Mex.

—At Oxford, England, Viscount Grey of Fallodon, Chancellor of Oxford University, formally accepted Rhodes House, the new building erected by the Rhodes trustees as a permanent memorial to Cecil Rhodes and as suitable headquarters.
—The body of Joe Clark, Denver, chief witness for the government against the Sheriff of Jefferson County, recently indicted for conspiracy to violate the prohibition law, was found in a field six miles north of that city. He had been shot to death.
May 11—Setting aside, at Phillips, Wis., a conviction of a constable for firing a whiskey shack, Judge G. N. Risjord said:
"While the officer perhaps had no right to set fire to the shack and should not have done so, yet this building being a part of a site for the manufacture of moonshine, there was no property right in it, hence the offense charged against the defendant was not committed."
—The entire faculty, including the president, and all employes of Des Moines, Ia., University, a Baptist Fundamentalist institution directed by the Baptist Bible Union of North America, were dismissed by vote of the board of trustees. Thereupon the students threw eggs, etc. A court order reopened the college next day.
—Fire at the Tourist Hotel at Amarillo, Tex., killed 5, hurt 20.
—Capt. Ronald Smith, British air ace in World War, died in plane crash at Lowell, Mass.
May 12—A project sponsored by the dry element of Switzerland for local option on the sale of hard liquor was rejected by a majority.
—At Sofia, Bulgaria, began a six-day celebration of the thousandth anniversary of the reign of Czar Simeon, the first of the nation's rulers to assume that title, a bond uniting the people in the days of the Turkish yoke.
—The Conservatives won the Colombian Parliament elections.

HUGHES A WORLD COURT JUDGE.

May 13—At The Hague, the sixteenth session of the Court of International Justice opened with Charles Evans Hughes, former Secretary of State of the United States, sitting on the bench for the first time as judge.
—Charles E. Snyder, 57, former head snake and mammal keeper at the Bronx Zoo, died at Suffern, N. Y., from a rattlesnake bite got on a trip in the Ramapo Hills. Snake-venom serum failed to save him.
—Ralph Gleason, 22, of the Bronx, jumped 200 feet to death from the crown of the Statue of Liberty, Bedloe's Island.
—Edward Payson Weston, for many years premier long-distance walker of America, died at Brooklyn, at 90, which he had set as his goal of longevity.
May 14—The Italian Parliament passed the Italo-Vatican accord bill giving full execution to the Lateran treaties. Two other bills were also approved, the first of which reforms Italian legislation concerning marriages, bringing it into line with engagements assumed by the government in the concordat with the Vatican, and the second of which regulates the exercise of non-Catholic religions in Italian territory. The Senate, 315 to 6, approved the Lateran treaties on May 25. The King signed them on May 27.
—Mayor Frank Hague, Dem., was reelected at Jersey City.
—The impeachment trial of Gov. Huey P. Long, of Louisiana, began before the State Senate, at Baton Rouge. On May 16, before any testimony was taken, a motion to adjourn sine die, signed by 15 of the 39 Senators, was put, and, after an executive session, 24 Senators agreed to the resolution, and that ended the impeachment trial.

EXPLOSION IN CLEVELAND CLINIC.

May 15—Fire, explosion and chemical fumes from X-ray films (nitrogen-dioxide) killed 124 at the Cleveland, O., Clinic Hospital of Dr. George W. Crile. Among the victims were: Dr. John Phillips, a founder; J. Barker Smith, secretary-manager of the Cleveland Athletic Club and former potentate of Al Koran Shrine; Dr. Max Bartholomew and Dr. C. E. Locke of the Clinic staff; Mrs. Charles W. Stage, wife of the general counsel for the Van Sweringen interests, who was in Washington, and Henry M. Lane, construction engineer, of Cinn. Seven of the staff physicians were killed outright, and 5 others were gassed.
—Mexico banned liquor at official functions.
—At Chicago, kidnappers who were expecting a $10,000 payment killed Detective Raymond Martin, who kept a rendezvous with them, impersonating Moses Blumenthal, whose brother Philip, was held for ransom of $50,000.
—King George motored from Bognor to Windsor Castle and resumed residence there after 13 weeks convalescence at the seashore.
May 16—At Friedrichshafen, Germany, the dirigible Graf Zeppelin took off on her second voyage to America at 5.57 a.m. (12.57 a.m., New York Daylight Saving Time). She had a crew of 42, and 18 passengers, also a gorilla, a piano, bags of mail, and other freight. When over Cartagena, Spain, it was found that two crankshafts had broken. The balloon turned back, but was buffeted by gales until 4 of her 5 motors were disabled. At about 3.35 p.m. she was drawn down and put in a hangar at Cuers, 15 miles from Toulon, France. She was commanded by Dr. Hugo Eckener. The balloon got back to Friedrichshafen on May 24.
—The newly-elected Greek Senate—the first since 1862—convened, at Athens.
—The 75th anniversary of the founding of the Republican Party at Friendship, N. Y., was celebrated in that village.

TACNA-ARICA SETTLEMENT.

May 17—Settlement of the long standing dispute between Chile and Peru over the provinces of Tacna and Arica was announced by President Hoover on the basis of awarding Tacna to Peru and Arica to Chile. The treaty was signed at Lima, on June 3.
—At Philadelphia, Alphonse ("Scarface Al") Capone and Frank Cline, of Chicago, pleaded guilty to carrying concealed deadly weapons (pistols) and were sentenced to a year in prison.
—Forest fires killed 100 and made 4,000 homeless, at Iwie, Poland, near Russia.
—At Lake City, Fla., there was a row between grocer N. G. Romey and the police over the arrangement of store goods on the sidewalk. Mrs. Romey fired at the policeman and wounded him, but was herself shot to death. Later, a mob took the grocer from the lock-up and lynched him.
—Lillie Lehman, 80, opera singer, died of heart trouble at Grunewald, Germany.
—Howard, Prince of Sagan, 19, youngest son of the Duchess de Talleyrand (the former Anna Gould of N. Y.) shot himself at Paris, because his mother told him he was too young to marry. He died on May 28.
May 18—Col. Charles A. Lindbergh, in an amphibian plane, flew from Port Washington, Long Island, to North Haven, Maine, with his fiancee, Miss Anne Spencer Morrow; her sisters, Constance and Elizabeth; the mother, Mrs. Dwight W. Morrow, and the latter's secretary, Josephine Graham. The sudden trip was the result of anonymous letters received by Miss Constance Morrow, 15, demanding $50,000 under penalty of death. The missives were delivered at Milton Academy, at Westwood, Mass., where Constance is a student. Lindbergh flew back to Port Washington, L. I., on May 22 and they motored to Englewood. The threatening letters were traced to a U. S. Customs Guard at Boston with a weak head.
—The first casualty of the Army Air Corps manoeuvres was the toll of a Blue raid upon the Red army supply base at Columbus, O. Second Lieut. Edward L. Meadow of the Pursuit Squadron, Rockwell Field, Cal., was killed instantly 15,000 feet above Linden, a Columbus suburb, when his plane was struck by another in his squadron. Lieut. F. W. Shade was killed on May 20.
—The N. Y. City police paraded for the first time in four years. At Union Sq. the Communists jeered and shook out a banner: "Down with Mayor Walker's Cossacks." 27 were arrested, and some heads were cracked.
May 19—After an all-night excursion to his fishing camp near Madison, Va., President Hoover attended Sunday School at a Baptist Church at Speeryville, where the children sang several of his favorite hymns, and returned to the White House.
—At Lyons, France, Edouard Herriot, Minister of Education, who announced his retirement as Mayor when his party was beaten in the recent eledtion, was re-elected Mayor.
—Earthquakes in North Anatolia killed 60 and stroyed 1,000 houses.
—Crowd panic cost the lives of a man and a the Yankee Stadium, N. Y. City; 63 more, ing many women and children, were injure seriously. The dead, Eleanor Price, th ter, a student at Hunter College, and Jose sons were trampled underfoot when some 6,0 in the right field bleachers, among 4 Sox watching the Yankees play the Bost ily let rose as one when a clap of thunder loose a cloudburst.

LAW ENFORCEMENT COM

May 20—President Hoover annou of his commission to investigat It is:

personnel
orcement.

George W. Wickersham, Attorney General under Taft.
Newton D. Baker, Secretary of War under Wilson.
Col. Henry W. Anderson, attorney, of Virginia, who ran on the Republic ticket for Governor and who was among those considered for the Attorney Generalship by President Hoover.
Frank J. Loesch, Vice-President of the Chicago Crime Commission.
Roscoe Pound, Dean of the Harvard Law School.
Monte M. Lemann, member of the Law School of Tulane University, Louisiana.
William I. Grubb, Federal Judge, of Alabama.
William S. Kenyon, Federal Judge and ex-Senator.
Kenneth R. Mackintosh, former Chief Justice of the Washington State Supreme Court.
Paul J. McCormick, Federal Judge of California.
Ada Louisa Comstock, President of Radcliffe College.
They serve without pay.

—The decision in the action of the St. Louis & O'Fallon Railway Co. and the Manufacturers' Railway Co. against the Interstate Commerce Commission, was handed down by the U. S. Supreme Court, the majority holding that in this instance the commission had not given due consideration, as required by law, to the principle of reproduction cost now in fixing the valuation of the carriers for rate-making and recapture purposes under the provisions of the transportation act of 1920.

—Gen. Machado y Morales took oath of office, at Havana, as President of Cuba for 6 years—his second term.

COST OF MEXICAN REVOLT.

—Gen. Calles, in resigning as Mexican Secretary of War and Commander of the army, said the revolution is over, and he announced his retirement from office, politics, and public life. It is stated that 4,000 persons were killed in the Escobar revolt on both sides, with 11,000 wounded, 600 kilometers of railway track were torn up, and the total loss is put at 100,000,000 pesos (about $50,000,000), including funds "robbed" from banks by rebel generals.

—William J. Farrier, of Jersey City, a freshman at Rutgers University, New Brunswick, N. J., was drowned in the Raritan Canal when trying to escape from a class rush. Then the Student Council voted to abolish rushes and pajama parades.

May 21—With the intent of an actual enemy, an army twin-motored bomber, which had battled its way 450 miles from Dayton, Ohio, through fog and rain and wind, "raided" New York Harbor and dropped a theoretical load of 2,000 pounds of bombs that reduced Governors Island, headquarters of the Army 2d Corps Area, to "a smouldering heap of ashes." The plane was refueled in the air by another plane.

—At Belgrade, separate special treaties which bind Czechoslovakia, Rumania and Jugoslavia into the Little Entente were reforged and a new link was added in the shape of a tri-lateral arbitration treaty.

—Cannibalism in the famine-stricken province of Kansu is shown to be a common practice in the report of F. Andrew, an investigator, to the China International Famine Relief Commission.

May 22—Harry L. Hoffman, motion picture operator, was acquitted by a Brooklyn jury of the murder of Mrs. Maude C. Bauer, wife of an electrician, on a lonely Staten Island road on the afternoon of March 25, 1924. The verdict brought to an end a celebrated case in which the defendant had been tried four times.

—At Lancaster, Pa., the quadrennial General Conference of the Church of the United Brethren adopted a resolution providing for the revocation of the ordination of ministers if they are found guilty of smoking, chewing or of using snuff.

HENRY FORD ON THE JEWS.

23—Henry Ford attended at N. Y. City a public ner of 2,000 Jews to David A. Brown, a philan- pist, and issued a statement which was broad- saying:

n happy to come here to pay a tribute of tion to my good friend, and through him, Great race which is proud and fortunate to m among its own. He is a shining exam- great benevolence of the Jewish people, anthropy, their eagerness to make this er, to educate the untutored, to heal the re for the orphans; their intent and intel- ticipation in all that makes for civic s and social justice stamps them a

—At the church [illegible] oils, women were granted equal with men in a resolution adopted by the General Synod of the Reformed Church of North America. The resolution grants women the right to hold office in the church.

—The American author, Michael Strange, pen name of Mrs. Blanche Blythe, former wife of John Barrymore, the actor, was married at Kensington Register Office, England, to Harrison Tweed, N. Y. lawyer.

—At Paintsville, Ky., Carl Mahan, 6½ yrs., was convicted of shooting to death an 8-yr.-old playmate, and was sentenced to the State Reform School until he is 21. Later, the case was reconsidered, the boy was adjudged simply a delinquent, and on July 9 he was paroled to the custody of his parents subject to the supervision of probation officers.

—For "obstructing trade and commerce" a Soviet firing squad, at Moscow, ended the lives of M. von Meck, former chairman and largest shareholder of the privately-owned Moscow-Kazan Railway; Velichko, former head of the transport department of the imperial staff during the World War, and Palchinsky, former Assistant Minister of Trade and Industry under Premier Kerensky and recently professor at the Leningrad Mining Institute. The first two were recently high officials of the Soviet Commissariat of Communications. Professor Palchinsky commanded the troops defending the Winter Palace in October, 1917.

—At Rochester, N. Y., Glenn Jennings, Coast Guardsman, accused of fatally shooting Jacob Hanson, was acquitted by a Federal jury of the charge of manslaughter, second degree, at his second trial.

—Ex-King Amanullah, wife, brother Inayatullah, and other members of his former court, fled from Afghanistan into British India, at Chaman. They went by special train to Bombay.

May 24—The General Assemblies of the Church of Scotland and of the United Free Church met at Edinburgh, and voted to unite as a national body to be known as the Church of Scotland, officially effective next October.

—Ground was broken at Canal and West Sts., N. Y. City, for the West Side Elevated Express Highway.

—At Kansas City, Maurice Nagle, whose automobile five robbers used in June during the National Republican Convention in the hold-up of the Home Bank and Trust Company, was found guilty of murder and sentenced to life imprisonment.

—Miss Marion Talley, retired opera singer, has bought, she announces, near Colby, Kan., a farm "one mile square, and knee deep in wheat."

—Storms killed 120 on the Island of Leyte, Philippines.

May 25—The strike of the rayon (artificial silk) mills at Elizabethton, Tenn., was settled by an agent of the U. S. Dept. of Labor.

MACK SELLS BUFFALO TIMES.

—The Buffalo, N. Y., Times, including the Sunday issue, was sold to the Scripps-Howard newspaper organization by Norman E. Mack, founder of the paper fifty years ago.

—The first air mail from Peru (Lima, May 18) was delivered at N. Y. City.

—12,000 London "bobbies" marched past Buckingham Palace to mark the hundredth anniversary of the creation of the Metropolitan Police by Sir Robert Peel in 1829.

May 26—The election of an entirely new Chamber of Deputies and nearly half the membership of the Senate occupied attention in Belgium.

—Mrs. Mabel W. Willebrandt resigned as Ass't U.S. Att'y. Gen., in charge of prohibition prosecutions. She is to be counsel for an aviation concern.

—Borne with imperial pomp on the shoulders of 32 trained men, the body of Dr. Sun Yat-sen, father of the Chinese revolution and responsible for the overthrow of the Manchu dynasty, was carried through Peking and started the long train journey to the new capital at Nanking, to be permanently entombed in a $3,000,000 mausoleum on Purple Mountain.

—The Alaska Steamship Company's liner Aleutian (formerly the Panama, and the Havana), struck a rock in Yuak Bay on the coast of Kodiak Island, Alaska, and sank in deep water. Her crew of 135 and 15 passengers were taken off by the coast geodetic survey steamship Surveyor and carried to Seward.

—The German dye trust has absorbed, in advance, most of the new issue of stock of the German Ford (auto) Company.

—In a battle in the Tripolitan Desert, 430 rebels, under Mohammed Hassen, and 24 Italian troopers, were killed and several hundred were wounded.

LINDBERGH-MORROW WEDDING.

May 27—At Englewood, N. J., Col. Charles A. Lindbergh and Miss Anne Spencer Morrow, second

daughter of Dwight W. Morrow, American Ambassador to Mexico, were married at 4 p.m. in the drawing room of the Morrow home. Their honeymoon was spent on the groom's new motorboat, on Long Island Sound, and the Maine coast.

—May wheat fell on the Chicago Board of Trade—fell under $1 a bushel for the first time in 14 years. It touched 98 5/8 c. All grains, cotton, and many stocks, slumped. High money rates, bumper 1929 crop prospects, and heavy surplusages, still unsold, of the 1928 crops, are to blame.

—The U. S. Supreme Court, 6 to 3, barred Rosika Schwimmer, Hungarian pacifist lecturer, from American citizenship because of a declaration on her part that she would not bear arms in the defense of this country in event of war.

—The same Court, in another decision, unanimously affirmed the judgment of the Court of Claims in which the right of the President to block legislation by the "pocket veto" method is upheld.

—The Mexican Chamber of Deputies, meeting in extraordinary session, voted unanimously to expel fifty-two members of the bloc, accused of lending direct or indirect support to the recent rebellion.

—Chinese police raided the Soviet Consulates at Harbin, and at several other places in Manchuria.

May 28—President Hoover, addressing his National Enforcement Commission, at its first meeting, at the White House, George W. Wickersham, Chairman, said:

"The American people are deeply concerned over the alarming disobedience of law, the abuses in law enforcement and the growth of organized crime, which has spread in every field of evil-doing and in every part of our country.

"A nation does not fall from its growth of wealth and power, but no nation can for long survive the failure of its citizens to respect and obey the laws which they themselves make. Nor can it survive a decadence of the moral and spiritual concepts that are the basis of respect for law nor neglect to organize itself to defeat crime and the corruption that flows from it. Nor is this a problem confined to the enforcement and obedience of one law or the laws of the Federal or State Governments separately. The problem is partly the attitude toward all law."

HOUSE PASSES TARIFF BILL.

—The U. S. House, 264 to 147, passed the Hawley Tariff Bill. The proposal to remove the flexible provision, which would enable the President to raise or lower the rates, in favor of a fact finding commission responsible to Congress and which would register the difference of cost of production at home and abroad, was defeated 254 to 157.

—The American singer, Rosa Ponselle, made her London début at the Royal Opera in Covent Garden in "Norma."

—At Moscow, the Congress of Soviets closed after approving a five-year plan for economic development. A central executive committee of 586 members, including 132 women, was elected. Among those named to it were Kalinin, Rykoff, Stalin, Molotoff, Tchicherin, Litvinoff, Vorossiloff, Nikoyan, Dukharinx and Tomsky. Maxim Gorsky was elected by special decision of the delegates, although not a delegate to the Congress

A.I.Rykoff was reelected president of the All-Union Central Committee.

—Forest fires killed 40 children in a school at Esutori, Southern Saghalien, and destroyed 1,000 houses.

—At Edinburgh, the 600th anniversary of the granting of the city's charter by King Robert the Bruce was celebrated in the presence of the Duke and Duchess of York. After a service in St. Giles's Cathedral the procession went to the castle where the Duke unveiled statues of William Wallace and Bruce.

REAPPORTIONMENT BILL ADOPTED.

May 29—The U. S. Senate passed the census and reapportionment bill by 57 to 26. It carries $40,000,000 to be used in taking the 1930 census, which, in turn, will be the basis for reapportioning Congress. It is estimated that 23 House seats will be transferred from one group of States to another, as a result, but the total number of House seats will remain at 435. The bill gives the President power to declare a reapportionment of Congress after each decennial census if Congress fails to act. This new grant of authority resulted from the failure of Congress to reapportion since 1911. The House passed the bill, as amended in conference, on June 6, by 271 to 104. The president signed it June 18.

—At Alamo, Tenn., a mob of 100 entered the Crockett County Jail, removed Joe Boxley, 19, Negro accused of attacking the wife of a Justice of the Peace, and hanged him on a tree.

—The Governor of Wisconsin signed a bill repealing the State Prohibition Enforcement Act.

—Afghan rebels captured and tortured to death Guhlam Djelani Bey, Afghan Ambassador to Turkey.

—Boston, Harry J. Canter was sentenced to serve a year in jail for criminally defaming former Gov. Alvan T. Fuller, by carrying a placard bearing the words, "Fuller, murderer of Sacco and Vanzetti," during a demonstration in front of the State House.

May 30—President Hoover, speaking at the National Cemetery (Arlington, Va.), at Memorial Day exercises, said: "Despite the declarations of the Kellogg pact, every important country has since the signing of that agreement been engaged in strengthening its naval arm. We are still borne on the tide of competitive building."

—At N. Y. City, 15 veterans of the Union army who fought during the Civil War, held their final Memorial Day services at Grant's Tomb on Riverside Drive, during which they turned over to Lafayette Camp, Sons of Union Veterans, the task of carrying on further memorial services there. They represented Grand Post 327 of the G. A. R., which has held annual services at the tomb for forty-five years.

—King George, at Windsor, went back to bed with a cold and fever, and an abscess in his chest.

—Parliamentary elections in Great Britain resulted in such heavy gains by the Labor Party and such heavy losses by the Conservatives, that neither can control the House, and the Liberals under Lloyd George hold the balance of power. The result was —Labor, 289; Conservatives, 260; Liberals, 58; Nationalists, 3; Independents, 4; Prohibitionists, 1; total—615.

—Juan Bautista Perez was elected President of the Venezuelan Republic by the Congress for a period of seven years. Gen. Juan Vincente Gomez, former President, who was re-elected last month, but declined to accept, was unanimously chosen commander in chief of the army by Congress.

May 31—At Atlantic City, Vice-President Charles Curtis dedicated the new $15,000,000 municipal auditorium tonight at a festival of light in celebration not only of its opening but of the golden anniversary of the incandescent light by Thomas A. Edison and the diamond anniversary of the founding of Atlantic City. The lights of the Boardwalk were dimmed at the beginning of the three-day celebration, while searchlights blazed from the battleship Wyoming off shore and an army airplane overhead.

—Ferdinand Preuss, gas-shocked World War vet., at Chicago, got drunk and killed 2 policemen and a neighbor summoned by his wife. The next day he lay down on the rails and let a train cut off his head.

—At London, delegates of eighteen maritime nations who have been attending the conference on the safety of life at sea signed a convention which goes further than any yet devised in guarding the lives and property of those who travel on the ocean highways.

JUNE.

June 1—The Associated Press extended its news service to Brazil and Guatemala.

—The fraudulent trade in stamps, which has cost the U. S. Government about $4,500,000, was traced by Postal Inspectors to philatelists who had succumbed to temptation.

—Franklin Chase Hoyt, presiding justice of the N. Y. City Children's Court, was announced as the winner of the $25,000 prize contest for the best temperance plan, sponsored by the Hearst newspapers. The plan suggested a repeal of the Volstead act, by a new Congressional definition of intoxicating liquors, which would make possible light wines and beers under State control.

—At N. Y. City, aldehol, a government denaturant, contributed to the death of Richard Morris, 55. Dr. Alexander O. Gettler, city toxicologist declared. He also asserted aldehol had figured in other deaths, but that this was the first case where the poison was present in the victim's system in sufficient amounts to be identified. Raw alcohol was also found in Richard's stomach.

June 2—There was issued "a message to the American people" signed by Thomas A. Edison, Henry Ford, Captain Robert Dollar, J. C. Penney and twenty other prominent business men, recommending that "prohibition should be given an honest trial."

June 3—The U. S. Supreme Court upheld the contempt of court jury-shadowing sentences — 6 months for H. F. Sinclair, 4 months for H. M. Day, and $1,000 fine for W. S. Burns. The 15-day sentence for W. J. Burns was overturned.

—Admiral Paul Kondouriotis was re-elected President of Greece by the Senate and Chamber, receiving 259 votes out of a total of 309.

—The right of negroes of the "Ancient Egyptian Arabic Order of Nobles of the Mystic Shrine" to use the similar name and the titles, emblems and regalia of the white Shriners was upheld by the U. S. Supreme Court.

LABOR TAKES OFFICE IN ENGLAND.

June 4—At London, King George accepted the resignation of Stanley Baldwin as Prime Minister of Great Britain and summoned J. Ramsay MacDonald, leader of the Labor party, to form the second Labor Ministry in British history. MacDonald took office on June 6 at 10 Downing St., and announced his cabinet on June 7.

—The King of Albania decreed that all Moslem Albanians must discard the practice of taking the name of the town or village in which they reside and must adopt names in the general European fashion. He set an example by dropping the name of his native town of Mati and adopting the name Zog, without the letter "u," which in Albanian means bird.

—The $17,000,000 Bronx Terminal market, begun in 1922, at 152nd St. and the Harlem River, was opened, by Mayor Walker.

—Prince Henry, Duke of Gloucester, fell in a polo game at Vancouver, B. C., and broke his collar bone.

—At Harrison, N. J., the Rev. Paul Miezvinis, former acting pastor of the Lithuanian R. C. Church of Our Lady of Sorrows, shot Miss Helen Halitaies, 22, and then killed himself.

—Reports from Afghanistan said that General Abdul Qalyum, a follower of Habibullah Khan (Bacha Sakao), had occupied Kandahar at the head of regular troops without opposition or bloodshed.

June 5—Sir Esme Howard, the British Ambassador, at Washington, informed members of his diplomatic staff that from now on he would refuse to sign requests for shipments of alcoholic liquors.

TRIGO, 33 TO 1, WINS DERBY.

—The 3-yr. old horse, Trigo (a 33 to 1 shot), owned by William Barnett, of Ireland, and ridden by Jos. Marshall, won the English Derby race, at Epsom Downs. He carried 126 lbs., and won $57,000, before 250,000 persons. Distance, 1½ miles: time, 2.36⅗. Over $3,000,000 was won in the Calcutta and other sweepstake pools.

—Fire destroyed the Thalia Theatre, on the Bowery, N. Y. City. It was opened in 1826 as the Bull's Head, then became the American, the Bowery, finally the Thalia. It was burned in 1828, 1836, 1838, 1845, and 1923.

—The lava stream from the crater of Vesuvius, on the island of Sicily, after swallowing the communities of Pagano and Avani, was engulfing the village of Terzigno.

June 6—Berne, Switzerland, the first chamber of the Council of State ratified the Kellogg Pact unanimously, the second chamber having ratified it with two opposing votes.

June 7—At 11 a.m., Premier Mussolini, as Italian Foreign Minister representing King Victor Emmanuel—the first Italian Premier ever to cross the threshold of the Vatican—exchanged with Cardinal Gasparri, Papal Secretary of State, representing Pope Pius XI, ratifications of the treaties signed at the Lateran Palace on Feb. 11. By that act the sovereign independent State of Vatican City came into existence.

—At 6 p.m., at Paris, the document in which the delegates to the Paris reparations parleys recommended to Germany and her creditors how the Reich's obligations arising from the World War shall be liquidated, was signed by them in the Hotel George V. Eleven Parliaments must approve these recommendations. The settlement suggested by Owen D. Young and approved by the business leaders of Germany, England, France, Belgium, Italy and Japan, serving on the Committee of Experts, provides for the wiping out of Germany's total indebtedness to the Allies and the United States by 1989. J. P. Morgan, one of the Americans, left beforehand and arrived at N. Y. City, on the day of the signing. Owen D. Young, T. W. Lamont, and T. N. Perkins reached N. Y. City on June 14. They had declined an official reception.

—At Belgrade, ex-Deputy Punica Ratchitch was found guilty of killing Stefan and Paul Raditch and Dr. George Basaritchek and of wounding Drs. Ivan Pernar and Djuro Grandia in the Yugoslavian Parliament last year. He received a sentence totaling sixty years and six months, but Serbian law permits no punishment to exceed twenty years in prison.

—At Gastonia, N. C., L. Q. Aderholt, chief of police, was fatally shot in a fight with guards about a tent colony maintained by the National Textile Workers Union for strikers from the Loray Cotton Mill; 59 strikers were arrested.

REPUBLICAN CELEBRATION AT RIPON.

June 8—At Ripon, Wis., Secretary of War J. W Good, speaking at the 75th anniversary of the founding of the Republican Party, said that he had looked into the origin of his party and decided that "events, not men, called it into being" and that when fifty-eight men were called together in Ripon on March 20, 1854, by Alvan Earle Bovary to unite the scattered anti-slavery elements among Whigs, Free Soilers and Northern Democrats in one party, "similar gatherings were being held at the time throughout the country." Prohibition agents dried up the town for the occasion, and later raided a drug store at Madison, Wis., where they said that besides finding illicit liquor in the establishment they confiscated a long list of names, including those of legislators, State officials and prominent Madison residents said to have been favored liquor purchasers.

—The Sunrise Highway, a 26-mile concrete boulevard running from Liberty Ave., Brooklyn, to Amityville, on the Nassau-Suffolk line, was formally opened by Lieut. Gov. H. H. Lehman, Borough President James J. Byrne of Brooklyn, and officials and citizens of Brooklyn, Queens and Long Island municipalities.

—At Wilmington, N. C., Col. John A. Hambleton, vice-president of Pan-American Airways and flying companion of Col. C. A. Lindbergh when the company's new route to Panama was opened in February, was instantly killed when a monoplane crashed. J. Von der Hayden, the pilot, of the Consolidated Instrument Co. of N. Y., and Mrs. Von der Hayden, the other occupants of the plane, were killed.

—Henry Virkula, Big Falls, Minn., merchant, was shot and killed while driving home in an automobile with his wife and two children when he failed to stop at the command of border patrolmen assigned to liquor smuggling duty.
The next day, near Detroit, U. S. Customs Border Patrol Inspector, James Cox, shot Archie Eugster, 21, who it was alleged, had brought cases of liquor across the river from Canada. Over 200 prohibition agents were then concentrated in the Detroit region.

June 9—The Swedish seaplane Sverige was forced down at Skaptaros, an inlet on the south coast of Iceland, 130 miles east of here, by engine trouble at 11.23 p. m. Sunday, Greenwich mean time (7.23 p. m. New York daylight time). It had left Stockholm at 5.01 a. m. with mail and freight, bound for N. Y. City, and had stopped by Bergen, Norway. In charge was Capt. Albin Ahrenberg, with Lieut. Axel Floden, and wireless operator Robert Loungland. They flew on June 10 to Reykjavik, Iceland, and on July 11 they reached Ivigut, Greenland.

—Margaret Lawrence, Broadway actress since 1911, was shot and killed in her penthouse apartment on E. 51st St., N. Y. City, by Louis Bennison, actor and playwright, who then committed suicide. She was the widow of Wallace Eddinger, actor, and had several children. Bennison had a wife and child.

—At Willemstad, Curacao, Dutch West Indies, Venezuelan employees of the oil refineries, revolutionaries, assaulted Fort Amsterdam, kidnaped Dr. N. J. L. Brantjes, Governor of the colony, took possession by force of the American steamship Maracaibo which lay in the harbor, and forced her captain to land them on the north coast of Venezuela. Governor Brantjes returned in the ship unharmed, as did the commander of the local garrison, who also was kidnaped. Several policemen were killed and many persons were wounded in the fighting when the oil refinery employees raided the fort.
The rebels attacked Coro, Venezuela, but were repulsed.

June 10—At Washington, 600 prominent Democrats gathered at a testimonial dinner to Jouett Shouse, whom John J. Raskob has placed in charge of the newly opened Democratic National headquarters. Features of the speeches were an announcement by Mr. Raskob that he has no intention of resigning the Democratic National Chairmanship and an appeal by him for more intensive and efficient party organization.

—The Pope promulgated the "fundamental law" of the new Vatican State in 21 articles. The first of these gives the Pontiff full legislative, executive and judiciary powers. In case the Papacy should be vacant these powers go to the College of Cardinals, which can take legislative measures only in case of extreme urgency, however. The succeeding articles give the Pontiff full powers concerning the organization of ecclesiastical tribunals, the composition of the Papal Court, the representatives abroad and approval of the budgets and accounts

presented by the Governor of Vatican City. Executive powers merely are delegated to the Governor, who is responsible directly to the Pontiff.

FARM RELIEF BILL SIGNED.

June 11—The U. S. Senate, 46 to 43, rejected the non-debenture conference report on the Agricultural Marketing Bill. President Hoover in a public statement accused that body of delaying and endangering farm relief. The Senate, on June 14, passed the bill, 73 to 8, after the House had killed the debenture plan by 250 to 113. President Hoover signed the Act on June 15. Congress, on June 17, granted $151,000,000 of the authorized revolving fund of $500,000,000. The new Farm Relief Board, headed by Alexander Legge of Chicago, held its first meeting on July 15, at Washington.

—At Chicago, The Standard Oil Company of Indiana and fifty-one associated companies were found guilty of violating the Sherman anti-trust act by pooling "oil cracking" processes, in a decision rendered in the U. S. Dist. Court. Three federal judges sat in the lawsuit and the majority opinion was signed by Evan A. Evans and George T. Page; A. D. Anderson dissented. The decision grants the government a permanent injunction restraining the defendant companies from further violations of the law, and comes after more than four years of litigation.

June 12—At Washington, Robert E. Healy, chief counsel for the Federal Trade Commission, put in the record documents further supporting testimony that the National Electric Light Association has had many educators on its payroll. The names of eighteen college and university professors who received money from this organization were given out by him. Exhibits filed show that those named received about $46,000, and of this sum $32,959 were for services and the remainder expenses.

—W. B. Kinne, Idaho's Lieutenant Governor, abducted by four automobile bandits and left tied to a tree in the mountains after his car had been wrecked in a wild dash about the countryside, returned home to Orofino, uninjured.

—Parliamentary elections in the Union of South Africa give the Nationalist party, led by Premier J. B. Hertzog, a slight majority over all other parties.

—In the Atlas Mountains of Morocco a reconnoitering detachment of French colonial troops was nearly wiped out by Moorish tribesmen who have never submitted to French rule; 13 of the French troops were killed and ten wounded, including two officers. 83 members of the detachment are reported missing. The captives are being led from tribe to tribe in the fastnesses of the Middle Atlas range to work up warlike spirit among the natives.

—At the convention, at Moscow, of the Society of the Godless, it was asserted that 1,000,000 organized atheists were facing 1,500,000 organized religious propagandists in the fight on religion, including 500,000 rabbis and mullahs officiating in thousands of temples throughout the Soviet Union and that these propagandists had successfully copied the Communist methods of organization in their work among women and children.

—Mrs. Hoover had as a guest at tea in the White House, Mrs. Oscar De Priest, wife of the Negro Representative from Chicago. The other guests at the small party were Mrs. William D. Mitchell, wife of the Attorney General; Mrs. James W. Good, wife of the Secretary of War; Mrs. Arthur W. Free, wife of the California Representative; Mrs. Clyde Kelly, wife of the Pennsylvania Representative, and Mrs. Grace Burton, niece of the Ohio Senator, and about twenty others.

Protesting resolutions were adopted by the legislatures of Texas and Fla.

June 13—The U. S. Senate, 48 to 37, passed the 1930 Census and Congressional Reapportionment Bill.

FLIGHT OF THE YELLOW BIRD.

—The French monoplane, Yellow Bird (Armond Lotti, Jr., in charge, with pilots Jean Assolant and Rene Lefevre), left Old Orchard Beach, Me., at 10.08 a. m., bound for Paris. Several days before, Assolant had married Pauline Parker, of Winthrop, Me., show girl.

Although the French plane got away successfully, the attempt of the American plane, Green Flash, to start its flight to Rome had met with disaster. The Green Flash after a fine start struck a sand pocket on the Maine beach and both wheels were broken.

The Yellow Bird, owing to head winds (and the extra weight of a stowaway, Arthur Schreiber, 22, of Portland, Me.), landed at 4.30 p. m., on June 14, on the beach at Comillas, on the north coast of Spain. It flew from there to Paris on June 16.

—Wired to a post by loops around the neck, knees and feet, then consumed by fire, the body of a man was discovered in the woods near Three Lakes, Wis. Death was caused by shots from a sawed-off shotgun. The weapon was lying at the feet of the victim.

—The principal rebel chieftains who have been under arms against the Italian troops in Cyrenaica for many months surrendered unconditionally at Barka to Lieutenant Governor Siciliani.

June 14—Former Vice-President Charles G. Dawes, new American Ambassador to Great Britain, arrived at London, and was cheered by crowds. On June 15, he presented his credentials to King George and conferred with him and with the British Foreign Secretary, Arthur Henderson. On June 16, he conferred, at Forres, Scotland, with Ramsay MacDonald, the new Premier. They appealed for naval reduction on June 18 in simultaneous speeches, Dawes at a Pilgrims' dinner, London; MacDonald at a town meeting, in Scotland.

—The slashed body of a young woman, found on the N. Y. Central Rifle Range, five miles northwest of Columbus, O., was identified as that of Miss Thora K. Hix, 25, second-year medical student at Ohio State University, of Bradenton, Fla. On Aug. 14, Dr. James Snook, married, was convicted of the murder. He was sentenced to be electrocuted on Nov. 29.

—Arthur Gordon, 22, of Plattsburgh, N. Y., alleged rum and beer smuggler, was killed by U. S. Customs guards below the Canadian border, near Mooers, N. Y. Mickey Dilion, 22, was shot to death at Newport, Ark.; and Grady Phillips, 22, was killed near Buchanan, Ga. On June 17, the U. S. Prohibition Bureau at Washington, announced it would limit its agents to service pistols and would bar guns and rifles.

June 15—The Soviet Russia Supreme Council of National Economy has decreed a year of 360 work days, with 5 holidays.

—Ray Keech, auto racer, was killed in a collision on the speedway at Altoona, Pa.

June 16—Herbert Eden, 55, manager of the New Orleans Industrial Canal, shot and killed Mrs. Joseph Meyer, 24, and then fatally wounded himself.

—General Bramwell Booth, 73, son of the founder of the Salvation Army and until quite recently its leader, died at his home at Hadley Wood, near London, after a sudden relapse.

—Ferdinand Schulz, German glider, was killed when his sailplane Marienberg crashed over the market place of Stuhm, in West Prussia.

—The Rev. Norman Thomas was nominated, at N. Y. City, as the Socialist candidate for Mayor.

—Ernest Blythe, Vice-President of the Irish Free State, and four other ministers of the Free State government, in addition to judges, army and police officials and prominent public men took part in the funeral procession for John Devoy from Dublin City Hall to Glasnevin Cemetery. Burial was in the Fenian plot beside those of other Fenian leaders. Standing beside the grave were the widows of Thomas Clarke, who was executed by the British in 1916, and Arthur Griffiths.

GOLDEN JUBILEE OF LIGHT.

—As part of the Golden Jubilee of Light celebration at Niagara Falls, the sound of the falls was broadcast by radio, also a pontifical high mass in memory of Father Louis Hennepin, who accompanied the explorer La Salle, and gave the earliest detailed description of Niagara Falls. The scene was set on Goat Island, which splits the Niagara River into the Canadian and the American falls.

June 17—Seven persons, one of them an American, were drowned and six were rescued by ships when the City of Ottawa, an Imperial Airways plane en route from London to Paris, encountered engine trouble and plunged into the English Channel three miles southeast of Dungeness, at noon. The American was Adolph Meister, 73, banker and manufacturer, of Garfield, N. J. H. W. Tatham, of Minneapolis, was rescued.

—An earthquake killed 25 in New Zealand (South Island).

—At Geneva, charges that Austria is secretly arming in defiance of the terms of the peace treaty were contained in the final report of the liquidation board in connection with the removal of military control from that country.

—Pius XI, who is one of the leading librarians of Europe, as well as Pope, welcomed at the Vatican brother bibliophiles from many nations who are delegates to the World Congress of Librarians. About 500 book experts gathered in the large hall of the Vatican library where a special throne had been erected for the pontiff.

June 18—President Hoover, in a public statement,

said: "I deeply deplore the killing of any person. The Treasury Department is making every effort to prevent the misuse of arms. Any case of misuse will be determined by the orderly procedure of the department and the courts. I hope that the communities along the border will do their best to help the treasury end the systematic war that is being carried on by international criminals against the laws of the United States. It is these activities that are at the root of all our difficulties."

—A country-wide ring which allegedly dealt in paraphernalia whereby bootleg liquor could be marketed, was disclosed with the indictment in Brooklyn of 140 individuals and corporations located in 35 cities. The ring is accused of selling bogus internal revenue stamps, whisky bottles branded falsely with the names of foreign distilleries, printed corks, whisky cases stamped as having come from foreign ports and other trappings for dressing up ordinary bootleg liquor.

—The Soviet Russia Council of Peoples Commissars decided to retain bread cards and the rationing system for another year.

—The list of bank mergers at N. Y. City has been increased by that of the Chase National, and the National Park.

—Formation of a $450,000,000 power system connecting every important city in N. Y. State from Albany northward and westward announced by J. P. Morgan & Co. The system supplies more than 600,000 persons with electricity. The Niagara Falls plants and other power installations have a capacity of about 1,700,000 horsepower. The system also includes gas plants.

SENATE MAY OPEN ITS DOORS.

—Nominations to office by the President, treaties with foreign nations, and all other business with which the Senate has for years been dealing behind closed doors, will hereafter be considered in open session unless the Senate, in executive session, decide otherwise by a majority vote. This change in the Senate's rules was made when an amendment proposed by Robinson of Ark. was adopted by 59 to 15.

—J. Pierpont Morgan, banker, was given the honorary degree of Doctor of Laws by Princeton.

June 19—The 71st Congress adjourned—the Senate to Aug. 19., the House to Sept. 23. The Senate held its first open executive session under its new rules and confirmed a group of nominations as expeditiously as was customary when the doors were closed. Postponement of the payment of $400,000,000 by France to this country for the purchase of military supplies after the close of the World War was voted by both houses, but in the rush to adjourn the resolution was unsigned.

—At El Paso, Tex., poison gas that swept over a residence district near two oil refineries and a natural gas plant, taking the lives of two sleeping children and overcoming a score of other persons was identified as hydrogen sulphide.

—Woodrow Wilson's birthplace, the personage of the Presbyterian Church at Staunton, Va., has been bought for a national shrine by Mary Baldwin College.

June 20—At N. Y. City, the trial of James M McCunn and his three employees, Frank Collins, Edward Maloney and John H. Spellman, indicted for conspiracy to violate the national prohibition law, ended abruptly in U. S. Dist. Court when Edwin J. Carroll, Juror No. 2, admitted under questioning by the court that McCunn's brother's wife is an aunt of Carroll. Judge Edwin R. Holmes, of Mississippi, who presided, declared a mistrial, discharged the jury and placed the case on the calendar for a rehearing.

DEATH OF FAMOUS WAR PIGEON.

—The War Department was notified of the death, at Fort Monmouth, N. J., of the battle-scarred war pigeon "President Wilson," one of several "hero pigeons" of the army in the World War. The bird was 11 years old. Bred in France of unknown pedigree, this pigeon, on the morning of Nov. 5, 1918, was liberated at Grand Pre, France, with an important message. Twenty-five minutes later, flying through fire and fog, he arrived at Rampont, twenty-five miles away, with one of his legs shattered, his breast pierced by a bullet, but the message entrusted to him was still hanging to the torn leg.

—Near Montreal, the Hon. J. C. Jervis, M. C., 32, elder son of Lord St. Vincent and former aide de camp to the Gov. Gen. of Canada, and two companions were killed when a seaplane crashed in the St. Lawrence River between Point St. Charles and Nun's Island. The other victims were Pilot C. S. Caldwell of the Canadian Vickers and Dr. William D. Morris, 28, of Montreal.

June 21—Explosion and fire in the Compound Eastbund Hospital, Canton, China, killed 80 patients and several other persons.

—Brown University expelled 25 freshmen who rioted on May 29, at Providence, R. I., when 2 were shot and 20 injured.

—The County Court at Sullivan, Ind., gave Will H. Hays, motion-picture "czar" a divorce from Helen Thomas Hays, whom he married in 1902. Incompatibility was alleged.

SPANISH FLYERS RESCUED.

—A hydroplane containing Maj. Ramon Franco and 3 companions, left Cartagena, Spain, bound for N. Y., via the Azores and Halifax. They were rescued at sea, near the Azores, on June 29, by the Eagle, a British aircraft carrier, and were landed at Gibraltar.

—A joint statement by President Gil and Archbishop Ruiz announced that an agreement had been concluded between the Mexican Government and the Roman Catholic Church, by which the Church chooses its own clergy for registration under the law. The Church may hold its own schools in the Roman Catholic Churches, but not elsewhere. Appeal for amendment of the law may be made to the Mexican Congress. All Roman Catholic women now at the prison colony are released, except the nun, Maria Conception, convicted with Toral for complicity in the assassination of President-elect Obregon. The so-called "religious rebellion is ending in the states of Jalisco, Michoacan, and Guanajuarto. The first masses were on June 27 in the churches turned back by the Government.

—A landslide of 250,000 cubic yards of material began on the east bank of the Culebra (Gaillard) Cut. It extended 500 feet along the shore.

June 22— Floods in the Assam Province of India have drowned thousands of elephants, buffalo, and cattle. The water rose so high that refugees in boats floated over telegraph wires.

June 23—The $500,000 Chapel (Beloved Disciple) of the P. E. Ch., of the Heavenly Rest, was dedicated, at N. Y. City.

June 24—George Denker, 27, of Newark, N. J., formerly a policeman in the Holland Tunnel, pleaded guilty, at N. Y. City, to having assaulted, Aug. 13, 1927, James Bernard, who was driving an auto through the tube. Denker was sentenced to not more than 3 years in prison.

—Henry M. Day, Vice-Pres. of the Sinclair Exploration Company, entered the jail at Washington, D. C., to serve a sentence of 4 months for contempt of court in the Fall-Sinclair trial jury-shadowing case.

—The U. S. Court at New Haven refused the citizenship application of Prof. D. C. MacIntosh of Yale University, because he had said he would not feel obliged to fight if Congress should declare war. He served 4 years in the trenches in France in the World War.

—U. S. Ambassador C. G. Dawes announced, at London, that no liquor will be served at the functions at the American Embassy. The U. S. Embassies at Oslo, Copenhagen, and Berlin are "dry."

—Frank Marlow (Almedo Curto), N. Y. City fight promoter and cabaret owner, was assassinated in Queens Borough.

—Gen. Agustino Sandino, Nicaraguan rebel leader, having secretly passed through Honduras and Guatemala, entered Mexico, an exile.

June 25—The new British Parliament met and re-elected, as Speaker of Commons, Capt. E. A. Fitzroy, Conservative.

BOULDER DAM PROJECT IN EFFECT.

—President Hoover proclaimed in effect the Boulder Canyon project, which has been agreed on by California, Colorado, Nevada, New Mexico, Utah and Wyoming.

June 26—Henry Ford's railroad, the Detroit, Toledo and Ironton, was sold to C. D. Barney & Co. of N.Y.

—The second Lutheran World Conference opened, at Copenhagen.

—Mrs. Henry J. Crocker and Mrs. Louis F. Monteagle were killed and Mrs. Fannie Crocker McCreary was injured in an auto collision near San Francisco.

—James V. Perry, owner of the Indianapolis Amer. Assoc. baseball club died in airplane crash near that city.

—Francis Phillips, 21, son of the late John M. Phillips, Queens sewer contractor, died in airplane crash near Mineola, N. Y.

—Willard H. Elliott, Passaic, N. J., banker, vanished at E. Orange, N. J. He returned home on July 2, saying Chicago gunmen had kidnaped him.

June 27—Emperor Hirohito, at Tokio, formally ratified the Kellogg anti-war pact.

—Bolivia and Brazil, at Rio de Janeiro, ratified their boundary treaty.

—Leslie Broome, Police Chief F. B. Conklin, and H. F. Potts, were killed in an airplane crash in Little Egg Harbor near Beach Haven, N. J.
June 28—An alligator in a pool on a golf course near Clearwater, Fla., killed two boys who were sailing toy boats.
—The Supreme Court at Boston ordered the disbarment of Arthur K. Reading, former Attorney General of Mass. Charges had been made by the State Bar Association.
—Miss Viola Gentry was injured and her pilot, John Ashcraft, was killed in crash of their plane at Mineola, N. Y.
—A. H. Johnson, public school principal, of Hartwell, Ga., was beaten to death in his auto, at Atlanta, where he had gone to attend the convention of the Nat'l. Education Assoc.
June 29—A son—her third—was born to Queen Marie, of Serbia, at Castle Bled, in Slovenia.
—"Lady Godiva," in flesh-color tights, rode on horseback at Coventry, England, in commemoration of the Saxon lady who rode naked there in 1040 to gain from her husband, the Earl of Mercia, remission of taxes on the poor.
—R. H. Macy & Co., N. Y. City, announced purchase of L. Bamberger & Co., of Newark, N. J.

CLARKE BROTHERS' FAILURE.

—The private bank of Clarke Brothers, at N. Y. City, went into receivership. On Aug. 9, James R., Philip L., and Hudson jr., three of the Clarke brothers, also John F. Bouker, a partner, pleaded guilty on fraud charges at a joint session of the Federal and State Courts, and were sentenced to Atlanta prison—J. R. Clarke, 8 yrs.; Philip L. Clarke and Bouker, each a year and a day; Hudson Clarke jr., a year and a day, but sentence suspended to support the crippled father who died Sept. 3.
—Chemical fumes from an iceless refrigerator, at Chicago, killed Mrs. Vicla Clark, 28, an artist, and injured her husband and her mother. This was the 15th fatal case at Chicago.
—5 died in collapse of bridge over Riviere du Loup, near Quebec, Can.

JULY.

July 1—Wilmer Stultz, transatlantic aviator, with two boys who had begged a ride, died in airplane fall at Mineola, N. Y.
July 2—Baron Tanakas' Japanese cabinet resigned and was succeeded by one headed by Yuko Hamaguchi ("The Lion").
—25,000 cloakmakers of N. Y. City struck for a 5-day (40-hour) week, and against piece-work (sweat-shops).
—100 bottles of West India rum over 125 years old, as good as ever, were dug up 25 ft. below the surface of Wall St., at South St., N. Y. City, by "sand hogs" in a caisson of a proposed skyscraper.
—Forrest Greathouse, and Edwin Wetzel, were killed in the ascent of Mt. Rainier, by falling into a crevasse.
July 3—The Chicago Tribune seaplane, "Quntin Bowler" (R. R. Gast, P. D. Cramer, Robt. Wood aboard) left Grant Park, that city and landed at Reml Lake, Can., on the way to Berlin. She was at Great Whale, Hudson Bay, on July 5, and landed at Port Burwell, Labrador, on July 9. On July 13 the empty plane drifted to sea and was lost.
—Peru ratified the Kellogg anti-war pact.
—Benny Evangelista, "divine prophet," his wife and 4 children, were slain by a devotee, at Detroit.
July 4—Ex-president Coolidge celebrated Independence day, and also his birthday, at his home, Northampton Mass. At N. Y. City Tammany Hall dedicated its new home, 17th St. and Union Sq. President Hoover, at Washington, attended a "kids" ball game. In all the U. S., 160 persons were killed. The Byrd South Polar party, at Little America, put on a show at 60° below zero. The temperature dropped on July 29 to 72° below zero.
—At Palermo, Italy, George De Saro was sentenced to 30 years in solitary confinement for his part in killing 2 messengers and stealing $43,000 from the West End Bank, Brooklyn, in 1923. The Diamond brothers, Barlow, and McLaughlin have been executed.
—Storms killed 50 in Germany, Austria, Switzerland, and Czechoslovakia.
July 5—Trolley strike riots in New Orleans caused 3 deaths.
—A new Constitution was submitted to the Spanish Parliament.
—Mrs. Katherine Blake (the former Mrs. Clarence Mackay) divorced Dr. Joseph A. Blake, in Westchester County, N. Y. On July 16 Blake married, at Toronto, Can., Miss Florence M. Drake, a nurse.
—The Portugal Cabinet under Col. Freitas resigned
July 6—Two banks closed at Birmingham, Ala., and the president of one, Dr. A. W. Bell, drowned when bathing, at Coosa, Ala.
—The 75th anniversary of the founding of the Republican Party as an organized State body was celebrated at Jackson, Mich.

TRAIN-AIRPLANE SERVICE TO COAST

July 7—Col. C. A. Lindbergh and bride landed at Los Angeles, and at 3.05 p.m. (7.05 p.m., at N. Y.) pressed a button which inaugurated a 48-hour train-airplane service between N. Y. City and Los Angeles. He flew, on July 8, the first plane from Los Angeles to Winslow, Ariz.
—Capt. Louis Condouret, aviator, died in plane crash near Angoulame, France. Near New Preston, Conn., air mail pilot Martin (Texas) Brown and a companion were killed in plane nose dive.
July 8—The monoplane, Pathfinder (Roger Q. Williams and Lewis A. Yancy) left Old Orchard, Maine, for Rome, at 8.48 A. M. Their gas gave out—440 gallons—and at 4.30 P. M. on July 9 they landed near Santander, Spain. They had flown 3,400 miles in 31½ hours. They made a hop to Rome on July 10.
—John D. Rockefeller celebrated his 90th birthday on his estate at Tarrytown, N. Y.
—The Chicago Daily News dedicated its new skyscraper home.
—King George, at London, is ill again. The abscess on his chest having reopened.
—Lieuts. H. F. Sessions and W. H. Bleakley were killed in U. S. Army plane crash at Colon, C. Z. Air mail pilot, T. W. Gurley, died in plane crash near Berlin, N. J.

BRITISH SUBMARINE SUNK.

July 9—The British submarine, H-47, was sunk in collision with the submarine, L-12, in the Irish Sea, 20 miles off South Wales. The Commander, Lieut. R. J. Gardner, and the radio man escaped, but the crew of 21 were drowned.
—The U. S. State Dept. has received protests from 38 nations against the proposed high rates in the new tariff bill.
—The Prussian Diet, 243 to 172, approved the concordat between Prussia and the Holy See.
—The first cable of the Hudson River Bridge, at N. Y. City, was stretched across the Hudson River from tower to tower.
—A serenading gang at Jenkins, Ky., seized David Hughes, 23, a bridegroom of a month, and threw him in a lake, where he drowned.
July 10—Chinese authorities arrested 174 Soviet Russian officials and employes of the Chinese Eastern Ry. The 'phone and telegraph systems, as well as the railroad were seized. Russia, on July 17, severed relations with China, and troops of both nations were ordered to the Manchurian frontier.
—France and Spain signed, at Paris, a treaty of commerce comity and arbitration.
—Mexico decreed the National University free from government control, to be managed by a committee of teachers, students, and graduates.
—The new small-size national currency went into general circulation and by the time the banks closed New Yorkers had $6,000,000 of the crisp paper, approximately two-thirds as big as the old, in pockets, wallets, vaults and cash registers.
—The Chinese consulate at San Francisco has been used by opium smugglers. An official and his wife are accused.
—The airplane, Southern Cross (Capt. Charles Kingsford-Smith and 3 companions) flew from Rome to London (Croydon), ending their trip from Australia—12,000 miles in 12 days, 21 hours, 18 minutes of flight.
—Lieut. C. A. Kuntz and private D. F. Moses died in army plane crash at Honolulu.
July 11—The British Government officially announced that Leon Trotsky, exiled Soviet "Red," cannot enter that country.
—The Court at Berlin, Ger., sentenced to 4 months in jail Vladimir Orloff and Peter Pavlonowsky, Russians, implicated in the forgery of documents alleging that U. S. Senator Borah had received Soviet govt. subsidies. They were deported.
—10 naval cadets and 5 firemen were burned to death in a fire-rescue test that went wrong, in the park, Gillingham, England.
—A cloudburst at Tabriz, Persia, destroyed 2,000 houses, and killed 400 persons.
July 12—At Paris (Bourget Air Field) The Polish fliers, Majors Kasimir Kubala and Leon Idzikowski, took off at 11:50 P. M. Eastern Daylight Time, in an attempt to fly to New York. Captain Dieudonne, with his mechanic, Maurice Bellonte, followed them in his plane, the "Question Mark,"

at 12:30 A. M., July 13, Eastern Daylight Time.
—The French plane, when near the Azores, turned back and landed at Bourget at 5:30 A. M., on July 14. The Polish plane was crushed in landing on Graciosa Island, the Azores, at 7:30 P. M., on July 13. Maj. Idzikowski was killed.
July 13—At Mexico City, the National League for the Defense of Religious Liberty, says, in a manifesto, it supported the religious rebels in their resort to arms against the government in the three years of the Church and State controversy; the action was not taken until all legal resources had failed to regain for the Church the rights it claimed; neither the Mexican episcopate nor the Vatican, it adds, supported the resort to arms in the central States of Mexico.
—Louis Seelman, a negro, killed a policeman at North Platte, Nebr., and cheated the mob by killing himself. All negroes then fled from the place.
July 14—Gen. Henri Gouraud, of France, was the guest of honor at the opening, at Baltimore, of the annual convention of the Rainbow Division of the A. E. F. They were reviewed on July 15 by President Hoover. He toured the country.
—The Europa, of the north German Lloyd Line, was re-launched, at Hamburg.
—Floods and landslides near the Black Sea, in Turkey, have killed 1,000, and have made 10,000 homeless.
July 15—The Farm Board, created to aid agriculture, came into existence when President Hoover at its first meeting, outlining the farm problem, stressed the value of the establishment of farmer-owned cooperatives "so wisely devised and soundly founded and well managed."
—Surgeons at Buckingham Palace, London, cut off parts of two of King George's ribs and drained the abscess in his chest.
—Near Tegucigalpa, Honduras, a truck bringing high school girls back from a picnic in the country fell into a 1,000-foot abyss, killing 11 and injuring 22.

WICKERSHAM ON PROHIBITION ENFORCEMENT.

July 16—George W. Wickersham, Chairman of President Hoover's Federal Law Enforcement Commission, in a letter to Gov. Roosevelt, suggested to twenty Governors of the States assembled at Groton, Conn. in annual conference that the way out of the Nation's Prohibition enforcement troubles might well be a division of enforcement operations, with the Federal Government limiting its activities to preventing importation, manufacture and shipment of liquor in interstate commerce and the States undertaking internal police regulations to prevent sale, saloons and speakeasies. The conference called it a controversial question and took no action, but expressed confidence in the Commission.
—Methyl chloride, iceless ice box gas, killed 6 more persons at Chicago, the coroner reported.
—The three-year agreement ending the strike of cloakmakers was signed at N. Y. City by the principal factors in the industry at a ceremony in the Governor's Room, City Hall. Acting Governor Lehman and Mayor Walker affixed their signatures to the document as witnesses and made brief speeches.

WATER FAMINE IN ENGLAND.

—England's water famine becomes more acute daily with the continuance of hot, rainless weather Official appeals for the most rigid economy have been made in the largest cities, and in the smallest villages. The situation is critical for households and industries. There is a water shortage in other parts of Europe, and in Cuba.
July 17—Blaming their trouble on the fruit fly quarantine, 22 banks have closed in Florida. This number was increased, later.
—Because they "roasted" in print his injunction against "interference betting" at the Thistledown Race Track, Common Pleas Judge F. P. Walther, at Cleveland, O., clapped in jail on contempt charges Louis B. Seltzer and Carlton K. Matson of the Daily Press. They got out on appeal.
—William Fox, amusement promoter, was hurt and his chauffeur killed in an auto collision near Westbury, L. I.
—At Paris, French military documents which were not supposed to be outside the Ministry of War were found in the Communist organ "L'Humanite" when the building was raided by police. Photographs of military posts, reports on various army detachments as well as quantities of letters from Communists serving in the French army who are regular correspondents of "L'Humanite," were found by the police.
July 18—Prince Edward Island voted to retain prohibition.
—A west-bound Rock Island train plunged into Sand Creek, near Stratton, Colo., at 4 A. M. A bridge had collapsed. One sleeper was submerged; 9 passengers were killed.
—The Interstate Commerce Commission, after an investigation into the movement of private passenger cars, ordered the assessment of a "just and reasonable" charge for their transportation.
—"The gift from the Rockefeller Foundation which made possible the new building of the London School of Hygiene and Tropical Medicine has made another bond between the two great English speaking races," said the Prince of Wales, when he officially opened the $2,500,000 structure.
—An explosion of aluminum powder killed 9 at the Logan's Ferry, Pa., plant of the Aluminum Co., of America.
July 19—Secretary of State Stimson and Foreign Minister Briand reminded China and Russia of their peace obligations under Kellogg pact, which both signed. Nanking published text of three telegrams alleged to prove dangerous Communist propaganda activity in Manchuria. Japan, remaining neutral, ordered her nationals to withdraw from prospective scene of hostilities. Russia barred France as an arbitrator.
—A strong wind and a cigarette, carelessly thrown into a lime depot, wiped out the old quarter of Angora, capital of the new Turkey, known as the fish bazaar. It accomplished in eight hours what officials have been struggling with for years.
—Stratford, ancestral home of the Lees in Westmoreland County, Va., passed from the ownership of the family into the hands of a private group which will hold it in trust as a shrine for the American people.
—Secretary Mellon announced that the Treasury had accepted the bid of $6,501,000 for the purchase of the assay office property in New York City.
—Masked bandits stole an armored money truck containing $42,000 in cash and checks off the streets of New Orleans and disappeared.
—Near Greenup, Ky., two negroes were shot and killed by a posse after they had slain John O. Silveg, 30, a railroad construction foreman of Huntington, W. Va.
July 20—One man was killed and four were injured when "Old Peppersass," first mountain-climbing locomotive in the word, whose return to the White Mountains was being celebrated at Mount Washington, N. H., broke a cog-wheel going down the steep flank of New England's highest peak. The engine ripping up ties and track after its passengers and crew had jumped, leaped the track and blew up.
—At Worcester, Mass., the Republican party of Massachusetts celebrated the seventy-fifth anniversary of the founding of the party in the Bay State. A luncheon, with addresses by Chairman Amos L. Taylor, of Boston, vice-chairman Mrs. Frank Roe Batchelder, of Worcester, and National Committeeman Louis K. Liggett was followed by the dedication of a marker on the common where the original organization meeting was held near the City Hall.
—Atlantic City's new 41,000-seat $15,000,000 auditorium was dedicated with music and a play and ice ballet.
—Liquor smugglers at the Mexican border near El Paso shot and killed Ivan E. Scotten, a U. S. guard. On July 27 the guards shot to death 2 smugglersl, hurt 3, and caught 8 with much "booze."
—The widowed Baroness Irma Molnar, of Hungary, was found strangled to death with a silk cord on one of her estates near Starilec, in what is now Jugoslavia.
July 21—The French Chamber of Deputies, 300 to 292, ratified the Mellon-Berenger debt funding accord with the United States; the French Senate, 242 to 30, ratified on July 26. After "verification" the final vote in the Senate was 234 to 29. Immediately thereafter, as was the case in the Chamber, the Caillaux-Churchill debt accord with Great Britain was adopted by a show of hands. Parliament then adjourned. Premier Poincare resigned on June 27 and was succeeded by Aristide Briand.
—The German Chancellor, Herrmann Mueller, was operated on at Heidelberg for an ulcerated gall bladder. He recovered.
—The U. S. Govt. will permit production of 2,000,000 gallons of medicinal liquor during the next year to replenish stocks depleted by thefts from warehouses, legitimate use and evaporation, Dr. James M. Doran, the Prohibition Commissioner, announced.
—David Cass, 23, was kidnapped, at Detroit, on July 25. J. A. Laman got $4,000 ransom from Cass' father and was shot by police in escaping.

SS. BREMEN SETS NEW RECORD.

July 22—The new North German Lloyd steamship, Bremen, arrived at N. Y. City from Cherbourg, on her maiden trip, covering the distance in 4 days, 17 hours, 42 minutes. This beat the Mauretania's

Sept. 1927 record of 5 days, 2 hours, 34 minutes. The Bremen brought 1,670 passengers. Her last days run was 713 miles. About 20 miles east of Fire Island an airplane was catapulted from the top deck and landed at the 58th St. pier, Bay Ridge, Brooklyn. This mail was delivered in Manhattan before the ship docked. The Bremen left New York City on July 27 at 1 A. M., and arrived off Plymouth, England (Eddystone Lighthouse) in 4 days, 17 hours, 30 minutes.

—At Chautauqua, N. Y., in tribute to the memory of her father, Lewis Miller, co-founder of Chautauqua Institute with Bishop John H. Vincent, Mrs. Mina Miller Edison (Mrs. Thomas A. Edison, wife of the inventor) addressed 1,000 members of the Women's club in opening "Miller Week" in observance of the centennial of the institute.

RIOTS IN DANNEMORA PRISON.

—1,300 of the 1,568 long-term convicts in Clinton State Prison, Dannemora, N. Y., made at 8 A. M. a break for liberty. They wrecked the power house and burned the carpenter shop, the wood kiln, and 75,000 feet of lumber. The felons, who had assembled in the prison yard, were unarmed, but hurled all kinds of missles. The prison walls were held by 124 guards, 35 state troopers and a posse of villagers. Three convicts were killed by gun fire —Charles F. Brunner and Herman Reese, robbers, and Clyde Shackelford, wife strangler. Six other convicts were seriously wounded and two guards were beaten by the mob. The prison is overcrowded, its normal capacity being 1,160. The inmates had been grumbling. The damage to property was $173,000.

July 23—At Santiago, the government signed Chile's adherence to the Kellogg treaty for renunciation of war without reservations.

—The Prince of Wales brewed ale at Burton-on-Trent, England, and quaffed a mug of old ale.

—The bodies of 27 persons of both sexes, including several tourists but no Americans, were discovered in the barrage of an electric power station at Rheinfelden on the Rhine. The victims were drowned while bathing. This brings the total for Switzerland to 48 victims during the week-end, not counting five climbers killed in the Alps.

—At Chicago, celebrating his millionth mile in the air, E. Hamilton Lee, senior pilot of the Air Mail Service, told the story of commercial aviation and lamented the passing of air thrills, to radio listeners tuned in on the National Broadcasting chain. More than 900,000 of Lee's 1,000,000 miles were flown on mail routes.

PACT OF PARIS PROCLAIMED.

July 24—President Hoover, in a ceremony in the East Room of the White House in the presence of former President Coolidge, former Secretary of State Kellogg and the Ambassadors and Ministers of 45 nations, proclaimed the Kellogg-Briand Anti-War Treaty in effect (at 1.22 P. M.) under which 62 leading powers have either pledged themselves or are about to pledge themselves to renounce war as an instrument of national policy.

Later in the day the president issued a supplementary statement from the White House, hailing as a new departure and a new contribution to peace Premier Macdonald's announcement in the House of Commons that Great Britain is suspending certain naval construction. Then Mr. Hoover announced the United States will not lay down the keels for three cruisers which were to have been started this fall, but will suspend construction "until there has been a full opportunity for full consideration of their effect upon the final agreement for parity which we expect to reach."

—The New Jersey State Banking Dept. closed at Passaic, the Hobart Trust Co., and its two branches, the Service Trust Co., and the Merchants Bank. An impairment of $600,000 in capital and surplus was alleged.

—The resignation of Lord Lloyd, High Commissioner of Egypt, was announced in the British House of Commons.

—U. S. Secretary of War Good was informed in an opinion by Attorney General Mitchell that executive orders issued by Calvin Coolidge when President, for regulating the program of flood relief under Congressional authorization along the Mississippi cannot be altered by President Hoover.

BOY SCOUTS' JAMBOREE.

—At London, 1,600 Boy Scouts of all nationalities and ages, there on a world jamboree, attended a festival service in Westminster Abbey. At Arrow Park Camp, Cheshire, on Aug. 1, the Prince of Wales, in the capacity of Chief Scout of Wales, received Mortimer L. Schiff, president of the Boy Scouts of America, who handed the Prince a check for approximately £10,000 ($48,500), to be used at Sir Robert Baden-Powell's discretion by scouts in Great Britain for fostering universal friendships among boys. The King later made Baden-Powell a Baron.

—With the same privacy that has marked his trip across the country, Gen. Plutarco Elias Calles, former President of Mexico, arrived at the Pennsylvania Station in New York and was rushed to the steamer Ile de France, on which he left, on July 26, for Europe.

July 25—Pope Pius XI, borne on a seat, carried shoulder-high, issued from the Vatican, at Rome, at 7.30 P. M. (for the first time in 59 yrs.) followed and preceded by church and lay dignitaries. He blessed a throng of 300,000 in St. Peter's Square, and took formal possession of his new State of the Vatican City, recently ceded to him by the Lateran treaties. He was carried aloft around the Square, which is actually a part of the Vatican City.

—Enrigue Amenta, his wife, and their 6 children, of El Centro, Calif., died of heat and thirst when their auto broke down on the road to Blythe, in the desert.

—The Supreme Court of Connecticut outlawed 1493 statutes because they were signed by the last four governors after the 3-day limit had expired. It has been the practice for many years for Governors to sign bills at their leisure, under an interpretation that the three days specified in the State Constitution could be construed as legislative days. The statutes were repassed, on Aug. 6, at a special session of the Legislature.

July 26—Earthquakes in Ecuador destroyed several towns in an Andean Valley, killing 60 at Moyurgo.

—Explosion of an 8-inch gun on the new British cruiser Devonshire, at target practice off the Greek coast killed 13, including Capt. John A. Bath, and hurt 13 more.

—At Geneva, the Congress of the World Federation of Education Associations started formally with 2,000 teachers from fifty countries, including more than 500 from the United States, in attendance. It opened in Geneva's exposition hall with an international educational exposition, comprising nearly 140 stands.

July 27—At Berlin, Hugo Stinnes, Jr., son of the German post-war industrial magnate, was declared not guilty of attempting to defraud the German Government in operations with German war loan bonds. His secretary, Wolff von Waldow, was sentenced to four months in prison, of which seven weeks were allowed for his incarceration during the trial. He was released for the remainder of his term on good behavior.

—Louis Bleriot flew from France across the Channel to Dover, England, to celebrate his first, and the first, crossing by airplane 20 years ago.

—John R. Voorhis, Grand Sachem of Tammany Hall, and President of the N. Y. City Board of Elections, celebrated his 100th birthday.

—In Columbia, 8 were killed and 10 hurt in communistic clashes with police at La Gomez, San Vicente and Chucuri in the Santander Department.

—At Guthrie, Okla., Thomas Sloan, 116 years old, died. He had been ill but a few days. Sloan was born in Mourne Shore, County Down, Ireland, on Dec. 25, 1812. He came to the U. S. with his parents in 1826 on a sailing vessel.

RIOT IN AUBURN PRISON.

July 28—At the State Prison at Auburn, N. Y., the convicts, of whom there were 1,756, mostly lifers and long termers (the place being, like Clinton, badly overcrowded) rioted at 1.15 P. M. when let out into the centre yard. Their leaders by a ruse, seized the prison arsenal and distributed riot guns, rifles, pistols and machine guns to their fellows. Under the cover of the smoke of six prison shops, which the convicts fired, they rushed the walls with scaling ladders, but were repelled by guards in the machine-gun towers. They attacked the prison gates with battering rams, but melted away under fire from the guards on the walls. For five hours the battle raged through the fire and smoke of the shop buildings, but in the end the guards, reinforced by state troopers and militiamen, drove the prisoners to cover with machine guns, rifles and tear bombs. The damage to property was $450,000. Two prisoners were killed—Joe Cirrongone (shot by a fellow), and George Wright, robber. Four convicts escaped.

—Roger Q. Williams and Lewis A. Yancey, whose airplane was the seventh after Lindbergh's to fly from America to Europe, reached N. Y. City. They were formally welcomed on July 29.

—At Santiago, Chile, the text of a complementary protocol to the general treaty ending the dispute over the provinces of Tacna and Arica between Chile and Peru was made public. It declared that

no part of the territory covered in the general treaty could be ceded to a third power.

July 29—Over 500,000 workers in 190 cotton mills in 20 towns in the Lancashire district, England, struck against a 12½ per cent wage reduction.

—Massacre by Mahomedans of 20,000 men and boys in Dangar City, Province of Chinghai, was reported by Findley Andrews, American missionary, with details which read like pages torn from the worst chapters of medieval persecution.

—Albert Mikenas, 3, of Ansonia, Conn., vanished at Silver Beach, Milford, Conn. His nude body, with a broken skull, was found in a woods, on Aug. 11. On Oct. 11, two boys, aged seven and nine, inmates of the New Haven County Home, at Allingtown, were arrested and confessed that they had smothered the child for mischief. They had been "farmed out" at the time of the killing.

—At Minneapolis, the endurance monoplane, Miss Minnesota, crashed on Wold-Chamberlin Airport, killing Captain P. J. Crichton, 35, outright and fatally injuring his co-pilot, Owen Haugland, 36. The flyers were in their seventh day in the air. At 5.25 A.M., when the big plane fell, they had passed 154 hours and 45 minutes in the skies.

—George Lea Lambert, 23, vice-president of the Von Hoffman Aircraft Corp., and Harold C. Jones, a student flyer, of New York, were killed when a dual-control training plane crashed in a field near Black Jack, St. Louis County, Mo.

AIRPLANE ENDURANCE RECORD.

July 30—After circling the Lambert-St. Louis Field for more than seventeen and one-half days—420 hours, 21 minutes, 30 seconds, the monoplane St. Louis Robin was landed at 7.38.30 P. M. (9.38.30 New York daylight time) tonight by its pilots, Dale ("Red") Jackson and Forrest O'Brine, amid a rain storm and the cheering of 15,000 persons. In their time in the air the pilots had flown 25,000 miles. Their time betters by 173 hours, 37 minutes, 58 seconds the record set July 12 at Culver City, Calif., By Roland Reinhart and Loren Mendell in the biplane Angeleno. Dale and O'Brine earned $15,672.50 each.

—The merger of up-state power enterprises into the Niagara-Hudson Company is not a violation of any N. Y. law, Attorney General Hamilton Ward advised Governor Roosevelt.

—To "improve" Red Square, at Moscow, Russia, the Soviet Government tore down the tiny shrine or ikon of the Iberian Virgin. It stood, six feet by six, between the two narrow entrances to the Square.

GRAF ZEPPELIN CROSSES ATLANTIC.

July 31—The German dirigible, Graf Zeppelin, with 19 passengers (and a stowaway) and a crew of 40, left Friedrichshafen at 10.29 P. M., bound for Lakehurst, N. J., and N. Y. City. It was 90 miles south of Pico Island, in the Azores group, at 8.05 P. M., on Aug. 2, and reached Lakehurst on Aug. 4, at 7.29 P. M.

—At London, Richard Joshua Reynolds, son of the late founder of the R. J. Reynolds Tobacco Company, of Winston-Salem, N. C., was found guilty of manslaughter and was sentenced to five months in prison. Reynolds was accused of driving the car which struck and fatally injured Arthur Graham, a young mechanic, while he was riding his motorcycle between Slough and London on May 14 last.

—The first air mail from Chile was distributed in New York in the first regular delivery. These letters left Santiago, Chile, July 21. The plane trip took ten days, as compared with four weeks by steamship.

VERDICT ON VESTRIS DISASTER.

—At London, the British Board of Trade inquiry court, after investigation as to the sinking of the liner Vestris, with loss of 112 lives last November, found the ship was overloaded and unfit to meet the perils of the sea when she sailed from Hoboken for South America. The court put the blame on four men, three of them connected with the New York agents for the Lamport & Holt Line, owner of the Vestris, and criticized the late Captain Carey, who perished with his ship. The board said of Captain Carey: "He is not here to justify himself." The court found that the ship was overloaded and that the SOS signal was sent out six hours later than it should have been.

AUGUST.

August 1—At Leavenworth, Kan., 900 inmates in the Federal prison rebelled over food, and discipline, and staged a five-hour riot in which one convict, Michael Martinez, was shot and killed and three were wounded.

—Jesse Harding Pomeroy was removed, by auto, from Massachusetts State Prison at Charlestown to the State Farm for the Criminal Insane, at Bridgewater; 53 years ago Pomeroy, then 17, was sentenced to be hanged for the murder of Horace Milan, ten. Two other youths were said to have been tortured and slain by Pomeroy, whose trials at the time were the sensation of the East. His sentence was commuted to life imprisonment and for 40 years he remained in solitary confinement.

—International Red Day was celebrated "peaceably" with oratory, by Communists at New York, London, Berlin and other places everywhere. At Paris there were 900 arrests.

—Ex-Premier and ex-President Raymond Poincare was operated on, at Paris, for prostatic trouble.

Aug. 2—Wilber B. Huston, 16, of Seattle, Wash., son of Bishop S. Arthur Huston of the Episcopal Diocese of Olympia, is the winner of the Edison Scholarship. Henry Ford, Edison, Col. C. A. Lindbergh, S. W. Stratton, and Lewis Perry were the judges.

—Ambrose Monel, 23, nickel manfr., of N. Y., and F. B. Gundry and Pilot J. L. Cagnani, died when their plane lost a wing and fell 2,500 ft. near Armonk, N. Y.

—The Mantere Cabinet, in Finland, resigned, and was succeeded on Aug. 17, by one under Kyosti Kallio, Agrarian.

—At Tokio, Chang Tsungchang, former war lord of Shantung, shot and seriously wounded Prince Hsien Kai, cousin of the former Emperor of China, Pu Yi.

Aug. 3—4 men in an auto at Bradley Beach, N. J., killed Geo. Danielson, a bank messenger, and escaped with $7,253.

—Richard J. Sandlands, of N. Y. City, a Customs Border patrol agent, was found drowned with a broken neck, at Detroit, after he and another agent, Milton Larson, had halted and boarded a speed boat, the Maxine, owned by John M. Heath, and on which Heath and his wife were present.

ZEPPELIN'S TRANSATLANTIC TRIPS.

Aug. 4—The German dirigible balloon, Graf Zeppelin, under Commander Hugo Eckener, arrived at Lakehurst, N. J., on her second trip to the United States. She was first over Lakehurst at 7.29 p.m., then continued to N. Y. City, turning at 42d St., and returning to Lakehurst, landing at 9.52 p.m. Her flying time from Friedrichshafen to Lakehurst was 93 hours; 67 hours, 30 minutes from coast to coast. Maintaining a steady speed of 55 nautical miles an hour, she had borne 20 passengers, two of them women, a crew of 41 men and a stowaway, a young German baker named Albert Buchsow, who decided at 18 to carve a career for himself in America. U. S. immigration officers took him to Philadelphia for deportation.

The Graf Zeppelin also brought a gorilla, a chimpanzee, 593 canaries, 30,500 letters, 31,500 postcards, a piano, dolls, etc.

The Graf left Lakehurst at 12.39 a.m., on Aug. 8 with 22 passengers, a dog, an alligator, and much cargo. The dog had come by airplane from Los Angeles. The dirigible passed over Paris and landed at Friedrichshafen on Aug. 10 at 8.02 a.m., (N. Y. Daylight Saving Time)—55 hours, 24 minutes.

—At Arrowe Park Camp, England, on the fifteenth anniversary of Great Britain's declaration of war against Germany, 50,000 Boy Scouts assembled from virtually every civilized nation of the globe—some from the Allied and associated powers, others from the former Central powers—formed up on the Arrowe Park rally ground to celebrate the peace of the world.

—At Ommen, Holland, Jiddu Krishnamurti, Hindu theosophist leader and head of the Order of the Star in the East, renewed his announcement of dissolution of the organization of his followers.

Aug. 5—Augusto B. Leguia was re-elected President of Peru for a five-year term, beginning Oct. 12.

—An outbreak of the feud between the On Leongs and the Hip Sings caused 1 death at N. Y. City, 2 at Boston, 1 at Chicago, and 1 at Newark, N. J. A peace pact was signed at N. Y. City on Aug. 7.

—13 drug addicts escaped in a riot of 100 at the Calif. State Narcotic Hospital at Spadra.

Aug. 6—Six long-term convicts made a break for liberty at the Kansas State Prison, Lansing; 2 were killed, 1 wounded, the others recaptured; 1 guard was injured.

—The White Star liner Britannic, largest British motor-driven ship, was launched at the Queens Island Shipyards, Belfast.

—Fighting between Rumanian coal miners of the Lupeny district and government troops resulted in the death of 58 with huadreds of wounded.

—Fires raged through the forests of Washington, Idaho and Montana, leaving 30,000 blackened acres.

—Lieut. Florentin Bonnet, of the French army, holder of the world's speed record for land planes and one of the four pilots chosen by the French Air Ministry to compete in the Schneider Cup races

at Calshot, England, was killed when the seaplane he was training crashed at Bordeaux.

Aug. 7—At Paris, the American Legion memorial, the Pershing Building, on the Rue Charron, was dedicated.

Aug. 8—The N. Y. Court of Appeals upheld the N. Y. City multiple-dwelling act of the recent legislature.

—The Federal Reserve Bank of New York advanced the rediscount rate from 5 per cent, the level which has been held since July 13, 1928, to 6 per cent. The bank also reduced buying rate on brokers' acceptances, from 5¼ per cent to 5½ per cent. This action was followed, on Aug. 9, by a break in Wall Street stocks which cost speculators $6,000,000,000. The decline swept over the world's stock markets.

—Incendiary fire destroyed Miner's Bowery Theatre, N. Y. City, opened in 1878.

ITALIAN MARRIAGE RULES.

—Throughout Italy the new marriage rules and regulations called for by the Lateran treaties between Italy and the Holy See became effective.

Wherever couples went to the altar they listened to the priest's explanation that henceforth marriage by the Church is sufficient and marriage by the State is not necessary.

Aug. 9—With a roar that shook the lower New York area, and an eighty-foot spurt of flame amidships, the 14,000-ton tanker William Rockefeller, of the Standard Oil Co. of New Jersey, with 140,000 bbls. of oil aboard, exploded at Bayonne, N. J., killing two men and injuring seven others, two of them seriously.

Aug. 10—President Hoover and family celebrated his 55th birthday at his fishing camp in the Virginia mountains. Among the guests were Col. and Mrs. Lindbergh.

—At Beverly, Mass., jewels valued at $250,000 were stolen from the summer home of Sydney E. Hutchinson, of Philadelphia. The gems were recovered, on Aug. 26, at N. Y. City, from 2 negroes.

—Cholera has reappeared in India in epidemic form following the overflowing of the Indus and infection is being spread by the migration of thousands of people from the region of the Upper Sind.

Aug. 11—Ex-Chancellor Hans Luther welcomed, at Berlin, the 4,000 delegates at the first session of the International Advertising Convention.

—An airplane crash near Clovis, N. Mex., killed Lieut. Orville Stephens, of Mitchel Field, Long Island, owner of the plane; T. E. Scully, manager of the Transcontinental Air Transport Company at Clovis, and Philip T. Berry, assistant to Scully.

—A Panama Canal slide of 20,000 cubic yards of earth on the east bank of Cucuracha, where a large slide occurred once before, extended into the channel but did not restrict navigation. The slide was caused by a break in the ninety-five-foot shelf.

—Venezuelan rebels attacked Point Cumana, and killed the Governor, Gen. Emilio Fernandez.

Aug. 12—Earth tremors which shook down the wall of a church at Attica, New York, were felt at 7.25-45 a.m. The area of disturbance extended as far east as Springfield, Mass., and as far west as Ashtabula, Ohio.

—Prince Francis I succeeded his dead brother. Joham II as ruler of Liechtenstein.

Aug. 13—At New Orleans 4 were shot and a number of city officials, including acting Mayor T. Semmes Walmsley were mauled and beaten when a mob of sympathizers with the street car strike which has been effective since July 2, invaded the City Council Chamber.

ZEPPELIN CROSSES ASIA.

Aug. 14—The Graf Zeppelin, with 20 passengers, left Friedrichshafen, Germany, at 11.35 p.m. (N. Y. Daylight Time, or 4.35 a.m., on Aug. 15 local German time) on the second part of her proposed trip around the world. The dirigible flew over Berlin, across Latvia, over European Russia north of Moscow, and, crossing the Ural Mountains, flew over Siberia. She was at Ajan, on the east coast of Asia, at 2 a.m., on Aug. 18; at noon that day crossed the Russo-Japanese frontier on Saghalien, and landed near Tokio about 6 p.m., on Aug. 19.

—Lieut. Gen. Ogawa and 7 other Japanese air officers died in bomber-plane crash, near Tokio.

—Gail Hamilton, 38, N. Y. City, employment agent, and Miss Montell Ovington Mansfield, divorcee, killed themselves after a party at her home, Spring Top Farm, near Poughkeepsie, N. Y.

Aug. 15—Fighting between Russian and Chinese troops along the Amur River is in progress.

Aug. 16—Col. C. A. Lindbergh drove an automobile around a concrete track at Utica, Mich., attaining a clocked speed of 112 miles an hour. His speed on single laps was 108 miles an hour.

—In the St. Lawrence River, near Alexandria Bay, N. Y., the speed-boat, Giggle, and the excursion steamer, Thousand Islander, were sunk in collision. The owner of the speed-boat, W. C. Lipe, of Syracuse, N. Y., wife, and pilot, Ford Dodge, were drowned.

Aug. 17—Speaking to welcoming throngs at Madison, Va., near his fishing preserve, President Hoover said: "It is generally realized and accepted that prayer is the most personal of all human relation, ship. On such occasions as that, men and women are entitled to be alone and undisturbed. Next to prayer, fishing is the most personal relationship of man, and, of more importance than the fact itself, everybody concedes that the fish will not bite in the presence of the public and the press."

—James Horace Alderman, 47, rum pirate, was hanged at the U. S. Coast Guard hangar, Ft. Lauderdale, Fla., for the murder of Robert K. Webster, a Secret Service man, and Victor A. Lamby and Sidney Sanderlin, coast guards.

Aug. 18—Nine negroes and 2 whites were burned to death in a train derailment at Henryette, Okla.

—Miss Thelma Martin, of Seattle, and K. Furuya, of Portland, Ore., perished in a snow-storm while climbing Mt. Shuksan, near Mt. Baker, Wash.

Aug. 19—Two young Swiss aviators, Oscar Kaesar and Kurt Luescher, left Lisbon in an airplane, Jung Schweitzerland, bound for New York (Mineola). They passed the Azores at 2 p.m. That was the last seen of them.

—Miss Marvel Crosson, 25, of San Diego, Calif., a contestant in the Women's Air Derby race from Santa Monica, Calif., to Cleveland, died when her plane fell near Welton, Ariz. She held the Woman's Altitude Record of 23,996 feet.

—Fire swept through the cabins and corridors of the steamship Paris, at Havre, and was followed by a second fire on Aug. 20.

—Over 500,000 cotton mill operatives at Manchester, England, ended a 3-week strike. Arbitration was agreed on.

—Control of the Tobacco Products Corp. and the United Cigar Stores Co. of America, retailers of cigars and cigarettes, shifted from George J. Whelan and his associates, to a group in the Management of the Gold Dust Corp., the American Waterworks and Electric Corp., the National Dairy Products Corp., the Guaranty Trust Co., the Cuba Cane Sugar Corp., the Corn Products Refining Co., and the Commercial Solvents Corp.

—Miss Eagle M. Ashmun, executive secretary of the San Francisco Chapter, American Red Cross, was stabbed to death by a man as she left her offices.

—Rush H. Knox, Attorney General of Mississippi, recently impeached by the House of Representatives of the state legislature, handed his resignation to Governor Bilbo.

Aug. 20—U. S. Gov't agents have seized, at Boston, Providence, and elsewhere, large quantities of anesthezia ether. The seizures were made as a result of an investigation by Dr. Allen W. Rome, of the Massachusetts Homeopathic Hospital, after patients had died under anesthesia.

—John Kolesar, 12, was shot to death, and two of three other children were wounded while in the cornfield, at night, on the farm of Craig Hoffman near Somerville, N. J. The September Grand Jury refused to indict Hoffman.

Aug. 21—The Chicago Daily Journal got out its last issue before merger with the Chicago Daily News.

—Earl Krieger and Albert McDonald were killed at West Frankfurt, Ill., by two policemen who halted the other car to search for liquor. The police said they first were fired on. A coroner's jury exonerated them.

—Building racketeers set off their eleventh incendiary fire in two months in the Bronx—a 105-family flat going up on Newbold Ave., Unionport; loss $200,000.

Aug. 22—Mrs. Calvin Coolidge helped the folks at Hancock, N. H., her girlhood home, celebrate the town's 150th birthday.

—Capt. Guiseppe Motta, Italian entrant in the Schneider Cup Race, died in plane fall on Lake Garda.

ZEPPELIN CROSSES PACIFIC.

Aug. 23—The dirigible, Graf Zeppelin, left Kasumigaura naval air port, 30 miles northeast of Tokio, Japan, at 1.13 a.m. (N. Y. daylight time; 2.13 a.m. Aug. 22 in Japan time). It passed over the Golden Gate near San Francisco, on Aug. 25, at 10.25 p.m. (N. Y. time) and landed at Los Angeles at 9.30 a.m. (N. Y. time) on Aug. 26. It had arrived over that city four hours earlier but circled around. Leaving there on Aug. 27, the Graf arrived at Lakehurst, N. J., on Aug. 29, at 8.13 a.m.

—At Jerusalem, 9 Jews and 3 Arabs were killed and 110 other persons were injured in a fresh outbreak. All shops were closed.

—"Uncle Jim" Parks, negro slave of G. W. Parke Custis, was buried with a military salute in Arlington, Va. National Cemetery.
—Mrs. C. A. Lindbergh made her first airplane flight alone, at Hicksville, L. I. The Colonel has been giving her lessons.
—The homestead of William Cullen Bryant, at Cummington, Mass., was dedicated as a national shrine. The Coolidges attended.
—Eight letters, one for each of her children, were handed to the jailer when he accompanied hangman Ellis to the cell in the prison of Hull, Que., where Mrs. Marie Viau and her lover, Philibert Lefebvre, paid with their lives for the crime of poisoning the woman's husband.
Aug. 24—King George left London and took up his residence at Sandringham, his farm.
—Arab-Jew outbreaks in Palestine continue, at Jerusalem, Hebron, Jaffa, and elsewhere. British warships are landing marines and airplanes are in use by the British.
Aug. 25—The 1929 Fair opened at Leipsig, Germany.
—Fire at the port of Hull, England, destroyed half a mile of docks, trawlers, the new million-dollar market, 150 fish cars; and put 60,000 persons idle.
Aug. 26—The Governors of New York and Vermont met above the waters of Lake Champlain and opened the new $1,000,000 bridge, which connects Crown Point, N. Y., with Chimney Point, Vt., and provides a short cut from the Adirondacks region of New York to the mountains of Northern New England and the coast of Maine.
—Warren Packard, auto manufacturer, died when his hydroplane fell 1,000 ft. into the Detroit River.
Aug. 27—The first leg of the Philadelphia-Cleveland air derby ended when the monoplane piloted by E. J. ("Red") Devereaux cracked under the strain of its speed and fell with him, his bride of three months and his mechanic to a mud flat off the Boston airport. Devereaux and the mechanic, Edward Reiss, were killed instantly, and Mrs. Devereaux, formerly Miss Herma Borges, was taken to the Hospital, where she died.
—Steps toward revision of the Federal public lands policy, to give the states of the West the authority and responsibility for an extensive conservation program will be taken by President Hoover, it was announced at the White House following receipt of a message from a conference of Western Governors approving such a course.
Aug. 28—The San Francisco daily Call, founded in 1856, has merged with the daily Bulletin, established in 1855.
—The yacht, Corsair, built in 1899 for the elder J. P. Morgan, has been given by the son to the U. S. Coast and Geodetic Survey.
—Police Commissioner Whalen, acting for the combined police, prosecuting and Magistrates' divisions of the city government announced that New York would refuse to assume the burden of enforcing the Prohibition laws by use of the State Nuisance Act as proposed by Federal Prohibition Director Maurice Campbell. He returned to Director Campbell more than one hundred complaints sent by Campbell to the Police Department in the past few days and said that all such complaints received in the future would also be returned.

ZEPPELIN ENDS ROUND THE WORLD TRIP.

Aug. 29—The dirigible, Graf Zeppelin, arrived at Lakehurst, N. J., from her trip around the World, at 8.13 a.m. She left there on Aug. 8, and covered over 19,000 miles in 21 days, 7 hours, and 34 minutes. The Byrd radio station at Little America, Antartica, conversed with the Grap while it crossed Pennsylvania nearing New York. Dr. Hugo Eckener, the balloon's commander, flew to Washington by airplane and was greeted by President Hoover. New York City officially welcomed him on Aug. 30.
The dirigible left Lakehurst with 22 passengers, on Sept. 1, at 8.18 a.m., and landed at Friecrichshafen on Sept. 4, at 3.52 a.m. (N. Y. daylight time) —a globe-circle from there in 20 days, 4 hours.
—At Cleveland, Lady Mary Heath, who was preparing to enter one of the women's contests in the national air races now under way there, crashed in her plane through a factory roof and was severely injured. Her hurts include a fractured skull, a fractured jaw and severe bruises. She recovered.
—Ruth Elder, 24, cross-Atlantic aviator, was married to Walter Camp, Jr., 38, at N. Y. City.
—Fire destroyed Lulworth Castle, built in 1588 on the Dorset coast of England.
—Moslem Arabs attacked the City of Safed, Palestine; killed 22 Jews, and burned the place.
Aug. 30—At Moscow, the Soviet Government accepted proposals of China for conclusion of a joint declaration for settlement of all questions arising out of the dispute over control of the Chinese Eastern Railway in Manchuria.
—The Council of the League of Nations met at Geneva.
—At the Hague the final preliminaries to the formal ending of the reparation conference were concluded, the delegates signing the agreements reached on evacuation of the Rhineland and on distribution of the Young plan annuities. The British troops will begin to leave the Rhine on Sep. 14 next.
—Sir Geo. H. Wilkins, explorer, married Miss Suzanne Bennett, actress, at Cleveland.
—The coasting steamer San Juan sank in collision with the Standard Oil tanker, S. C. T. Dodd, off Santa Cruz, Calif.; 70 were drowned.
—Over 60 died in collapse of a working folk tenement at Algiers, Africa.
—The N. Y. City Transit Commission settled for $9,250,000 a claim of $14,107,373.42 against the Interborough Rapid Transit Company and delivered to Controller Berry the company's certified check for $5,886,342.30. The claim represented accumulated withdrawals from joint revenue from subway operation under contract 3 between th company and the city from Jan. 1, 1919, to June 30, 1929.
—Fifty cases of typhoid have developed among children who were at a camp near Lakewood, Pa.
—Massacre by Chinese of 3,000 Moslems in Kansu Province was confirmed by letters from missionaries in the affected area.
Aug. 31—At Shanghai fears of rioting during the celebration of International Youth Movement Day were allayed by the execution by a firing squad of five youths, all in their teens, on charges of distributing Communist literature. The youths were arrested in the International Settlement and turned over to the Chinese authorities, who tried and executed them in less than two hours.
—The official bulletin issued by the Palestine Government lists the number of casualties and wounded to date as follows:
Killed: Moslems, 83, Jews 109, Christians 4.
Seriously wounded: Moslems 112, Jews 183, Christians 10.
—Near Cleveland, O., Thomas D. Reid established a new world's solo duration record. Two hours later he crashed to his death. Thirty-nine hours in the air, those who investigated the crash believe, was too much for the pilot. Drowsiness overcame him, it is thought.
—The three-year-old daughter of Fred Grorricicuk, Lowland, Manitoba, was killed when a black bear, driven out of the bush by fire and hunger, broke into the home and carried off the girl.

WAGGONER'S SWINDLE.

—Charles D. Waggoner, president of the Bank of Telluride, Colo., induced six New York City banks, by telegraphed orders, to give him a credit of $500,000. He cashed the orders. Waggoner was indicted for using the mails to defraud; on Oct. 10, 1929, he pleaded guilty, in the United States Court at New York City, and was sentenced to fifteen years in prison.

SEPTEMBER.

Sept. 1—At Berlin, an infernal machine planted on a basement window ledge of the Reichstag Building, exploded at 4 A. M. The bomb did little damage beyond smashing windows.
—Theatrical stage hands and musicians in the principal or syndicate-owned theatres at Philadelphia struck for continuous employment from September to May.
Sept. 2—Denying reports that Harry F. Sinclair, head of the Sinclair oil interests, who is serving a term in the District of Columbia jail for contempt of the United States Senate, had been taking pleasure trips in a motor car, Major William Peak, superintendent of the jail, disclosed that Mr. Sinclair had been engaged for the past two months in duties as assistant to the jail physician, which enabled him to go "several times weekly" to the municipal wharf by automobile. The Board of Welfare stopped the outings when informed of them.
Sept. 3—The temperature rose to 94.2 degrees Fahrenheit, at N. Y. City, 97 at Boston, and 99 at Plainfield, N. J. Snow fell in Montana.

T. A. T. PLANE DESTROYED.

—Lightning or an explosion sent a westbound Transcontinental Air Transport plane crashing on the south slope of Mount Taylor, 60 miles west of Albuquerque, N. M.; 8 died, including 5 passengers—W. H. Beers, Merrick, N. Y.; M. M. Campbell, Cinn.; Harris Livermore, Boston; A. S. McGaffey, Albuquerque; and Mrs. Corina Raymond, Glendale, Calif.
Sept. 4—Prof. Lewis M. Terman, of Leland Stanford University, has found, as a result of a series of tests made to determine masculinity and femininity

of mind, that married life tends to bring a man closer to the feminine type.

Sept. 5—Premier Briand of France outlined to the Assembly of the League of Nations, at Geneva, a plan for a United States of Europe.

—Uncle Sam's Navy was increased by one unit when the cruiser Northampton was launched at the Fore River, Mass., yards of the Bethlehem Shipbuilding Corporation. The craft took to its element after Mrs. Calvin Coolidge had smashed a bottle of mineral water across the port side of the bow.

Sept. 6—President Hoover, declaring he would tolerate no interference in his naval reduction moves from those with a financial interest at stake, announced that he had asked Attorney General Mitchell to investigate the statement of "a naval expert" that three large shipbuilding corporations employed him to help block a disarmament agreement at Geneva in 1927 and at other times.

—Secretary C. F. Adams on Sept. 9, stated publicly that the Navy Department did not authorize the activities of William B. Shearer at the three-power naval parley at Geneva.

Sept. 7—The corner-stone of the new Secretariat offices of the League of Nations was laid at Geneva.

—Hundreds were killed or wounded in fights on the Manchurian border between Russian and Chinese troops.

—Capt. Albert E. Woodbridge, who in the World War was credited with bringing down Baron Hauptmann von Richthofen, was killed with his mechanic and a passenger in landing an Indian air mail plane at Jask, Persia.

—100 persons, mostly children, drowned when the steamer Kurn sank in the Gulf of Finland. 24 died in sinking of steamer Dan in the Baltic.

Sept. 8—More than 200 deaths were caused by a typhoon which swept southern Luzon Island—with thousands of persons homeless in the stricken areas.

TEXTILE STRIKES IN NORTH CAROLINA.

Sept. 9—Insanity of a juror caused at Charlotte, N. C., mistrial in the case of the 16 textile mill strikers charged with the murder of Police Chief O. F. Aderholt at Gastonia, on June 7 last.

—After a union labor parade at Gastonia, a mob raided union headquarters there and at Bessemer City and Charlotte, and kidnapped Ben Wells, union organizer and flogged him and two companions, they charged.

Sept. 10—The U. S. Senate, 51 to 27, directed its Finance Committee "forthwith" to obtain from the Treasury statistics on corporation profits or losses when either the Republican majority or the Democratic minority of the committee makes such a request.

—The Rev. O. J. Kvale, U. S. Representative, was burned to death at his cottage, near Battle Lake, Minn.

—The freight steamer, Andaste, with crew of 25, sank in Lake Michigan, off Grand Haven.

Sept. 11—M. F. Morrison, 24, and W. E. Wilmot, 21, both of Elizabeth, N. J., were hanged in the prison at Moundsville, W. Va., for the murder, May 8, of Frank Bowen, at Len's Creek.

—Carl Hord, 21, and Ivan Hutsell, 27, were electrocuted in the prison at Eddysville, Ky., for the murder, in 1926, of two men and a woman.

—Jesse Spurrior, 16, a high school student, killed Helen McClaine, 13, and himself, at Port Angeles, Wash.

Sept. 12—Retaining the premiership and the portfolio of the Interior, Mussolini, at Rome, divided the other cabinet offices among his adherents.

—The Paraguay cabinet authorized a state of siege, owing to newspaper campaign. In Guatemala some constitutional guarantees were suspended.

—Baltimore began its 200th birthday with a parade. Mayor William F. Broening released a carrier pigeon which carried a message for President Hoover. Simultaneously, the Memorial Plaza echoed with the whirr of wings as the 500 other pigeons were freed, carrying messages of invitation and greetings to the Mayors of other cities.

—At Portland, Me., the veterans rose to their feet and shouted opposition to the proposed reunion of the soldiers of the North and South, as the Sixty-third National Encampment of the Grand Army of the Republic disapproved and rejected a resolution favoring a joint encampment.

—Raiph Fleagle, George J. Abshir, and Howard Rayston, at Lamar, Colo., pleaded guilty to murder, robbery, and kidnapping, as the sequel to their attack, in May, 1928, on a bank there, in which President A. N. Parrish and his son were killed. E. A. Kessinger was abducted and slain and Dr. W. W. Wineinger, after treating Royston's wounds, was shot to death at Dighton, Kan.

ST. LAWRENCE POWER MERGER.

Sept. 13—The Niagara Hudson Power Corporation, the $450,000,000 system recently formed by J. P. Morgan & Co. and associates, has purchased the Frontier Corporation and has thus acquired sites on the St. Lawrence River. The Morgan system already controls waterpower installations at Niagara Falls and other points of a capacity of 1,700,000 horsepower.

Sept. 14—Near Gastonia, N. C., a group of Anti-Communists watching the highway from Bessemer City to Gastonia to prevent mill workers attending the advertised meeting of Communists and members of the National Textile Workers' Union, fired into a truck in which twenty mill workers were riding and killed Mrs. Ella May Wiggins of Bessemer City.

—The body of Mrs. Robert A. McPherson, jr., was found at her apartment in Washington, D. C. It was alleged she had been strangled to death.

—Lightning touched off a $1,000,000 oil fire along the refinery docks at Linden, N. J., and spread along the New Jersey shore of the Kill Van Kull.

—At Geneva, the final chapter of America's second effort to get into The Hague Court, as far as the League of Nations is concerned, was written when the Assembly of the League unanimously approved the Root protocol and opened the document for signatures. Within a half hour eighteen delegations had signed.

—Airplane accidents throughout the U. S. killed 24 persons—6 at the new landing field at St. Catharines, Ont., Can.

—After a 61-day hunger strike, Jatindranath Das, 23, leader of the Bengal Youth Movement (Nationalist) died in the prison at Lahore, India. The body was removed to Calcutta, where 150,000 greeted it.

Sept. 15—After 120 years as a hotel, the Quincy House, Boston, closed its doors. It was built in a day when money was so scarce that the lease stipulated the rent should be paid in pounds of pig iron, grains of gold, or bushels of corn.

—Surgeons at Sing Sing Prison operated on Frank Plaia and removed his appendix. He was in a death cell, awaiting electrocution on account of the murder of Sorro Graziano and wife, near Belmont Park, N. Y.

Sept. 16—British troops killed 16 marauding Arabs at Hattin, near the Sea of Galilee.

—Sewer explosions at Newburgh, N. Y., killed 1, hurt 80, damaged 50 buildings, and caused several fires.

—Edmond Bayle, 50, in charge at the Paris of the criminal identification bureau, was slain by a cloth salesman whose signature to a document had been called fraudulent.

—Coal mine explosions killed 24 at Saarbruecken, Germany, and 11 near Metz, France.

—A diamond cutter has slashed 800 store windows at London.

Sept. 17—The Dist. of Col. Supreme Court fined Harry M. Blackmer, oil man, $60,000 on two charges of contempt growing out of his failure to obey subpoenas to appear as a witness in the trial of H. F. Sinclair and A. B. Fall. He is in Europe.

—H. H. Tallman, Boston-Newark, N. J., air mail pilot, died in a plane crash in fog near Berlin, Conn.

Sept. 18—Anti-Communists at Kings Mountain, N. C., kidnapped Cleo Tesneair, of Baltimore, textile union organizer, carried him into S. C., and beat him. A mob dynamited a speaker's stand at Kings Mountain.

—The Syracuse, N. Y. Post-Standard newspaper celebrated its 100th birthday.

WORLD COURT DEVELOPMENTS.

Sept. 19—At the Council Hall, Geneva, seven States signed the optional clause accepting in advance the World Court's compulsory jurisdiction in legal disputes. They signed in the following order: France, Great Britain, New Zealand, South Africa, India, Czechoslovakia and Peru.

Later the Council and Assembly, voting separately, elected Sir Cecil Hurst and Henri Fromageot legal advisers, respectively, of the British and French Foreign Offices to fill the vacancies on the World Court bench left by the death of the British and French judges.

—Representatives of the film industry signed, at Paris, an agreement continuing the status quo for one or two years, during which time both sides will work out a definite accord upon a principle other than the quota system.

—Military parades are a feature of the 3-day celebration of the 119th anniversary of Chilean independence.

—Frank Reed Whiteside, 63, treasurer of the Penn. Acad. of Fine Arts, was slain at Philadelphia.

SHEARER LOBBY CASE.

Sept. 20—William B. Shearer was employed by three shipbuilding companies only to "observe and report" in connection with the naval disarmament conference at Geneva in 1927 and the session of the preparatory disarmament commission, Clinton L. Bardo, president of the New York Shipbuilding Co., testified at the opening of the U. S. Senate Naval Committee's inquiry into charges that a lobby directed by Shearer wrecked the conference. He was not employed for propaganda purposes, Bardo declared. For his activities at Geneva and in connection with the merchant marine act of 1928, the shipbuilding companies paid Shearer a total of $46,750, of which his own company contributed $16,158, Bardo asserted. He added that the lobby conducted by the shipbuilders and allied interests in connection with the merchant marine act had cost $143,000, of which his company paid $102,000.

—Col. C. A. Lindbergh and wife left Miami, Fla., with passengers and mail, and landed at Havana, and then at Santiago de Cuba. On Sept. 21, he flew to Port au Prince, to Santo Domingo, and to San Juan, Porto Rico; on Sept. 22, his party was at Port of Spain; on Sept. 23, his official trip as a commercial pilot, opening the new air mail line, ended, via Georgetown, British Guiana, at Paramaribo, Dutch Guiana. Thence he and his wife toured on their own account.

—The Russian plane, Land of the Soviets, flew across Bering Strait, from Petropavlovsk, Kamchatka, to Attu, most western of the Aleutian Islands; on Sept. 24 it landed on Unalaska Island; on Sept. 27 it reached Seward, Alaska; at Sitka, Alaska, on Sept. 29.

—Clement Passal, a criminal, was buried by confederates in a forest, 30 miles west of Paris. Air and food were supplied through a pipe, but it choked, and Passal died of suffocation and hunger. His body was dug up by the police a month later, on a tip by the confederates.

—A messenger, Milton Alter, 18, went astray with $512,000 in securities in lower Broadway, N. Y. City. The stocks belonged to R. V. Hiscoe & Co., brokers. They were most all recovered.

—The British and French troops are evacuating the Rhineland.

—11 men and 9 women were burned or trampled to death in the Study Club, a downtown Detroit Cabaret; 47 were badly injured.

—Earthquakes in Anatolia destroyed seven villages.

Sept. 21—W. B. Shearer's secret employment as an "observer" at the Geneva Naval Conference in 1927 by the Bethlehem Shipbuilding Corp. came as a great surprise to Charles M. Schwab, Chairman of the Board of the Bethlehem Steel Corp., and Eugene G. Grace, its President, according to their sworn testimony before the Senate naval subcommittee.

PARDON REFUSED TO SINCLAIR.

—President Hoover let it be known that he would refuse the pleas for pardon from Harry Sinclair and his assistant, Henry Mason Day. Sinclair in a statement on Sept. 22, said his petition for clemency, denied by the President, was not based on ill health, but on the ground that he was imprisoned for doing something that was not prohibited by statute or rule of the courts.

Sept. 22—A White House statement to the press called on Senator Howell of Nebraska for "definite facts" to support his assertion in the Senate that the President could make Washington dry, if he insisted on it. The statement added that the President intends not only to secure the fullest enforcement in the District possible under this organization of enforcement agencies as provided by law, but to make it a model in the country.

—While carrying on his person a letter from Queen Marie of Yugoslavia to her mother, Queen Marie of Rumania, former Captain Serdici, intimate friend and adviser of former Crown Prince Carol of Rumania, was murdered near Gross Betschkerek in Banat Province. Serdici witnessed the marriage of Prince Carol and Zizi Lambrino.

Sept. 23—At Plainville, Conn., Maj. John Coolidge, son of former President and Mrs. Calvin Coolidge of Northampton, Mass., and Miss Florence Trumbull, daughter of Governor and Mrs. John H. Trumbull of Connecticut, were married in the Congregational Church. The elder Coolidge, before the ceremony, felt, with his foot, a microphone under the carpet, and a servant removed it.

—At Washington, inquiry by the Senate Naval Investigating Committee into the activities of William B. Shearer at the Geneva Conference of 1927, was featured by Samuel W. Wakeman, Vice-President of the Bethlehem Shipbuilding Corporation who characterized as "a damn fool decision" the agreement among shipbuilders to send Shearer to Geneva as an observer.

—Ignace J. Paderewski, pianist, was operated on for appendicitis at Lausanne, Switzerland.

—Mayor Gustav Boess of Berlin is in New York to return the visit Mayor Walker made to his city in 1927. He arrived on the steamer Berlin of the North German Lloyd. With him were four of his city officials. The group plans to study New York's municipal government before proceeding on a tour of other American cities.

—At Berlin, delegates from forty-three countries attended the opening of the congress of the International Interparliamentary Economic Union, in the hall of the Reichstag.

—The controversy that followed the Hebron massacre as to whether the Arab attackers mutilated the victims was closed with the issuance of statements by the Palestine authorities and by the Zionist Executive in Jerusalem. The Arab leaders assert their honor was saved. British doctors declare mutilations were not established and Jewish physicians insist that because of the conditions of the bodies when the exhumation took place, proper examination was impossible.

LIQUOR DRINKING IN WASHINGTON.

Sept. 24—In the U. S. Senate, Brookhart, of Iowa, told of the serving of liquor to newly elected and old Senators at the New Willard Hotel some years ago, at a function attended by Senator Smoot, chairman of the Finance Committee, and other Senators. Smoot denied he had known liquor was served there. The affair was given by a club which had no connection with the management of the hotel it was stated. Flasks had been hidden under the tables and guests reached under and got them, Brookhart said.

Sept. 25—Chancellor Sternwith of Austria, and his cabinet resigned. A new one was formed by ex-Chancellor, Police Chief, Johann Schober.

—At Berlin, Germany, a merger was announced of the Deutsche Bank and the Disconto Gesellschaft, with combined capital of $67,857,000, and deposits of $1,023,809,520.

Sept. 26—Col. C. A. Lindbergh, wife, and J. T. Trippe and wife flew from Port of Spain to Maracay, Venezuela; they were at Baranquilla on Sept. 28; at Cristobal, C. Z., on Sept. 29; at Managua, Nicaragua, on Oct. 2; at Guatemala City, on Oct. 3; at Belize, British Honduras, on Oct. 4.

—Representative Edith Nourse Rogers, Mass., presided over the U. S. House during its 4-minute session.

Sept. 27—At White Plains, N. Y., Earle F. Peacox, 22, radio mechanic, who, on April 21st last strangled his wife and burned her body, was found guilty of second-degree murder and was sentenced to prison for 20 years to life.

—A 3-day storm in the Bahamas killed 5 at Nassau, and destroyed property and shipping; 20 houses were wrecked at Ft. Lauderdale, Fla.; some damage was done at Havana.

—Mrs. Elsa Marshall was attacked and strangled and her body left in bushes near the Knollwood Country Club, Westchester County, N. Y.

—At Rome, Caesare Rossi, former friend of Premier Mussolini, who was accused of conspiring with Communists and others to overthrow the existing Italian regime and with fomenting attempts on the life of the Duce, was sentenced to thirty years' imprisonment by a special tribunal.

—The gold medal of the Veteran Wireless Operators' Association was presented on a radio talk at N. Y. City by David Sarnoff, to Malcolm Hanson, chief radio engineer of the Byrd Expedition, who returned thanks by wireless, from Little Antarctic, 11,000 miles distant.

—Dieudonne Coste and Maurice Bellonte left Le Bourget Field, near Paris, in their airplane, Interrogation Point. They landed Sept. 29, in a desert region in East Manchuria, having gone about 6,158 miles.

Sept. 28—Sir William Waterlow was chosen Lord Mayor of London, succeeding Sir Kynaston Studd.

LONG DROUGHT IN ENGLAND.

Sept. 29—Heavy rainfall in all southern counties of England, with storms of almost tropical intensity in some districts, broke the drought of 37 wholly rainless days. This was the longest such period for 71 years and had the drought lasted until tomorrow night it would have broken the records of a century.

—Daylight Saving Time at N. Y. City was succeeded at 2 a. m., by Standard Time.

—Two huntsmen potting at robins and woodpeckers, for which there is no open season, for the sake of the savory Italian dish polenta killed W. T. Kramer, a N. Y. state game warden, in the Idlewild woods near Jamaica, Queens, attacked another and then escaped. Frank Aldino was convicted of murder, 2nd degree.

Sept. 30—The Empress of Japan gave birth to a daughter—her third child, all girls.

—Rear-Admiral J. M. Reeves told the U. S. Senate Committee, at Washington, that he never had expressed the hope the Geneva Naval Conference would fail. The American delegation, he said, desired equality in naval strength, and, without such, the belief was the conference would fail.
—William B. Shearer, American shipbuilders' agent at the conference, denied he lobbied there against disarmament; he denied Scotland Yard (London) police accusation that he was an associate of international crooks and a suspect in two thefts on the Continent.
—Gov. Moody, Texas, proclaimed martial law in Hutchinson County, and State troops took possession of the towns of Stinnet and Borger. At the latter, Dist. Atty. John A. Holmes was assassinated on Sept. 13. It is a new oil town, and Moody charged it with being crime ridden.
—At Lemars, Iowa, Rex Frolkey, ordained Evangelical minister and former Western Union College football star, committed suicide after robbing the Sioux Centre State Bank.

OCTOBER

Oct. 1—The Borough of Sudbury, England, conferred the freedom of the place on C. G. Dawes, U. S. Ambassador, whose ancestor, William Dawes, emigrated thence to America, 1628-29.
—Having lost $124,000 in Wall Street speculation, W. J. Keyes, radio maker, jumped eleven stories to death at New York City.
—At Elizabethton, Tenn., Consul W. C. Kummer, acting president of the American Bemberg and Glanzstoff rayon plants, was found dead at his home, his wrists slashed with a razor.

STRIKERS KILLED AT MARION, N. C.

Oct. 2—At Marion, N. C., three strikers were killed and twenty were wounded when Sheriff Oscar Adkins of McDowell County and eleven deputies broke up a picket line in front of the mill of the Marion Manufacturing Co. The strikers were members of the United Textile Workers, affiliated with the American Federation of Labor.
—The U. S. Senate voted to take away from the President the power to change tariff duties on recommendation of the Tarriff Commission, which has been vested in the Executive since 1922. The vote was 47 to 42.
—At Frankfort, Ky., the first trial resulting from the recent indictment of Governor Sampson, members of his textbook commission and publishers, came to an end with an instructed verdict for acquittal of the Governor.
—The Church of Scotland, and the United Free Church of Scotland, apart 87 years, formally reunited, in a joint session, at Edinburgh.
—Henry Mason Day, associate of Harry F. Sinclair in oil enterprises, left the District of Columbia jail at 12:25 a.m. after completing a four months' sentence begun June 24 for jury shadowing in the Fall-Sinclair conspiracy trial.

COLORADO CONVICTS KILL IN MUTINY.

Oct. 3—A mutiny of convicts at the Colorado State Penitentiary, at Canon City, lasted until Oct. 4, when the four leaders of the revolt killed themselves and the rest surrendered. Seven guards and five felons were killed. The chapel mess hall, and two cell-houses were burned. The warden's quarters and several other buildings were damaged by dynamite used to effect a breach in the convicts' stronghold in cell-house No. 3. The damage exceeds $300,000.
Four of the guards who lost their lives were shot by their convict captors when Warden F. E. Crawford refused to accede to the demand of the ringleaders for safe conduct to freedom. The five convicts who are dead were Danny Daniels, A. H. Davis, Melvin Majors alias George Reilly, Albert Morgaridge, and James Purdue. Daniels, it was charged, killed 11 of the 12 who were slain, including himself.
—Gustav Stresemann, German Foreign Minister and ex-Chancellor, died of a stroke, at Berlin.

PREMIER MACDONALD'S VISIT.

Oct. 4—The British Premier, J. Ramsay MacDonald, and his daughter, Miss Ishbel, arrived at N. Y. on the Berengaria, received the freedom of the City, and went to Washington with U. S. Secretary of State, H. L. Stimson, where the Premier was greeted at the White House by President Hoover.
The President, the Secretary of State, and the Premier, and their party, motored late on Oct. 5 to the Hoover fishing camp near Orange, Va., where they discussed disarmament. The outcome was that on Oct. 7, invitations were issued from London to the United States, France, Italy, and Japan to a 5-Power Naval Conference at London in January, 1930. On that day the Hoover-MacDonald party returned to Washington, and the Premier spoke before the Senate and House and was the guest of honor at a state dinner at the White House. On Oct. 9 he was given an honorary degree by George Washington University. On Oct. 10 he gave a dinner at Philadelphia to the doctors who treated him there in 1927 for throat trouble. Then he and his daughter returned to New York City, where he spoke on several occasions. They went to Buffalo and Niagara Falls on Oct. 14, and entered Canada on Oct. 15.
—At New Orleans, two Negroes, Edward McKay and William Virgets, convicted of attacks upon white women, were hanged in the Orleans Parish jail. Each entered the death chamber in a procession led by a Negro banjoist, a Negro minister, the condemned with guards, and another banjoist bringing up the rear.
Oct. 5—A seaplane of the N. Y. City Police Department alighted at the east end of the Cape Cod Canal in Mass., alongside the tug, Harry F. Keeler, arrested the Captain, and flew back with him to Astoria, whence he was taken by motor to Manhattan and charged with the death, on Oct. 4, of a barge skipper, near Ft. Schuyler, in a fist fight.
—A surgeon at Berlin removed her appendix from Mrs. James J. Tunney (Mary J. Lauder), wife of the ex-champion boxer.
Oct. 6—At N. Y. City, 2,000 market teamsters and truck drivers went on strike, paralyzing the delivery of $6,000,000 worth of fresh fruit and vegatables. The railroads, late on Oct. 7, embargoed all shipments of fresh vegetables and fruits to the city. The drivers got a raise of $5 a week and the strike ended on Oct. 8, with an agreement that farm produce brought into the city on private trucks would first have to be taken to a station on West Street and reloaded onto union trucks before delivery could be made.
—At Merida, Yucatan, Col. Charles A. Lindbergh and his wife were received by local authorities and officials when they flew from Belize, British Honduras, on an archeological expedition to study Maya ruins. The Colonel was accompanied by Drs. Alfred Kidder and Oliver Ricketson, Carnegie Institution scientists; Mrs. Lindbergh and a co-pilot.
Oct. 7—Secretary Mellon will remain at the head of the Treasury Department for the next three and one-half years, the White House announced.
—At Reno, Nev., on the ground of desertion, Mrs. Nathalie Sedgwick Colby, author, was granted a divorce from Bainbridge Colby, Secretary of State in President Wilson's Cabinet.
—France distributed prizes to growers and celebrated, nationally, its 319,000,000-bu. wheat crop.
—At Valparaiso, Ind., the charge of murdering Miss Cameola Soutar, her husband's housekeeper, was dismissed as against Mrs. Catherine Cassler, who once was sentenced at Chicago to be hanged, but got a new trial and later the charge was dropped.

FALL FOUND GUILTY.

—Albert B. Fall, former Secretary of the Interior, was put on trial in the Supreme Court of the District of Columbia, charged with accepting a bribe of $100,000 from Edward L. Doheny in the leasing of the Elks Hills naval oil reserve during the Harding Administration. Doheny, on Oct. 18, testified for Fall, saying the money was simply a loan to an old friend. The jury, Oct. 25, pronounced Fall guilty, and suggested mercy. He was sentenced, on Nov. 1, to $100,000 fine and a year in prison. Notice of appeal was given and Fall posted $5,000 bail.
—Alligators ate all seven of the passengers on a wrecked launch in the Grijalva River, Mexico.
Oct. 8—The Philadelphia Athletics beat the Cubs at Chicago, 3 to 1, and won the first game of the 1929 baseball World Series. They won the second game, 9 to 3, on Oct. 9. The Chicagos won, at Philadelphia, the third game, 3 to 1, on Oct. 11; the Athletics won the fourth game at Philadelphia, 10 to 8, on Oct. 12; they won the fifth game and the World Series, 3 to 2 on Oct. 14 at Philadelphia. President Hoover was a spectator at the final game.
Oct. 9—In a joint statement, President Hoover and Prime Minister MacDonald announced, at the end of their five days of private meetings, that Great Britain and the United States: (1) Resolve to accept the Kellogg peace pact "as a positive declaration to direct national policy in accordance with its pledge." (2) Declare that "war between them is unthinkable." (3) Have agreed to begin conversations to solve "old historical problems" which have "changed their meaning and character" in the light of the "assumption that war between us is banished," so that satisfactory solution has become possible. The United States,

Great Britain, France, Italy and Japan agreed later to a naval disarmament conference at London.

—The U. S. Senate, 45 to 36, defeated the King amendment to the tariff bill granting independence to the Philippines.

—The Court at Louvain, Belgium, upheld N. Y. Architect Whitney Warren's demand that the inscription originally selected for the balustrade should be placed thereon and ordered that the balustrade be replaced at the university's expense with Warren's inscription: "Destroyed by German fury; restored by American generosity." The tribunal ruled that the balustrade could be removed once it had been completed and officially accepted.

President Hoover, on Oct. 18, in a public statement, opposed the inscription. He was Chairman of the committee that raised 70 per cent. of the reconstruction fund.

—At N. Y. City, General Sessions Judge Francis X. Mancuso, Chairman of the failed City Trust Co., resigned from the bench.

—Habibullah Khan, the brigand chieftain who was known as Bacha-I-Sakao, "son of the water-carrier," before he took up arms early this year in revolt against King Amanulla and drove him from his throne of Afghanistan, has been defeated and driven from Kabul, the capital. Nadir Khan was proclaimed Amir, or King, on Oct. 15.

Oct. 10—Charles Delos Waggoner, former president of the Bank of Telluride, Col., who had admitted that he defrauded six New York banks out of $500,000 credit, threw himself on the mercy of the Court at N. Y. City, and received a fifteen-year term at Atlanta Penitentiary. The sentence was the heaviest known to have been imposed in any United States tribunal for use of the mails to defraud. It was reduced later to ten years. Waggoner disposed of $270,000 deposited in the Central Hanover Bank and Trust Company, by liquidating an indebtedness of $215,000, by depositing $45,000 in the credit of the Bank of Telluride and by withdrawing $10,000 for himself. The First National Bank of Pueblo, Colo., received the remaining $225,000 as a deposit, but this money, on Waggoner's order, has been withdrawn and transferred to other banks and individuals in driblets of $20,000 to $50,000.

—At Paris, Doris Stevens, feminist leader, was granted a divorce from Dudley Field Malone, N. Y. lawyer, on the ground of abandonment.

Oct. 11—The official delegation of Poland sent to the United States to honor General Casimir Pulaski, the Polish hero of the American Revolution, was presented to President Hoover at a White House ceremony on the occasion of the 150th anniversary of Count Pulaski's death.

ENGLAND'S LARGEST DIRIGIBLE.

Oct. 12—The R-101, the world's largest dirigible balloon, was "launched" by the British Government at Cardington, England. On Oct. 14 it carried a crew of 38 and 14 passengers on a 300-mile trial flight. The craft cost $5,000,000.

—The Australian general Parliamentary elections swept out of power Prime Minister Stanley Bruce. The Labor Party got control of the House; the Nationalists held control of the Senate.

—At Atlanta, Ga., James Rae Clarke, 52, former head of the New York banking house of Clarke Brothers, died in his cell at the Federal Prison. He was received at the prison on Aug. 25 to serve a term of eight years for violation of the banking laws.

Oct. 13—The Canadian Pacific trans-Atlantic liner, Empress of Canada, enroute to Vancouver, B. C., piled on the rocks at Homer Bay, near Albert Head, in the Straits of Juan de Fuca during a dense fog. The passengers were landed safely. The ship was refloated on Oct. 15.

—At Seattle, Wash., the Russian aviators, flying their plane Land of the Soviets from Moscow to New York, arrived from Waterfall, Alaska. It reached Vancouver, Wash., on Oct. 17; on Oct. 19 it landed at Oakland, Calif.; Salt Lake City was reached on Oct. 22; North Platte, Nebr. Oct. 23; at Chicago on Oct. 24; at Detroit, Oct. 28; and landed, on Nov. 1, at Valley Stream (Curtis Airport), L. I., N. Y.

—At Beacon, N. Y., three demented criminals escaped from Matteawan State Hospital for Criminal Insane by using a ladder and tools left by electricians, cutting a hole through a metal ceiling and sliding to the ground along a stretch of electric cable.

Oct. 14—At New Rochelle, N. Y., Isidor Atlas upbraided Samuel Malakoff, realtor, for foreclosing a mortgage on Atlas' meat shop. Then Atlas killed Malakoff and himself.

Oct. 15—British Premier MacDonald, daughter and party, ended their U. S. visit and went from Niagara Falls to Toronto; they reached Ottawa on Oct. 17, and Montreal on Oct. 21. They left for Europe on Oct. 25, by way of the St. Lawrence River.

SENATE INVESTIGATING LOBBYISTS.

—The U. S. Senate's investigation of lobbying in Washington opened with testimony that pottery interests had attempted to overthrow F. L. Koch, an expert of the Federal Tariff Commission on the grounds that he was prejudiced.

—Rudy Cimino, 23, a "human fly," climbed on the outside to the top of the 44-story Civic Opera Building at Chicago, then tried to slide down a rope head-first to the sidewalk, but lost his grip and fell 20 stories, killing himself and a passing pedestrian.

—At Wallingford, Conn., Mrs. Anna Bryan Ayers, 41, and W. H. Gaylord, 46, were found shot to death in a hotel room. She earned $100,000 a year writing "ads," was a divorcee, with 3 sons; Gaylord was a bookkeeper, married, with children.

Oct. 16—35 prohibition raids at various points from Atlantic City to the eastern end of Long Island resulted in the exposure of a bootlegging syndicate with nominal headquarters in a room on W. 43rd Street, N. Y. City; 32 men were placed under arrest, and a fully equipped unlicensed radio broadcasting station six miles from Highlands, N. J., was taken over by the prohibition agents.

—A bureaucracy at Washington, which "has a strangle hold on Congress is the most immediate, imminent and insidious danger to our form of government," F. Dupont Smith, Hutchinson, Kan., chairman of the Standing Committee on American Citizenship, charges in his report to the American Bar Association, the first section of which is in session at Memphis, Tenn. The report is signed by all members of Smith's committee.

—After 127 years of publication, The Edinburgh Review has ceased to exist, because, its editors assert, "Modern readers are not willing to wait a quarter of a year for observations on life, letters history and society."

—At Washington, the expenditure of more than $500,000 since 1921, or an average of $70,000 a year, by the U. S. Beet Sugar Assn., in representing its members before government departments and in impressing upon members of Congress the need for higher tariff rates to "adequately protect the domestic industry" was revealed in testimony before the Senate lobby investigating committee.

Oct. 17—U. S. Senator Hiram Bingham, Republican, of Connecticut, appeared before the lobby investigating committee and defended his employment of C. L. Eyanson, an official of the Connecticut Manufacturers' Association, to advise him during the tariff hearings before the Senate Finance Committee.

—At N. Y. City, the guard of an armored money car drove off with $63,000 of payroll money, abandoned the car, and vanished with the cash.

—At Seattle, Wash., fire in the Portland Hotel killed 8 and hurt 14.

OHIO WATERWAY CELEBRATION.

—At Pittsburgh was begun the Ohio Valley's celebration of the completion of the thousand-mile, 9-ft. deep waterway from Pittsburgh to the Mississippi; opened with five members of the President's Cabinet, the Governor of Pennsylvania and the presidents of six railways as the chief guests of honor. President Hoover made the trip down the canalized Ohio River, Oct. 22-23, on the U. S. Govt. stern-wheel steamboat, Greenbrier, which started at Cincinnati, went 82 miles, moored to the bank, and continued the next day to Louisville.

Oct. 18—At Toronto, the American Federation of Labor, at the concluding sessions of its annual convention, instructed its executive council, "in view of the existence of the Catholic Union movement in the Province of Quebec," to take such action as may serve to bring about conditions under which Quebec workers will have the right freely to join unions affiliated with the American Federation of Labor.

Oct. 19—The U. S. Senate, 42 to 34, attached the Norris export debenture "rider" to the Hawley-Smoot tariff bill.

—Christian Rakovsky, former Soviet Ambassador to Paris, and former President of the Ukraine Republic, has been arrested by the Soviet secret police and deported to Barnaul, Siberia.

Oct. 20—A malady communicated by parrots has killed several actors and other persons in Santa Fe Province, Brazil.

EDISON'S GOLDEN JUBILEE.

Oct. 21—Thomas A. Edison, at Dearborn, Mich., reenacted his discovery of the electric light in

the same laboratory in which he worked in Melno Park, N. J., fifty years ago. Step by step he repeated the scene of his invention in the presence of President Hoover, Mrs. Hoover and Mr. and Mrs. Henry Ford. Noted inventors and outstanding leaders of industry gathered at a dinner of 500 guests in honor of Edison in a replica of Independence Hall, in Henry Ford's reconstructed early American Greenfield Village to honor the inventor. He spoke over the radio, but grew weak. The President and Owen D. Young, toastmaster, spoke in his praise.

The exercises at Dearborn followed a motor trip by the President through Detroit.

The President, the Edisons and Fords rode from the River Rouge auto plant, Dearborn, on an ancient train of 3 cars drawn by Sam Hill, an ancient engine. Edison played the role of "news butcher" on the ancient train from which he was tossed by an irate conductor in his youth. One of his customers was President Herbert Hoover, who took a peach.

Prof. Albert Einstein, at Berlin, and Commander Byrd, in the Antarctic, radioed greetings.

—Carrying 169 persons, the new German hydroplane, DO-X, rose near Friedrichshafen, from the water at Altenrhein, on the Swiss side of Lake Constance, at 11:15 a.m., flew at an average height of 600 feet, reaching 1,200 feet at times, and crossed over parts of Switzerland, Germany and Austria before making a smooth landing in its harbor at 12:07 o'clock. The total load carried is estimted at exceeding fifty tons.

SENTENCES IN TEXTILE KILLINGS.

—At Charlotte, N. C., a jury convicted of manslaughter those on trial for the shooting to death of Police Chief O. F. Aderholt on June 7 last, in connection with the cotton mill strike at Gastonia. Jail terms of 17 to 20 years were imposed on Fred Erwin Beal of Mass., Clarence Miller of N. Y., George Carter of New Jersey, and Joseph Harrison, another outsider; 12 to 14 year terms went to Louis McLaughlin and William McGinnis of Gastonia; and a 5-year term to K. Y. Hendricks of Gastonia. Beal, Miller, Carter and Harrison received second sentences of ten years for shooting Patrolman Tom Gilbert, but these are nominal sentences, as they will run concurrently with the heavier ones. The other defendants received lighter sentences to run concurrently. Beal got out on bail on Nov. 5, pending appeal.

Oct. 22—Urban F. Diteman, Jr., of Billings, Mont., left Harbor Grace, N. F., in a light, low-wing, open cockpit monoplane, the Golden Hind, with 165 gallons of gasoline, bound for London. He was not heard from.

—Beaten in the French Chamber of Deputies, 288 to 277, the Cabinet of Aristide Briand resigned.

—A ragged Chilean youth pointed a pistol at President Carlos Ibanez, near Santiago, but the trigger failed to map.

—At Tampa, Fla., Walter Gramm, Chicago coal dealer, was fined $1,000 and costs in Federal Court after he had assumed responsibility for liquor found in trunks brought into this country last May from Cuba by his brother-in-law, Representative Alfred Michaelson, Republican, of Illinois. Gramm pleaded guilty to violating the prohibition law.

Oct. 23—President Hoover, speaking from Louisville's memorial to the World War dead, announced a plan to turn millions of dollars now used for the construction of battleships to the completion of a vast network of inland waterways. He said the Mississippi and its tributaries should be modernized within five years. He declared in favor of the St. Lawrence deep-water route to the Atlantic. He returned to Washington on Oct. 24.

—The U. S. Senate lobby investigating committee heard Herbert C. Lakin of New York, president of the $165,000,000 Cuba Company, testify that the interests of large corporations and the business world would be unsafe unless they maintained lobbies in Washington.

STOCK EXCHANGE PRICES SMASHED

—The Wall Street Stock Market was smashed down $5,000,000,000 in an avalanche of selling, one stock declined 96 points.

—The car ferry-boat, Milwaukee, sank in Lake Michigan, off Racine; 52 persons lost.

—One athlete out of every seven engaged in intercollegiate competition is "subsidized" to a point bordering upon professionalism, says a report on "American College Athletics," made public by the Carnegie Foundation for the Advancement of Teaching after a survey which has consumed more than three and a half years and entailed visits of 130 colleges and secondary schools.

Oct. 24—Total sales on the New York Stock Exchange were 12,894,650 shares, as compared with the 8,246,000-share record set on March 26; and on the Curb were 6,337,415 shares, as compared with the 3,715,400 record established Oct. 21. A total of 974 separate issues were dealt in on the Exchange, this figure establishing a new record. Bonds, which were strong, reached a volume of $23,233,000, the biggest day in that market since April 23, 1926.

Bankers conferred at J. P. Morgan & Co.'s office and issued a reassuring statement, saying business is fundamentally sound. The Federal Reserve Board held two meetings at Washington. Demoralization prevailed in the grain markets on the Chicago Board of Trade coincident with the smash in the Stock Market.

—Joseph R. Grundy, President of the Pennsylvania Manufacturers' Association, told the U. S. Senate Lobby Investigating Committee he had lobbied for higher rates in every tariff bill since the Dingley act of 1897 because he believes the prosperity of the United States is bound up with the protective tariff. He added that he has assisted in raising Republican campaign funds in Pennsylvania, including $800,000 in 1924 and about $700,000 from the Eastern part of the State alone in 1928, and that he is now spending $2,000 a month out of his own pocket to maintain an office in Washington to influence the Hawley-Smoot bill.

HUMBERT ESCAPES ASSASSINATION.

—At Brussels, Crown Prince Humbert of Italy laying a wreath on the tomb of Belgium's Unknown Soldier, just after the official gazette had appeared with announcement of his betrothal to Princess Marie Jose of Belgium, escaped a bullet fired by Fernando Rosa, 21, an Italian anti-Fascist, who had come from Paris on a forged passport.

—Fire at Hollywood, Calif., destroyed part of the plant of the Consolidated Film Laboratories, Inc.

—A sentence of two years' imprisonment and the payment of a fine of £50 ($242), plus the costs of the trial, was pronounced on Sheik Taleb Markah, on trial in the Jerusalem District Court as one of the instigators of the Hebron disorders, in which sixty-six Jews were killed and scores injured.

—The Mt. Hope Bridge over Narragansett Bay, between Bristol, R. I., and Portsmouth, R. I., was opened, and the ferry (operated since 1680) was closed.

Oct. 25—Total sales on the N. Y. Stock Exchange were 5,923,220 shares; on the Curb Exchange, 2,731,900 shares. President Hoover said at the White House: "The fundamental business of the country, that is, the production and distribution of commodities, is on a sound and prosperous basis."

—At N. Y. City, Marcia Estardus, night club entertainer, won an award of $75,000 from a jury in Supreme Court in an action against Harry K. Thaw to recover $100,000 for injuries she said he inflicted on her when she attended a New Year's Eve party at his home in 1926. A previous trial had resulted in a disagreement. The Court recuced the verlict to $25,000.

—17 distilleries, 12 of them the old plants of famous brands of whiskies and five new ones, were incorporated at Baltimore under Maryland law to make whisky, wine and gin, "in so far as is now or hereafter may be, permitted by law."

Oct. 26—A daughter was born to Mrs. T. W. Evans, aboard a cabin airplane as it circled 1,200 feet above Miami, Fla.

—Governor Morgan F. Larson, of New Jersey, officially opened the 250th anniversary of the founding of the City of Trenton, when he addressed 20,000 persons at the dedication of the new Mercer Airport.

—The seaplane, City of Rome, bound from London to India, with 4 passengers and a crew of 3, was lost in the Gulf of Genoa, Italy.

—"Beneath the dignity of the Senate and tending to shake the confidence of the American people in the integrity of legislation," was the statement of the Senate lobby committee in submitting to the U. S. Senate a report dealing with the circumstances attending the "loan" of Charles L. Eyanson, high official and tariff expert of the Connecticut Manufacturers' Association, to Senator Hiram Bingham, Republican, of Connecticut, during the tariff hearings.

Bingham, on Oct. 28, in a speech in the Senate; accused the committee of "dirty politics."

Oct. 27—At Los Angeles, Alexander Pantages, theatre owner, was convicted on a charge of assault on Eunice Pringle, seventeen-year-old dancer, by a Superior Court jury, which recommended that Pantages be sentenced to the state penitentiary for the term prescribed by law, but urged that clemency be extended.

—In the Czechoslovak Parliament election, the various groups of Socialists won and the Communists lost. The Cabinet resigned.

Oct. 28—Sales on the N. Y. Stock Exchange totaled 9,212,800 shares; on the Curb Exchange, 4,152,900 shares. Losses in quoted values exceeded $10,000,000,000. European and out-of-town American security exchanges also were affected. On the over-the-counter market bank and investment trust stocks fell, losses of 3 to 25 points occurring in investment trust shares, and leading bank and trust company stocks dropping from 10 to 60 points in the lower-priced issues. In the high-priced bank stocks prices fell from 100 to 500 points. As on the Stock Exchange, wide breaks in high-priced stocks featured trading on the Curb.

—At Mexico City, Miss Elizabeth Morrow, eldest daughter of Ambassador and Mrs. Dwight W. Morrow, began her career as a teacher, holding her first English class at one of the primary schools. Miss Morrow devoted her half-hour period to teaching three phrases: "Good morning, boys," "This is my dog," and "This is a dog."

—On the Capitoline Hill, where ancient Rome used to crown her poets, Premier Mussoline inaugurated the Academy of Italy, the members of which have been chosen by him.

—The execution of two prominent Moscow diamond merchants after their conviction of smuggling diamonds out of the Soviet Union brought the total of reported executions to 63 in the last four days. Most of the alleged offenses were political and were particularly concerned with opposition to the government policies of grain collection and formation of agricultural co-operatives.

STOCKS CRASH ON HEAVY SALES.

Oct. 29—Sales on the N. Y. Stock Exchange totaled 16,410,030 shares; on the Curb Exchange, 7,096,300 shares. Sales since Jan. 1, 1929 on the N. Y. Stock Exchange have been 950,797,190 shares; on the Curb Exchange, 411,311,035 shares. During the day the stock prices virtually collapsed, swept downward with gigantic losses in the most disastrous trading day in the stock market's history. Billions of dollars in open market values were wiped out as prices crumbled under the pressure of liquidation of securities which had to be sold at any price. There was a rally just at the close, which brought many leading stocks back from 4 to 14 points from their lowest points of the day. One Curb house suspended. 1,000,000 persons, it is said, have been speculating in stocks.

—The U. S. Senate Lobby Investigation Committee listened while Joseph R. Grundy declared that "backwaid" States such as those represented by several committee members should not meddle with tariff problems, but should leave that issue to the determination of States like Pennsylvania, which, he said, assist in paying the upkeep of the States first mentioned.

—The Goodrich passenger and freight steamship Wisconsin went to its doom in Lake Michigan, off Kenosha. Nine men, including Captain H. Dougal Morrison, of Chicago, veteran Great Lakes skipper, are known to be dead.

—The $20,000,000 Farmers' National Grain Corporation was set into motion by the Federal Farm Board with a program which involves the handling of 500,000,000 bushels of grain annually. It will be the central marketing agency for hundreds of grain co-operatives of the country and is the first of a chain of such organizations to be sponsored by the board for agricultural commodities.

Oct. 30—Sales on the N. Y. Stock Exchange were 10,727,320 shares; on the Curb Exchange, 3,809,200 shares. The two Rockefellers announced they were buying "sound, common stocks" for investment. The rally in prices that began late on Oct. 29, continued. Another Curb Exchange house suspended, a brokerage firm at Worcester, Mass., suspended, one at Madison, Wis., and one at Amsterdam, Holland. The break in prices in Wall Street and the consequent stock market losses are sending home in a hurry many Americans who have been enjoying themselves in Europe on paper profits.

WARDER GIVEN PRISON SENTENCE.

—At N. Y. City, Frank H. Warder, former State Banking Superintendent, on trial for bribery in relation to the affairs of the wrecked City Trust Company, took the witness stand in his own defense. The jury, on Nov. 5, found him guilty of taking a $10,000 bribe from F. M. Ferrari, President of the concern, now dead. He was sentenced Nov. 8, to 5 to 10 years in prison. Notice of appeal was given.

—With continuance of the liquor control system as the main issue, the voters of Ontario Province, Can., in the general election, indorsed the Conservative government, headed by Premier G. Howard Ferguson, returning it to power for a third term and increasing its majority in the Legislature.

—Before a gathering of scientists, government officials and members of the diplomatic corps, President Hoover handed to Mme. Marie Curie co-discoverer of radium, a draft for $50,000, to purchase a gram of the mineral as a gift from her American friends and admirers.

Oct. 31—Sales on the N. Y. Stock Exchange totaled 7,149,390 shares; on the Curb Exchange, 2,288,000 shares. They opened at noon and closed at 3 p.m. There were declines in quotations on many securities, but buying of "sound" standard stocks by powerful interests buoyed the market. The Federal Reserve Bank of New York reduced its rediscount rate from 6 to 5 per cent. and announced that the total of loans to brokers and dealers for the week ended Oct. 30 had decreased $1,096,000,000 to $5,538,000,000. The Bank of England lowered its discount rate from 6½ to 6 per cent. The Stock Exchanges in N. Y. City and other large cities closed at 3 p.m. for the rest of the week—Friday and Saturday.

—President Hoover publicly bade the U. S. Senate hasten to passage within 2 weeks the tariff bill it had been considered since June. He said: "he could not believe and therefore would not admit that the United States Senate was unable to legislate;" and he added that the interests of the country required that legislation should be completed during the special session.

NOVA SCOTIA ENDS PROHIBITION.

—The Province of Nova Scotia ended 13 years of prohibition by voting for the sale of liquor under government control.

—Collision of the lake freighters, Senator and Marquette, sunk the former off Port Washington, Wis., and 7 were drowned.

—At Warsaw, Marshal Joseph Pilsudski and 90 army officers invaded the Polish Parliament and postponed its opening session, which later was adjourned to Dec. 5.

NOVEMBER.

Nov. 1—Bainbridge Colby, 59, ex-U. S. Secretary of State, married, at Brooklyn, Mrs. Joseph N. Ely, 39, a widow. Her maiden name was Anne Von Ahlstrand. The groom's first wife divorced him Oct. 7 at Reno, Nev.

—At Minneapolis, properties valued at $20,000,000, owned and managed by Wilbur B. Foshay and the W. B. Foshay Co. were thrown into receivership.

Nov. 2—A wireless report from Kabul, Afghanistan, announced the execution of Bacha Sakao, usurper of Amanullah's throne and known as "The Water Boy of the North." Eleven of his allies were executed at the same time.

—In France, a new Cabinet was formed, with Andre Tardieu as Premier. Briand is Minister of Foreign Affairs.

—The skeleton of Dorothy Rogers, 4, daughter of Allen Rogers, insurance agent, of Woodbury, N. J., was found at National Park, N. J. The skeleton of her brother, Timothy, 2, had been found near Absecon, N. J.

Nov. 3—American-born sons of Italian parents, American citizens of Italian birth, and citizens of Italy living in the United States may return to Italy without fear of compulsory conscription or of incurring any responsibility for military service duties in time of peace, according to a statement issued by the Italian Embassy at Washington, D. C.

—At Roosevelt Field, L. I., Baron Friedrich Karl von Koenig Warthausen, 23, amateur pilot, carrying as passengers two horned toads from Texas and a white Siamese cat presented to him by the Crown Prince of Siam, arrived in his tiny monoplane from Albany, completing, except for the Pacific Ocean and two short gaps in Asia, an 18,000-mile flight from Berlin to New York.

—400 were killed in Guatemala by an eruption of the volcano, Santa Maria, 70 miles northwest of the Capital.

BINGHAM CENSURED BY SENATE.

Nov. 4—The U. S. Senate, 54 to 22, passed the following: "Resolved, that the action of the Senator from Connecticut, Mr. Bingham, in placing Mr. Charles L. Eyanson upon the official rolls of the Senate and his use by Senator Bingham at the time and in the manner set forth in the report of the subcommittee of the Committee of the Judiciary (report No. 43, Seventy-first Congress, first session), while not the result of corrupt motives on the part of the Senator from Connecticut, is con-

trary to good morals and Senatorial ethics and tends to bring the Senate into dishonor and disrepute, and such conduct is hereby condemned."

—At Draguignan, France, a jury freed Richard Corbett, who said he shot and killed his mother last May to relieve her sufferings from cancer.

—Sales on the N. Y. Stock Exchange totaled 6,202,930 shares; on the Curb, 3,001,400 shares. Prices kept on going down.

Nov. 5—The British House of Commons approved, 324 to 199, resumption of diplomatic relations between Great Britain and Soviet Russia, as negotiated by Arthur Henderson, Foreign Secretary.

Nov. 6—Sales on the N. Y. Stock Exchange were 5,914,760 shares; on the Curb, 2,131,000 shares. The exchanges closed for the day at 1 p.m. Prices kept on going down.

—Six men were killed and two seriously burned when a German air liner bound from London to Berlin crashed in flames on a wooded hillside in Surrey after taking off from Croydon Airdrome.

—At Weatherford, Tex., R. H. Hamilton was acquitted of murder for slaying his son-in-law, Tom Walton, Jr., in Hamilton's Amarillo law office last May 4..

—U. S. Senator Brookhart, of Iowa, told the Dist. of Col. grand jury what he saw at the dinner which, it is alleged, Walter J. Fahy, of N. Y. City, gave to old and new Republican Senators, at Washington in Dec. 1926..

Nov. 7—A parrot which kept crying "More margin!" was found by a New York City policeman at 5th Ave. and 81st St. Sales on the Stock Exchange totaled 7,184,060 shares, and on the Curb, 2,380,100 shares. Prices went on down, but rallied some at the close of the trading, at 1 p.m.

—Mrs. Hulda Browaski, chief clerk in the bond department of a stock broker, at N. Y. City, plunged 37 stories from the roof of the building to the pavement of Cedar St.

Nov. 8—Sales on the N. Y. Stock Exchange were 3,214,660 shares; on the Curb, 1,274,100 shares. The exchanges closed at 1 p.m. Prices flattened a bit toward the end. A bank officr at Camden, N. J., confessed he had lost $70,000 of the funds in Wall St.

—John J. Riordan, 48, President of the County Trust Co., shot himself to death at his home, W. 12th St., N. Y. City. His death was kept secret by the authorities until Nov. 9, when the banks and stock exchange were closed.

—The New Zealand government has concluded an agreement with the Salvation Army whereby conscientious objectors will have the alternative of social service in the Salvation Army or service in the military ranks.

—At Los Angeles, the court granted 10 years probation to Mrs. Alexander Pantages, whose car had killed a Japanese, and ordered her to pay $66,500 to the victim's family, and $12,000 to others in his car.

Nov. 9—At Baden-Baden, Germany, Basle, city of northwest Switzerland, was chosen as the site for the new bank for International Settlements by the organizing committee set up under the Young reparations plan.

—The court at Los Angeles passed prison sentence of 1 to 50 years on Alexander Pantages, convicted of assaulting criminally Eunice Pringle, 17, a dancer. Notice of appeal was filed by the defense.

MIRACLES REPORTED AT MALDEN.

Nov. 10—At Malden, Mass., after 150,000 pilgrims had crowded all day into Holy Cross Cemetery to reach the tomb of a young priest where miraculous cures have been reported by visitors for the last ten days, police and cemetery officials removed the stone temporarily as the only method of clearing the graveyard. The pilgrimages continued for days, and many cures were claimed. Offerings were left on the tomb. Cardinal O'Connell went there several times and watched the throngs.

—Five men invaded the home in Champaign, Ill., of Henry M. Harris, and obtained $1,000 in cash and jewels valued at $50,000. Jewels valued at $58,000 and $1,000 in cash were obtained by four St. Louis bandits who held up Andrew W. Johnson, shoe manufacturer, and his wife, and Mr. and Mrs. J. Fred Byers, of Pittsburgh.

—The West Coast Limited, Southern Pacific passenger train, was wrecked near Saugus, Calif., by two robbers who entered four coaches and held up passengers.

—In Brazil, the City of Mendoza has been under martial law since the assassination of former Governor Carlos Washington Lencinas of Mendoza Province, who was shot and killed. Jese Caceres, who is alleged to have fired the fatal shot, died of wounds.

Nov. 11—Miss Ruth Rockwell, 18, of Philadelphia, committed suicide by leaping from a plane in which she was the sole passenger 2,000 feet in the air over Valley Stream, L. I.

HOOVER WANTS FREE GOOD SHIPS.

—In his Armistice Day address to the American Legion, at Washington, President Hoover said: "For many years, and born of a poignant personal experience, I have held that food ships should be made free of any interference in times of war. I would place all vessels laden solely with food supplies on the same footing as hospital ships. The time has come when we should remove starvation of women and children from the weapons of warfare."

—Sales on the N. Y. Stock Exchange totaled 3,367,150 shares; on the Curb, 1,895,185 shares. Stocks kept on going down. The exchanges closed at 1 p.m.

—Eight or ten employees of the Union Industrial Bank at Flint, Mich., stole, and lost in stock speculation, $3,592,000 of the bank's cash and securities, according to the president, Charles S. Mott, who is Vice-President of General Motors Co.

—At Nanking, China, Ying Kao, former Chinese vice-consul in San Francisco, and his wife, Mrs. Susie Ying Kao, were sentenced to prison terms and fined for attempting to smuggle opium valued at $500,000 into San Francisco last summer—Ying Kao, seven years' imprisonment and was fined $3,000 gold. His wife was sentenced to four years in prison and was fined $2,500.

—Lieut. Carl Ben Eielson, famous pilot of the North, was wrecked on the ice-bound Siberian coast while making a second flight to rescue passengers on the frozen-in fur trading ship Nanuk.

—Rain and wind destroyed hundreds of miners' homes in Rhondda Valley, South Wales.

AMBASSADOR BRIDGE DEDICATED.

—The Ambassador Bridge over the Detroit River, between the U. S. and Canada, was dedicated. It cost $20,000,000. The river span is 1,850 ft. long. The roadway is 47 feet wide. Work was begun in 1927.

Nov. 12—Sales on the N. Y. Stock Exchange (10 a.m. -1 p.m.) were 6,452,770 shares; on the Curb, 2,204,700 shares. Stocks kept on going down.

—George Small, who escaped from Auburn prison during the convicts' revolt last July, turned up in Brooklyn with three pistols and was captured, with a bullet wound in his head, after a running fight with the police, in which Mrs. Irene Sumner, of Johnson Street, Brooklyn, who was wheeling her child to a hospital, was killed.

—Bishop William T. Manning of the Episcopal diocese of New York made public a letter to the Rev. Dr. Karl Reiland and the wardens and vestrymen of St. George's Church, Stuyvesant Square, "officially admonishing" them not to permit a communion service to be held in St. George's Church "at which the officiant is to be a minister who has not received Episcopal ordination."

Nov. 13—Sales on the N. Y. Stock Exchange (10 a.m. -1 p.m.) were 7,761,450; on the Curb, 2,779,550 shares. Prices kept on going down. A brokerage firm put in, near the close, a standing bid for 1,000,000 shares of Standard Oil of N. J., at $50 a share. That stock had fluctuated between 50 and 55, closing at 50¾ for a net loss of 3¼ points. Transactions in it amounted to 108,700 shares. As far as is known the bid is the largest ever made.

—At Rochester, N. Y., Robert M. Searle, who rose from office boy for Thomas A. Edison to an outstanding figure in public utilities circles, committed suicide at his home after worrying over stock market losses.

—A platoon of burglars captured the U. S. Naval Supply Base in Brooklyn and, taking prisoner a naval officer, an engineer and five armed guards, held it for five hours while they tried in vain to force a paymaster's safe containing $84,500.

—U. S. Secretary of War, James W. Good, 63, was operated on at Washington, D. C., for appendicitis. He died on Nov. 18. His body lay in state at the White House, and then was buried at Cedar Rapids, Iowa.

—At Bagdad, Sir Abdul Muhsin, Premier of Iraq, was found dead from bullet wounds.

Nov. 14—Sales on the N. Y. Stock Exchange were 5,569,360 shares; on the Curb, 2,287,500. The N. Y. Fed. Reserve Bank cut the rediscount rate to 4½ per cent. Stock prices rallied some. At Philadelphia, a broker's clerk who had lost $209,000 of his employer's money, was held in $100,000 bail for trial. Also at that city, W. P. Brown, 35, a broker, shot himself to death. At N. Y. City the Bankers' Capital Corp. has been petitioned into bankruptcy. At London, J. Horstman & Co., bankers, of Bishopsgate, suspended payment. The company had an authorized capital of £1,000,000 ($4,860,000).

—Seven robbers invaded a house party near Buffalo, and got $286,000 of jewels from Mrs. J. L. Carson, Jr., Mrs. R. A. Van Cleaf and other women. Rewards of $10,000 for each dead robber identified and $5,000 for each one taken alive were offered. They were caught alive.

Nov. 15—Wall St. prices kept on rallying. Sales on the N. Y. Stock Exchange were 4,339,980; on the Curb, 1,874,200.

—At Herington, Kan., Sheriff Sidney C. Dederick was exonerated by a coroner's jury inquiring into the killing of Mrs. Louise Horton, of Kansas City, an alleged whiskey runner.

Nov. 16—At Helsingfors, Finland, proposal by Justice Nordgren, of the Supreme Court, that the prohibition law which has been in effect for ten years be terminated has been rejected by his colleagues on the bench.

MEXICO ELECTS RUBIO PRESIDENT.

—The Mexico-U. S. border was closed against Americans and 50,000 troops were called out in anticipation of the Mexican presidential election, on Nov. 17, which resulted in favor of Pascual Ortiz Rubio, 52, civil engineer. More than 30 persons were slain in election riots at Mexico City and elsewhere. The defeated candidate was Jose Vasconcelos Ortiz, lawyer. Rubio takes office Feb. 5, 1930, and serves until Nov. 30, 1934, filling out the remainder of the six-year term for which former President Alvaro Obregon was elected in June, 1928, only to be assassinated three weeks later. The Chamber of Deputies ratified his election, on Nov. 28, and declared him president.

—Charles Joseph Leicester Stanhope, tenth Earl of Harrington, was killed while hunting with his own pack of hounds at Holbrook, Derbyshire.

Nov. 17—At Champaign, Ill., with several thousand fathers of University of Illinois students on the campus attending the annual Dad's Day festivities, Sheriff Elmer Shoaff and his deputies at 2 a.m. raided the Gamma Eta Gamma fraternity house, arrested three students and obtained about ten gallons of alcohol and other liquor. The University then dismissed 8 student members of that fraternity.

EARTHQUAKE OFF NEWFOUNDLAND.

Nov. 18—The Atlantic coast, from N. Y. City northward to Newfoundland and Nova Scotia was shaken by an earthquake for an hour in the afternoon while rain and snow pelted, and tidal waves, augmented by gales, swept up on the shore. At least 9 ocean telegraph cable wires were broken by the rise and fall of the ocean floor off Nova Scotia. The Olympic and other big steamers were shaken in that part of the sea. A tidal wave swept the south coast of the Burin Peninsula, Newfoundland, dragging homes back into the sea, destroying fishing boats and nets, and drowning over 40 persons.

—Sales declined in volume on the N. Y. Stock and Curb Exchanges. Prices sagged. At Providence, R. I., the brokerage house of Mandeville, Brooks & Chaffee went into voluntary receivership. At Two Harbors, Minn., John A. Barton, 54, killed his crippled mute daughter and himself. Harry K. Hopkins ended his life, at Newark, N. J.

—Marshall Ratcliff, who figured in the Cisco bank robbery in 1927, fatally wounded Deputy Sheriff Thomas Jones in trying to escape from the jail at Eastland, Tex., was lynched on Nov. 19 by men who made a grass rope and hanged him from a phone cable wire.

—At Alamogordo, N. M., in a special master's sale, Edward L. Doheny, oil operator, purchased the property of Albert B. Fall, former Secretary of the Interior, for $132,491.81.

Nov. 19—At the White House, heads of twelve of the country's leading railroads pledged to President Hoover their aid in maintaining full employment and business progress by proceeding with maximum programs of new construction and betterments "without any reference to Stock Exchange fluctuations."

—The stock market continued to rally, some.

—The N. Y. State Court of Appeals held that not only does the constitution prohibit the legislative chairmen from sitting in on the approval of lump-sum appropriations but the prohibition extends to the Governor as well, and such segregation must be left entirely to the head of the department receiving the appropriation.

Nov. 20—Charles I. Reid, amateur pilot, was killed when his plane crashed down on the roof of the new Y. M. C. A. building in 64th St., just west of Central Park, N. Y. City. Robert J. Baillc jumped with a parachute and saved his life. He landed on a roof across the way.

—The jail term of Harry F. Sinclair, oil refiner, for contempt of court, ended at midnight, at Washington, D. C., and 7 minutes later he left the premises, denouncing his imprisonment as unfair. He went to his stock farm, Rancocas, N. J.

—At Jerusalem, the first death sentence to be imposed upon a Jew in connection with the rioting in Palestine last August was pronounced against Joseph Urfall by Chief Justice McDonnell. The condemned man was convicted of having killed two Arabs in the quarter between Jaffa and Telaviv.

—Dewey Richmond, 31, pleaded guilty, at Cincinnati, to 2nd degree murder and got a life sentence for his part in robbing and strangling Bishop J. C. Hartzell, 86, in June, 1928.

HOOVER CONFERS WITH BUSINESS MEN.

Nov. 21—After a conference at the White House with captains of industry and business, President Hoover announced plans for the formation of a definite organization representing industry, trade and commerce for the mobilization of these agencies and their cooperation with the government in order to carry out his policy of stabilizing the business of the country and preventing such disturbances as have followed in the wake of the stock market dislocation.

—Henry Ford, one of those present, said he would boost wages. The stock slump, he said, was not the cause but the effect of the decline in business.

—The U. S. Court jury, at N. Y. City, in the alleged $300,000,000 poultry trust case, found 66 of the 68 defendants guilty.

—At N. Y. City, the indictment against Francis X. Mancuso, former judge of General Sessions, and his six associates on the board of directors of the defunct City Trust Company, charging participation in the allegedly fraudulent insolvency of the institution, were dismissed by Justice Arthur S. Tompkins, of the Supreme Court.

—A London police court sentenced Jacobus Van Dyn, of N. Y. City, to 15 strokes from the cat-o'-nine-tails and 18 months of hard labor for robbery with a pistol. The crime netted him $100.

—At Washington, D. C., a boiler explosion in the basement of McCrory's 5 and 10 cent store on 7th St., N. W., killed 5 and injured a score.

Nov. 22—Appearing before the U. S. Senate Lobby Committee, Fred I. Kent, a director of the Bankers Trust Co. of N. Y., stood pat on his declaration, made in a speech on Nov. 11, that uncertainty in the business mind over the fate of the tariff bill in the Senate, due to the opposition of the Republican-Democratic coalition, was in part responsible for the recent decline in the stock market.

—Railway executives of 97 per cent. of the country's railroads, meeting at Chicago, notified the President they would go ahead at full speed with their $1,247,792,000 new construction program, an increase of 38 per cent. over last year, of which $673,972,000 remained to be spent. Leaders in the building trades met with the President, Secretary of Commerce Lamont and Secretary of Labor Davis in the fifth of the White House series of group conferences.

—Leaving the Smoot-Hawley tariff bill suspended in the air until the regular session of Congress on Dec. 2, the special session of Congress was adjourned sine die.

—Manufacture of whiskey for medicine, suspended by the U. S. Gov't. since Sept., 1917, was resumed, at licensed distilleries.

Nov. 23—A direct appeal to the states to help offset possible unemployment by lining up with the Federal government and private industry to carry on prudent construction and expansion programs was telegraphed to the forty-eight Governors by President Hoover.

—Having lost $400,000 in the Wall St. stock crash, John F. Betts, a St. Louis member of the N. Y. Stock Exchange, ended life by poison at St. Louis.

DEATH OF CLEMENCEAU.

Nov. 24—Georges Clemenceau, 88, Premier of France in the latter part of the World War, died in his home, at Paris. He was buried without pomp, by his wish, in a wood near Mouchamps, in the Vendee region.

—Francis E. Warren, 85, U. S. Senator from Wyoming and a former Governor of that state, died at Washington, D. C.

—At Jerusalem, Norman de Mattos Bentwich, Attorney General of Palestine, the only Jewish official who holds a high post in the Government, was shot and wounded by a young Arab, a messenger in the Department of Police and Prisons.

Nov. 25—In the British House of Commons, the First Lord of the Admiralty said the British naval stations at Bermuda and Jamaica will not be closed.

—President Hoover continued his series of business revival conferences at the White House when spokesmen of the four leading farm organizations assured him that easier money would aid the

farmers to buy equipment and supplies and recommended that Federal aid be extended for farm-to-market roads as a further stimulus to constructive work.

—The Belgian Cabinet resigned. Flemish extremists, allied with the Catholic parties, wanted to have all classes in Ghent University taught in the Flemish tongue, but Flemish Liberals wanted to retain certain courses delivered in French.

—Lieut. George T. Cuddihy, famous speed pilot of the navy, was killed at the Anacostia, D. C., naval air station when a fighting plane he was testing fell and was buried in the soft ground.

Nov. 26—At Washington, the Pan-American Trade Conference convention for the simplification and standardization of customs and port regulations, was signed at the last session of the Pan-American Commission on Customs Procedure and Port Formalities at the Pan-American Union. Representatives of all American republics except Argentina participated in the signing. The proposed convention will be submitted to the various Governments for approval.

Nov. 27—At Carle Place, near Mineola, N. Y., a four-motored monoplane, the F-32, largest land plane in America, wrought havoc by losing flying speed and coming down, wrecking a house and being destroyed with it in flames from its ruptured gasoline tanks. The pilot, M. S. Boggs, and mechanic, Harry McDonald, the only occupants of the ship, were thrown or jumped clear.

—A conference at the White House of 35 heads of electric light, heat, power and rail concerns resulted in an assurance of expenditure, in 1930 of more than $1,810,000,000 in construction and improvement.

—A dozen Oklahoma banks failed to open, following the death of H. A. McCauley, former Mayor of Sapulpa, and holder of the control of 13 banks in the State.

BYRD FLIES TO SOUTH POLE.

Nov. 28—Commander Richard E. Byrd started from his base, Little America, in the Antartic, at 3.29 (10.29 p.m. New York time) on a 1,600-mile flight to the South Pole and back, with Bernt Balchen as pilot, Harold I. June as radio operator, and Capt. Ashley C. McKinly as photographer, in the big trimotored airplane he took to the Antartic.

The party got back on Nov. 29, at 5.10 p.m. (N. Y. time), and reported that they reached the Pole on Nov. 29, about 8.55 a.m. (N. Y. time); dropped a U. S. flag there (it was 16° below zero); circled over the polar plateau, and, on the return journey, landed once in the mountains to refuel.

—James B. Pauley, Chairman of the Miami Coal Co., killed his wife and himself, at Chicago.

—Jemuel G. Marty, Jr., 23, of Kansas City, Mo., fell down stairs and broke his neck in a ballroom at Florence, Italy. His wife, 22, formerly Dorothy Easton, of N. Y. City, shocked by his death, died the next day from overdose of a sleep potion.

Nov. 29—The Carnegie Institution of Washington's non-magnetic exploration yacht, Carnegie, was destroyed by fire and explosion in the harbor of Apia, Samoa. The captain, J. P. Ault, and one other, were killed, and several vessels moored near-by were burned.

—The bodies of 75 American soldiers of the World War who fell in the Archangel campaign against the Reds of Russia, arrived at N. Y. City by ship; 56 were buried later at Detroit, 12 in other parts of the west, and the rest in the east and south.

Nov. 30—At Marion, N. C., Alfred Hoffman, United Textile Workers of America organizer, and Lawrence Hogan, Del Lewis and Wes Fowler, strikers from local cotton mills, were convicted by a jury in McDowell Suprior Court of rioting. They were acquitted of charges of resisting officers. Hoffman was fined $1,000 and sentenced to one month in jail, and Fowler, Hogan and Lewis were each given six months in the chain gang.

—12 were killed in the derailment of a northbound passenger train near Only, Va.

FRENCH EVACUATE COBLENZ ZONE.

—The French flag hauled down at Ehrenbreitstein, marked complete evacuation of the Second German Zone, as a similar ceremony took place at Aix-la-Chapelle (Aachen) where Belgian troops retired over the frontier into their own country. This leaves only the Third Zone, centering at the Mainz (Mayence) bridgehead, of the Rhineland under Allied control.

—12 were killed in the collapse of an apartment house at Marseilles, France.

DECEMBER.

Dec. 1—Paris paid homage to the late Georges Clemenceau by addresses of notables, and a procession under the Arch of Triumph.

—In the recreation yard at Sing Sing Prison, N. Y., Reuben Kaminetsky, 17, of Brooklyn, serving 7½ to 15 years for a hold-up in Oct. 1928, was stabbed to death by a negro convict with whom he had fought months ago.

—7 were killed in a coal mine explosion near W. Frankfort, Ill.

Dec. 2—The United States has appealed to Russia and China, in the name of the general pact for the renunciation of war, to avoid warlike measures in Manchuria and adjust their dispute over the Chinese Eastern Railway by pacific means, and has notified 53 other nations of its move.

Russia officially resented the appeal as "not taken as a friendly act." Japan holds aloof. The U. S. denied unfriendliness and said it had not known of the negotiations in Siberia.

Soviet and Mukden representatives, meeting at Nikolsk-Ussuriisk, Siberia, signed a protocol reorganizing the administration of the Chinese Eastern Railway in conformity to the 1924 treaty.

—The seventy-first Congress assembled in its first regular session, at Washington.

—The exodus, from Soviet Russia to Canada, of peasants of German birth or ancestry, has begun in force, more than 700 arriving in East Prussia and in Pomerania.

—Jewels stolen from St. Peter's in 1925, including the so-called fisherman's ring, rich with sapphires and diamonds, have been recovered by the Roman police. They were identified by Mgr. Bocchini, custodian of St. Peter's treasury.

—Thomas P. Nelson, air mail pilot, died of wounds and exposure after his plane fell in the snow near Chagrin Falls, O. Col. C. A. Lindbergh aided in the search from the air for the body.

—Ford Motor Company employees of every grade began working under an increased wage scale. The minimum wage was boosted from $6 a day to $7. All employees whose wage rate exceeded the minimum wage received an increase in their hourly rate.

Dec. 3—President Hoover presented his annual message to Congress—12,000 words; declaring business sound; urging speed on tariff legislation, pledging an income tax cut; asking for a stronger "dry" law and rail mergers; favoring the Root plan for World Court adherence. The stock market rallied.

—James Joseph (Gene) Tunney, retired heavyweight champion of the world and tourist in Europe since August 22, 1928, returned to New York with his wife, who was Mary Josephine Lauder, of Greenwich, Conn. They were married in Rome in October, 1928.

—Paul Stewart, 17, the youngest licensed airplane pilot in the United States, was killed when his plane nose-dived 200 feet at Randalia, Iowa.

—At West Orange, N. J., Thomas A. Edison received the congratulations of the State of New Jersey on his career. A committee named by Governor Larson waited on him in the library of his experimental plant and presented resolutions signed by the committee.

Dec. 4—President Hoover submitted to Congress a budget for the year ending June 30, 1931, amounting to $3,830,445,231; he recommended a cut of $160,000,000 in normal taxes on incomes.

—Ex-U. S. Representative William S. Vare, of Pennsylvania, who, on the face of the returns, was elected in Nov. 1926, to the U. S. Senate, appeared partly paralyzed before that body, and argued against the plan, embodied in the Norris resolution, to deny him a seat on the ground that fraud and corruption tainted his nomination on the Republican ticket. He said the 1926 Rep. Campaign in Pennsylvania cost only $1.30 a vote, as against $4.46 in Nev., and $2.59 in Mont. The Senate, on Dec. 6, by 58 to 22, excluded him, and by 66 to 15, declared William B. Wilson, Dem., not elected to Vare's seat.

—The Belgian Cabinet was reconstituted under Premier Henri Jaspar.

—At Detroit, James Fernando, convicted of kidnapping Jackie Thompson, 5, and holding the boy from Sep. 30 to Oct. 26, was sentenced to 30 to 60 years in prison. Notice of appeal was filed.

—The full-rigged ship, Benjamin F. Packard, built in 1883, and now anchored in Manhasset Bay, L. I., was sold at auction at N. Y. City for $1,000.

—The Appellate Division, in Brooklyn, gave a new trial to Jacob Bernoff, who on April 10 last was convicted of kidnapping Daniel Greenfield and was at that time sentenced to 50 years in prison.

—Following a strike at the Customs office, 'U. S. Marines declared martial law in Port-au-Prince, and at Cape Haytien, Hayti; '500 more marines were sent to Hayti; on Dec. 6, marines killed 5 and wounded 20 in a force of 1,500 peasants advancing on the city of Aux Cayes. President Hoover, on Dec. 7, reported the situation to Congress and asked for a commission to study the situation and make relations of the U. S. less vague.

Dec. 5—At Washington, leaders of American industry admonished by President Hoover that a formula for success is to be found in the word "work," discussed in detail their individual plans and then constituted a Committee on Ways and Means numbering sixty.

The House of Representatives, without a roll call, passed the Hawley joint resolution reducing income taxes $160,000,000. The vote was 282 to 17. Nine Republicans, seven Democrats and one Farmer-Labor member cast the 17 opposition votes.

—By spending 1 hour and 35 minutes within the Vatican precincts as guests of Pope Pius XI, the King and Queen of United Italy publicly placed the final seal of their approval on the Lateran Treaties, with the signing of which last Feb. 11 the sixty-year-old Roman question passed into history.

—The question of the guilt of purchasers of liquor has been settled for Alabama by a ruling by the State Supreme Court, which held sellers and buyers of intoxicants equally amenable under the state's "bone dry" liquor law.

—George A. McManus was acquitted in General Sessions, N. Y. City, by direction of Judge C. C. Nott, after a trial on an indictment charging the fatal shooting, on Nov. 4, 1928, of Arnold Rothstein.

—Storms sank the steamer Frances Duncan off Land's End, England; 16 were drowned.

—At Sutton Chapel, Monroe County, Tenn., a male school teacher whipped a girl pupil. Her father, Charles Young, went to the school with a club, and the teacher shot him to death.

Dec. 6—Patrick J. Hurley, 46, lawyer, Asst. Sec. of War, was appointed Secretary of War in place of James W. Good, deceased.

—The Nanking Nationalist Government has approved the protocol preliminary to settlement of the Chinese Eastern Railway dispute. The mutiny on Dec. 3, of Nationalist soldiers at Pukow has grown into a rebellion in several provinces of Central China. Other rebels continue to threaten Canton. Nanking, China's capital, was placed under martial law, also Shanghai, Canton, and Hankow.

—The Polish Parliament, 246 to 120, voted lack of confidence in Premier Switalsky and his Cabinet. The Cabinet quit.

—C. C. Cook, a bank messenger, was killed and robbed of $15,000, at 17th and French Sts., Philadelphia. Robbers got $50,000 in currency at the Layton Park (Wis.) State Bank.

—Edsel Ford's brand new $400,000 power boat, the Sialia, went on the rocks of Hen and Chickens Shoal, off Mass.

Dec. 7—The British steamer Radyr foundered in Biddeford Bay, Devonshire, with the loss of the crew of 21. The steamer Frances Duncan went down off Land's End with a loss of 16. The Italian freighter sank with loss of 30 men.

—At Aix-les-Bains, France, Aga Khan, former Indian ruler, married Miss Andree Carron, a Paris dressmaker.

—Crown Prince Humbert of Italy and his younger sisters, Princesses Giovanna and Maria were welcomed by Pope Pius XI. at the Vatican in their first visit to the Pontiff.

—Sidi Wirt Spreckels, of San Francisco, formerly Princess Chakir, was married, at Fairfax County Court House, Va., to Lieut. Roger A. Gardner of San Francisco.

Dec. 8—A bomb, wrapped like a Christmas present, killed 3 of Joseph Falzone's 5 children, in his home on DeKalb Ave., Ridgewood, Brooklyn.

—At Hong Kong, Chinese pirates boarded the British steamship, Haiching, and killed 12; 60 natives, passengers, jumped overboard and drowned.

—St. Ann's Church, on E. 12th St., N. Y. City has been designated by the Pope as "the American National Shrine of the Motherhood of St. Ann and the Primary Church in the United States for the Archconfraternity of the Motherhood of St. Ann."

Dec. 9—The American charge d'affaires ad interim in Switzerland, Mr. Jay Pierrepont Moffat, signed at Geneva, on authorization of the President and on behalf of the United States:

1. The Protocol of Signature of the Statute of the Permanent Court of International Justice.
2. The Protocol of Accession of the United States of America to the Protocol of Signature of the Statute of the Permanent Court of International Justice, and
3. The Protocol of Revision of the Statute of the Permanent Court of International Justice.

—The U. S. cruiser, Pittsburgh, and 11 destroyers, were ordered from Manila to Shanghai to protect American lives and property. All Americans have been removed from Nanking.

—Unification of telegraph, radio and cable companies under governmental regulation to meet competition from foreign countries was advocated before the U. S. Senate Committee on Interstate Commerce by Owen D. Young, chairman of the directors of the General Electric Co. and of the Radio Corp. of America.

—At Washington, Senator Smith W. Brookhart's charges relating to the so-called "Wall Street booze party" in the Willard Hotel three years ago for newly elected Senators were dismissed because of "lack of evidence, together with the extraordinary lapse of time between the alleged violation and the revelation of the facts relating to this affair."

Dec. 10—At New York City, 10 persons were killed and 21 injured in a fire in the two-story studio and office building of Pathe's Manhattan Studios, Inc., at 134th Street and Park Avenue. Four of those who lost their lives were young women engaged for the cast of "The Black and White Revue." The fire is believed to have been caused by a bit of incandescent carbon ejected from an arc lamp, which set a velvet drop-curtain ablaze. Many of the 126 in the place were crushed in the rush for one exit.

—At Athens, President Admiral Paul Kondouriotis, who was appointed Chief Executive of the Grecian Republic on Dec. 4, 1926, resigned.

—Pascual Ortiz Rubio, President-elect of Mexico, arrived in New York to "help develop the understanding between the two nations," and to rest after the campaign.

—Surgeons at Johns Hopkins Hospital, Baltimore, removed a kidney from Horatio Vasquez, Pres. of Dominican Republic.

—Harry Crew Crosby, poet, of Paris, and Mrs. Josephine R. Bigelow, of Boston, were found shot to death, at N. Y. City. The police said it was a case of murder and suicide—a suicide pact.

THE AUBURN PRISON RIOT.

Dec. 11—Long-term armed felons (robbers) in the State Prison at Auburn, N. Y., captured Warden Edgar S. Jennings and several guards, held them as hostages under threat of death, and demanded liberty. Acting Governor H. H. Lehman refused and ordered State troopers to go in and get them. The riot ended when six of the convicts were cornered in a cell block in the south wing and were shot down one by one after they had refused to surrender. George A. Durnford, principal keeper, was killed at the start of the mutiny. Warden Jennings, after being held captive with several guards for three hours, was knocked unconscious and gassed when three state troopers threw gas bombs in the room where the hostages were held and brought about their release.

The convicts killed were: Perry Johnson, of Binghamton; Alex. Tucholka, Steve Pawlak, Steve Sporning, Henry Sullivan, and James Biancrassi, all of Buffalo; Julius Stefanik and Ernest Pavesi, of Brooklyn. Several other convicts, and 9 guards were wounded.

—Governor John S. Fisher, of Pennsylvania, appointed Joseph R. Grundy, head of the Manufacturers Association, as U. S. Senator in place of W. S. Vare elected and rejected. Grundy was sworn in on Dec. 12 and took his seat.

—The U. S. Senate Lobby Committee heard from Herbert C. Lakin, President of the Cuba Co., of a plan of American capitalists interested in Cuban sugar to mobilize public opinion secretly throughout Latin America and to utilize the Masonic order and Rotary clubs in bringing pressure to bear upon the Government of the United States for a lower tariff on sugar.

—The Ambrose Channel lightship moved to the new anchorage, south of the shoal, and 1¼ miles southeast of the old anchorage.

Dec. 12—Prices on the N. Y. Stock Exchange dropped 2 to 22 points in the worst break since Nov. 13.

—The U. S. Senate heard documentary evidence that Cuba Co. officials engaged in propaganda in Latin America against high sugar import duties with the knowledge and consent of the Cuban Government.

—The National Commission on Law Observance and Enforcement, which President Hoover appointed to ponder upon the Prohibition problem and to see if anything could or should be done about it, will report that much of the blame for the apparent failure of the Volstead act must be charged against public officials.

—Fifty minutes before Frederick W. Edel was to have paid with his life in Sing Sing's electric chair for the murder of Mrs. Emeline Harrington in a New York apartment two years ago, Gov. Roosevelt granted a reprieve until Dec. 30.

—The British troops evacuated Wiesbaden and the Rhineland.

DEATH ROLL OF 1929

Adamson, W. C. (74), ex-Congressman from Ga., author of 8-hour (railway) day law; N. Y. City, Jan. 3.

Agramonte, Gen. H. M. (99), Mexico City, Mch. 15.

Aikins, Sir James (77), for 13 yrs. pres. Canadian Bar Assoc., fin.; Winnipeg, Mch. 1.

Aikin, Gen. W. A. (96), Civil War Vet., financier; Norwich, Conn., Nov. 7.

Aldrich, C. H. (78), ex-U. S. Solic. Gen.; Chicago, April 13.

Allen, Rev. J. K. (84), over 58 yrs. pastor First Ref. (Sleepy Hollow) Ch.; Tarrytown, N. Y., Mch. 18.

Almeida, A. J. (63), ex-Pres. of Portugal (1919-1923); Lisbon, Oct. 31.

Ames, E. A. (63), Pres. Dime Savings Bank of Brooklyn; that city, July 6.

Ames, Oliver (64), plow mnfr.; No. Easton, Mass., June 18.

Anderson, W. C., fin., art collector; Salt Lake, Feb. 18.

Andrassy, Count Julius (67), ex-Premier Austria-Hungary; Budapest, June 11.

Appell, G. C. (45), judge of Children's Court of Westchester County; Mt. Vernon, N. Y., Jan. 19.

Appleton, Col. Daniel (77), publisher; White Plains, N. Y., Mch. 16.

Appleton, F. R. (74), of N. Y. City, former Overseer of Harvard Univ.; Ipswich, Mass., Jan. 2.

Armstrong, B. A. (86), silk mnfr., banker; New London, Conn., Oct. 20.

Avebury, Lord (John B. Lubbock) (70), banker; in England, Mch. 26.

Ayres, S. B. (67), ex-Conressman 18th Dist., realtor; N. Y. City, June 1.

Baerman, A. E. (71), literary agent; N. Y. City, Mch. 22.

Bailey, J. W. (65), ex-U. S. Senator from Tex., Sherman, April 13.

Baker, Dr. G. F. (65), Phila. banker, pres. Acad. Music; Rosemont, Pa., June 3.

Ball, Miss Alice W., painter; Gloucester, Mass., July 22.

Ball, C. F. ("Buckskin Charley") (84), Indian scout, Burlington, Wis., Jan. 9.

Ballard, Miss Georgianna (81), a Y. W. C. A. founder; N. Y. C., April 26.

Ballou, G. W. (82), N. Y. and Boston banker; Brattleboro, Vt., April 30.

Bannard, O. T. (74), N. Y. City banker; at sea, Jan. 15.

Barnabas (McDonald), Brother F. S. C. (64), founder Lincoln Agric. Sch., N. Y.; Albuquerque, N. M., April 23.

Barnby, Lord (Francis Willy) (89), textile mnfr., owner of South Barre, Mass.; in England, Feb. 16.

Barnett, Samuel (57), N. Y. banker; Baltimore, April 17.

Barnsby, J. M. (68), painter; Montreal, Feb. 25.

Barrow, Prof. D. C. (77), Chancellor emeritus, Univ. of Ga.; Athens, Ga., Jan. 11.

Bates, Miss (Prof.) K. L. (69), author, educator; Wellesley, Mass., Mch. 28.

Bauer, Col. Max (60), German milit. adviser to Chinese Govt.; Gen. Ludendorff's aide in World War; Shanghai, May 6.

Beal, Prof. A. C. (57), rose culturist, 25 yrs. on Cornell Univ. faculty; Ithaca, N. Y., May 6.

Beer-Walbrunn, Anton (64), composer; Munich, Mch. 23.

Begbie, Harold (58), journalist; London, Oct. 8.

Bell, C. J. (71), Washington, D. C. capitalist; N. Y. City, Oct. 1.

Bell, Mrs. Lillian (62), novelist; Los Angeles, July 18.

Bellamy, F. P. (82), Brooklyn lawyer; Newagen, Me., Sept. 16.

Bello, A. M. Cardinal (93); Lisbon, Aug. 5.

Benkard, J. P. (56), broker; N. Y. City, April 6.

Bennett, R. A. (74), author, editor of London Truth; in England, Aug. 26.

Benson, E. S. (73), Controller of Chicago & Alton Ry., Phoenix Ariz., Dec. 31, 1928.

Benson, Rev. F. T. (67), editor Methodist Protestant; Baltimore, April 6.

Benson, G. J., owner of "The Tub," innkeeper; Albany, N. Y., Nov. 16.

Benson, R. H. (79), banker, art collector; London, April 7.

Benz, Carl (84), pioneer auto maker (1879, at Munich); in Germany, April 3.

Bergen, T. G. (81), ex-Pres. B'klyn B'd Educ., ex-Pres. St. Nicholas Soc.; N. Y. City, Mch. 13.

Berger, F. G. (77), N. Y. theatre manager; Warrenton, Va., May 17.

Berger, Victor (69), editor, ex-Conressman, socialist leader; Milwaukee, Aug. 7.

Berliner, Emile (78), inventor of phonograph discs and telephone transmitters; Washington, D. C., Aug. 3.

Bernhardt, Maurice (65), theatre director, son of Sarah; Paris, Dec. 21, 1928.

Bernhouse, William (95), realtor, oldest Odd Fellow (72 yrs. in that Order); Hammonton, N. J., July 27

Berry, Rear-Adm'l. R. M. (83), Commander 1881 Arctic Relief Expedition (Jeannette-De Long); Tryon, N. C., May 19.

Betts, C. H. (66), editor, Lyons, N. Y., Nov. 24.

Bey of Tunis (Sidi Mohammed Ben-el-Habib), Tunis, Feb. 11.

Bickerton, Prof. A. W. (87), astronomer; London, Jan. 23.

Bingham, W. T. (67), newspaper correspondent; Washington, D. C., Feb. 5.

Birch, Col. T. H. (54), ex-U. S. Minister to Portugal; N. Y. City, Feb. 1.

Birckhead, Rev. Hugh (52), Episc. leader; Newport, R. I., July 9.

Bishop, J. B. (81), journalist, ex-Sec. Isthmian Canal Commission; N. Y. City, Dec. 13, 1928.

Blake, M. F. (71), ex-Muncie, Ct. Justice, ex-Clk. B'd. Aldermen, vet. Tammany leader; Brooklyn, July 31.

Blendinger, F. L. (62), ex-Vice-Pres. Lehigh Valley R. R.; No. Plainfield, N. J., June 2.

Bloch, Maurice (39), minority State Assembly, lawyer; N. Y. City, Dec. 5.

Bloomingdale, I. I. (51), N. Y. City dept. store owner; London, Oct. 15.

Bobo, Rosalvo (56), Pres. of Haiti (1915-1918); Paris, Dec. 2.

Bode, Wilhelm von (83), art expert, ex-Director Gen'l. Public Museum of Germany; Berlin, Mch. 1.

Bond, E. A. (80), ex-N. Y. State Engineer and Surveyor; N. Y. City, Dec. 10.

Booth, Gen. Bramwell (73), former head Salvation Army, son of founder; in England, June 16.

Booth-Tucker, Commissioner Frederick (76), for 46 yrs. with the Salvation Army; in England, July 17.

Boucicault, Dion (70), actor, producer; in England, June 25.

Bowen, T. D. (63), Vice-Pres. Amer. Tel. & Tel. Co.; N. Y. City, Sept. 24.

Bowidelle, E. A. (68), sculptor; Paris, Oct. 1.

Boyce, W. D. (71), publisher, big-game hunter; Chicago, June 11.

Boyd, James (71), Pres. Penn. Horticult. Soc., steel founder; Bryn Mawr, Dec. 2.

Boyden, W. C., Sr. (65), Chicago lawyer, overseer Harvard Univ.; that city, May 30.

Bradfute, O. E. (67), ex-Pres. Amer. Farm Bur. Fed., cattle breeder; Xenia, O., Mch. 25.

Bradley, Mrs. Edson (77), social leader; Newport, R. I., Aug. 22.

Bradshaw, John (66), ex-Commodore Red Star Line; N. Y. City, Mch. 24.

Braley, H. K. (78), senior justice, Mass. Supr. Ct.; sat in Sacco-Vanzetti case; Brighton, Mass., Jan. 17.

Braman, Dwight (68), Amer. financier; Paris, June 11.

Breck, Edward (67), Amer. diplomat, corresp., naturalist; in Nova Scotia, May 14.

Brent, P. E. Bishop, C. H. (66), head of Diocese of Western N. Y., Pres. World Conf. on Faith and Order; Lausanne, Switz, Mch. 27.

Brett, Dr. R. G. (78), ex-Pres. Can. Med. Council; Calgary, Sept. 16.

Bridgeman, Adm. Sir Francis (81), Nassau, Bahamas, Feb. 17.

Bridgman, Rev. H. A. (68), educator, ex-editor The Congregationalist; Shirley, Mass., Mch. 17.

Britten, Clarence (42), art critic; Long Beach, N. Y., Nov. 9.

Brooks, Howard K. (75), Vice-Pres. Amer. Express Co.; Sept. 15.

Broughton, N. H. (71), rail exec., financier; London, Jan. 30.

Brown, A. T. (79), shotgun and typewriter inventor; Syracuse, N. Y., Jan. 31.

Brown, C. F. (84), former judge of N. Y. State Supr. Ct., and Ct. of Appeals; Newburgh, June 19.

Brown, Mrs. Mary Hosmer (71), founder Harvard's Women's Club; Sharon, Mass., May 21.

Bruning, Albert (69) actor; N. Y. City, April 10.

Brush, C. F. (80), arc light inventor; Cleveland, O., June 15.

Buckner, W. F. T. (101), Mex. War vet., banker; Paris, Mo., June 16.

Buick, D. D. (74), auto pioneer mnfr.; Detroit, Mch. 5.

Bullock, G. W. (100), Civil War vet.; Greenlawn, L. I., N. Y., Oct. 10.

Burbank, Brig. Gen. J. B. (90), Washington, D. C., Dec. 30, 1928.

Burdett, J. L. (77), Vice-Pres. N. Y. Central Lines; N. Y. City, Oct. 3.

Burgess, William (72), ex-member U. S. Tariff Commission, ex-Pres. U. S. Pottery Assoc.; Morris, Pa., Nov. 20.

Burke, T. E. (54), Harvard athlete, 1896 Olympic running champion; Boston, Feb. 14.

Burr, Winthrop (68), for 28 yrs. a governor of N. Y. Stock Exch.; N. Y. City, May 5.
Burrows, Rev. W. O. (71), Anglican Bishop of Chichester; in England, Feb. 13.
Burton, T. E. (77), U. S. Senator from Ohio; Washington, D. C. Oct. 28.
Bushfield, G. D. (67), sports writer and promoter; Weehawken, N. J., Jan. 26.
Butler, Sir Geoffrey, M. P. (42), author, Director Brit. Bur. of Information in Amer. in World War; London, May 2.
Butler, L. F. (58), Pres. Travelers Insurance Co.; W. Hartford, Conn., Oct. 23.
Buzdugan, G. Y. (62), Chf. Justice and Regent in Roumania; Bucharest, Oct. 7.
Burney, Sir Cecil (71), ex-Admiral of the (British) Fleet; London, June 5.
Byrne, Rev. F. X. A. (52), Jesuit orator, ex-Pres. Antenio College; N. Y. City, Nov. 25.
Cadorna, Marshal Count Luigi (78); in Italy, Dec. 21, 1928.
Cambridge, Dowager Marchioness of (55), sister-in-law of Queen Mary; London, Mch. 26.
Camerlynck, G. H. (59), Interpreter at Versailles and other international conferences; Paris, Feb. 11.
Candler, A. G. (77), Coca-cola founder, philanthropist; Atlanta, Ga., Mch. 12.
Carmalt, Dr. W. H. (93), Prof. Emeritus of Surgery at Yale Univ.; New Haven, Conn., July 17.
Carman, Bliss (68), Canadian poet; New Canaan, Conn., June 8.
Carmen, Sybil (Mrs. Maurice Revnes) (29), Amer. actress; Paris, April 15.
Carnell, Prof. Laura H. (61), Assoc. Pres. Temple Univ.; Philadelphia, Mch. 30.
Carpenter, Edward (85), poet, socialist; in England, June 28.
Carpenter, Rear Adm. J. S. (69); Washington, D. C., June 24.
Carr, W. A. (46), night editor The World; Jersey City, April 4.
Carrington, J. B. (79) owner, Journal-Courier; New Haven, Conn., Jan. 21.
Carry, E. F. (62), Pres. Pullman Co., banker; Chicago, April 24.
Carson, Maj. D. B. (70), ex-U. S. Navigation Commissioner; Atlanta, Ga., June 28.
Carson, H. L. (77), ex-Atty. Gen. of Penn., author; Bryn Mawr, Pa., July 18.
Cary, R. J. (61), Vice-Pres. and Counsel N. Y. Central Lines; N. Y. City, Nov 6.
Casey, J. J. (54), Congressman of Wilkes-Barre, Pa., Pres. Penn. Fed. of Labor; in Canal Zone, May 6.
Cassel, Hartwig (78), chess editor; Long Branch, N. J., July 16.
Cassidy, Mars (66), race-horse starter on N. Y. tracks for 35 years; Hollis, N. Y., Oct. 20.
Chamberlain, E. T. (73), ex-editor Albany Argus, U. S. Com. of Navigation (1893-1921); Baltimore, Oct. 8.
Chapman, E. R. (80), N. Y. broker; Great Neck, N. Y., Dec. 22, 1928.
Chase, Florence (75), actress; N. Y. City, May 14.
Cheek, Tom (103), oldest active race-horse owner in world; Havana, Cuba, Jan. 28.
"Chicago May" (Mrs. May Churchill Sharpe) (52), reformed criminal; Philadelphia, May 30.
Childs, Ellsworth (60), restaurant owner; N. Y. City, April 17.
Chinda, Count Sutemi, Grand Chamberlain of Japan; Tokio, Jan. 16.
Chivers, Cedric (75), bookbinder; in England, Jan. 30.
Chirol, Sir Valentine (77), traveler, journalist; London, Oct. 22.
Chittenden, F. H. (70), senior entomologist, U. S. Dept. Agric.; Washington, D. C., Sept. 15.
Clancarty, Lord (W. F. Poer-Trench) (60); London, Feb. 16.
Clapp, M. E. (77), lawyer, ex-U. S. Sen. from Minn. (1901-1917); in Va., Mch. 6.
Clark, F. S. (78), ex-Pres. Amer. Assoc. Woolen Mufrs.; No. Billerca, Mass., Feb. 18.
Clarke, Hudson (78), private N. Y. City banker; Hollis, N. Y., Sept. 3.
Clarke, J. R. (52); ex-N. Y. City private banker; Atlanta, Ga., Oct. 12.
Clayton, Brig. Gen. Sir Gilbert (54), High Commissioner for Iraq; Bagdad, Sept. 11.
Clemenceau, Georges (88), ex-Premier of France; Paris, Nov. 24.
Clifford, Mrs. W. K. (Lucy Lane), novelist, playwright; London, April 21.
Cline, Leonard (38), playwright; N. Y. City, Jan. 15 or 16.
Cochran, A. S. (55), Yonkers carpet mnfr., yachtsman, philanthropist; Saranac Lake, N. Y., June 19.
Coggeshall, E. W. (77), Pres. Lawyers Trust Co.; N. Y. City, Mch. 31.
Cogswell, Ledyard (77), ex-Pres. N. Y. State Bankers Assoc.; Charleston, S. C., Mch. 10.
Cole, Maj. Gen. E. K. (61), Marine Corps; San Francisco, July 4.
Coleman, C. P. (64), fin., bridge engineer; Washington, D. C., April 13.
Collins, M. F. (74), for 50 yrs. edit. and pub. Troy (N. Y.) Observer, ex-State Senator; N. Y. City, Dec. 22, 1928.
Columbo, Isabella (Mary Scanlan), opera singer; Chicago, Jan. 10.
Concha, J. V. (62), Colombian Ambassador to Vatican, ex-Pres. Colombia; Rome, Dec. 8.
Conners, W. J. (72), owner daily Courier-Express, chairman Great Lakes Transit Corp.; Buffalo, N. Y., Oct. 5.
Conway, J. J. (60), Judge, Children's Court, Queens; N. Y. City, July 4.
Conway, Patrick (61), band leader; Ithaca, N. Y., June 10.
Cooley, Prof. C. H. (64), sociologist, 37 yrs. on Univ. of Mich. faculty; Ann Arbor, May 7.
Cooper, H. E. (72), ex-judge, head of Committee of Safety in Hawaiian Revolution (1893); Long Beach, Calif., May 15.
Corrigan, R. C., Auxil, Bishop (80); Baltimore, April 8.
Cort, John (69), N. Y. theatre owner and producer, actor; Larchmont, N. Y., Nov. 18.
Cosson, Baron C. A. de (85), expert on arms and armor; in Italy, Feb. 8.
Coulter, Prof. J. M. (77), "dean of Amer. botanists"; Yonkers, N. Y., Dec. 23, 1928.
Courteline (Moineaux), Georges (70), author, wit; Paris, June 25.
Cowell, Prof. H. S. (74), for 46 yrs. head of Cushing Acad.; Ashburnham, Mass., July 6.
Cowles, A. H. (71), aluminum producer; Sewaren, N. J., Aug. 13.
Cozens, E. B. (40), Univ. of Penn. Grad. Mgr.; Philadelphia, June 8.
Craft, Dr. E. B. (47), inventor, exec. vice-pres. Bell Telephone Laboratories; Hackensack, N. J., Aug. 20.
Craigie, Mrs. Mary Whitbeck (80), founder Nat'l. Shakespeare Fed.; Washington, D. C., Dec. 26, 1928.
Crane, R. C. Bishop; M. J. (65); Philadelphia, Dec. 26, 1928.
Crawford, A. W. (55), lawyer, Exec. Dir. Amer. Fed. of Arts; Ardmore, Pa., June 27.
Crossley, Mme. Ada (55), opera singer; London, Oct. 17.
Crossman, Dr. E. O. (65), Med. Dir. U. S. Veterans Bureau; Bedford, N. H., June 21.
Culin, R. S. (71), Dir. Brooklyn Museum; that city, April 8.
Cummins, James (82), Confed. vet. (Quantrill's band), Assoc. of Jesse James and Cole Younger' Higginsville, Mo., July 9.
Curtis, F. S. (85), Pres. Old Colony Railroad; Jamaica, Mass., Feb. 15.
Daeschner, Emile (65), ex-French Ambassador to U. S.; Paris, Dec. 13, 1928.
Dana, J. C. (73), librarian for 40 yrs., head of Newark, N. J. Free Public Library 1902-1929; N. Y. City, July 21.
Daniel, J. B. (29), radio announcer; N. Y. City, Aug. 19.
Dannat, W. T. (75), Amer. painter; in France, Mch. 12.
Darlington, William (56), Grand Sec., I. O. Foresters; Elizabeth, N. J., Jan. 25.
Davidson, James (87), shipbuilder and owner; Bay City, Mich., Feb. 5.
Davies, A. B. (66), Amer. painter; in Italy, Oct. 24, 1928.
Dawkins, Sir W. B. (91), geologist, anthropologist; in England, Jan. 15.
Deems, Rev. E. M. (77), chaplain, Sailors' Snug Harbor; Staten Island, Aug. 7.
Defrees, J. H. (71), of Chicago, lawyer, chairman U. S. Chamber of Commerce; Washington, D. C., Feb. 5.
Delacroix, Leon (62), ex-Belgian Premier; in Germany, Oct. 15.
Delano, Rear Adm. F. H. (81); Annapolis, Md., Jan. 31.
Delbrueck, Prof. H. G. L. (80), historian; Berlin, Ger., July 14.
Delmonico, Miss Josephine, restaurateur; Mt. Kisco, N. Y., Sept. 18.
Dempsey, J. L. (60), racing writer; Dallas, Tex., Nov. 7.
Denby, Edwin (58), lawyer, ex-Congressman, ex-Sec. of Navy; Detroit, Feb. 8.
Devere, Danny (82), old-time minstrel; Wheeling, W. Va., Feb. 17.
Dever, W. E. (67), ex-Mayor of Chicago, banker, lawyer; that city, Sept. 3.
Devrient, Max (71), actor, chief director Burgtheater of Vienna; in Switzerland, June 14.
de Zeng, H. L. (63), optical goods mnfr., trustee Hobart College, fin.; Stockbridge, Mass., Oct. 2.
Diaghilev, Serge (57), ballet master of the late Czar; Lido, Italy, Aug. 19.

Dickinson, J. McG. (77), lawyer, Confed. vet., ex-Sec. of War (under Taft); Chicago, Dec. 13, 1928.
Dike, Mrs. Anne M. (51), Amer. war worker in France; Paris, Feb. 7.
Dill, Lewis (70), ex-Pres. Nat'l. Lumber Assoc., a founder U. S. Chamber of Commerce; Baltimore, April 14.
Dines, T. S. (70), lawyer, Pres. Denver Chamber of Commerce; that city, Mch. 28.
Dinsmore, W. B. (58), financier; N. Y. City, Mch. 8.
Ditson, C. H. (83), music publisher; N. Y. City, May 14.
Doheny, E. L., Jr. (36), petroleum producer; Los Angeles, Feb. 16.
Dorgan, T. A. ("Tad") (52), cartoonist; Great Neck, N. Y., May 2.
Donnelley, R. H. (64), printer; Chicago, Feb. 25.
Drinker, W. W. (60), Chief Eng'r. N. Y. Port Authority; Ridgewood, N. J., Sept. 16.
Driscoll, M. E. (77), ex-Congressman; Syracuse, N. Y., Jan. 19.
Dubois, R. C. Cardinal, L. E. (73); Paris, Sept. 23.
Duke, B. N. (73), tobacco mnfr., fin., philanthropist; N. Y. City, Jan. 8.
Dumont, Wayne (58), ex-Vice-Pres. Amer. Bar Assoc.; Little Falls, N. J., April 7.
Duncan, J. H. (76), architect (designed Grant's Tomb); Highland Beach, N. J., Oct. 18.
Dunne, R. C. Bishop, E. M. (65); Peoria, Ill., Oct. 17.
Durand, Dr. H. S. (68), Amer. fin., and physician author of Yale song "Bright College Years"; Paris, May 8.
Durand-Ruel, Joseph (70), art dealer; Paris, Dec. 30, 1928.
Durbin, ex-Gov. W. T. (81), 33rd degree Mason; Anderson, Ind., Dec. 18, 1928.
Durham, Earl of (F. W. Lambton) (74); in England, Jan. 31.
Durland, William (81), riding academy founder; N. Y. City, May 7.
Dussau, G. P. (78), came from France in 1883 to oversee setting up of Statute of Liberty; Berkeley, Calif., June 19.
Dwight, Jonathan, 5th (70), ornithologist, ex-Pres. Linnean Soc.; N. Y. City, Feb. 22.
Dyar, Prof. H. G. (62), of U. S. Nat'l. Museum, mosquito expert, biologist; Washington, D. C., Jan. 21.
Eagles, Jeanne (35), actress; N. Y. City, Oct. 3.
Earp, Wyatt (78), gun fighter of early Southwest; Los Angeles, Jan. 13.
Eberle, Rear Adm. E. W. (64), Washington, D. C., July 6.
Ecob, R. G. (49), architect; N. Y. City, Dec. 2.
Eddinger, Wallace (47), actor; Pittsburgh, Pa., Jan. 8.
Edwards, H. M. (69), Vice-Pres. N. Y. Edison Co.; Glen Ridge, N. J., Sept. 18.
Egmont, Earl of (Ch. J. Perceval) (70); London, Jan. 10.
Ehret, George, Jr. (53), ex-brewer, fin., philanthropist; N. Y. City, Mch. 27.
Elkins, S. B., Jr. (52), financier, coal mine owner; N. Y. City, Oct. 20.
Ellenbogen, Abram (46), Muncie, Ct. Justice, N. Y. City; Lake Placid, N. Y., Aug. 1.
Elliott, J. I. (70), atheistic leader; Springfield, N. Y., Feb. 9.
Elliott, James (49), Pres. Underwood & Underwood, photo service; Poland Springs, Me., Aug. 14.
Elmendorf, D. L. (70), war corresp., traveler, lecturer; N. Y. City, May 6.
Elverson, Col. James, Jr. (59), owner, The Inquirer; Philadelphia, Jan. 21.
Ennis, John (86), athlete; Stamford, Conn., April 22.
Ernest, Monis (83), ex-Premier of France, lawyer; in that country, May 27.
Eulalai, Countess (Sarah Shindler) (70); in California, April 21.
Emerson, J. W. (92), capitalist; N.Y. City, Dec. 6.
Eustis, J. E. (82), ex-Pub. Service Commissioner; N. Y. City, June 21.
Everett, E. H. (76), pioneer auto mnfr.; Boston, April 26.
Ewing, D. S. (63), lawyer, (Smith) Dem. leader in Calif.; Fresno, Oct. 30.
Faber, Leslie (50, actor-manager; London, Aug. 5.
Falcke, P. H. (70), Ger. Consul Gen. at N. Y., 1914-1915, Min. to Venezuela, 1920-1924; Dresden, Sept. 9.
Farnum, Dustin (55), actor; N. Y. City, July 3.
Farnam, W. W. (84), ex-Treas., Yale Univ., fin.; New Haven, Conn., June 28.
Faulkner, C. J. (81), ex-U. S. Senator from W. Va.; Boydville, Jan. 13.
Faunthorpe, Col. J. C. (57), big game hunter; in India, Dec. 1.
Faust, C. L. (49), Congressman from Mo., lawyer; Washington, D. C., Dec. 17, 1928.
Fawcett, Mrs. Henry (Dame Millicent Garrett) (82), British Suffragist; London, Aug. 5.
Ferguson, Rev. W. P. F. (68), newspaper man; Franklin, Pa., June 23.
Fenwick, Sir George (81), New Zealand newspaper owner; Wellington, Sept. 23.
Field, Gen. G. S. (83), ex-Pub. Works Commissioner of N. Y. State; consulting engineer; Buffalo, May 18.
Field, Jacob (73), for 58 years a Wall Street stock operator; Atlantic City, Jan. 14.
Fielding, Hon. W. S. (80), ex-Finance Minister of Canada; Ottawa, June 23.
Fine, Prof. H. B. (70), mathematician, on Princeton Univ. faculty 48 years; Princeton, N. J., Dec. 22, 1928.
Fine, J. B. (66), for 40 yrs. headmaster Princeton, N. J. Prep. School; that city, July 24.
Fink, Jodok (62), Vice-Chancellor of Austria; in that country, July 1.
Finlay, Viscount (86), member Permanent Ct. of Arbitration in 1920, and Judge Internat'l. Court of Justice, ex-Lord Chancellor of Great Britain; London, Mch. 9.
Finnegan, Rev. Hugh (85), ex-Pres. Creighton Univ.; Milwaukee, Nov. 26.
Fiske, Haley (77), lawyer, Pres. Metropolitan Life Ins. Co.; N. Y. City, Mch. 3.
Fleisher, A. W. (50), philanthropist, art collector; Philadelphia, Dec. 25, 1928.
Fleitmann, W. M. (70), N. Y. banker; Paris, Mch. 24.
Flint, F. P. (66), lawyer, ex-U. S. Sen. from Calif.; at sea, Feb. 11.
Floto, Otto (66), circus owner, sporting man; Denver, Aug. 4.
Flynn, C. F. (51), Vice-Pres. Bowman Biltmore Hotels Corp., Vice-Pres. Havana-Amer. Jockey Club; N. Y. City, May 1.
Foch, Ferdinand (77), Marshal of France, Allied Commander in World War; Paris, Mch. 20.
Folwell, W. W. (96), Pres. emeritus Univ. of Minn., Mathematician; Minneapolis, Sept. 18.
Forbush, E. H. (70), for 38 yrs. Mass. State ornithologist; Westboro, Mch. 8.
Ford, J. T. (65), theatre owner; Baltimore, Jan. 26.
Formoso, C. A. (69), ex-police inspector; Brooklyn, Feb. 13.
Fornes, C. V. (82), ex-Congressman, ex-Pres. B'd. Aldermen of N. Y. City; Buffalo, May 22.
Forepaugh, Charles (91), circus man; W. Berlin, N. J., July 17.
Foster, F. de P. (80), N. Y. lawyer; Tuxedo, N. Y., May 25.
Fowle, A. A. (81), newspaper man (Boston Globe, 1874-1929); Woburn, Mass., Oct. 20.
Fowler, Ellen T. (Mrs. A. L. Felkin), novelist; in England, June 23.
Fox, P. A. (78), ex-advertising mgr., N. Y. World; Attleboro, Mass., July 22.
Francis, W. T., U. S. Minister to Liberia; Monrovia, July 15.
Francklyn, C. G. (84), founder of the Consolidated Gas Co.; N. Y. City, Jan. 11.
Franco, J. F. C. (74), ex-Premier of Portugal, Dictator 1907-1908; Lisbon, April 4.
Frankenfield, Dr. H. C. (67), forecaster and flood expert of U. S. Weather Bur.; Washington, D. C., July 29.
Frazee, H. H. (48), theatrical producer, ex-owner Boston Amer. League Baseball team; N. Y. City, June 4.
Frazer, Mrs. Laura Hawkins (91), girl sweetheart of Mark Twain, original of "Becky Thatcher" in "Tom Sawyer"; Hannibal, Mo., Dec. 25, 1928.
Freeman, John (49), poet, novelist; in England, Sept. 28.
Fremantle, Admiral Sir E. R. (92), "father of the British Navy"; London, Feb. 11.
Fuchs, Emile (62), sculptor, painter; N. Y. City, Jan. 13.
Field, Felix (60), Newark merchant, philanthropist; So. Orange, N. J., Jan. 20.
Gallagher, Edward (56), vaudeville actor; Astoria, N. Y., May 28.
Galliher, W. T. (74), banker, chairman Hoover Inaugural Committee; Washington, D. C., June 30.
Galli, Aurelio, Cardinal (63), Rome, Mch. 26.
Garber, D. A. (69), founder Associated General Contractors, Nat'l. Councillor, U. S. Chamber of Commerce; Washington, D. C., Dec. 4.
Garrett, E. H. (76), painter, author; Needham, Mass. April 2.
Garrioni, Gen. Vincenzo (73), ex-Gov. Tripoli; Venice, April 25.
Garrison, J. C. (57), newspaper man; N. Y. City, Feb. 9.
Gasquet, F. A., Cardinal; (83), Rome, April 5.
Gates, Rev. F. T. (75), general organizer of the Rockefeller Foundations, educational and charitable bodies; Phoenix, Ariz., Feb. 6.
Gibbs, L. D. (48), Justice N. Y. Supreme Court, 1st Dist.; Watkins Glen, N. Y., Mch. 1.
Gibson, Maj. Gen. Sir J. M. (87), Att'y. Gen. for Ontario; Hamilton, Can., June 3.

Gideon, David (83), race-horse owner for 50 yrs.; Lawrence, N. Y., Feb. 23.
Gilbert, C. A. (56), illustrator; N. Y. City, April 20.
Gilfillan, James (93), U. S. Treas. 1878-1883; Colchester, Conn., April 8.
Goldfogle, H. M. (73), Pres. Dept. Taxes and Assessments, ex-judge; N. Y. City, June 1.
Glatzmayer, A. W. (54), City Magistrate; Bronx, Feb. 8.
Goddard, G. H. (83), for 50 yrs. member N. Y. Stock Exchange; Woodstock, N. Y., Aug. 3.
Godkin, Lawrence (69), lawyer, author; N. Y. City, Dec. 5.
Goelet, Mrs. Mary Wilson (73), widow of Ogden Goelet, social leader; N. Y. City, Feb. 23.
Goldberger, Dr. Joseph (54), discoverer anti-pellagra vitamin; Washington, D. C., Jan. 17.
Golder, Prof. F. A. (51); Stanford Univ., Calif., Jan. 7.
Gonotsky, Samuel (25), Amer. Checker Champion; Flint, Mich., April 5.
Good, J. W. (63), U. S. Secretary of War, lawyer, ex-Congressman; Washington, D. C., Nov. 18.
Goodenough, Prof. G. A. (61), college athletics arbiter; Urbana, Ill., Sept. 29.
Goodhue, Mrs. Lemira (80), mother of Mrs. Calvin Coolidge; Northampton, Mass., Oct. 24.
Goritz, Otto (56), opera baritone; Hamburg, Ger., April 13.
Goto, Count Shimpei (73), ex-Foreign Minister of Japan; Kyoto, April 13.
Gouin, Sir Lomer (68), Lieut. Gov. Quebec Province, lawyer, Premier 1905-1920; Quebec, Mch. 28.
Gould, C. A. (94), oldest Odd Fellow; Patchogue, N. Y., Feb. 1.
Gowen, Rev. I. W. (70), ex-Pres. Ref. Ch. in Amer.; No. Bergen, N. J., Feb. 28.
Grand Duke Michael of Russia (Michael Michaelowitch) (68), London, April 26.
Grand Duke Nicholas Nicholaievitch (72) claimant to Russian throne; in France, Jan. 6.
Grant, Adm. Sir Lawther (64); in England, Jan. 30.
Grant, U. S., Jr. (77), lawyer; Sandberg Lodge, Calif., Sept. 25.
Green, Dr. F. R. (59), Sec. and Exec. Officer Amer. Med. Assoc.; Chicago, April 26.
Green, Mrs. John (80) (Alice Stopford), Senator of Irish Free State, historian, widow of historian; Dublin, May 28.
Gregory, Rev. T. B. (72), newspaper man; Brooklyn, June 19.
Griest, W. W. (70), Congressman from Penn., fin.; Mt. Clemens, Mich., Dec. 5.
Griffin, Prof. E. H. (85), educator, ex-Dean at Johns Hopkins; N. Y. City, Jan. 22.
Grosvenor, Countess (73); in England, Feb. 4.
Grute, Nain (66), newspaper man; N. Y. City, Aug. 20.
Guffanti, Joseph (60), restaurateur; Brooklyn, Feb. 23.
Guth, Prof. W. W. (57), Pres. Goucher College; Baltimore, April 19.
Hadden, Britton (31), editor and publisher of Time; Brooklyn, Feb. 27.
Hagan, J. J. (67), Tammany leader of 7th A. D., N. Y. City Asst. Com. Pub. Works; in Florida, Mch. 3.
Haggin, L. T. (81), copper producer, lawyer, banker; N. Y. City, Mch. 19.
Halton, J. A. (81), founder in 1884 of the Brooklyn Standard, editor 40 yrs. of Standard Union; Brooklyn, Dec. 22, 1928.
Hambleton, Capt. A. E. S., for 36 yrs. commanded Olympic and other White Star steamers; London, April 27.
Hamilton, W. P (82), editor Wall Street Journal (1908-1929); Brooklyn, Dec. 9.
Hampton, Herbert (66), painter, sculptor; London, Feb. 13.
Hanna, P. C. (72), ex-Consul General in Venezuela and Mexico; San Diego, Calif., Feb. 17.
Hannauer, G. A. (56), Pres. Boston & Maine R. R.; New Haven, Conn., Nov. 2.
Hansen, A. A. ("Rainmaker") (64), champion bicycle and motorcycle racer; Minneapolis, July 26.
Harding, J. H. (65), banker; N. Y. City, Jan. 4.
Harewood, Earl of (Henry Lascelles) (83), father-in-law of Princess Mary; in England, Oct. 6.
Harmsworth, Sir Hildebrand (57), newspaper owner; London, April 18.
Harris, C. N. (75), ex-Chief. City Magistrate, N. Y. City; in Fla., Mch. 4.
Harrison, Burge (73), painter; Woodstock, N. Y., May 11.
Harrison, Dr. C. C. (84), ex-Provost Univ. of Penn.; Philadelphia, Feb. 12.
Harshberger, Prof. J. W. (60), botanist; Philadelphia, April 27.
Hart, Harry (79), clothing mnfr.; Chicago, Nov. 20.
Harvier, Ernest (65), lawyer; N. Y. City, May 9.
Hasbrouck, Frank (76), ex-N. Y. State Supt. Insurance, ex-judge, ex-Pres. Holland Soc.; Poughkeepsie, Dec. 18, 1928.
Haskins, H. C. (58), N. Y. financier; Palm Beach, Fla., Feb. 25.
Hastings, Hon. Aubrey (50), steeplechase rider, race-horse owner and trainer; in England, June 00.
Hastings, Thomas (69), architect; Mineola, N. Y., Oct. 22.
Hatzfeldt, Princess (66), niece by marriage and adopted daughter of the late Collis P. Huntington, widow of Prince Francis Hatzfeld-Wildenburg; London, Dec. 18, 1928.
Hauk, Minnie (Baroness von Hesse-Wartegg) (76), former opera singer, Lucerne, Switz., Feb. 6.
Hawkes, McDougall (66), lawyer, ex-Dock Commissioner, Pres. French Institute for 26 yrs., member Bridge & Tunnel Commission; N. Y. City, Mch. 22.
Hawley, J. J. (82), Gov. Idaho, 1911-1913; Boise, Aug. 3.
Hawley, F. T. (64), ex-Grand Master Switchmen' Union; Indianapolis, Feb. 20.
Hayes, Dr. Noah (85), last survivor of Polaris Arctic Exped. of 1871; Milford, Nebr., Aug 6.
Heath, Earl of (Reginald Brabazon) (88), founder Empire Movement; London, Oct. 11.
Heard, D. B. (59), newspaper owner (Arizona Republican), Roosevelt progressive; Phoenix, Mch. 14.
Hebden, J. C. (66), chemical eng'r.; Providence, R. I., June 3.
Heim, Marcus (74), founder Consolidated Exchange. 50 yrs. a broker; N. Y. City, May 23.
Hein, Silvio (49), musical comedy composer; Saranac Lake, N. Y., Dec. 19, 1928.
Heinsheimer, A. M. (62), N. Y. civil engineer, philanthropist; New Rochelle, N. Y., Aug. 31.
Heller, Rev. Max (69), ex-Pres. Central Conf. Amer. Rabbis; New Orleans, Mch. 30.
Henderson, Rev. T. S. (58), M. E. Bishop; Cincinnati, Feb. 11.
Henkel, William (44), Rep. leader, 12th A. D., lawyer; N. Y. City, Mch. 22.
Henri, Robert (64), painter; N. Y. City, July 12.
Hensley, Maj. W. N. (47), army Air Corps vet.; on train from Washington, Mch. 21.
Herbette, Maurice, French Ambassador to Belgium; Paris, Nov. 4.
Herrick, M. T. (74), U. S. Ambassador to France, 1912-1914, 1921-1929, Gov. of Ohio, 1904-1906, fin., lawyer; Paris, Mch. 31.
Hickey, Rev. M. A. (64), Pres. emeritus St. Bonaventure College; N. Y. City, Oct. 23.
Higgins, C. H. (75), anti-vaccination leader, ink mnfr.; Brooklyn, Oct. 21.
Hildreth, S. C. (62), race-horse owner and trainer; N. Y. City, Sept. 24.
Hill, H. W. (76), Pres. N. Y. State Waterways Assoc., ex-Assemblyman and State Senator; Buffalo, Dec. 6.
Hill, John, British flyweight boxing champion; in Scotland, Sept. 27.
Hillis, Rev. N. D. (70), pastor emeritus of Plymouth Ch., Brooklyn; Bronxville, N. Y., Feb. 25.
Hilton, Col. A. B. (63), fin.; N. Y. City, Feb. 22.
Hines, Col. F. H. (60), 165th Field Artillery, N. Y. N. G., Supt. Pub. Bldgs.; N. Y. City, May 8.
Hirschberg, M. H. (81), ex-N. Y. State Supr. Ct. Justice; Newburgh, N. Y., Mch. 17.
Hirst, Mrs. C. D. (63), Vice-Pres. Women's Dem. Club.; N. Y. City, Mch. 15.
Hitchcock, Raymond (64), actor; Los Angeles, Nov. 25.
Hodges, Maj. Gen. H. F. (69), military engineer; Lake Forest, Ill., Sept. 23.
Hoffmansthal, Hugo von (55), poet and dramatist; Vienna, July 15.
Hollander, Adolph (53), Gen'l. Ag't., Equitable Life; N. Y. City, May 20.
Holz, Arno (66), poet; Berlin, Oct. 25.
Horne, F. J. (60), Vice-Pres. N. Y. Trust Co.; San Francisco, Sept. 27.
Horne, Gen., Lord (68), Commander Brit. First Army in World War; in Scotland, Aug. 14.
Hosmer, Rev. F. L. (88), hymn writer; Berkeley, Calif., June 7.
Hotchkiss, H. L. (87), a founder of N. Y. Stock Exchange; San Antonio, Tex., May 10.
Howard, Mrs. K. L., poet, illustrator; Cincinnati, July 5.
Howe, Earl (R. G. P. Curzon) (67), ex-Lord Chamberlain; London, Jan. 10.
Howland, Miss Emily (101), educator, philanthropist; Sherwood, N. Y., June 30.
Hubbell, Dr. J. B. (83), ex-Field Sec. Amer. Red Cross; Glen Echo, Md., Nov. 19.
Hubner, C. W. (93), poet, Confed. Vet.; Atlanta, Ga., Jan. 3.
Hudspeth, R. S. (76), ex-judge, ex-Dem. Nat'l. Committeeman; Millington, N. J., Nov. 8.
Huenefeld, Baron E. G. von (36), soldier, poet, dramatist, transatlantic aviator (April 12-13, 1928); Berlin, Feb. 5.
Huffington, John (66), marine painter; Rowayton, Conn., May 3.

Hug, Conrad (59), art dealer; Kansas City, Mo., May 17.
Huggins, Miller (49), Manager N. Y. Yankees Baseball Team; N. Y. City, Sept. 25.
Hughes, Rev. W. F. (54), ex-Pres. Cathedral College, ex-Sec. Papal Legation at Wash.; N. Y. City, July 30.
Huhn, G. A., Sr. (78), banker, broker; Overbrook, Pa., Mch. 20.
Hulbert, J. W. (59), ex-state executioner; Auburn, N. Y., Feb. 22.
Hume, Rev. R. A. (82), India Missionary for 52 yrs.; Brookline, Mass., June 24.
Hunt, Ida Brooks (60), actress, singer; Brooklyn, Dec. 7.
Hart, L. F. (67), ex-Gov. Washington (1916-1920), lawyer, leading Odd Fellow; Tacoma, Dec. 4.
Hyde, Rev. E. L. (64), evangelist, Chairman Ocean Grove (N. J.) Camp Meeting; Philadelphia, Oct. 11.
Hyer, Rev. H. S. (68), Pres. Southern Methodist University; Dallas, Tex., May 29.
Inman, J. H. (52), cotton broker; N. Y. City, June 3.
Inouye, Marquis Katsunosuke (68), ex-Japanese Ambassador to Germany and then to London; Tokio, Nov. 3.
Inouye, Admiral Viscount Ryokei (83), Japanese Fleet Adm'l.; Tokio, Mch. 22.
Jackson, R. B. (50), Pres. Hudson Motor Co.; in France, Mch. 20.
Jacobs, Dr. Aletta (80), suffragist, first woman doctor in Holland; The Hague, Aug. 10.
Jarvie, J. N. (75), Amer. coffee importer, financier, philanthropist; at sea, June 21.
Jenks, G. C. (79), newspaper man, story writer ("Diamond Dick"); Owasco, N. Y., Sept. 13.
Jenks, Prof. J. W. (72), economist, Pres. Alex. Hamilton Institute; N. Y. Aug. 24.
Jennings, Mrs. Louis J. (Madeline Henriques), actress, widow of former editor N. Y. Times; London, May 12.
Jewell, Comm'r C. T., of the Navy (57), a P. E. Church leader; Washington, D. C., July 22.
Johnson, Mrs. Bradish (73), philanthropist; N. Y. City, Dec. 9.
Johnson, Prof. D. B. (72), founder and Pres. Winthrop College for Women; Rock Hill, Dec. 26, 1928.
Johnson, Jackson (69), of St. Louis, largest shoe m'fr. in world; Daytona, Fla., Jan. 23.
Johnson, Romilly (46), playwright, composer; Lynn, Mass., Aug. 7.
Johnston, W. A. (58), newspaper man, author; Chicago, Feb. 16.
Jones, C. D. (77), chain store owner; Skytop, Pa., Sept. 28.
Jones, Col. E. L. (53), Dir. U. S. Coast & Geodetic Survey; Washington, April 9.
Jones, F. L. (61), newspaper man; N.Y. City, Sept. 4
Jones, Mrs. Gilbert E., of N. Y., Paris, May 30.
Jones, H. A. (77), playwright; in England, Jan. 7.
Jones, Rev. R. E. (71), Canon Bursar, P. E. Cathedral of St. John the Divine, N. Y. City; Greenfield, Mass., July 19.
Jones, Rev. ("Skypilot") W. G. (79), marine missionary for 55 yrs. of N. Y. Bible Soc.; Woodhaven N. Y., Nov. 19.
Josephthal, L. M. (60), banker, Rear Admi. N. Y. N. G., Commander N. Y. Naval Militia; New Rochelle, N. Y., May 23.
Jung, Gen. Sir Chandra (67), Premier of Nepal; City of Nepal, Nov. 26.
Katzenbach, F. S. (60), State Supr. Ct. Justice of N. J., ex-Mayor of Trenton; that city, Mch. 13.
Kaupert, Mgr. George (72), Vicar Gen. R. C. Diocese of Brooklyn; that city, Mch. 27.
Keane, Rev. J. J. (72), R. C. Archbishop, ex-Pres. Catholic Total Abstinence Union; Dubuque, Ia., Aug. 3.
Keech, Ray (22), auto racer; Altoona, Pa., June 15.
Keefe, D. J. (76), ex-member U. S. Shipping B'd., ex-Pres. Internat'l. Longshoremen's Assoc., ex-Commissioner Gen. of Immigration; Chicago, Jan. 2.
Keenan, Frank (70), actor; Hollywood, Calif., Feb. 24.
Keep, Chauncey (76), Chicago fin., trustee of Marshall Field estate; Camden, Me., Aug. 12.
Keith, M. C. (81), founder, United Fruit Co.; W. Islip, N. Y., June 14.
Keightley, Cyril (53), actor; N. Y. City, Aug. 14.
Kellerd, J. E. (67), actor; Yonkers, N. Y., June 6.
Kellogg, J. A. (64), ex-N. Y. State Supreme C't. Justice, ex-Pub. Service Commissioner; Glens Falls, Sept. 8.
Kelly, Mrs. John (Anna Mullen), widow of Tammany leader, who died in 1886; N. Y. City, Mch. 25.
Kelly, Capt. L. S. (79), Indian scout under Gen. N. A. Miles; Paradise, Calif., Dec. 17, 1928.
Kelly, W. E. (56), County Clerk, ex-Postmaster; Brooklyn, Sept. 20.
Kelman, Rev. Dr. John (63), pastor 5th Ave. Presby. Ch., N. Y. City, 1919-1924; Edinburgh, May 3.
Kemp, Sir Edward (71), Canadian statesman, fin., War Minister, 1916-1919; in Ontario, Aug. 12.
Kemp, W. C. B. (78), for 60 yrs. a Columbia Univ. student; N. Y. City, Feb. 3
Kennaday, Paul (55), social worker; N. Y. City, May 4.
Kennedy, John (74), founder grain growers movement in western Canada; Winnipeg, June 14.
Kennedy, W. S. (79), biographer, poet; in Lewis Bay, Mass., Aug. 4.
Kernochan, F. J. (86), a founder of the Bar Assoc.; N. Y. City, Aug. 17.
Kilbon, Rev. J. L. (63), Exec. Sec. N. Y. City Assoc. of Congreg. Churches; Brooklyn, Aug. 10.
Killilea, H. J. (62), lawyer, founder American League (baseball); Milwaukee, Jan. 23.
Kimball, A. R. (81), Treas. for 25 yrs. of Fed. Council of Churches; W. Orange, N. J., Dec. 8.
King, Mrs. Carrie Van Dusen (75), singer, actress; N. Y. City, April 17.
King, E. J. (61), Congressman (15th Ill.), lawyer; Washington, D. C., Feb. 17.
Kingsley, W. J. (52), theatre press agent, war correspondent; N. Y. City, Feb. 14.
Kinross, Albert (58), journalist, soldier, novelist; in England, Mch. 18.
Knowles, Mrs. J. H. (Ellin Toy) (94), a founder of the W. C. T. U., author; April 10, Clifton Springs, N.Y.
Kuni, Field Marshal, Prince (55), father of Empress Nagako of Japan; Tokio, Jan. 27.
Kuser, Col. Anthony (67), N. J. power capitalist; in Florida, Feb. 8.
Laimbeer, Mrs. William (46), ex-Pres. Assoc. Amer. Bank Women; N. Y. City, Oct. 25.
Lanciani, Senator Prof. Rodolfo (82), archaeologist; Rome, May 22.
Langtry, Lily (Lady de Bathe, nee Emelie Charlotte Le Breton) (74), actress, famous English beauty and social leader; Monte Carlo, Feb. 12.
Lankester, Sir E. R. (82), scientist, naturalist; London, Aug. 15.
Lauderdale, Countess of (60), portrait painter; Palm Beach, Fla., Jan. 30.
Law, C. B. (57), ex-Congressman, ex-judge of Brooklyn; Lake George, Sept. 15.
Lawrence, Margaret (39), actress; N.Y. City, June 9.
Le Boutillier, Thomas (50), polo player, ex-U. S. champion pistol shot; Westbury, N. Y., Sept. 18.
Lee, E. M. (61), of Ind., 33 Degree Free Mason, a founder Bull Moose Party in 1912; Miami, Fla., Nov. 24.
Lee, James Melvin (51), Dir. Dept. Journalism, N. Y. Univ.; N. Y. City, Nov. 17.
Lee, W. G. (69), head of Brotherhood of Railroad Trainmen for 20 yrs.; Lakewood, O., Nov. 2.
Lees, Rev. H. C. (58), Anglican Archbishop; Melbourne, Jan. 10.
Leete, Dr. J. H. (60), educator, Director 1917-1928 Carnegie Library, Pittsburgh; Ann Arbor, Mich., Oct. 13.
Lefevre, Andre (60), ex-French Minister of War; Paris, Nov. 5.
Lehman, Lilli (80) (Mrs. Paul Kalisch), opera singer; in Germany, May 17.
Lehman, Maj. P. H. (38), a founder of the Amer. Legion (Paris, 1919), N. Y. City, July 10.
Lehr, H. S., former New York society leader; Baltimore, Jan. 3.
Leonard, Prof. R. J. (43), Director, School of Education at Teachers Coll., Columbia Univ.; N.Y. City, Feb. 9.
Levering, Albert (60), illustrator, painter; N. Y. City, April 14.
Levey, C. M. (70), of San Francisco, ex-Pres. Western Pacific Ry.; N. Y. City, June 25.
Lewis, Prof. P. A. (50), yellow fever martyr of N. Y.; Bahia, Brazil, June 30.
Lewis, W. T. (66), lawyer, great grandson of Nellie Parke Custis; Berryville, Va., May 17.
Liang Chi-Chao, Chinese reformer; Pekin, Jan. 20.
Lieb, J. W. (69), senior Vice-Pres. N. Y. Edison Co.; New Rochelle, N. Y., Nov. 1.
Lieber, Michael, 32, ex-Amer. checker champion; Flint, Mich., Mch. 26.
Liman von Sanders, Field Marshal O. K. B. (74), German Commander at Gallipolli; Munich, Aug. 22.
Lindley, Harvey (75), lumberman, Rep. leader; Seattle, Wash., Sept. 20.
Lit, Col. S. D. (68), merchant, civic leader; Philadelphia, Feb. 28.
Littlefield, Judge N. W. (83), Hon. Pres. Nat'l. Anti-Saloon League; Pawtucket, R. I., Dec. 5.
Locher, Cyrus (51), lawyer, ex-U. S. Senator, ex-Ohio State Director of Commerce; Cleveland, Aug. 17.
Lodge, Lady (77), wife of Sir Oliver Lodge; in England, Feb. 20.
Loeb, Sophie Irene (52), child welfare leader; N. Y. City, Jan. 18.
Londrigan, James (60), City Commissioner; Hoboken, N. J., Mch. 16.
Loper, G. W. (73), former head "Cordage Trust"; Philadelphia, Dec. 6.

Lord, J. E. W., organist, composer of "Jesus, Lover of My Soul"; in Florida, Feb. 4.
Loucks, H. I. (82), ex-Pres. (1896) Populist Party; Clearlake, S. D., Dec. 29, 1928.
Low, Sir A. M. (68), author, newspaperman; Washington, D. C., June 17.
Low, Mrs. Seth (81), widow of ex-Mayor; N. Y. City, April 1.
Lucas, Prof. F. A. (77), Hon. Director Amer. Mus. Nat. Hist.; Flushing, N. Y., Feb. 9.
Lucidi, Evariste, Cardinal (63); Rome, Mch. 31.
Lucking, Alfred (73), lawyer, ex-Congressman; Detroit, Dec. 1.
Lunny, Rev. and Prof. J. J. (59), a Jesuit leader, editor, moderator, N. Y. Archdiocese; N. Y. City, July 21.
Lydig, Col. P. M. (61), N. Y. broker; in France Feb. 16.
Lydig, Rita (Mrs. Philip Lydig, ex-wife W. E. D. Stokes) (50); N. Y. City, Oct. 19.
Lyon, Rear Adm. H. W. (84); Washington, D. C., Nov. 22.
Lyon, J. B. (70), ex-N. Y. State printer; Albany, Jan. 16.
Macara, Sir Charles (83), founder Internat'l. Cotton Fed.; London, Jan. 2.
Macaulay, Edna (Mrs. Jesse Lewisohn), Amer. actress; Paris, June 16.
Macdonald, Sir H. J. (79), ex-Premier of Manitoba, son of Sir J. A. Canada's first Premier, lawyer; Winnipeg, Mch. 29.
Macdonald, J. A. (85), copper mnfr., banker, Flushing, N. Y., April 15.
Mackay, Rev. R. P. (83), ex-Moderator Presby. Ch. in Canada; Woodstock, Ont., May 27.
MacLane, Mary (43), novelist; Chicago, Aug. 7.
Macleod, N. M. (90), 23rd Chief of the Clan Macleod, Scotch land owner; in England, Nov. 5.
Macrery, Andrew (48), City Magistrate; N. Y. City, Aug. 21.
Madden, J. E. (73), race-horse breeder; N. Y. City, Nov. 3.
Major, A. S., engraver, Vice-Pres. Amer. Bank Note Co., Bayport, N. Y., July 23.
Maloney, Martin (82), Papal Marquis, financier; Philadelphia, May 8.
Mankowski, Countess (Grace Bixby) (77); N. Y. City, May 7.
Manners, J. H. (58), playwright; N. Y. City, Dec. 19, 1928.
Manning, D. F. (71), ex-State Supr. Ct. Justice; Brooklyn, Jan. 18.
Mariatt, H. I., artist; Mt. Vernon, N. Y., Oct. 10.
Marquis, Rev. W. S. (75), ex-Chairman Presby. Ch., U. S. A. Gen. Council; Montclair, N. J., Aug. 20.
Marshall, Louis (72), N. Y. lawyer, Jewish leader; Zurich, Switzerland, Sept. 11.
Martens, George (55), song writer, orchestra conductor (Daly's, Lyceum, etc.); Elmhurst, N. Y., Feb. 27.
Martin, W. P. (66), radio mnfr., fin.; Chicago, Oct. 14.
Martin, Whitenell (61), La. Congressman; Washington, April 6.
Marzo, Eduardo (79), Church-music composer; N. Y. City, June 7.
Masselink, Garrett (56), Pres. Ferris Institute; Big Rapids, Mich., April 20.
Masters, F. R., N. Y. merchant, founder Tri-State Park; Copake Falls, N. Y., Oct. 14.
Mathieu, Rev. O E. (75), R. C. archbishop; Regina, Sask., Oct. 26.
Matthews, Brander (77), author, dramatist, critic; on Columbia Univ. faculty (literature) for 32 yrs.; N. Y. City, Mch. 31.
Maxwell, Miss Anna C. (77), Dean of Amer. Nurses; N. Y. City, Jan. 2.
Maxwell, Gen. Sir J. G. (70); Capetown, Feb. 21.
Maxwell, Sir William (66), war correspondent; in England, Dec. 26, 1928.
Maxwell, Sir William (87), Pres. Internat'l. Cooperative Alliance 1907-1921; in Scotland, Feb. 11.
Maynard, C. J. (84), naturalist; Newton, Mass., Oct. 15.
Mayo, Eleanore (Mrs. James Elverson, Jr.) (57), actress; Philadelphia, April 8.
McCabe, W. A. (69), N. Y. State Prison Commissioner (1900-1918), adviser to Gene Tunney, boxer; Poughkeepsie, June 19.
McCarthy, C. J. (68), ex-Gov. Hawaii; Honolulu, Nov. 26.
McElroy, Col. John (83), editor, author, G. A. R. leader; Washington, D. C., Oct. 12.
McGinnity, ("Iron Man") Joe (56), ex-pitcher on Giants baseball team; Brooklyn, Nov. 14.
McGrath, Sir Patrick (60), Pres. Newfoundland Legislative Council, editor, publisher; St. Johns, June 14.
McKee, D. N., ex-head Mother Church, First Ch. of Scientist, Boston; near York Corner, Me., Aug. 11.
McLaughlin, C. B. (73), ex-judge N. Y. State Ct. of Appeals; Albany, May 13.
McManus, C. A. (43), Vice-Chairman N. Y. City B'd. of Aldermen, that city, Sept. 7.
McPherson, W. D. (66) Kings Counsel, diplomat, legislator; Toronto, Can., May 3.
McRae, T. C. (78), Gov. of Ark. (1921-1925), lawyer; Prescott, June 2.
Medary, M. B. (55), architect, member Nat'l. Commission of Fine Arts, Chairman Housing Corp. of U. S. Dept. of Labor; Bala, Pa., Aug. 7.
Meeker, Claude (66), newspaper man, Dem. leader, fin.; Columbus, O., Dec. 6.
Meighan, W. J. C. (79), newspaper man; N. Y. City, Mch. 29.
Meiklejohn, G. D. R. (72), ex-Congressman from Nebr., ex-Asst. Sec. of War; Los Angeles, April 19.
Meredith, Sir Vincent (79), banker; Montreal, Feb. 24.
Merode, Countess de (Mrs. C. E. Waterhouse) (43), war worker; Phoenix, Ariz., Feb. 3.
Merrill, G. P. (75), head curator of geology, U. S. Nat'l. Museum; Auburn, Me., Aug. 15.
Merseles, T. F. (65), Chairman Montgomery Ward & Co., Delmonte, Calif., Mch. 6.
Mersey, Viscount (John C. Bigham) (89), ex-Admiralty Ct. Justice, ex-M. P.; in England, Sept. 3.
Messager, Andre (75), composer; Paris, Feb. 24.
Meux, Adm. of the Fleet, Sir Hedworth (73); in England, Sept. 29.
Meyer, Rev. F. B. (81), non-conformist leader; in England, Mch. 28.
Meyer, Prof. Hans (71), explorer, geographer (scaled Mt. Kilmanjaro); in Germany, July 6.
Mickleborough, John (88), ex-Principal, Boys High School, Brooklyn; Twilight Park, N. Y., July 31.
Middleton, J. A. (72), Vice-Pres. Lehigh Valley R. R.; Rye, N. Y., Nov. 17.
Miller, G. B. (62), Chief Postal Inspector; Washington, D. C., Nov. 17.
Miller, S. H. (58), Vice-Pres., Chase Nat'l. Bank of N. Y.; Bound Brook, N. J., June 22.
Mills, Col. A. G. (85), Vice-Pres. Otis Elevator Co., ex-Pres. N. Y. Athletic Club; Falmouth, Mass., Aug. 26.
Mills, Miss Harriette M., educator; N. Y. City, July 23.
Mills, I. N. (77), ex-Justice N. Y. Supr. Ct.; Mt. Vernon, N. Y., July 14
Mills, M. B. (75), Detroit mnfr., yachtsman; in Fla., June 11.
Mills, Ogden (72), financier, sportsman; N. Y. City, Jan. 29.
Minch, B. H. (64), N. J. State Conserv. Comm'r' ex-Pres. State Senate; Bridgeton, June 24.
Mitchell, F. B. (84), former owner Mail and Express; Pittsford, N. Y., Jan. 25.
Mitten, T. E. (65), Philadelphia st. railway exec.; in Pike County, Pa., Oct. 1.
Mockler, E. W. (36), newspaper man; Morristown, N. J., Feb. 7.
Monro, Gen. Sir Charles (69), defender of Gallipoli (1915); London, Dec. 7.
Montagu of Beaulieu, Lord (John Scott-Montagu) (62), athlete, Vice-Pres. Royal Auto. Club; London, Mch. 30.
Montgomery, T. L. (67), Penn. State Librarian, 1903-1921; Philadelphia, Oct. 1.
Moon, F. F. (49), Dean, N. Y. State College of Forestry; Syracuse, N. Y., Sept. 3
Mooney, J. F. (54), Police Captain, member Honor Legion; N. Y. City, Dec. 1.
Moore, Mrs. (Auber Forestier) (87), musician, author; Madison, Wis., Sept. 23.
Moore, C. J., Vice-Pres. Nat'l. Safety Council; Long Meadow, Mass., Sept. 19.
Moore, D. A. (70), ex-State Treasurer, Laurel lumber, fin.; Wilmington, June 14.
Moore, Hilda (Mrs. Austin Fairman), actress; N. Y. City, May 18.
Moore, J. T. (70), State Librarian and Historian of Tenn.; Nashville, May 10.
Moot, Adelbert (74), Vice-Chancellor, N. Y. State B'd. of Regents, lawyer; Buffalo, Sept. 12.
Morgenthau, J. C. (70), philatelist; N. Y. City, May 22.
Morris, Mrs. E. J. V. B. (84), granddaughter of Pres. Martin Van Buren; N. Y. City, Mch. 14.
Morris, Newbold (60), Pres. Metropolitan Club, Trustee Columbia Univ.; N. Y. City, Dec. 20, 1928.
Morrow, J. W. (86), Judge, U. S. Circuit Ct. of Appeals; a founder of Amer. Red Cross; trustee Carnegie Institution; San Francisco, July 24.,
Moss, McKenzie (60), judge, U. S. Court of Claims; Washington, D. C., June 12.
Mottet, Rev. Henry (84), rector, P. E. Ch. of Holy Communion, at N. Y. City; Great Neck, N. Y., June 20.
Murphy, Tim (67), actor; N. Y. City, Jan. 11.
Murphy, W. H. (73), auto mnfr., art patron; Detroit, Feb. 5.

Murray, G. H. (67), for 27 yrs. Premier of Nova Scotia; Montreal, Jan. 6.
Murray, J. F. (68), ins., ex-Bronx Boro Pres.; Mt. MacGregor, N. Y., Dec. 31, 1928.
Murray, Rev. J. G. (72), presiding P. E. Bishop; Atlantic City, Oct. 3.
Murray, T. E. (51), for 41 yrs. with The World, as newspaper man; Troy, N. Y., Oct. 19.
Murray, T. E. (69), inventor, Edison pioneer; Southampton, N. Y., July 21.
Musin, Ovide (75), violinist; Brooklyn, Nov. 24.
Myers, Col. J. W. (64), Asst. Adj. Gen. N. G., N. Y.; N. Y. City, April 29.
Nevin, Mrs. Josephine, sculptor; Saranac Lake, N. Y., Oct. 31.
Newbold, Thomas (80), ex-Pres. N. Y. State B'd. Health, ex-State Senator, lawyer; N. Y. City, Nov. 21.
Niblack, Rear Adm. (U. S. N.) A. P. (70); Monte Carlo, Aug. 20.
Nichols, C. J. (56), U. S. Govt. Wool Administrator in World War; W. Roxbury, Mass., Feb 12.
Nichols, Dr. C. L. (78), Pres. Amer. Antiquarian Soc.; Worcester, Mass., Feb. 19.
Nicholson, G. P. (54), Corporation Counsel; N. Y. City, April 1.
Noonan, J. P. (51), Pres. Internat'l. Brotherhood Electrical Workers, Vice-Pres. Amer. Fed. of Labor; Washington, D. C., Dec. 4.
Norris, William (Will Black) (57), actor; Bronxville, N. Y., Mch. 20.
Northbrook, Lord (F. G. Baring) (78), banker; in England, April 12.
Ochs, Siegfried (71), founder Berlin Philharmonic Choir; that city, Feb. 6.
O'Connor, T. P. ("Tay Pay") (81), M. P., editor Irish politician; London, Nov. 18.
O'Higgins, Harvey (52), story writer; Martinsville, N. J., Feb. 28.
Olcott, E. E. (75), Pres. Hudson River Day Line of steamboats, mining engineer; N. Y. City, June 5.
Olga, Princess Paley (63), widow of Russian Grand Duke Paul; Paris, Nov. 3.
Ordonez, J. B. (73), ex-Pres. of Uruguay; Montevideo, Oct. 20.
O'Rourke, Rev. J. H. (73), ex-Nat'l Dir. League of the Sacred Heart, Jesuit leader; N. Y. City, Nov. 21.
Osbaldeston, Dr. E. P. T. O. (99), recluse; Asbury Park, N. J., Feb. 18.
Osgood, Miss Fanny C. (45), ex-champion golfer, suffragist; Hopedale, Mass., May 3.
O'Sullivan, James (83), rubber heel maker; Lowell, Mass., June 21.
Otter, Gen. Sir W. D. (85), ex-Chief, Canadian General Staff; Toronto, May 6.
Paget, Gen. Sir Arthur (77); in France, Dec. 9, 1928.
Paget, Walburga Lady (90), author; London, Oct. 11.
Paine, H. G. (70), magazine and newspaper editor; founder, Columbia Spectator; Wisner, N. Y., May 30.
Paine, W. A. (74), Boston banker; Beach Bluffs, Mass., Sept. 24.
Pallen, Prof. C. B. (70), founder the Catholic Encyclopedia, novelist, poet; N. Y. City, May 26.
Parker, E. B. (61), arbiter Anglo-German Mixed Claims Commission; Washington, D. C., Oct. 30.
Parker, M. M. (82), ex-Rep. Nat'l. Committeeman, saw Lincoln shot; Washington, D. C., Mch. 25.
Patten, J. A. (76) ("Wheat King"), Chicago grain speculator, philanthropist; Evanston, Ill., Dec. 8, 1928.
Patterson, J. C. (89), ex-Sec. of State of Canada, lawyer; Ottawa, Feb. 17.
Pause, Rev. J. A. (53), spiritual director Eucharistic Fraternity; Montreal, Mch. 11.
Peabody, G. A. (97), gentleman farmer, oldest Harvard alumnus; Danvers, Mass., May 3.
Peck, W. H. (70), banker, rail executive; Newark, N. J., Feb. 27.
Perkin, Prof. W. H. (59), chemist; in England, Sept. 17.
Perrin, H. W., coal mine owner, ex-Pres. U. S. Golf Assoc.; Burlington, Vt., Aug. 10.
Peterson, Jonathan (63), Pres. U. S. Tobacco Co., and Amer. Snuff Co.; Ridgefield, Conn., Oct. 9.
Perugini, Mrs. Kate (89), daughter of Charles Dickens, the novelist, artist; London, May 9.
Petherick, C. J. (78), dispatch agent for 61 yrs. with the Amer. Embassy at London; that city, Feb.23.
Phillimore, Lord (83), ex-Pres. International Law Assoc., ex-Lord Justice High Ct. of Appeal; in England, Mch. 13.
Piccolli, Mme. Celeste (Celeste Huntley) (89), former operatic singer; Swampscott, Mass., Feb. 6.
Pickands, H. S. (53), Great Lakes shipping operator; Cleveland, Aug. 10.
Pilkington, James (77), ex-boxing champion, "father of rowing," contractor; N. Y. City, April 25.
Pilsbury, E B (73), Amer. marconi mgr.; Brooklyn, Aug. 10.
Platt, F. W. (52), newspaper owner; Poughkeepsie, N. Y., July 6.
Pond, Rear Adm. C. F. (73); Berkeley, Calif., Aug.4
Pope, R. W. (85), Hon. Sec. Amer. Instit. Electrical Engineers; Great Barrington, Mass., Nov. 1.
Porter, Dr. E. H. (72), ex-N. Y. State Health Commissioner; Upper Lisle, Aug. 11.
Porter, M. S. (55), owner Mt. Vernon, N. Y. Daily Argus; Watkins Glen, N. Y., June 18.
Portman, Lord (64), owner of 270 acres of land in London; that city, June 6.
Powers, Richard (85), a founder Amer. Fed. of Labor; Chicago, April 29.
Powers, S. L. (81), lawyer, ex-Congressman; Newton Mass., Nov. 30.
Pratt, D. B. (80), banker, broker, car mnfr.; N. Y. City, Oct. 9.
Prince Henry of Prussia (66), brother of ex-Kaiser; in Germany, April 20.
Prince Johann II of Leichtenstein (88); Troppau Czechoslovakia, Feb. 11.
Prince Max of Baden, ex-Chancellor of German Empire; Constance, Nov. 5.
Prince, Dr. Morton (74), neurologist; Brookline, Mass., Aug. 31.
Princess Victoria (Ms. Alex. Subkoff) (63), sister of ex-Kaiser; Bonn,Prussia, Nov. 13.
Priquet Baron Clements (55), surgeon to crippled children; Vienna, Feb. 28.
Prizer, Edward (73), Chairman, Vacuum Oil Co.; Orange, N. J., Aug. 11.
Proctor, F. F. (78), theater owner; Larchmont, N. Y., Sept. 4.
Pyne, P. R. (72), N. Y. banker, philanthropist; Bernardsville, N. J., Aug. 22.
Queen Mother, Maria Christina (70) of Spain, widow of King Alfonso XII, daughter of late Archduke Charles of Austria; Madrid, Feb. 6.
Radoslavoff, Vassile (75), Bulgarian Premier, 1913-1918; Berlin, Oct. 21.
Rapalje, Rev. Daniel (93), ex-Missionary in China, oldest grad. Rutgers Univ; Plainfield, N. J., May 30.
Rathbun, Mrs. Harriet (89), spiritualist leader; N. Y. City, April 24.
Rawlins, U. S. Judge W. T. (51), of Hawaii; at sea Dec. 18, 1928.
Raymond, Prof. E. L. (89), educator, author; Washington, D. C., July 11.
Rea, Samuel (73), ex-Pres. Penn. Railroad; Gladwyne Pa., Mch. 24.
Redfern, C. P. (76), dress designer; Paris, June 16.
Reid, Robert (67), mural painter; Clifton Springs, N. Y., Dec. 2.
Restin, Rev. O. H. (71), for 28 yrs. Lutheran Missionary Pastor, Port of N. Y.; Manhattan Boro, Feb. 25.
Revelstoke, Lord (John Baring) (65), London banker, member of Reparations Conference at Paris; that city, April 19.
Reynolds, Edward (63), Vice-Pres. Postal Teleg. Cable Co.; New Rochelle, N. Y., Nov. 9.
Reynolds, Prof. H. M. (72), Greek professor at Yale 39 yrs.; New Haven, Conn., Oct. 3.
Reynolds, L. H. (68), City Magistrate; Brooklyn, May 22.
Rhodes, H. G. (58), Amer. author, playwright; in England, Sept. 20.
Rice, Rev. E. W. (98) editor, author; Philadelphia Dec. 3.
Rice, H. A. (63), ex-Atty. Gen. of R. I., ex-Dir.Gen. Sons of Amer. Revol.; Providence, Nov. 20.
Richards, Prof. H. S., Dean Law School Univ of Wis.; Boston, April 21.
Richardson, Col. W. P. (68), Commander A. E. F. in North Russia in World War; Washington, May 20.
Rickard, G. L. ("Tex"), boxing promoter; Miami, Fla., Jan. 6.
Ricker, E. P. (81), hotel owner; Poland Springs, Me. Dec. 22, 1928.
Ridgway, Dr. R. R. (78), founder Amer. Ornithologist's Union; Olney, Ill. Mch. 25.
Riley, Rev. C. O. L. (75), Anglican Archbishop; Perth, Australia, June 23.
Ring, Welding (83), exporter, banker, ex-Pres. N. Y. Produce Exchange; N. Y. City, June 19.
Rittenhouse, Florence (Mrs. J. H. Dailey) (35), actress, Pres. Twelfth Night Club; in N. J., Mch. 28.
Roark, C. W. (53), Congressman-elect, mnfr.; Louisville, Ky., April 5.
Robb, J. A. (70), Canadian Minister of Finance; Toronto, Nov. 11.
Roberts, Henry (76), Gov. of Conn., 1905-1907, wire mnfr., banker; Hartford, May 1.
Roberts, Col. T. H. (79), lawyer; Brooklyn, Feb. 27.
Roberts, Theodore (67), actor; Los Angeles, Dec. 14, 1928.
Robinson, Sir Joseph ("old J. B.") (89), South African gold and diamond mines owner; Cape Town, Oct. 30.

Robinson, J. F. W. (81), Pres. Nat'l. Wholesale Lumber Dealers Assoc.; Buffalo, N. Y., June 2.
Robinson, Col. Wirt (64), for 29 yrs. on West Point Milit. Acad. faculty, geologist; Washington, D. C., Jan. 19.
Roeder, S. M. (85), lawyer, a founder Jewish Theol. Sem.; N. Y. City, April 29.
Rogers, Rear Adm. E. B. (73); Philadelphia, Mch. 5.
Roosevelt, R. B., Jr. (62), fin.; Sayville, N. Y., Sept. 9.
Rose, A. J. (75), lawyer; N. Y. City, July 25.
Rosebery, Earl of (82), ex-British Prime Minister and Liberal leader, land and race-horse owner; Epsom, May 21.
Rosenwald, Mrs. Julius (60), Nat'l. Vice-Pres. Girl Scouts, philanthropist; Chicago, May 23.
Ross, W. G. (65), rail and power man, ex-Pres. Navy League of Canada; Montreal, April 15.
Rossiter, W. S. (67), Pres. Rumson Press, census expert; Concord, N. H., Jan. 23.
Rothermel, P. F., Jr. (78), ex-Dist. Atty.; Philadelphia, May 25.
Rourke, D. F. (66), ex-champion roller skater; Worcester, Mass., Nov. 14.
Rowe, J. G. (75), race-horse trainer; Saratoga, N. Y., Aug. 2.
Runnels, J. S. (84), ex-Chairman Pullman Co., lawyer; Chocora, N. H., July 11.
Rybner, Prof. M. C. (75), composer, violinist, pianist; N. Y. City, Jan. 21.
Sackett, Col. H. W. (76), lawyer; N. Y. City, Dec. 9
Saenger, Oscar (61), baritone singer, teacher; Washington, April 20.
Sajous, Dr. C. E. de M. (76), a discoverer of ductless gland functions; ed. N. Y. Med. Journal, 1911-1919; Philadelphia, April 27.
Sanders, W. B. (74), Cleveland lawyer and fin. Boston, Jan. 25.
Sanderson, William (102), cutlery mfr.; Richmond Hill, N. Y. City, Dec. 4.
Sanford, H. S. (56), lawyer, Gov. Gen'l. Soc. Colonial Wars; N. Y. City, May 14.
Sarrail, Gen. Maurice (72), Defender of Verdun (1914); Paris, Mch. 23.
Satow, Sir Ernest (86), ex-Brit. Ambass. to Japan and China, ex-member Hague Court of Arbitration; in England, Aug. 26.
Sayers, J. D. (89), ex-Congressman, ex-Gov. of Tex.; Austin, May 15.
Sayre, Dr. R. H. (69), surgeon; N. Y. City, May 29.
Schlesinger, Elmer (58), lawyer, ex-Vice-Pres. U. S. Shipping Board, newspaper owner; Aiken, S. C., Feb. 20.
Schwarzenbach, J. F. (54), silk mnfr., Hon. Swiss Consul Gen'l. at N. Y. City; Hicksville, N. Y., Aug. 3.
Scott, Geoffrey (44), authority on Boswell; N. Y. City, Aug. 14.
Searles, Rev. H. C. (84), Grant's war-time secretary, organized first railroad Y. M. C. A.; Canandaigua, N. Y., Feb. 23.
Sellew, Rev. W. A. (84), Bishop of Free Methodist Ch. of Amer.; Jamestown, N. Y., Jan. 16.
Serviss, G. P. (78), astronomer, author, lecturer; Englewood, N. J., May 24.
Severine, Mme. (Caroline Remy) (79), journalist, radical; in France, April 22.
Seydoux, Jacques (58), French diplomat, Reparations Adviser; Paris, May 26.
Seymour, W. W. (68), banker, land owner, ex-Mayor of Tacoma, Wash.; there, Oct. 1.
Sharpe, Dr. D. L. (59), naturalist; Hingham, Mass., Nov. 29.
Shattuck, Prof. F. C. (81), with Harvard Univ. Med. School, 1879-1912; Brookline, Mass., Jan. 11.
Shaw, Mary (Duchess de Brissac) (69), actress; N. Y. City, May 18.
Thaw, Mrs. William (Mary Copley) (87), social leader, philanthropist, mother of Harry K. Thaw; Pittsburgh, June 9.
Shea, C. P. (55), leader of 1905 fatal teamsters strike at Chicago; that city, Jan. 12.
Shea, J. H. (65), ex-Ambassador to Chile, ex-judge; Indianapolis, Dec. 22, 1928.
Shepard, Col. C. O. (88), ex-U. S. Minister to Japan; Pasadena, Calif., Dec. 13, 1928.
Sherwood, Lenore, Vice-Pres. Nat'l. Dem. Women's Organization; La Jolla, Calif., Dec. 30, 1928.
Short, J. V. (46), City Magistrate; Brooklyn, Jan. 23.
Shonts, Mrs. T. P.; Washington, D. C., June 21.
Shumaker, Rev. E. E. (62), Supt. Anti-Saloon League in Ind.; Indianapolis, Oct. 25.
Sickel, W. G. (60), ex-Pres. United Amer. Lines; at sea, May 1.
Sifton, Sir Clifford (68), Canadian newspaper owner, sportsman, on Alaska Boundary Tribunal; N. Y. City, April 17.
Singer, Sir Mortimer (65), Amer. Sewing Mach. mfgr.; London, June 24.
Simkins, Prof. W. S. (86), of Univ. of Texas, fired first shot at Ft. Sumter, Ku Klux Klan official in Reconstruction Days; Austin, Feb. 27.
Sinnott, N. J. (59), judge, U. S. Ct. of Claims; Washington, D. C., July 20.
Skiddy, Gen. W. W. (84), for 25 yrs. Treasurer of the P. E. Ch. in this country, dye mnfr., yachtsman; Stamford, Conn., Oct. 7.
Slagle, R. L. (63), Pres. Univ. of So. Dak.; near Indianapolis, Jan. 29.
Slavin, Frank (Sydney Cornstalk) (67), ex-champion bare knuckle boxer; Vancouver, B. C., Oct. 17.
Slosson, Dr. E. E. (64), chemist, Dir. Science Service; Washington, D. C., Oct. 15.
Smith, F. P. (87), dean of Catholic journalists; Pittsburgh, Pa., Jan. 10.
Smith, G. H. (65), Justice N. Y. State Supr. Ct.; Monticello, Mch. 8.
Smith, Maj. Gen. H. A. (62), Commander 7th Corps Area; Omaha, Neb., May. 26.
Smith, S. W. (59), ex-N. Y. State Supr. Ct. Justice; Chatham, N. Y., Jan. 24.
Smith, Xanthus (90), naval-battle painter; Edge Hill, Pa., Dec. 2.
Snitkin, Z. A. (52), ex-Muncie Justice; N. Y. City, Jan. 19.
Sohmer, William (76), ex-State Comptroller, ex-Sheriff, ex-Register, ex-County Treas., ex-State Senator; Brooklyn, Feb. 22.
Southwark, Lord (R. K. Causton) (85), sportsman, ex-Liberal whip; London, Feb. 23.
Spargo, J. S. (60), newspaper man; Freeport, N. Y., April 7.
Spreckels, Louis (62), sugar refiner; Yonkers, N. Y., June 28.
Spong, W. B. (79), painter, stage decorator; in France, Mch. 2.
Spry, William (65), U. S. Land Commissioner, ex-Gov. of Utah; Washington, April 21.
Squibb, Dr. E. H. (77), drug mnfr.; So. Harwich, Mass., July 7.
Squires, Grant (65), lawyer; N. Y. City, Dec. 10, 1928.
Stack, Austin (48), a Sinn Fein leader; Dublin, April 27.
Stallings, G. T. (63), baseball player and club manager; Haddock, Ga., May 13.
Stanton, E. P. (51), Dewey's signal boy, raised first Amer. flag over Philippines, at Manila, Aug. 13, 1898; St. Louis, Feb. 23.
Stauch, Louis (69), pioneer Coney Island business man; Brooklyn, April 4.
Stealey, O. O. (87), for 50 yrs. on Louisville Courier-Journal, charter member Gridiron Club; Chicago, Dec. 31, 1928.
Steckler, Alfred (73), ex-State Supr. Ct. Justice; N. Y. City, June 10.
Steel, Mrs. Flora (82), novelist of India; in England, April 14.
Steele, H. R. (87), ex-Atty. Gen. of La., ex-Dist. Atty. of Kings County; Brooklyn, Nov. 21.
Steele, U. S. Representative, L. J. of Ga. (61), lawyer; Washington, D. C., July 24.
Steiner, Miss Emma R. (73), composer; Bronx, Feb. 27.
Steinhardt, David (42), N. Y. lawyer and bankruptcy receiver; Philadelphia, April 19.
Stepanovitch, Gen. Stephen (73), Serb. commanding general in World War; Belgrade, April 27.
Stephenson, J. T. ("Peaches") (73), ex-N. Y. City police captain; Bethel, N. Y., Mch. 23.
Stern, M. S. (63), Vice-Pres. B'd. Educ. realtor; N. Y. City, Oct. 28.
Stevenson, C. A. (77), actor; N. Y. City, July 2
Stevenson, L. G. (60), Dem. leader, son of late Vice-Pres.; Bloomington, Ill., April 5.
Stewart, Grant (63), actor, a founder Actor's Equity Assoc.; Woodstock, N. Y., Aug. 18.
Stewart, Joseph (70), exec. asst. to Postmaster General; Washington, D. C., July 1.
Stewart, W. R. (76), ex-Pres. N. Y. State B'd. of Charities, lawyer; N. Y. City, Sept. 4.
Stirling, Rear Adm. Yates (85); Baltimore, Mch. 5.
Stockton, Richard (71), diplomat, financier; N. Y. City, Nov. 3.
Stone, Melville E. (80), Counselor, and for 28 yrs. Gen. Mgr. of the Associated Press; N. Y. City, Feb. 15.
Storey, Moorfield (84), ex-Pres. Amer. Bar Assoc., author; Lincoln, Mass., Oct. 24.
Stover, C. B. (67), ex-Park Commissioner, a founder of University Settlement; N. Y. City, April 25.
Straton, Rev. J. R. (54), pastor Calvary Baptist Ch., N. Y. City; crusader, evangelist, Clifton Springs, N. Y., Oct. 29.
Strauss, Albert (64), N. Y. banker, Vice-Gov. Fed. Reserve B'd. 1918-1920; Atlantic City, Mch. 28.
Strayer, F. T. (42), lawyer, ex-Nat'l. Commander, Veterans of Foreign Wars; Indianapolis, Oct. 24.
Strayer, Rev. P. M. (57), ex-Dir. Internat'l. Reform Bur.; Rochester, N. Y., April 3.
Stresemann, Gustav (51), German Foreign Minister, ex-Chancellor, Pres. People's Party; Berlin, Oct. 3.
Strouss, E. M., lawyer, ex-State Supt. of Hospitals; N. Y. City, Mch. 23.

Stryker, Rev. Dr. M. W. (78), ex-Pres. Hamilton College (1892-1917); Rome, N. Y., Dec. 6.
Stubbs, ex-Gov. W. R. (70), farmer; Topeka, Kan., Mch. 25.
Studdert-Kennedy ("Woodbine Willie") Rev. G. A. (46), Chaplain to King George; Liverpool, Mch. 8.
Summers, Capt. J. C. (74), newspaper man, yachting expert; Sawtelle, Calif., Feb. 2.
Swords, Col. H. L. (87), Dep Collector of Customs for 30 yrs.; N. Y. City, April 12.
Swasey, L. M. (69), ex-Sheriff, Rep. leader 17th A. D., ex-Tax Commissioner; Brooklyn, June 2.
Taggart, Thomas (72), veteran Dem. "boss" of Indiana, ex-U. S. Senator, ex-Chairman Dem. Nat'l. Committee, fin., hotel owner; Indianapolis, Mch. 6.
Tailer, T. Suffern (61), N. Y. banker, society leader; Baltimore, Dec. 25, 1928.
Tanaka, Baron Giichi (66), ex-Premier of Japan; Tokio, Sept. 29.
Teter, W. C. (66), broker, founder Teterboro Airport; N. Y. City, Jan. 14.
Thacher, G. H. (76), Albany banker; N. Y. City, May 3.
Thayer, W. N. (81), ex-Warden Dannemora Prison; Brooklyn, Mch. 19.
Thomas, E. B. (80), ex-N. Y. State Supr. Ct. Justice; Brooklyn, Mch. 27.
Thomas, Mrs. Theodore (Rose Fay) (76), widow of orchestra leader, founder Nat'l. Fed. Music Clubs; Cambridge, Mass., April 20.
Thomas, W. B. (72), ex-Pres. Amer. Sugar Refining Co.; Boston, May 29.
Thompson, Sir E. M. (89), Librarian and ex-Director British Museum; London, Sept. 15.
Thompson, Miss Fanchon (49), Amer. opera singer; Paris, Sept. 26.
Thorpe, J. R., ex-manager Lawyer's Club, and the Railroad Club at N. Y. City; Colorado Springs, Nov. 18.
Tillman, J. N. (69), members from Ark., U. S. House 1915-1929, ex-Pres. Univ. of Ark.; Fayetteville, Mch. 10.
Tingley, Mrs. Katherine (79), Amer. theosophist leader; in Sweden, July 11.
Todd, Rear Adm. C. C. (80), Washington, April 28.
Toole, J. C. (59), Pres. Internat'l Baseball League; N. Y. City, Feb. 28.
Toole, J. K. (78), first Gov. of Montana; Helena, Mch. 11.
Torndorf, Rev. F. A. (59), earthquake expert, of Georgetown Univ.; Washington, D. C., Nov. 29.
Tosi, Eugenio, Cardinal (65), R. C. Archbishop of Milan; that city, Jan. 7.
Towle, Sir William (80), hotel owner; London, Sept. 17.
Trainer, J. H. (83), Sec. Armory B'd.; N. Y. City, Feb. 19.
Trench, C. S. le P. (74), metal merchant; Brooklyn, Nov. 8.
Trevor, Norman (52), actor; Norwalk, Calif., Oct. 31.
Trombetti, Prof. Alfredo (62), Etruscan expert; in Italy, July 6.
Tuke, H. S. (70), painter; London, Mch. 13.
Tuthill, W. B. (74) architect; N. Y. City, Aug. 25.
Tyler, Prof. J. M. (78), biologist, on Amherst Coll. faculty 50 yrs.; Amherst, Mass., April 12.
Tyson, L. D. (68), U. S. Senator from Tenn., soldier, lawyer; Manor, Pa., Aug. 24.
Tyng, S. H. (64), Pres. Real Estate B'd.; N. Y. City, July 11.
Underwood, C. F. (57), illustrator; N. Y. City, June 11.
Underwood, O. W. (66), ex-U. S. Senator from Ala.; Woodlawn, Va., Jan. 25.
Utter, F. R. (65), State Supt. Standards and Purchase; Friendship, N. Y., Jan. 16.
Van Benthuysen, Will (46), artist, writer; N. Y. City, Mch. 8.
Vanderslice, Howard, art patron, capitalist; Kansas City, Mo., Oct. 10.
Van der Stucken, Frank (70), Amer. composer and music director; Hamburg, Aug. 19.
Van Nest, F. R. (85), treas. for 34 yrs. of Gen. Synod. Ref. Ch. in Amer.; N. Y. City, Feb. 14.
Van Rensselaer, Mrs. Alex. (Sarah R. Drexel) (69), social leader, war worker, philanthropist; near Philadelphia, Feb. 3.
Van Slyke, Dr. Elizabeth, ex-supt. Woman's Hosp.; N. Y. City, Feb. 16.
Vassilios III, Patriarch of the Greek Orthodox Church; buried at Constantinople, Oct. 2.
Vaughn, Dr. V. C. (78) toxicologist; Richmond, Va., Nov. 21.
Veblen, Prof. T. B. (72), educator, economist; Menlo Park, Calif., Aug. 3.
Velie, W. L., auto and airplane mnfr.; Moline, Ill., Mch. 20.
Vico, Antonio, Cardinal (81); Vatican City, Feb. 25.
Viljoen, W. J. (60), So. African educator; Capetown, July 20.
Vinje, Aad (72), Chf. Justice Wis. Supr. Ct.; Madison, March. 23.
Vivian, H. A. (51) newspaper man, Sec. to N. Y. State Comptroller; Albany, Oct. 15.
von Buelow, Prince Bernhard (80), ex-German Chancellor; Rome, Oct. 28.
von Plessen, Gen. Hans (88), Adj. Gen. Imperial German armies; Potsdam, Jan. 28.
Vrooman, Col. J. W. (86), 33rd Degree Freemason, ex-Grandmaster in N. Y. State, historian; Herkimer, Nov. 24.
Wacker, C. H. (73), ex-Chairman Chicago City Plan Commission, maltster; Lake Geneva, Oct. 31.
Wade, F. E. (65), a founder N. Y. State probation system, penologist, lawyer; Buffalo, April 10
Wahl, Maj. Gen. Lutz (59), Adj. Gen. of the Army; Washington, D. C., Dec. 30, 1928.
Wakeman, Dr. Maurice (31), of Yale School of Medicine and Rockefeller Institute, yellow fever "martyr" with Dr. Noguchi; at sea, Mch. 2.
Wales, B. R. (50), N. Y. State Senator, member State Crime Commission; Binghamton, Nov. 25.
Walker, H. O. (85) artist; Belmont, Mass., Jan. 14
Wallach, Samuel (67), clothing mnfr.; N. Y. City, June 23.
Walpole, Rev. G. H. S. (75), Anglican Bishop of Edinburgh, author; in Scotland, Mch. 5.
Walters, John (58), betting commissioner on N. Y. race tracks for 30 yrs.; Paris, Feb. 12.
Ward, C. S. (70), Y. M. C. A. fund raiser; Flushing, N. Y., July 28.
Ward, Dr. J. R. W. (103), secretary and personal physician to Empress Eugenie of France, companion of David Livingstone in Africa, intimate of President Lincoln, Jefferson Davis and Robert E. Lee; N. Y. City, Sept. 27..
Ward, R. C. Bishop, John (73), Kansas City, Kan., April 20.
Ward, W. B (44), Pres. Ward Baking Corp.; Bronx Feb. 6.
Warden, Florence (71), novelist; London, Mch. 11.
Warner, W. Rr (83), telescope maker, scientist, Amer. philanthropist; in Germany, June 25.
Warren, J. A. (47), N. Y. City lawyer, ex-Police Commissioner, ex-Commissioner of Accounts; Greenwich, Conn., Aug. 13.
Warren, U. S. Senator, F. E. (85), ex-Gov. of Wyo., in the Senate 36 yrs.; Washington, D. C., Nov. 24.
Warren, W. F. (95), Pres. emeritus, Boston Univ.; Brookline, Mass., Dec. 6.
Washington, J. T. (83), great-great grandson of Samuel Washington, brother of George; San Francisco, Feb. 22.
Waterbury, J. I. (78), financier, art patron; Convent, N. J., Mch. 4.
Watson, J. H. (78), Chf. Justice Supr. Ct. of Vt, Montpelier, Dec. 7.
Weatherly, F. E. (80), song writer, lawyer; London, Sept. 7.
Weller, R. H. (47), Congressman; N. Y. City, Mch 1
Wellings, Milton (79), song writer; London, Feb. 22.
Wells, Benj. (61), former owner Phila. Press., zinc mnfr.; Pittsburgh, Pa., May 6.
Wells, Prof. Joseph (73), ex-Vice Chancellor of Oxford Univ., anti-Communist; in England, Feb. 28.
Welsbach, Baron Karl Auer von (71), inventor incandescent gas mantle; in Corinthia, Aug. 4.
Wendel, Miss Georgiana (79), owner of N. Y. City realty; Mamaroneck, Jan. 18.
Wenley, Prof. R. M. (67), on Univ. of Mich. faculty (philosophy) since 1896; Ann Arbor, Mch. 29.
Weston, Dr. A. T. (65), for 25 yrs. Coroner's physician at N. Y. City; Bay Shore, N. Y., Feb. 21.
Weston, E. P. (90), long-distance walker; Brooklyn, May 12.
Westphal, Mrs. Amelia (77) (the "Sporting Duchess"), race-horse owner; N. Y. City, June.
White, C. C. (69) actor, acrobat 1869-1924; N. Y. City, April 28.
White, W. C. (53), motor manufacturer; Cleveland, Sept. 29.
Whitehead, R. R. (74), author, founder of Byrdcliffe arts and crafts settlement at Woodstock, N. Y.; Santa Barbara, Calif., Feb. 23.
Whitney, Caspar (64), explorer, war correspondent; N. Y. City, Jan. 18.
Wickett, F. H. (61), lawyer, Pres. Dixie, Lago, Pan. Amer. and other oil concerns; N. Y. City, May 14.
Widener, Mrs. (Pancoast) J. E., social leader; Elkins Park, Pa., May 4.
Willcox, Mrs. Louise C. (64), magazine editor, author; Paris, Sept. 13.
Williams, Jessie Lynch (58), novelist, playwright; Herkimer, N. Y., Sept. 14.
Wilson, Havelock (70), founder Nat'l. Union of Seamen, member Brit. Parliament for 16 yrs.; London, April 16.
Wilson, Lady Sarah (64), a Boer War heroine at Mafeking; London, Oct. 22.
Windl, Sir Bertram (70), anthropologist; Toronto, Can., Feb. 14.

Witherspoon, Dr. J. A. (65), ex-Pres. Amer. Med Assoc.; Nashville, Tenn., April 25.
Witmark, J. P. (58), minstrel singer, actor, music publisher; N. Y. City, June 14.
Witwer, H. C. (39), story and scenario writer, humorist; Los Angeles, Aug. 9.
Woodruff, G. C. (67), of Litchfield, Conn., ex-Vice-Pres. Nat'l. Editorial Assoc.; Hartford, Conn., Mch. 17.
Woodruff, Commander J. S. (58), lawyer, navigation expert for U. S. Shipping B'd.; Washington, D. C., Jan. 13.
Woolsey, Prof. T. S. (76), on Yale law faculty 1879-1911; New Haven, April 24.
Worcester, E. D. (73), lawyer; N. Y. City, May 21.
Wylie, Elinor Hoyt (42) (Mrs. W. R. Benet) poet, N; Y. City, Dec. 16, 1928.
Yoakum, B. F. (70), railroad builder and owner, financier; N. Y. City, Nov. 28.
Young, Prof. A. A. (52), Amer. economist; London, Mch. 7.
Younger, George Viscount (77), a Tory leader, banker, brewer; London, April 29.
Zetland, Marquess of (Lawrence Dundas) (85), ex-Viceroy of Ireland, sportsman; in England, Mch. 11.
Zille, Heinrich (71), etcher, cartoonist; Berlin, Aug. 9.
Zsigmondy, Prof. Richard (64), winner (1925) of the Nobel prize in chemistry; in Germany, Sept. 24.

THE ALFRED B. NOBEL PRIZES.

The Swedish scientist Alfred B. Nobel, inventor of dynamite, died in 1896, bequeathing $9,000,000, the interest of which should yearly be distributed to those who had mostly contributed to the benefit of mankind during the year preceding. The prizes were worth $46,299 each in 1939.

YEAR.	Physics.	Chemistry.	Medicine.	Literature.	Peace.
1901...	W. C. Röntgen (G)	J. H. van't Hoff (D.)	E. A. von Behring (G.)	R. F. A. Sully-Prudhomme (F.)	H. Dunant (Swi.) Fr. Passy (F.)
1902...	H. A. Lorentz (D.) P. Zeeman (D.)	E. Fischer (G.)	Sir Ronald Ross (E.)	Th. Mommsen (G.)	E. Ducommun (Swi.) A. Gobat (Swi.)
1903...	H. A. Becquerel (F.) P. and Marie Curie (F.)	S. A. Arrhenius (Swe.)	N. R. Finsen (Dane.)	B. Bjornson (N.)	Sir W. R. Cremer (E.)
1904..	Lord Rayleigh (E.)	Sir Wm. Ramsay (E.)	I. P. Pawlow (R.	F. Mistral (F.) J. Echegaray (Sp.)	Institute of International Law.
1905...	Ph. Lenard (G.)	A. von Baeyer (G.)	R. Koch (G.)	H. Sienkiewicz (P.)	Baroness von Suttner (Aus.)
1906...	J. J. Thomson (E.)	H. Moissan (F.)	C. Golgi (I.) S. Ramon y Cajal (Sp.)	G. Carducci (I.)	Th. Roosevelt (A.)
1907...	A. A. Michelson (A.)	E. Buchner (G.)	C. L. A. Laveran (F.)	R. Kipling (E.)	E. T. Moneta (I.) L. Renault (F.)
1908...	G. Lippmann (F.)	E. Rutherford (E.)	P. Ehrlich (G.) E. Metchnikoff (R.)	R. Eucken (G.)	K. P. Arnoldson (Swe.) F. Bajer (Dane).
1909...	G. Marconi (I.) F. Braun (G.)	W. Ostwald (G.)	Th. Kocher (Swi)	Selma Lagerlof (Swe.)	A. M. F. Beernaert (B.) Baron de Constant (F.)
1910...	J. D. van der Waals (D.)	O. Wallach (G.)	A. Kossel (G.)	P. Heyse (G.)	Int'l Peace Bureau (Swi.)
1911...	W. Wien (G.)	Marie Curie (F.)	A. Gullstrand (Swe.)	M. Maeterlinck (B.)	T. M. C. Asser (D.) A. H. Fried (Aus.)
1912...	Gustaf Dalén (Swe.)	V. Grignard (F.) P. Sabatier (F.)	A. Carrel (A.)	G. Hauptmann (G.)	Elihu Root (A.)
1913...	H. K. Onnes (D.)	A. Werner (Swi.)	C. Richet (F.)	R. Tagore (Beng.)	H. LaFontaine (B.)
1914...	M. von Laue (G.)	T. W. Richards(A.)	R. Barany (Aus.)	Not awarded.	Not awarded.
1915...	W. H. Bragg (E.) W. L. Bragg (E.)	R Willstatter (G.)	Not awarded.	Romain Rolland (F.)	Not awarded.
1916...	Not awarded.	Not awarded.	Not awarded.	Verner Heidenstam (Swe.)	Not awarded.
1917...	Prof. Charles G. Barkla (E.)	Not awarded.	Not awarded.	K. Gjellerup (Dh.) H. Pontoppidan (Dh.)	International Red Cross of Geneva.
1918...	M. Planck (G.)	Prof. F. Haber (G.)	Not awarded.	Not awarded.	Not awarded
1919...	J. Stark (G.)	Not awarded.	Jules Bordet (B).	Carl Spitteler (Swi.)	W'drow Wilson (A.)
1920...	C. E. Guillaume (Swi.)	Walther Nernst (G.)	A. Krogh (Dane.)	Knut Hamsun (N.)	L. Bourgeois (F.)
1921...	Albert Einstein (G.)	Fred'k Soddy (E.).	Not awarded.	Anatole France (F.)	K.H.Branting (Swe) Chr. L. Lange (N.)
1922...	Niels Bohr (Dh.)	F. W. Aston (E.)	A. V. Hill (E.) and O. Meyerhoff (G.)	J. Benavente (Sp.).	F. Nansen (N.)
1923...	R. A. Millikan (A.)	Fritz Pregl (Aus.)	F. G. Banting (Can.) and Dr. J. J. R. McLeod (Can.)	W. B. Yeats (Irish)	Not awarded.
1924...	K. M. G. Siegbahn (Swe.)	Not awarded.	W. Einthoven (D)	Wladislau Reymont (P.)	Not awarded.
1925...	Jas. Franck (G.) Gust. Hertz (G.)	Richard Zsigmondy (G.)	Not awarded.	G. B. Shaw (E.)	C. G. Dawes (A.) A. Chamberlain(E.)
1926...	Jean B. Perrin (F.)	T. Svedberg (Swe.)	Johan Fibiger (Dh.)	Signora G. Deledda	Aristide Briand (F.) G. Stresemann (G.)
1927...	Arth. Compton (A.) and C. T. R. Wilson (E.)	Heinrich Wieland (G.)	J. Wagner Jauregg (Aus.)	Henri Bergson (F.)	Ludwig Quidde (G.) Ferd. Buisson (F.)
1928..	O.W.Richardson(E)	Adolf. Windaus(G.)	Dr. Ch. Nicolle (F.)	Mrs. S.Undset (N.)	Not awarded.
1929..	Duc de Broglie (F.)	A. Harden (E.) and H. von Euler-Chelpin (Swe)	F. G. Hopkins (E.) and E. Eijkmann (D.)	Thomas Mann (G.)	.....

A., American; Aus., Austrian; B., Belgian; Beng., Bengalese; Can., Canadian; D., Dutch; Dh., Danish; E., English; F., French; G., German; I., Italian; N., Norwegian; P., Polish; R., Russian; Sp., Spanish; Swe., Swedish; Swi., Swiss.
The prizes in 1929 were worth $46,299 in American money.

UNITED STATES BOARD OF MEDIATION.

The Board's headquarters are located on the seventh floor of the Earle Building, 13th and E Streets, N. W., Washington, D. C.
Samuel E. Winslow, Chairman; other members: G. Wallace W. Hanger, Edwin P. Morrow, Oscar B. Colquitt, John Williams. George A. Cook, secretary; R. B. Bronson, assistant secretary; Robt. F. Cole, Chief, Division of Administration; Chiefs of Technical Divisions, John W. Walsh, Thos. E. Bickers, and Harrison H. Reed.

LARGE BENEFACTIONS OF 1929.

The total of benefactions given by Americans of wealth has for some years exceeded two billion dollars annually so far as can be estimated. The compilations made by the John Price Jones corporation are: During 1921, $1,719,000,000; 1922, $1,787,760,000; 1923, $1,859,310,000; 1924, $2,000,320,000; 1925, $2,068,570,000; 1926, $2,192,680,000; and 1927, $2,219,700,000. The estimates for 1928 and 1929 will exceed those of 1927.

Below The World Almanac list from the daily papers and its own questionnaires to public institutions the notable benefactions made public in 1928:

Anonymous, $3,000,000 to Johns Hopkins University, Baltimore, Md.

—$450,000 to Johns Hopkins University, Baltimore, Md.

—$425,000 to build Presbyterian Church in Washington, D. C.

—$250,000 to Harvard University, Cambridge, Mass.

—$207,470 to New York Univ., N. Y. City.

—$200,000 to the Protestant Episcopal Diocese of New York.

—$175,000 to Columbia Univ., N. Y. City.

—$150,000 to Neurological Institute of New York, N. Y. City.

—$150,000 to Occidental College, Los Angeles, Calif.

—$150,000 to Washington Univ., St. Louis, Mo.

—$88,820.60 to Harvard Univ., Cambridge, Mass.

—$84,250 to Columbia Univ., N. Y. City.

—$70,000 to Harvard Univ., Cambridge, Mass.

—$50,000 to School of Dental and Oral Surgery of Columbia Univ., N. Y. City.

—$50,000 trust fund to Muskingum College New Concord, Ohio.

—$50,000 to the College of the Ozarks, Clarksville, Ark.

—$50,000 to Harvard Univ., Cambridge, Mass.

—One-half as much money (the other half to be paid by the U. S. Gov't.) as may be necessary to acquire the stands of sugar and yellow pine on private lands in Yosemite National Park, which are said to be in danger of destruction.

Edward F. Albee, $150,000 to Cathedral of St. John the Divine, N. Y. City; $100,000 to St. Stephen's Coll., Annandale, N. Y.

Altman Foundation, $50,000 to the Mount Sniai Hospital, N. Y. City.

L. Altschul, $50,000 to the Bronx Hospital, N. Y. City.

Christine Arbuckle, Pittsburgh, Pa., by will, $150,000 each to Muskingum College, New Concord, Ohio; Westminster College, New Wilmington, Pa.

Mark Ash, by will, $100,000 to the Federation for the Support of Jewish Philanthropic Societies, N. Y. City.

F. C. Austin, Chicago, Ill., $2,000,000 to Northwestern Univ., Evanston, Ill. for F. C. Austin Scholarship Foundation.

George F. Baker, N. Y. City, $1,000,000 to New York Univ., N. Y. City; $168,000 to Harvard Univ. Cambridge, Mass.

Bancitaly Corporation, $975,000 to Univ of California, Berkeley Calif., in tribute to Giannini.

William P. Bancroft, Wilmington, Del., estate of, $100,000 to Antioch College, Yellow Springs, Ohio.

Otto Tremont Bannard, N. Y. City, by will, $2,000,000 to Yale Univ., New Haven, Conn.

Thomas Barbour, $31,333.36 to Harvard Univ., Cambridge, Mass.

Clarence W. Barron, $110,000 to Clarke School for the Deaf, Northampton, Mass.

Miss Elizabeth H. Bartol, Boston, Mass., $70,000 to Smith College, Northampton, Mass.

Mrs. Thomas A. Baxendale, estate of, $279,801.84 to Harvard Univ., Cambridge, Mass.

F. Meredith Blagden, $50,000, to Harvard Univ., Cambridge, Mass.

Rt. Hon. Lord Beaverbrook, England, $300,000 to Univ. of New Brunswick, Fredericton, N. B., Canada, for men's residence.

Benjamin Benenson, $57,000 to the Bronx Hospital, N. Y. City.

Hugh T. Birch, Chicago, Ill., $63,200 to Antioch College, Yellow Springs, Ohio.

Mrs. Ardella (Eagle) Blade, Albany, N. Y., by will, $90,000 to Defiance College, Defiance, Ohio.

Paul Block, $100,000 to Hotchkiss School, Lakeville, Conn.

Mr. & Mrs. George Blumenthal, $250,000 to Mount Sinai Hospital, N. Y. City.

E. H. Brankman, Denver, Colo, $50,000 to Colorado Woman's College, Denver, Colo.

Brethren Church Conference, Ashland, Ohio, $100,000 to Ashland College, Ashland, Ohio.

Frederick Brown, $2,000,000 building at Washington Square, N. Y. City, to New York University.

Mr. & Mrs. Frederick Brown, N. Y. City, $700,000 to New York Univ., N. Y. City.

Mrs. Fannie S. Blumstein, $107,000 to the Bronx Hospital, N. Y. City.

Mrs. P. E. Bowles, $391,820 to Univ. of California, Berkeley, Calif.

Charles A. Brackett, estate of, $389,160.32 to Harvard Univ., Cambridge, Mass.

Delphine Brown, estate of, $52,002 to Barnard College, New York City.

Frederick Brown, $100,000 to the Hospital for Joint Diseases, N. Y. City.

Mrs. Suzanne King Bruwaert, by will, $2,000,000 for the establishment and maintenance of a home for aged unmarried women at Chicago, Ill.

James Dallas Burrus, Nashville, Tenn., by will, $100,000 to Fisk Univ., Nashville, Tenn.

Mrs. J. C. Caflisch, Union City, Pa., $100,000 to Allegheny College, Meadville, Pa.

John Spencer Camp, Hartford, Conn., $100,000 to Wesleyan Univ. to endow a chair of music.

Carnegie Corp., $600,000 to Dalhousie Univ., Halifax, Nova Scotia, Canada; $200,000 toward construction of office building for use of Pan American Union, Washington, D. C.; $50,000 to Univ. of Porto Rico, Rio Piedras, P. R.

Pierre Cartier, $50,000 to French Hospital, N. Y. City.

Miss Ellen Gray Cary, by will, $75,000 to Episcopal City Mission, Boston, Mass.; $50,000 to Perkins Institution and Mass. School for the Blind.

Frederick Carleton, Austin, Mich., building valued at $3,000,000 to Northwestern Univ., Chicago, Ill.

Earle P. Charlton, $130,000 to Clarke School for the Deaf, Northampton, Mass.

Mary E. Chesnut, estate of, $141,851 to Univ. of Pennsylvania, Philadelphia, Pa.

Canning Childe, $100,000 to establish cancer research institute in Vienna, Austria.

Alexander Smith Cochran, Yonkers, N. Y., by will, $1,000,000 to the Chapter of the National Cathedral at Washington, D. C.; $500,000 to St. John's Riverside Hosp. of Yonkers, N. Y.; $250,000 to St. Paul's School, Concord, N. H.

Miss Persis H. Coleman, $75,000 to Mills College, Oakland, Calif.

James C. Colgate, $69,369 to Colgate Univ., Hamilton, N. Y.

Commonwealth Fund, $38,300 to Harvard Univ., Cambridge, Mass.

William J. Conners, Buffalo, N. Y., by will, $1,000,000 to Clarkson College, Potsdam, N. Y.

William E. Conroy, Pittsburgh, Pa., by will, $500,000 to Methodist Home for the Aged.

William W. Cook, N. Y. City, $1,000,000 to Univ. of Michigan, Ann Arbor, Mich., for new dormitory to the law club.

Archibald Cary Coolidge, estate of, $180,000 to Harvard Univ., Cambridge, Mass.

W. W. Cook, N. Y. City, $57,000 to Univ. of Michigan, Ann Arbor, Mich.

Coty, Inc., $150,000 to the building fund of the French Hospital, N. Y. City.

Charles L. Coughlin, $70,000 to South Dakota State Coll. of Agric. and Mechanic Arts, Brookings, So. Dak.

William Crawford, N. Y. City, by will, $50,000 each to Presbyterian Hospital and the St. Andrew's Society, both in N. Y. City.

E. A. Cudahy, $300,000 to Loyola Univ., Chicago, Ill. for Memorial Library.

Cyrus H. K. Curtis, $120,000 to Univ. of Pennsylvania, Philadelphia, Pa.; $50,000 each to Clarke Sch. for Deaf, Northampton, Mass.; towards new Boys' Club Bldg., Portland, Me.

James F. Curtis, $153,400 to Harvard Univ., Cambridge, Mass.

Charles Day, Philadelphia, Pa., $75,000 to Univ. of Pennsylvania, Philadelphia, Pa.

Mrs. Dolores Bailon de la Rama, 50,000 pesos to Univ. of the Philippines, Manila, P. I., to maintain scholarships.

Joseph B. DeLee, Chicago, Ill., $100,000 to Northwestern Univ., Evanston, Ill.

Mrs. Chauncey M. Depew, N. Y. City, $12,000 to Fifth Avenue—new Hospital, N. Y. City.

Marquis Charlotte Elizabeth de Sers, by will, $200,000 to Columbia Univ., N. Y. City; $100,000 (income of), to George Washington Univ., Washington, D. C.

Charles A. Dewey, estate of, $307,481.29 to Harvard Univ., Cambridge, Mass.

Theodore Dickinson, Miami Beach, Fla., $75,000 to Univ. of Miami, Coral Gables, Fla.

Charles H. Ditson, N. Y. City, $100,000 to Princeton Univ., Princeton, N. J.

Miss Mary A. Dobbins, Philadelphia, Pa., by will, $400,000 to Union Assoc. of the Burlington County

Children's Home, Mt. Holly, N. J.; trusts of $200,000 each to Christ Church Hospital and Pennsylvania Hospital, Philadelphia, Pa.; and $100,000 each to Episcopal Hospital, Hospital of Women's Homeopathic Association and Kensington Hospital.

Henry L. Doherty, $100,000 to Clarke School for the Deaf, Northampton, Mass.

B. M. Duke, by will, $580,000 to Angier B. Duke Memorial, Inc., at Durham, No. Car.

Mr. & Mrs. Ellis B. Earle, Newark, N. J., $60,000 to Princeton Univ., N. J.

George Eastman, Rochester, N. Y., $1,000,000 for Rome (Italy) dental clinic.

Mrs. E. B. Eddy, estate of, $70,000 to Dalhousie Univ., Halifax, Nova Scotia, Canada.

George Ehret's children, $700,000 to Lenox Hill Hospital, N. Y. City.

Max Epstein, $125,000 to Univ. of Chicago, Ill.

B. F. Fackenthal, Jr., Riegelsville, Pa., $250,000 to Franklin Marshall College, Lancaster, Pa.

Harvey S. Firestone, Akron, Ohio, $50,000 to Princeton Univ., N. J.

A. E. Fitkin, N. Y. City, $500,000 for construction of hospital, Asbury Park, N. J.; $100,000 to Yale Univ., New Haven, Conn.

Edsel Ford, Detroit, Mich., $115,000 to the Detroit Community Fund, which supports eighty social service and charitable organizations.

James B. Forrid, by will, $200,000 to N. Y. Inst. for Instruction of Deaf and Dumb; $100,000 to Amer. Geographical Society; $50,000 to Explorers' Club.

Robert Forsyth, Chicago, Ill., $100,000 to Rensselaer Polytechnic Institute, Troy, N. Y.

William Fox, $50,000 to Hebrew Union College, Cincinnati, Ohio.

Harold A. Freeman, by will, Philadelphia, Pa., $50,000 to Princeton Univ., N. J.

Henry Clay Frick, estate of, $192,161.49 to Harvard Univ., Cambridge, Mass.

Felix Fuld, Newark, N. J., by will, $100,000 to Y. M. and Y. W. Hebrew Assoc., Newark; $50,000 each to Soc. of Babies' Hospital; Newark Museum Assoc.; Florence Crittenton Home; Hosp. & Home for Crippled Children; Hospital of St. Barnabas; Newark Eye & Ear Infirmary; Y. M. C. A. of Newark; $25,000 each to 7 other associations.

Mrs. Homer Gage, Worcester, Mass., $100,000 to Rollins College, Winter Park, Fla.

Mr. & Mrs. Francis P. Garvan, N. Y. City, $200,000 to Woodstock College, Woodstock, Md.; $60,000 to John Hopkins Univ., Baltimore, Md.

Mrs. D. B. Gamble, deceased, $165,000 to Occidental College, Los Angeles, Calif.

Judge Elbert H. Gary, by will, $50,000 each to Lafayette College, Easton, Pa.; Trinity College, Hartford, Conn.; New York Univ., N. Y. City; Northwestern Univ., Evanston, Ill.

Theodore Gary, Macon, Mo., $150,000 hospital to the town of Macon, Mo.

Thomas S. Gates, Philadelphia, Pa., $100,000 to Univ. of Pennsylvania, Philadelphia, Pa.

General Education Board, N. Y. City, $2,000,000 for new medical and pediatrics laboratory and a dispensary on grounds of New Haven Hospital, affiliated with Yale School of Medicine; $1,680,000 to Washington Univ., St. Louis, Mo.; $1,500,000 to Cornell Univ., Ithaca, N. Y. (on condition that University obtains similar amount by June 30, 1930); $1,250,000 to Tulane Univ., New Orleans; $1,100,000 to Princeton Univ., N. J.; $675,000 to Swarthmore College, Swarthmore, Pa.; $474,376 to Harvard Univ., Cambridge, Mass.; $400,000 to Univ. of Oregon, Eugene, Ore.; $112,500 to Columbia Univ., N. Y. City.

Arthur Graham Glasgow, $50,000 to Stevens Institute of Technology, Hoboken, N. J.

Samuel Golding, $50,000 to the Bronx Hospital, N. Y. City.

Morris Gray, $42,200, to Harvard Univ., Cambridge, Mass.

Daniel Guggenheim, $480,000 to the Government of Chile for development of aviation in that country.

Daniel Guggenheim Fund, N. Y. City, $290,000 to Univ. of Washington, Seattle, Wash.

Harry F. Guggenheim, $500,000 for the promotion of aviation in the South.

Murray Guggenheim, N. Y. City, $100,000 to Mount Sinai Hospital, N. Y. City.

Mr. & Mrs. Simon Guggenheim, N. Y. City, $1,000,000 to establish a system of exchange fellowships between the United States and Latin America, to the John Simon Guggenheim Memorial Foundation.

The Guggenheims, N. Y. City, $500,000 to Hebrew Union College, Cincinnati, Ohio.

Mrs. Leone K. Guinzburg, and family, $100,000 to Fed. for Support of Jewish Philanthropic Societies, in memory of the late Col. Henry A. Guinzburg.

Augustus Coe Gurnee, estate of, $500,000 to Harvard Univ., Cambridge, Mass.

Frank L. Hall, Kansas City, Mo., $1,000,000 to DePauw Univ., Greencastle, Ind.

Edward N. Hannaford, a $70,000 building site for Boys' Club building, Portland, Me.

Edward S. Harkness, N. Y. City, $11,392,000 to Harvard Univ., Cambridge, Mass.; $2,525,000 to Columbia Univ., N. Y. City; $1,000,000 to Near East College Assoc., N. Y. City; $250,000 to Hill School for Boys, Pottstown, Pa.; $250,000 to Swarthmore College, Pa.; $200,000 to endowment fund for College for Women of Western Reserve Univ., Cleveland, Ohio; $150,000 to Neurolotical Institute of N. Y., N. Y. City; $100,000 to research fund to discover and combat causes for deafness; $50,000 to Clarke School for the Deaf, Northampton, Mass.

Dr. Milton B. Hartzell, estate of, $100,000 to Univ. of Pennsylvania, Philadelphia, Pa.

Eric Hauser, Portland, Ore., by will, $100,000 to Williamette Univ., Salem, Ore.

George C. Hawley, of Albany, N. Y., by will, $300,000 to Boy Scouts of Albany, N. Y.

Edward W. Hazen, by will, $2,000,000 to Edward W. Hazen Foundation, New Haven, Conn.

August Heckscher, $4,000,000 to decentralized playgrounds, day-nurseries and dental clinics in Manhattan, Brooklyn and the Bronx.

Heineman Estate, Jamestown, N. Y., $150,000 to Hebrew Union College, Cincinnati, Ohio.

Richard Hellman, N. Y. City, $120,000 (500,000 marks) to the hamlet of Vetschau, Germany, (his birthplace) for municipal purposes.

Alfred Hemenway, estate of, $50,000 to Harvard Univ., Cambridge, Mass.

Alexander Herman, by will, $100,000 each to Mount Sinai and Montefiore Hospitals; $50,000 to Hebrew Orphan Asylum and Home for Aged and Infirm Hebrews.

Mrs. Mary J. Hinman, $50,000 to Knox College, Galesburg, Ill.

Mrs. Christian R. Holmes, $265,000 to Univ. of Cincinnati, Ohio.

Charles W. Holtzen, Brookline, Mass., by will, $75,000 to Harvard Univ., Cambridge, Mass.

John E. Huiskamp, by will, $350,000 to Lifwynn Foundation for Laboratory Research in Analytic and Social Psychiatry, Inc., of Maryland.

Mrs. J. H. Hunt, Gainesville, Ga., land valued at $100,000 to Univ. of Georgia, Athens, Ga.

James Newbegin Jarvie, Montclair, N. J., by will, $3,000,000 to Board of National Missions of the Presbyterian Church and $250,000 to the Board of Foreign Missions; $100,000 for the maintenance of the Y. M. C. A. Bldg. at Jerusalem, Palestine; $50,000 to N. Y. Assoc. for Improving Conditions of Poor.

Mrs. Irene W. Johnson and two sons, $500,000 to Washington Univ., St. Louis, Mo.

Oscar Johnson (widow and children of), St. Louis, Mo., $500,000 to Washington Univ., St. Louis, Mo., for an institute for research and study of eye, ear and nose diseases.

Ralph Jonas, $53,000 to the Brooklyn Federation of Jewish Charities, N. Y.

Thomas D. Jones and his niece, Miss Gwethalyn Jones of Chicago, Ill., $500,000 to Princeton Univ., N. J.

Miss Mary Keckeissen, by will, $54,480 to Catholic Charities of the New York Diocese.

Chauncey Keep, by will, $50,000 to Field Museum of Natural History, Chicago, Ill.

Dr. Howard A. Kelly, Baltimore, Md., $100,000 to Univ. of Michigan, Ann Arbor, Mich.

C. F. Kettering, Dayton, Ohio, $325,000 to Antioch College, Yellow Springs, Ohio.

E. L. Kilhefner, Ashland, Ohio, $80,000 to Ashland College, Ashland, Ohio.

Miss Ellen King, by will, $123,906 to St. Mark's Hospital, N. Y. City; $91,125 each to Assoc. for Improving Condition of Poor, N. Y. City and the P. E. Missionary Dist. of So. Dak.; $74,344 to Children's Aid Soc., N. Y. City; approx. $50,000 each to Episcopal Diocese of Ohio; Diocesan Missions of Long Island; Woman's Hospital; N. Y. Eye and Ear Infirmary; N. Y. Historical Soc.; Babies' Hospital; Grace Church of Jamaica; Jamaica Hospital.

Fred Morgan Kirby, Wilkes Barre, Pa., $500,000 to Lafayette College, Easton, Pa.; $130,000 to Clarke School for the Deaf, Northampton, Mass.; $125,000 to Univ. of Pennsylvania, Philadelphia, Pa.; $100,000 toward building fund to Hobart College, Geneva, N. Y.

Louis J. Kolb, Philadelphia, Pa., $100,000 to Univ. of Pennsylvania, Philadelphia, Pa.

Ladies' Auxiliary of the Bronx Hospital, $100,000 to the Bronx Hospital, N. Y. City.

Albert D. Lasker, $125,000 to the Univ. of Chicago, Ill.

Rev. Marion Law, San Diego, Cal., $50,000 to Cornell College, Mount Vernon, Iowa.

George Albert Lawrence, N. Y. City, by will, $1,000,000 each to Leland Stanford Junior Univ., Calif.; The Ali University Club, N. Y. City.

John F. Lee Estate, $560,000 to Washington Univ., St. Louis, Mo.

Charles Lenning, estate of, $475,000 to Univ. of Pennsylvania, Philadelphia, Pa.

Adolph Lewisohn, $50,000 to Mount Sinai Hospital, N. Y. City.

Lucius N. Littauer, $50,000 to the Albany Medical College, to bring the Gloversville Hospital into contact with the Medical College.

Miss Alice M. Longfellow, daughter of the poet, Cambridge, Mass., $50,000 to Radcliffe College, Cambridge, Mass.

Clarence H. Mackay, N. Y. City, $500,000 to University of Nevada, Reno, Nev.

Mrs. Charles F. MacLean, N. Y. City, $50,000 to the College of the Ozarks, Clarksville, Ark.

Martin Maloney, deceased, $50,000 to Univ. of Pennsylvania, Philadelphia, Pa.

Mrs. Mary Mandell, Detroit, Mich., $500,000 to Smith College, Northampton, Mass.

Miss Minnie Mandelle, by will, $350,000 to Kalamazoo College, Kalamazoo, Mich.

Mrs. Mellie Manlove, Chicago, Ill., $50,000 to Northwestern Univ., Evanston, Ill.

Miss Anne Gerhard Maris, Philadelphia, Pa., $100,000 trust fund for the "relief of gentlewomen in reduced circumstances residing in Philadelphia and adjoining counties."

John Markel, N. Y. City, $500,000 to Lafayette College, Easton, Pa.

Arthur A. Maxwell, estate of, $50,000 to Dartmouth College, Hanover, N. H.

Mrs. Levy Mayer, Chicago, Ill., $301,169 to Northwestern Univ., Evanston, Ill.

Daniel J. McCarthy, Philadelphia, Pa, $75,000 to Univ. of Pennsylvania, Philadelphia, Pa.

Selina B. McIlhenny, Philadelphia, Pa., $99,886 to Univ. of Pennsylvania, Philadelphia, Pa.

Mr. & Mrs. George A. McKinlock, $53,134.62 to Harvard Univ., Cambridge, Mass.

John McMullen, estate of, $68,883 to Cornell Univ., Ithaca, N. Y.

Medical Staff of the Bronx Hospital, $55,000 to the Bronx Hospital, N. Y. City.

Andrew W. Mellon, $120,000 to Clarke School for the Deaf, Northampton, Mass.

Sir Vincent Meredith, by will, $50,000 to Univ. of Bishop's College, Lennoxville, P. W., Canada.

Mr. & Mrs. M. C. Migel, N. Y. City, $500,000 to Santiago College, Santiago, Chili, for new building.

Herbert E. Miles, Los Angeles, Cal., $100,000 to Lawrence College, Appleton, Wis., for promotion of research in social studies.

Mrs. Nathan J. Miller, $250,000 to Columbia Univ., N. Y. City, for the Miller Endowment Fund.

Ogden Mills, by will, $500,000 to Home for Incurables; $100,000 each to American Museum of Natural History, Metropolitan Museum of Art, N. Y. City, and Mills Memorial Hospital, San Mateo, Cal., and Harvard College; $50,000 each to Phillips Exeter Academy, Exeter, N. H. and N. Y. Zoological Society.

Henry Morgenthau, $50,000 to Hebrew Union College, Cincinnati, Ohio.

Isidore D. Morrison, $100,000 to the Hebrew Univ., Jerusalem.

Mr. & Mrs. C. H. Musselman, Biglerville, Pa., $100,000 to Bluffton College, Bluffton, Ohio.

Mrs. Aaron Naumburg, $50,000 to Girls' Home Club, N. Y. City.

F. C. and Susan Eastman Necombe Fellowship, $50,531 to Univ. of Michigan, Ann Arbor, Mich.

William H. Nichols, N. Y. City, $250,000 to New York Univ., N. Y. City.

Mrs. Dellora Angell Norris, St. Charles, Ill., $100,000 to the city for erection of a model community hospital.

Hugh M. North, Jr., by will, $500,000 for erection of museum to be known as Hugh McAllister and Elizabeth Cottman North Museum, Lancaster, Pa.

Northern Baptist Convention, New York City, $100,000 to Colorado Woman's College, Denver, Colo.

Mr. & Mrs. Adolph S. Ochs, N. Y. City, $200,000 to Hebrew Union College, Cincinnati, Ohio.

R. E. Olds, Lansing, Mich., $130,000 for science building to Kalamazoo College, Kalamazoo, Mich.

George W. Olmsted, Ludlow, Pa., $100,000 to the Broadway Temple, N. Y. City.

Charles Lathrop Pack, Washington, D. C., $200,000 to Yale Univ., New Haven, Conn.

William A. Paine, $50,000 to Clarke School for the Deaf, Northampton, Mass.

James A. Patten, estate of, $50,000 to Monmouth College, Monmouth, Ill.

Mrs. Alfred Duane Pell, N. Y. City, $50,000 to Dubose Memorial Church Training School, Monteagle, Tenn.

Ellis L. Phillips, $100,000 to the Leonard Wood Memorial for the Eradication of Leprosy, N. Y. City; $100,000 to Clarke School for the Deaf, Northampton, Mass.

Presser Foundation, Philadelphia, Pa., $75,000 toward new music building to Illinois Wesleyan Univ., Bloomington, Ill.; $50,000 to Baylor College, Belton, Tex.

Frederick F. Proctor, by will, $50,000 to Actors' Fund of America.

Mrs. William Cooper Procter, $50,000 to Univ. of Cincinnati, Ohio.

Chester D. Pugsley, Peekskill, N. Y., $400,000 to Harvard Law School.

James Henry Rand, Jr., $117,000 to Harvard Univ., Cambridge, Mass.

John J. Raskob, $50,000 to Clarke School for the Deaf, Northampton, Mass.

Dr. Robert G. Reese, by will, $500,000 to N. Y. Eye and Ear Infirmary, N. Y. City.

Lord Revelstoke, England, $500,000 to the King Edward Hospital Fund, London, England.

Craig D. Ritchie, estate of, $106,913 to Univ. of Pennsylvania, Philadelphia, Pa.

Edward B. Robinette, Philadelphia, Pa., $502,375 to Univ. of Pennsylvania, Philadelphia, Pa.

Rockefeller Foundation, $3,500,000 to Institute of Human Relations of Yale Univ., New Haven, Conn.; $1,015,750 to Harvard Univ., Cambridge, Mass.; $400,000 to St. Luke's Int'l. Hospital, Tokio; $85,000 to Univ. of Pennsylvania, Philadelphia, Pa.; $50,000 to Univ. of Upsala, Stockholm, Sweden.

Laura Spelman Rockefeller Memorial Fund, $2,500,000 endowment, the income to go to Salvation Army, Henry St. Settlement, Charity Organization Soc., N. Y. Assoc. for Improving Condition of the Poor. (This is the last act of the Memorial prior to consolidation with the Rockefeller Foundation.)

Laura Spelman Rockefeller Memorial, $2,000,000 to further Baptist missions (on Jan. 3, prior to consolidation with the Rockefeller Foundation).

Laura Spelman RockefellerMemorial Fund $59, 727 to Columbia Univ., N. Y. City.

Laura Spelman Rockefeller Memorial Fund, $818,000 to State Univ. of Iowa, Iowa City, Iowa, for Child Welfare Research Station.

John D. Rockefeller, Jr., $500,000 to League of Nations for development of new library; $350,000 to St. Luke's Int'l. Hospital, Tokio; $250,000 to Girl Scouts, Inc.; $85,000 to State Univ. of Iowa, Iowa City, Iowa.

Mrs. Isaac Lothrop Rogers, estate of, $60,008.51 to Harvard Univ., Cambridge, Mass.

Mr. & Mrs. George Roos, $100,000 to Univ. of California, Berkeley, Calif.

Mr. & Mrs. E. Rosenfeld, $50,000 to Mount Sinai Hospital, N. Y. City.

Julius Rosenwald, $500,000 to Jewish Theological Seminary of America, also to Hebrew Union College, Cincinnati; $250,000 to Univ. of Chicago, Ill.; $50,000 to Harvard Univ., Cambridge, Mass.

Julius Rosenwald Foundation, $150,000 to Massachusetts General Hospital, Boston, Mass.

Julius Rosenwald Fund, $100,000 to National Advisory Committee on Education to conduct survey toward education.

Mrs. Julius Rosenwald (deceased), $50,000 to National Girl Scouts organization.

Harold Russell Ryder, N. Y. City, $175,000 to Union College, Schenectady, N. Y.

Charles Sprague Sargent Memorial Fund, $215,238.87 to Harvard Univ., Cambridge, Mass.

Mrs. Julia B. Schauffler, by will, $50,000 each to N. Y. City Mission Society; Woman's Board of Foreign Missions of the Presbyterian Church.

F. Augustus Schermerhorn, estate of, $519,295.56, to Columbia Univ., N. Y. City.

Mrs. Jacob H. Schiff, $250,000 to Hebrew Union College, Cincinnati, Ohio.

Mrs. Jacob H. Schiff, Mortimer L. Schiff and Felix M. Warburg, $175,000 to the Montefiore Hospital for Chronic Diseases.

Edward F. Searles, estate of, $50,000 to Univ. of California, Berkeley, Calif.

Caroline B. Sellow, $100,000 to American Museum of Natural History, N. Y. City.

Frederick Cheever Shattuck, $100,000 to Harvard Univ., Cambridge, Mass.

Mrs. Ella F. Shoemaker, $50,000 to Washington Univ., St. Louis, Mo.

Arthur J. Silliman, Moodus, Conn., by will, $400,000 in trust for Nathan Hale School in East Haddam; $50,000 each to Middlesex Hospital and Wesleyan University.

Thomas F. Smallman, by will, $225,000 to Yale Medical School, New Haven, Conn., to be used to build a new wing.

Mrs. Johnson C. Smith, Pittsburgh, Pa., $125,000 to Johnson C. Smith Univ., Charlotte, No. Car.

Lloyd W. Smith, Madison, N. J., $100,000 to Princeton Univ., N. J.

James Speyer, N. Y. City, $150,000 to Mount Sinai Hospital, N. Y. City.

Mr. & Mrs. Percy S. Straus, N. Y. City, $1,000,000 to New York Univ., N. Y. City.

John W. Sterling, estate of, N. Y. City, $2,000,000 to Yale Univ., New Haven, Conn.

Henry Sterne, N. Y. City, $100,000 to the Salvation Army, N. Y. City.

Robert W. Stewart, $200,000 to Coe College Cedar Rapids, Iowa.

William Rhinelander Stewart, by will, $50,000 to Grace Episcopal Church, N. Y. City.

Olivia E. P. Stokes, estate of, $380,053 to Barnard College, New York City.

Mrs. Helen O. Storrow, Quincy, Mass., $1,000,000 to the City of Quincy for the Charles River Basin Park project.

Mr. & Mrs. Charles P. Taft, $150,000 each to Taft School, Watertown, Conn.; University of Cincinnati, Ohio.

Col. William Boyce Thompson, Yonkers, N. Y., $100,000 to Columbia University for the School of Engineering, N. Y. City.

Mr. & Mrs. William B. Thompson, $135,000 to Clarke School for the Deaf, Northampton, Mass.

Trinity Church Corporation, N. Y. City, $50,000 to St. Stephen's College, Annandale-on-Hudson, N. Y.

Mrs. Lucien Hamilton Tynd, $100,000 to Southampton Hospital, L. I.

Samuel Untermyer, $50,000 to Hebrew Union College, Cincinnati, Ohio.

William S. Vare, Philadelphia, Pa., $250,000 93-acre estate to the City of Philadelphia for a hospital for paralytics. It is located at Ambler, Pa.

Ludwig Vogelstein, $50,000 to Hebrew Union College, Cincinnati, Ohio.

James T. Walker, family of, St. Louis, Mo., $500,000 to Princeton Univ., N. J.

Mr. & Mrs. Felix M. Warburg, $250,000 to Hebrew Union College, Cincinnati, Ohio; $50,000 to Ort campaign for industrial reconstruction of the Jews of Eastern Europe.

Dan Everett Waid, New York City, $100,000 to Presbyterian Board of National Missions, N. Y. City.

Artemas Ward, $678,731 to Harvard Univ.' Cambridge, Mass.

Mrs. Justine B. Ward, of Dobbs Ferry, N. Y., $1,000,000 to the Catholic University of America, Washington, D. C.

Mrs. Gertrude Bass Warner, Eugene, Ore., $54,000 to Univ. of Oregon, Eugene, Ore.

Worcester Reed Warner, Tarrytown, N. Y., by will, $100,000 each to Cleveland School of Fine Arts and the Western Reserve Univ.; $50,000 each to Cleveland Associated Charities and the Syrian Protestant College, Beirut, Syria.

George Warren Estate, $470,250 to Washington Univ., St. Louis, Mo.

William J. Wharton, Brooklyn, N. Y., by will, $457,875 each to Society of St. Vincent de Paul, Brooklyn, N. Y. and Brooklyn Home for Blind, Crippled and Defective Children; about $150,000 in smaller legacies to 28 other charities.

Hill S. Warwick, estate of, $153,185 to Univ. of Pennsylvania, Philadelphia, Pa.

Mrs. Larz Whitcomb, Indianapolis, Ind., $100,000 to DePauw Univ., Greencastle, Ind.

Payne Whitney, estate of, $2,786,311 to Cornell Univ., Ithaca, N. Y.

Wilmer Foundation, N. Y. City, $125,000 to Johns Hopkins Univ., Baltimore, Md.

Hilton B. Wilson, by will, $8,000,000 to Northwestern Univ., Chicago, Ill., for use of College of Liberal Arts.

Charles A. Wimfheimer, N. Y. City, $100,000 to Mount Sinai Hospital, N. Y. City.

Mrs. Florence Holmes Woodruff, $50,000 to Washington Univ., St. Louis, Mo.

William Ziegler, Jr., $408,377 to Harvard Univ., Cambridge, Mass.; $100,000 to continue publication of magazine for the blind.

Sarah A. F. Zimmerman, $51,325 to Univ. of Pennsylvania, Philadelphia, Pa.

THE LIBRARY OF CONGRESS.

The Library of Congress was established in 1800, destroyed in 1814 by the burning of the Capitol, afterward replenished by the purchase by Congress of the library of ex-President Jefferson, 6,760 volumes (cost, $23,950); in 1851, 35,000 volumes destroyed by fire; in 1852, partially replenished by an appropriation of $75,000; increased (1) by regular appropriations by Congress; (2) by deposits under the Copyright Law; (3) by gifts and exchanges; (4) by the exchanges of the Smithsonian Institution, the library of which (40,000 volumes) was, in 1866, deposited in the Library of Congress with the stipulation that future accessions should follow it. Other special accessions have been: The Peter Force collection (22,529 volumes, 37,000 pamphlets), purchased 1867, cost $100,000; the Count de Rochambeau collection (manuscript), purchased 1883, cost $20,000; the Toner collection (24,484 volumes, numerous pamphlets) the gift, in 1882, of Dr. Joseph M. Toner; the Hubbard collection (engravings).

The collection is now the largest in the Western Hemisphere. It comprises over 3,900,000 printed books and pamphlets (including the law library, which, while a division of the Library of Congress, still remains at the Capitol), maps and charts, pieces of music, and photographs, prints, engravings and lithographs numbering 2,650,000.

The collection is rich in history, political science, in official documents, National, State, and foreign, and in Americana, including important files of American newspapers and original manuscripts (Colonial, Revolutionary, and formative periods).

Among the special book collections are the Yudin, of Russian literature (80,000 volumes); the Schiff, of Judaica (about 20,000); the Weber, of Indica; the Huttfeld-Kaas (Scandinavian); the John Boyd Thacher collections (incunabula, early Americana) autographs of the French Revolution, and of crowned heads of Europe. The Orientalia include some 13,000 volumes (fascicules) of Japanese books and about 133,000 volumes (fascicules) of Chinese. The Division of Prints includes certain collections given or lent, besides a large mass of material received by copyright and some by purchase. The manuscript collections are especially noteworthy for material on American history, some of the most distinguished of which has been received by transfer from the executive departments, the library being now regarded as the main custodian of the historical archive material in the possession of the Government. It has the papers of seventeen Presidents and of American statesmen, including Franklin Morris, and Hamilton.

The library is also the custodian of the originals of the Declaration of Independence and of the Constitution of the United States.

The library is copying documents in foreign archive offices and other institutions of concern to American history. It has already a large body of transcripts from such sources. This policy of transcribing and copying, where necessary by facsimile, is applied also to maps and to music.

In 1897 the main collection was removed from the Capitol to the building erected for it under the Acts of Congress approved April 15, 1886, October 2, 1888, and March 2, 1889, at a cost of $6,347,000 exclusive of the land, which cost $585,000.

The building was completed in February, 1897, and opened to the public November, 1897. It occupies three and three-quarter acres upon a site ten acres in extent at a distance of 1,270 feet east of the Capitol, and is the largest and most magnificent library building in the world. The floor space is 583,755 square feet, or 13.4 acres.

In 1925 an auditorium, the gift of Mrs. Frederic Shurtleff Coolidge of New York City and Pittsfield, Mass., was erected at a cost of $90,000, in the courtyard adjacent to the Music Division.

In 1927 a stack in the northeast courtyard was constructed at a cost of about $745,000.

The library is maintained by annual appropriations by Congress for various purposes, including the purchase of books and printing and binding.

Under Act of Congress of March 3, 1925, a Library of Congress Trust Fund Board was created, authorized to accept, receive, hold, and administer gifts or bequests of personal property.

Inter-Library Loans—While not a lending library but primarily a reference library, the Library of Congress maintains an inter-library loan system by which special service is rendered to scholarship by the loan to other libraries of books for the use of investigators engaged in serious research.

Copyright Office—The Copyright Office is a distinct division of the Library of Congress and is located on the ground floor, south side; open 9 to 4.30. It is under the immediate charge of the Register of Copyrights, who, by the acts of February 19, 1897, and March 4, 1909, is authorized "under the direction and supervision of the Librarian of Congress" to perform all the duties relating to copyrights. Copyright registration was transferred to the Librarian of Congress by the act of July 8, 1870. Of most articles copyrighted two copies, and of some one copy, must be deposited in the Library of Congress to perfect copyright.

Hours—The library building is open to the public all days in the year excepting 4th of July and Christmas. The hours are from 9 A. M. to 10 P. M. weekdays, from 2 P. M. to 10 P. M. Sundays and holidays, and 9 A. M. to 1 P. M. on Saturdays from June to September.

Librarians Since the Inception of the Library—1800-1815, the Clerk of the House of Representatives (for the time being); 1815-1829, George Watterston; 1829-1861, John S. Meehan; 1861-1864, John G. Stephenson; 1864-1897 (June 30), Ainsworth R. Spofford; 1897-January 17, 1899, John Russell Young; 1899 (April 5), Herbert Putnam.

Financial and Economic Review of 1929.

CRASH OF THE STOCK EXCHANGE BULL MARKET.

By S. S. Fontaine.

During the greater part of 1929 the elements of progress in business and trade were in the ascendent throughout the country. The purchasing power of the country measured up to consumption so that there was no piling up of inventories, such as laid the foundation for the silent panic developed in the post-war period when production had been expanded to meet the exigencies of the years of conflict. But the even balance of production and distribution developed a sense of security that expressed itself in adventures in many fields of speculation and reached extravagant lengths in the stock market. Normally a reliable barometer of business, it became instead the vehicle of imagination and recklessness, utterly unrestrained. Having reached an unwarranted peak far beyond the confines of reason and common sense it was bound, as it gained momentum on the downgrade, to develop a course even more wild, more uncontrolled and more irrational than marked its flight to the heights of dementia.

The result was a stock market panic that exceeded in violence any of the previous historic debacles in Wall Street history. Its wounds will doubtless prove less difficult to heal since the financial structure has been less impaired and its effect on enterprise will be less protracted. The crash was entirely free from the banking weakness that was the direct cause of the cataclysm of 1907, the war madness of 1914 or the over-production that was responsible for the post-war crash of 1919-1921. Nor did it bear close analogy to the speculative collapse of 1901 which was wholly the result of the titanic struggle of two great banking and railroad groups for the mastery of Burlington and Northern Pacific. Perhaps it can be best described as a sudden transformation of mob psychology—the overnight relapse of the fevered mind of the multitude from the false courage of intoxication to the mad fear of fantasies created by its own disordered brain. But beneath it all there lies the fixed and unescapable law of morals that over-indulgence in any form must inevitably lead to the mental and physical readjustment that the laws of economy and of nature exact from the body politic as well as from the system corporeal.

While the causes and effects are plain to what extent the forces that influenced them might be traced to policies of our money mentors, exercised perhaps in opposition to, rather than consonance with generally accepted interpretations of the economic law, is a question upon which there will continue to be great disagreement. The writer has personally adopted the view that these policies, while undoubtedly arising from the highest motives and exercised with the complete conviction that they would provide the proper remedy for speculative excesses, were diametrically opposite to those that would have cured the malady without such a violent shock to the nerves of the patient. The operation was undoubtedly successful in the long run although the subject narrowly escaped succumbing to the ether.

With this theory in mind it is well to recall the course of these financial policies. During the year 1927 the Federal Reserve Board reduced the rediscount rate to 3½%. Undoubtedly the motive was the desire to cooperate with Great Britain in the re-establishment of the gold standard. The result was the movement of over $500,000,000 in specie abroad and the relaxation of credits in this country to such an extent that an impulse was given to speculation in all fields of activity holding out the lure of profit but especially in that of the stock market where the foundations were laid for the great absorption of common stocks. The forward movement, with technical setbacks, progressed until the peak was reached in September, 1929. One of the greatest evils of this policy's influence was the enormous withdrawal of surplus funds by corporations and individuals from customary fields of employment to the call money market where they found greater and more attractive remuneration because of their liquidity as well as their yield. As a result the banks were deprived of their control of the money market and the banking function was completely over-mastered by these so-called outside lenders who came to be known as the bootleggers of Wall Street.

BROKERS' LOANS.

The volume of brokers' loans supplied by the banks as well as from these outside sources began to reach unprecedented volume. The peak, as reported by the New York Stock Exchange, was reached at the end of September which practically marked the culmination of the great rise in securities. In a carefully prepared summary of this loan situation, Walter H. Cunningham pointed out recently that at this period they had attained the unprecedented volume of $8,549,000,000 and he has been the first to carefully differentiate brokers' loans obtained from the banks and those from the so-called bootleg sources. This table prepared by this authority shows the growth of total brokers' loans:

September, 1926	$3,218,000,000
September, 1927	3,914,000,000
September, 1928	5,513,000,000
September, 1929	8,549,000,000

In sharp contrast with this stupendous growth of total brokers' loans is the following table of the volume of brokers' loans of the member banks of New York City for their own account for the same periods:

September, 1926	$1,010,000,000
September, 1927	1,092,000,000
September, 1928	850,000,000
September, 1929	1,024,000,000

Here is the revealing fact that the banks of New York City showed no expansion of brokers' loans over the four-year period; that they were not, therefore, in any way a party to the distortion of credit by that vast expansion of brokers' loans and that they were, therefore, cooperating whole heartedly with the Federal Reserve Board to the end of conserving the resources of Amercan banks for the requirements of industry rather than of speculation. Indeed, when the growth of capital and resources and deposits, and therefore of loonable money, is taken into consideration, the volume of loans of the New York banks when the peak wsa reached was materially less than it was four years previous.

The brokers' loans, through the New York banks, "for the account of out-of-town banks," is a somewhat different story. This volume for the same periods was as follows:

September, 1926	$1,112,000,000
September, 1927	1,296,000,000
September, 1928	1,674,000,00,0
September, 1929	1,876,000,000

Here we see that in four years the volume of money which went into brokers' loans "from out-of-town banks" was increased 68.7%. It should be borne in mind, however, that the custom of the out-of-town banks is to shift their funds to New York City when interest rates are higher here than at home, and draw them back when interest rates are higher at home. These out-of-town banks were, therefore, following the natural course of banking procedure. While the table does show that the high call money rates for stock market account drew to New York an increased volume of money from banks in other sections of the United States, they do not indicate that these banks over-extended themselves or placed a disproportionate amount of their available funds in that class of loans. Indeed, if the figures of the growth of capital, resources and deposits, and therefore of loanable money, were available, it would doubtless show that the total brokers' loans of these out-of-town banks were no greater proportionately than they were in 1926.

Now we come to the loans "for others." This represents the private capital of corporations and individuals. It is distinctive and apart from the funds of our depository banking system. It is money which the possessor has the right to do with as he will. The Federal Reserve Bank has no control whatever over this money—and, contrary to a prevalent opinion, the Reserve Board never assumed to dictate to any man or corporation what he or it should do with his own money.

The total volume of these loans "for others" as reported through the Federal Reserve Banks (not including loans reported direct to the Stock Exchange, not through banks) for the same periods were as follows:

September, 1926	$ 691,000,000
September, 1927	918,000,000
September, 1928	2,001,000,000
September, 1929	3,860,000,000

The total increase in this volume of loans "for others" for the four-year period was 458.6%. This volume of money went into brokers' loans for one reason alone—because the speculative market was continually bidding higher than the average earnings from other equally secured loans.

Mr. Cunningham concludes: "We thus find that the expansion of brokers' loans was not on the part of the depository banking system, but represented the funds of 'others,' and that the responsibility for the distortion of the credit situation of the nation, and

indeed, of the entire world, is, therefore, directly traceable to the continuous high bids for money for speculative account."

HIGH MONEY RATES.

As far back as last March, the writer took issue with the policy of the Federal Reserve Board in threatening to resort to high money rates as a punitive measure against the stock market inflation which some of its critics have declared partially resulted from its low money policy of 1927, saying:

"While we believe that the course of the stock market will be largely governed by the cost of credit we have found during the month a great deal of support to our theory repeatedly expressed, that the proper way to control or at least constrain reckless speculation is to reduce rediscounts and the rates for time and call money. As long as Wall Street money lenders, bootleg, or otherwise, continue to put an alluring premium on funds that are being used to finance the current operations in the stock market as well as the process of distribution which new wealth is seeking through the agency of the great mart which has become the modern cradle of industry, just so long will liquid funds be withdrawn from customary moods of employment and become competitors of the banks in this lucrative field.

"There, of course, arises the problem as to the dangers that might come from the possibility of a recall of the huge volume of foreign money which is now being placed on call in New York in order to profit by the high rates of recent months. The amount of these funds is variously estimated at between $600,000,000 and $1,000,000,000. A much less attractive rate for money in the call loan market would undoubtedly cause the withdrawal of a part of these funds which are payable on demand. At the same time we must remember that the high money rates abroad are very largely the result of the rates prevailing in New York and with a reduction in our rates for interest, we should find a corresponding contraction in the rates of rediscount in Europe, so that there should be a strong possibility of the retention here of a great part of these funds. It must be remembered that money seeks the center of the most remunerative employment when all other conditions are equal.

"Therefore, the problem that confronts our bankers is not a domestic one, it is international in scope. Our high credit cost which is aimed at what is termed an evil is increasing the cost of doing business the world over. It is forcing the banks of issue in Great Britain and the Continent to adopt measures of self-protection which are likely to become retaliatory if the evils persist."

Among those who speak with authority, the chief critics of the policies of the Federal Reserve Board were William C. Durant, one of the country's leading industrialists and Ex-Senator Robert L. Owen, father of the Federal Reserve Act. Both severely condemned the policy of the Board in fostering interest rates that invited an inflow of an enormous volume of bootleg money into the Street. Mr. Durant, in an address before the American Club of Paris, arraigned the policy of the banking mentors, predicting that if persisted in it would have sinister consequences.

Unfortunately this forecast was too abundantly fulfilled. In the attempt to maintain the international financial balance and to prevent the outflow of gold as a result of the high money policy adopted by American bankers the Bank of England rate was advanced to 6½%, with the result that the enormous sums which were being loaned in this country on call were suddenly withdrawn and this was accompanied by heavy selling of American securities for foreign account although the Hatry collapse in Great Britain was another impelling cause for the return home of these funds to meet the exigencies caused by this cataclysm. London interests more or less affected by the Hatry failure had been very heavy holders of Radio, United States Steel and other pivotal stocks in the American market.

LOSS OF THIRTY BILLIONS.

Almost immediately began the decline in stock market values in the United States which culminated in the crash of October and November. The real peak of the stock market, according to averages, was actually reached on September 3rd, the first business day of the month when the Dow Jones Averages for thirty industrials reached the high level of 381.17 while twenty representative rails were up to 189.11. In the paroxysm of November 13th they plunged to 198.69 for the industrials and 128.07 for the rails. It was then that the banking pool consisting of the National City, First National, Bankers Trust, Chase National, Guaranty Trust and J. P. Morgan & Co., and their associates, stepped in to prevent absolute chaos and their work was so successful that on the following day the averages for thirty industrials had risen to 217.28 and the rails to 135.75. Since that time they have progressed irregularly until at the close of business on December 5th they were 251.51 and 149.41 respectively.

The extent of the actual losses will probably never be computed. It is estimated that at the lows, securities had shown a loss of $30,000,000,000 which practically equalled the amount of the first German indemnity as determined by the Reparation Commission. In other words the theoretical losses in the short period between September 3rd and November 13th actually approached the appalling sum which the Reparation Commission fixed as representing the devastation wrought by Germany in the five years of the Great War.

The nearest approach to an accurate appraisal of the depreciation in stocks during the month of October is furnished by John T. Meeker, Economist of the New York Stock Exchange. The following figures supplied by him do not represent, however, the gross depreciation in securities but the net as of the month of October. They form, however, a very valuable statistical appraisal of the net losses that took place within the month of October.

As of Oct. 1, 1929, there were 1,279 stock issues aggregating 1,048,359,263 shares listed on the New York Stock Exchange, with a total market value of $87,073,630,423. (An average price of $83.06.) New York Stock Exchange member borrowings on security collateral amounted to $8,549,383,979. The ratio of security loans to market values of all listed stocks on this date was therefore 9.82%.

As of Nov. 1, 1929, there were 1,287 stock issues aggregating 1,110,419,105 shares listed on the New York Stock Exchange, with a total market value of $71,752,650,908. (An average price of $64.62.) New York Stock Exchange member borrowings on security collateral amounted to $6,108,824,868. The ratio of security loans to market values of all listed stocks on this date was therefore 8.51%.

It is illuminating to trace the expansion of brokers' loans from Jan. 4, 1928 up to and including those of Thursday, Dec. 5, 1929. The peak was reached on Oct. 2, immediately preceding the great cataclysm of that month and while Oct. 9 and Oct. 16 still showed them close to the peak, it was not until Oct. 23 that the contraction of loans began and steadily progressed These loans reached a new low for two years on Dec. 5, as this table shows:

1928.		1929.	
Jan. 4..	$3,810,023,000	Jan. 2..	$5,330,103,000
Jan. 11..	3,819,573,000	Jan. 9..	5,312,799,000
Jan. 17..	3,787,921,000	Jan. 16..	5,395,000,000
Jan. 25..	3,788,685,000	Jan. 23..	5,443,000,000
Feb. 1..	3,815,820,000	Jan. 30..	5,550,000,000
Feb. 8..	3,835,020,000	Feb. 6..	5,669,000,000
Feb. 15..	3,819,385,000	Feb. 13..	5,568,000,000
Feb. 21..	3,728,316,000	Feb. 20..	5,477,000,000
Feb. 29..	3,724,834,000	Feb. 27..	5,507,000,000
Mar. 7..	3,695,700,000	Mar. 6..	5,647,000,000
Mar. 14..	3,746,664,000	Mar. 13..	5,627,000,000
Mar. 21..	3,778,714,000	Mar. 20..	5,793,000,000
Mar. 28..	3,825,379,000	Mar. 27..	5,649,000,000
Apr. 4..	3,970,308,000	Apr. 3..	5,562,000,000
Apr. 11..	3,994,470,000	Apr. 10..	5,427,000,000
Apr. 18..	4,129,001,000	Apr. 17..	5,425,000,000
Apr. 25..	4,144,386,000	Apr. 24..	5,492,000,000
May 2..	4,281,657,000	May 1..	5,532,000,000
May 9..	4,361,108,000	May 8..	5,551,000,000
May 16..	4,503,044,000	May 15..	5,565,000,000
May 23..	4,456,001,000	May 22..	5,520,000,000
May 29..	4,460,466,000	May 29..	5,288,000,000
June 6..	4,561,240,000	June 5..	5,284,000,000
June 13..	4,427,691,000	June 12..	5,284,000,000
June 20..	4,269,590,000	June 19..	5,420,000,000
June 27..	4,178,234,000	June 26..	5,542,000,000
July 3..	4,307,070,000	July 3..	5,769,000,000
July 11..	4,245,199,000	July 10..	5,755,000,000
July 18..	4,194,415,000	July 17..	5,813,000,000
July 25..	4,183,610,000	July 24..	5,908,000,000
Aug. 1..	4,259,396,000	July 31..	5,960,000,000
Aug. 8..	4,273,384,000	Aug. 7..	6,020,000,000
Aug. 15..	4,223,230,000	Aug. 14..	5,952,000,000
Aug. 22..	4,201,131,000	Aug. 21..	6,085,000,000
Aug. 29..	4,235,138,000	Aug. 28..	6,217,000,000
Sept. 5..	4,289,209,000	Sept. 4..	6,354,000,000
Sept. 12..	4,385,191,000	Sept. 11..	6,474,000,000
Sept. 19..	4,470,476,000	Sept. 18..	6,569,000,000
Sept. 26..	4,524,508,000	Sept. 25..	6,761,000,000
Oct. 3..	4,569,978,000	Oct. 2..	6,804,000,000
Oct. 10..	4,589,883,000	Oct. 9..	6,713,000,000
Oct. 17..	4,664,390,000	Oct. 16..	6,801,000,000
Oct. 24..	4,772,293,000	Oct. 23..	6,634,000,000
Oct. 31..	4,907,164,000	Oct. 30..	5,538,000,000
Nov. 7..	4,973,968,000	Nov. 6..	4,882,000,000
Nov. 14..	4,980,817,000	Nov. 13..	4,172,000,000
Nov. 21..	5,157,132,000	Nov. 20..	3,587,000,000
Nov. 28..	5,289,900,000	Nov. 27..	3,450,000,000
Dec. 5..	5,394,590,000	Dec. 5..	3,392,000,000
Dec. 12..	5,175,751,000	Dec. 12..	3,425,000,000
Dec. 19..	5,110,822,000		
Dec. 26..	5,091,427,000		

STOCK AND MONEY MARKET RECORD IN 1929.

Compiled by Benjamin, Hill & Co., Members of the New York Stock Exchange.

1929 Month.	Shares Sold, N. Y. Stock Exchange.	Bonds Sold, N. Y. Stock Exchange.	Money Rates, N. Y. C. Call Money High	Call Money Low	Time Loans High	Time Loans Low	Monthly Aver. Rates N. Y. C. Call Money	Monthly Aver. Rates N. Y. C. Time Loans	N. Y. Stock Exchange Loans.	Brokers' Loans, Average.
		$000,000							$000	$000
January.....	110,803,940	$247.7	12	6	7¾	7½	7.05	7.59	$6,735,164	$5,405,980
February.....	77,968,750	181.5	10	6	7¾	7½	7.06	7.50	6,678,546	5,555,250
March.....	105,661,570	213.0	20	6	8½	7¾	9.10	7.96	6,804,457	5,679,000
April.....	82,600,470	215.6	15	6	9	8¼	8.89	8.70	6,774,930	5,476,500
May.....	91,283,550	229.1	15	6	9½	8¼	8.91	8.86	6,665,138	5,542,000
June.....	69,547,510	236.5	10	6	8½	7½	7.70	8.20	7,071,221	5,382,500
July.....	93,378,690	304.3	15	6	8¾	7½	9.23	7.89	7,473,794	5,811,250
August.....	95,704,890	258.4	12	6	9	8¾	8.27	8.88	7,881,619	6,046,800
September....	100,056,120	214.8	10	6	9½	8¾	8.50	8.96	8,549,384	6,539,500
October.....	141,668,410	351.6	9	5	9¼	6	6.43	7.68	6,108,825	6,498,000
November....	72,455,420	290.7	6	4½	6	4¾	5.44	5.47	4,016,597	4,022,750

SUPPORT FOR THE MARKET.

Too much praise cannot be given to the remarkable work of the great banking pool and the splendid and patriotic cooperation of the captains of finance headed by John D. Rockefeller. It is commonly reported in Wall Street that the pool had pledged $1,000,000,000 of liquid funds to be used in correcting the dangerous tendencies that the market had developed and that individuals as well stood shoulder to shoulder with the pool in the work of a national defense. John D. Rockefeller is credited with having bid on the day following the great debacle, $50 a share for 1,000,000 shares of Standard Oil of New Jersey, while Mr. Richard Whitney, the courageous Morgan broker, bid 205 firm for 250,000 shares of United States Steel, an act of finacial heroism that has been appropriately recognized in a resolution of praise adopted by the Governors of the New York Stock Exchange.

Coincident with this work in Wall Street, the administration at Washington not only gave words of reassurance but adopted a constructive program designed to foster industry and to fortify it against the more or less temporary influence of the Wall Street panic. Perhaps the most concrete evidence of reassurance came from the announcement made by the wise and far seeing Secretary of the Treasury, that the influence of his administration would be pressed upon Congress to secure a reduction in the income tax, a proposal which has already been translated into action by the upper and lower houses, all parties and partisans concurring in the same constructive spirit.

The history of the great stock market panic would not be complete without emphasizing the words of reassurance to the country that were given in the darkest hour by President Hoover and the great financiers and industrial leaders of the country whom he called in conference.

The President said: "The fundamental business of the country, that is, the production and distribution of commodities, is on a sound and prosperous basis. The best evidence is that although production and consumption are at a high level, the average prices of commodities as a whole have not increased and there have been no appreciable increases in the stocks of manufactured goods. Moreover, there has been a tendency of wages to increase and the output per worker in many industries again shows an increase, all of which indicates a healthy condition.

"Construction and building industries have been to some extent affected by the high interest rates induced by stock speculation and there have been some seasonal decreases in one or two industries, but these movements are of secondary character when considered in the whole situation.

"A temporary drop in grain prices sympathetically with stock exchange prices usually happen, but, as the Department of Agriculture points out, the overriding fact in grain is that this year's world wheat harvest is estimated to be 500,000,000 bushels less than that of last year, which will result in a very low carry-over at the end of the harvest year."

The Governors of the Stock Exchange handled the situation with wisdom and sound judgment. For the first time since the war, the Stock Exchange curtailed its hours of trading in order to stem as far as possible the hysterical liquidation that was in progress. At the same time it addressed a series of questionnaires to all of its member houses requiring a complete daily report of the exact status of its books. While the explanation has never been officially given the purpose was undoubtedly to locate the source of the short selling and fix the identity of the powers that prey upon the distress of the country's investors.

EFFECT ON BUSINESS.

The question uppermost in the minds of everybody is the effect of the deflation of the stock market to the future course of business. The general opinion that business will suffer to an extent unheard of, is fallacious for the following reasons:

1. The cheapness of money will encourage its employment in building construction.

2. Surplus funds held by corporations and formerly put out on call money will now be used for plant improvement, expansion and experimentation in allied fields.

3. While many small speculators, traders and investors were wiped out, nevertheless the real and significant losses were sustained by those able to carry them.

4. Exports will now show further increases as Europe will be able to borrow in this country and use part of these funds in the purchase of goods here.

Business then, while showing a temporary recession, will march on.

In the meantime we shall doubtless witness the growth of an investment market along safe and sane lines. The stock market is the exact antithesis of that of early Fall when loans and prices by a freak economic anomaly were at the peak of the year. At that time money was lending at 10% and the "yellow chip" stocks were showing returns from a bare fraction to 2.50%. Now money is lending at 4½% and many good common stocks are returning from 6 to 8%. Measured by the old-fashioned yardstick of the dividend yield as compared with the return from liquid funds in the open market they are selling ex-imagination, ex-speculative potentials. They have solid book values now—not dream book values.

VACANT PUBLIC LANDS IN THE UNITED STATES.

The following figures, revised officially to July 1, 1929, show the acres of surveyed and unsurveyed public lands in the United States, the figures in parentheses being acreage of unsurveyed domain: Arizona, 9,065,367 (7,846,000); Arkansas, 205,933; California, 14,459,737 (5,749,684); Colorado, 7,082,-181 (1,136,694); Florida, 7,193 (6,662); Idaho, 8,851,615 (1,882,805); Minnesota, 197,996; Montana, 6,821,824 (78,320); Nebraska, 28,960; Nevada, 31,318,305 (22,092,633); New Mexico, 15,117,955 (1,164,627); North Dakota, 152,113; Oregon, 13,-134,730 (92,411); South Dakota, 402,670; 13,192,133 (11,955,734); Washington, 937,701 (14,-202); Wyoming, 16,218,036 (817,501). Grand total, 190,031,722.

The unappropriated lands in Alaska are not included therein. The total area of Alaska is 378,-165,760 acres, of which about 30,000,000 acres are reserved. Of the reserved area, 21,397,521 acres are within the boundaries of national forests.

Approximately 1,910,951 acres have been surveyed under the rectangular system and special surveys by metes and bounds.

Cash receipts of the General Land Office during the fiscal year ended June 30, 1929: from disposal of public lands, $312,144.45; sales of Indian lands, $539,531.33; power permits, $12,302.16; copies of records, $24,412.92; receipts from mineral leasing act of February 25, 1920, $3,926,150.83; sales of government property, etc., $1,379,424.64.

Total receipts for the year, $6,193,966.33.

Area of public and Indian lands originally entered during the fiscal year ended June 30, 1929, 4,612,722 acres; area of lands patented on original disposition, 2,494,647 acres.

The total number of entries, acres sold and amount received therefor under the Timber and Stone Acts of June 3, 1878, and August 4, 1892, were: from June 3, 1878 to June 30, 1929—entries, 107,673; acres 13,827,516; amount, $35,503,452.52.

STOCK MARKET PRICES, JAN. 1, 1929--DEC. 1, 1929.

Name	1928 Clos. Price.	Jan. 1–Dec. 1, 1929 High.	Low.	Close.
Abitibi Power & Paper	41	57⅞	36½	39½
Abitibi Pow. & Pap. pf(6)	84½	88⅝	69	78½
Abraham & Straus	140⅞	159½	59½	60
Adams Express (1.60)	*390½	34	20	26½
Adams Express pf (5)	94	96	84	85
Adams Mills (2)	33	35⅞	19	23
Advance Rumley	51	104⅞	7	13¼
Advance Rumely pf	60⅞	119	15	20¼
Ahumada Lead	3½	4⅞	¾	⅞
Air Reduction (†4½)	98	223⅜	77	129
Airway El. App. (2½)	....	48⅞	20½	27¼
Ajax Rubber	10⅜	11¾	2	2⅝
Alaska Juneau	8¼	10¼	4¼	6
Albany Perf Wrap Pap	24	25	5	10⅛
Allegheny Corp	....	56¼	17	23¼
Allegheny Corp. pf (5½)	....	118¾	90	97¾
Allied Chem & Dye (6)	250	354¾	197	243½
Allied Chem & Dye pf (7)	121½	125	118½	123
Allis-Chal. Mfg. new (2)	*190½	75½	35⅛	45½
Amalgamated Leather	10	11⅝	2	2¾
Amalgamated Leather pf	73½	73	20¼	25⅝
Amerada Corp. (2)	39	42⅝	17½	21⅞
Am. Agri Chem	21⅛	23⅝	4	6¾
Am Agri Chem pf	72	73¾	18	26¼
Am Bank Note (†3)	126	157	65	89
Am Beet Sugar	16⅞	20½	7½	7½
Am Beet Sugar pf	50½	60¼	46	49
Am Bosch Magneto	41⅝	76½	27	32⅝
Am Bro Shoe & Fy (2.40)	48	62	40½	47½
Am Brown Boveri Elec	16⅜	34¾	4½	11¾
Am Can (†5)	110⅜	184½	86	113
Am Can pf (7)	141½	142	133½	140¾
Am Car & Fdry (6)	98¼	106½	75	86
Am Car & Fdry pf (7)	118	120	110½	114
Am Chain pf (7)	71	95⅛	70¼	77¼
Am Chicle (2)	49½	81⅝	27	40½
Am Com Alcohol (x1.60)	....	55	20	27⅝
Am Encaustic Tiling (2)	†83	47¾	18¼	22½
Am European Sec	....	98½	23	35
Am Express (6)	290	409	205	250
Am & Foreign Power	85	199¼	50	72¾
Am & Foreign Pwr pf (7)	105¼	108½	101½	107⅛
Am Haw SS (2)	....	42	19¾	20
Am Hide & Leather	9¾	10	3⅝	4⅞
Am Hide & Leather pf	37⅛	52¼	23¼	31
Am Home Prod (3.60)	76	85⅝	40	58
Am Ice (3)	41⅞	54	29	37⅞
Am Ice pf (6)	95	96	86	88
Am Internat'l (†2)	*144	96¾	29½	38½
Am LaF & Foamite	7⅝	8⅞	2½	2¾
Am Locomotive (8)	108¾	136	90	108¾
Am Locomotive pf (7)	113	119⅞	111¼	116½
Am Mach & Fdy (†7)	183¾	279¾	142	212
Am Metal (3)	62	81¾	31½	42¼
Am Metal pf (6)	117	135	106	111⅞
Am Piano	13	17⅞	1	2½
Am Pwr & Light (¶1)	82⅝	175¾	64¼	82
Am Pwr & Light pf (6)	100⅜	104	92¼	99½
Am Rad Stan Sani (1½)	....	55⅜	28	34
Am Republics	63	64¾	12¼	20
Am Rolling Mills (c2)	....	144⅝	60	78
Am Safety Razor (5)	68	74¾	44	57⅜
Am Seating (2)	35	41⅞	21½	21⅞
Am Smelt & Ref (4)	97⅝	130¼	62	70⅞
Am Smelt & Ref pf (7)	136	138	123¼	135
Am Snuff (3)	*203	49	38	43¼
Am Steel Foundries (3)	66¼	79⅞	35¾	48½
Am Sugar Refining (5)	87½	94¾	56	60¼
Am Sugar Ref pf (7)	106	111	99	103
Am Sumatra Tob (3)	59⅞	60	18	24
Am Tel & Cable (5)	173¾	327⅞	17	24¾
Am Tel & Tel (9)	193	310¼	193¼	223
Am Tobacco (†10)	176	232½	160	198¼
Am Tob B (†10)	177¾	235	160	200
Am Tobacco pf (6)	120	121¼	114⅝	118¾
Am Type Fdrs (8)	137	181	115	130
Am Wat Wks & El (c1)	71	199	50	79⅞
Am Wat Wk & El 1 pf (6)	99½	104	97	100
Am Woolen	27⅝	27⅞	5⅞	8⅝
Am Woolen pf	58½	58⅝	15½	20⅜
Am Writ Pap ctfs	14½	16⅛	4	6¾
Am Writ Paper pf (3)	42½	46	28	33
Am Zinc L & S	42⅛	49¼	7	10
Am Zinc L & S pf (6)	105	111¼	49¾	57⅝
Anaconda Copper (7)	119⅝	140	70	77¾
Anaconda Wire & C (3)	....	89¾	55½	55½
Anchor Cap (2.40)	54⅝	80	25	40½
Anchor Cap pf (6½)	111	154½	96	105
Andes Copper (2)	53¼	68⅜	30	34
Archer, Daniels, Mid (2)	*102	49½	18½	25
Armour & Co of Del pf (7)	92½	95	75	80
Armour & Co of Ill A	17⅝	18⅝	5½	6½
Armour & Co of Ill B	9⅞	10¼	2¾	3⅝
Armour & Co of Ill pf (7)	83¼	86	57	63
Arnold Constable & Co	39⅝	40¾	7⅜	10¼
Artloom (2)	28¼	30	16⅝	20
Art Metal Constr (1½)	29¾	30⅞	20¼	23½
Asso Apparel (4)	....	58¾	34	36
Assoc Dry Goods (2½)	68¾	70¾	25	35
Assoc Dry Goods 1 pf (6)	103	107	85	85
Assoc Dry Goods 2 pf (7)	107	110	90	90
Atch, Top & S Fe (10)	196¼	298⅝	195½	222¼
Atch, Top & S Fe pf (5)	103½	104¼	99	104
Atlantic Coast Ln (†10)	167¾	209½	161	179¾
Atlantic Gulf & W Indies	40⅛	86⅞	32½	72½
Atl Gulf & W Ind pf (4)	55⅞	62⅛	45¾	57½
Atlantic Refining (†2)	66	77⅜	30	41
Atlas Power (†5)	112	140	67	81
Atlas Tack	11⅞	17⅜	5	8¼
Auburn Auto (4)	....	514	120	150
Austin Nichols	....	11¾	3¼	4¼
Austin Nichols pf	36⅞	42½	18	27
Autosales	25½	35½	22	22
Autosales pf (3)	39⅝	45⅞	32	32
Auto St Saf Raz A (3)	44	50	34	36½
Aviation Corp Del	....	20	5⅜	7
Baldwin Locom. (1.75)	*250	66⅝	15	27
Baltimore & Ohio (7)	121¼	145½	105	117¼
Baltimore & Ohio pf (4)	80	80¾	75	78⅞
Bangor & Aroostook (3½)	66	90¾	55	64¾
Barnet Leather	24½	29¼	3½	4
Barnsdall A (†2¼)	42½	49½	20	25¾
Bayuk Cigars (2)	114½	113¾	55	64½
Beacon Oil	21⅞	32⅞	15	16½
Beatrice Cream (4)	....	131	73½	83
Beech Nut Packing (3)	96	101	45	64
Belding Hemingway	14	17¾	5¼	6¼
Belgian Nat Ry pt pf (5.49)	84½	84⅞	75	78½
Bendix Aviation (2)	....	104⅜	25	30¼
Best & Co (2)	*91	60⅞	25	34¼
Bethlehem Steel (6)	87½	140¾	78¼	89¾
Bethlehem Steel pf (7)	124	128	116⅝	122¾
Bloomingdale Bros	42	61⅞	25	30
Bohn Alum (†5)	....	136¾	37	40¼
Bon Ami A (†6)	82	89½	70	71
Booth Fisheries	10⅞	11¾	3¼	3¾
Borden Co (3)	†182	100½	53	64¼
Borg Warner (4)	....	86⅞	26	31½
Boston & Maine	90	145	85	100
Botany Cons Mills A	14¾	15½	5	5½
Briggs & Stratton (2)	....	43½	20	24¾
Briggs Mfg	59¼	63⅛	8¼	12¼
British Empire Steel	4	6⅞	1⅝	1⅝
Brockway Mot Truck (3)	71	73⅞	14	19¾
B'klyn Edison (8)	325	374½	300	374½
Bklyn-Manhatt Trans (4)	70¼	81⅞	40	58¾
Bklyn-Manhat Trans pf(6)	88⅞	92⅝	76½	83⅜
Brooklyn Queens Tr	....	12¼	7	8½
Brooklyn-Queens pf (4)	....	65	44	50
Bklyn Union Gas (5)	185½	248½	99	131
Brown Shoe (3)	46¼	51½	26	41½
Brunswick-Balke-Col (3)	51½	55¼	16¼	23
Brunswick Term	36	44⅛	4½	10
Bucyrus Erie (1)	37½	42¾	14	20⅛
Bucyrus Erie cv pf (2½)	46⅜	50	26½	34
Buffalo & Susquehanna	57¼	85	54¾	65
Bullard Mach (†2)	....	54¾	25	34
Burns Bros A (8)	121⅜	127	88	94
Burns Bros B	33	39	22⅝	25
Burr'hs Add Mach (†1.80)	*245	96⅞	29	42½
Bush Terminal (g2)	81	89½	31¼	37
Butte Cop. & Zinc (.50)	9	9½	2	4
Butte & Superior (2)	10⅛	12⅜	5	6
Butterick Co	39⅛	41	27½	27½
Byers (A M)	193	192⅞	50	68¾
By-Products Coke (1)	*117	47½	20	27
California Packing (4)	75½	84⅞	63¼	69½
Callahan Zinc & Lead	3¼	4	1	1⅛
Calumet & Arizona (10)	123	136¾	73½	89¾
Calumet & Hecla (4½)	47	61⅜	25	33¾
Camp Wyant (2)	....	49½	20	26
Can Dry Ginger Ale (5)	79⅝	98¾	45	65½
Canadian Pacific (10)	238	265⅞	189¾	201
Cannon Mills Co (2.80)	44½	48¾	28⅛	78⅞
Case (J I) Co (6)	490	509	130	194¾
Case (J I) Co pf (7)	125	130	113	120
Cavanah-Dobbs	....	42½	8⅞	9
Celotex (3)	....	79⅜	31	38
Celotex pf (7)	....	93½	80	80
Cent Aguirre Assoc (1½)	38½	48¾	21	25
Cent Alloy (2)	483⅞	59¾	27⅛	33¾
Cent R R of N J (†12)	323	360	240	262
Century Ribbon Mills	20½	20½	3	4¾
Cerro de Pasco Cop (6)	110¾	120	52¼	64
Certain-Teed Products	28⅝	32	11½	14
Checker Cab	....	80¾	18	46¼

Name	1928 Clos. Prcie.	Jan. 1–Dec. 1, 1929 High.	Low.	Close.
Chesapeake Corp (3)	81	92	42⅛	59¼
Chesapeake & Ohio (10)	218⅝	279⅜	160	196⅛
Chicago & Alton	11¾	19⅜	4	5
Chicago & Alton pf	18⅝	25¾	3½	6
Chicago & East Ill	42½	43	25	29
Chicago & East Ill pf	62⅞	66⅞	49	55½
Chicago Great West	21½	23⅞	7	10
Chicago Great West pf	49	63⅝	17½	29⅜
Chi, Milw, St P & Pac	34¼	44⅞	16	22⅜
Chi, Milw, St P & Pacpf	56	68⅝	28½	40½
Chi & Northwest (5)	89	108½	75	88
Chi & Northwest pf (7)	135	145	134	139½
Chi Pneum Tool	*173½	175	47½	21⅞ 26
Chi Pneum Tool pf (3½)		61¾	47	52
Chi, Rock Is & Pac (7)	132	143½	101	117¼
Chi, Rock Isl & Pac pf (7)	106¾	109	100	107
Chi, Rock Isl & Pac pf (6)	101	103¾	94½	101
Chickasha Cotton Oil (3)	50	50	27½	28½
Childs Co (2.40)	57	75⅛	44¾	55
Chile Copper (†5)	75⅝	127⅛	53	55
Chrysler Corp (3)	132⅛	135	26	33
City Ice Fuel (3.60)		62¾	39⅞	46⅛
Clev, Cin, Chi & St L (8)	265	275	225	225
Cluett, Peabody (5)	69¾	72⅜	35⅜	37
Coca-Cola (4)	*171½	154½	101	121
Coca-Cola "A" (3)	....	50	44¾	49½
Collins & Aikman	51¼	72¼	10	16¾
Collins & Aikmann pf (7)	93	103½	78	78
Colorado Fuel & Iron	70½	78½	27¾	32
Colorado & Southern (3)	115	135	98	98
Columbia Gas & El (2)	139⅝	140	52	69½
Col Gas & El pf A (6)	108	109	99½	104¾
Col Gas Elec pf B (5)	....	....	96½	86 89¾
Col Graphophone (87c)	76½	88¾	16⅛	28¼
Columbia Carbon (†5)	134¾	344	105	144¾
Com'l Credit (2)	61	62⅝	18	24
Com'l Credit A (3)	....	51⅝	28	34¼
Com'l Invest Tr (g1.60)	*131½	79	28⅛	39⅝
Com'l Invest Tr pf (7)	94½	99	87	89½
Commerc'l Solvents (1)	*239	63	20⅛	27⅝
Conde Nast Pub'g (2)	52	93	35	39⅞
Congoleum-Nairn	27¾	35¾	11	13½
Congress Cigar (†5½)	83	92¾	43	52
Consolidated Cigar (7)	96¼	96¼	40	45½
Consol Film (2)	25¾	25¾	10	15½
Consol Film Indus pf (2)	....	30¾	15½	20¾
Consolidated Gas (4)	108⅞	183¾	80½	97
Consolidated Gas pf (5)	98½	100¾	92½	98⅝
Container Corp "A"	22	23½	12	15¼
Container Corp "B"	10⅝	11½	3½	5¼
Cont'l Baking A	48½	90	25¼	37⅜
Cont'l Baking B	8⅝	....	15¼	4⅝ 5⅞
Cont'l Baking pf (8)	89	100	79½	86½
Continental Bank (1.20)	....	63¾	38	39⅞
Continental Can (2½)	62¾	92	40½	51
Continental Insurance (2)	88⅝	110¼	46⅛	66½
Continental Mot (80c)	19	28⅜	6½	8
Continental Oil Del	....	47¼	18	26⅜
Corn Products Ref (†4)	90⅜	126⅜	70	88⅝
Coty Inc (g2)	74⅜	82¼	20⅛	28⅜
Crex Carpet	24	57⅝	20	20
Crosley Radio (‡1)	....	125	17	19⅛
Crown Cork & Seal	....	79	37⅛	50¼
Crucible Steel (5)	89¾	121¾	71	78½
Crucible Steel pf (7)	112	116¾	103	103
Cuba Cane Sugar	5¼	5½	¾	1⅜
Cuba Cane Sugar pf	17½	18⅞	2¾	3
Cuba Company	23¾	24½	5	11
Cuba RR pf (6)	*79¼	70¾	45	48
Cuban Amer Sugar	16⅛	17	7	8¼
Cuban Dominican Sugar	7	6¾	1	2
Cudahy Packing (4)	65¾	67⅞	36	45½
Curtiss Aero & Motor (1)	145½	173½	80¾	80¾
Curtis Pub (†7)	....	132	100	113
Curtis Pub pfd (7)	....	118	112¾	114½
Curtis Wright ctfs	....	30¼	7⅞	8¼
Curtis Wright A ctfs	....	37⅞	14	18½
Cutler Hammer (3½)	61¼	121⅞	58	77⅝
Cuyamel Fruit	59¾	126½	63	108
Davison Chemical	59⅛	69½	21¼	28⅜
Debenhams Sec (a2.31)	38¼	46⅞	23¾	26
Deere & Co pf (7)	125	128	109	117
Delaware & Hudson (9)	189	226	141½	166½
D, L & W (†7)	130⅜	169¾	120¼	151¾
Denver & Rio Gr W pf	55	77¾	49	57
Detroit Edison Co (8)	221½	385	151	200
Devoe & Ray A (†3)	57	64⅞	24	37
Dome Mines (1)	9½	11¼	6	7
Dominion Stores (1.20)	....	54¼	12	23
Drug, Inc (4)	118	126⅛	69	78½
Dunhill International (‡4)	92¼	92	25	38
Duplan Silk (1)	....	28⅞	10	15
Du Pont de Nem (†5.20)	*500	231	80	111
Du Pont de Nem deb (6)	118	119¾	107½	116
Duquesne Light 1 pf (5)	101	100⅞	96½	100
East Roll M (1½)	....	39½	19	21⅝
Eastman Kodak (†8)	183	264¾	150	175

Name	1928 Clos. Price.	Jan. 1–Dec. 1, 1929 High.	Low.	Close.
Eastman Kodak pf (6)	126	128	117	124¾
Eaton Axle & Spring (3)	62	76¾	18	27⅝
Eitingon Schild (2½)	38½	39⅜	11⅜	12½
Eitingon Schild pf (6½)	112	112½	55¼	60¼
Electric Auto-Lite (6)	136	174	50	78½
Electric Boat	....	12¾	18⅜	3¼ 6
Elec Power & Light (1)	49¼	86⅝	29½	42
Elec Power & Lt pf (7)	106	109¼	98	107⅝
Electric Stor Batt (5)	86⅛	104½	55	71⅝
Elk Horn Coal	6	10½	3½	5
Endicott-Johnson (5)	80	83⅜	49½	58
Endicott-Johnson pf (7)	127½	124¾	108¼	108¼
Engineers Pub S m(¶1)	56	79⅝	31	39
Engineers Pub Serv pf (5)	90⅞	123¾	80	92
Eng Pub Ser pfd (6½)	....	109	84¾	91
Equit. Office Bldg (2½)	30½	41	41¼	36⅞
Erie	70	93¼	41½	54⅝
Erie 1 pf (4)	62¾	66¼	55½	64
Erie 2 pf (4)	59	63⅞	52	58
Evans Auto Ld (‡2½)	....	73¾	15	22
Fairbanks Co	8¼	10	3¾	6
Fairbanks Morse (3)	47½	54⅞	29¾	36½
Fashion Park Asso (k2½)	....	72⅝	25¼	27
Fed Lt & Trac (h‡1½)	69½	109	60½	70
Federal Mining & Smelt	220½	310	190	190
Fed Min & Smelt pf (7)	100½	102	95	98½
Fed Mot Truck (80c)	20	22⅜	5	8½
Fed Wat Ser (2.40)	....	56¼	28	36½
Fid.-Phenix Fire Ins (2)	104½	123	47½	70
First Nat Stores (1½)	70½	90	44½	57½
Fisk Rubber	16¾	20⅛	3½	4¼
Florsheim Shoe A	52	54	38	40
Florsheim Shoe pf (6)	99½	102¼	90½	91½
Follansbee Bros (3)	66¼	82¾	32½	40⅞
Foster Wheel (1)	....	95	33	50
Foundation Co	52	69⅝	12¼	18¾
Fox Film Class A (4)	93⅝	105⅝	40	56⅞
Freeport-Texas (4)	49½	54⅞	23¾	35⅜
Fuller (GA) Co p pf (†8.68)	102½	107½	82½	97½
Gabriel Snubb A	24½	33⅞	5	6¾
Gamewell Co (5)	....	83½	65¼	68
Gardner Motor	17¼	25	3¾	4
Gen Am Tank Car (‡4)	99¼	123¼	75	91¾
Gen Asphalt (4)	74⅝	94¾	42¼	50¾
Gen Bronze (2)	....	69¾	24	29¾
Gen Cable	37½	61	23	30
Gen Cable A (4)	82¼	120½	65¼	72
Gen Cable pf (7)	107	107½	102	102¼
Gen Cigar (4)	64½	74	42	52¾
Gen Electric (†6)	221½	403	168¼	215½
Gen Elec Special (60c)	11	11¾	11	11¼
Gen Food Corp (3)	....	81¾	35	50
Gen G & El A (†e1½)	69	112	59¾	80
Gen Gas & El B (†2)	77	116	76	90
Gen Mills (‡3½)	84½	89⅛	50	51¼
Gen Mills pf (6)	99¾	100	87⅞	89½
Gen Motors (‡3.60)	81½	91¾	33½	39¼
Gen Motors pf (6)	109	110½	104	104
Gen Motors pf (7)	126	126½	112	119¾
Gen Outdoor Ad A (4)	52	52	30	41
Gen Pub Service (b6)	....	98	20	32¾
Gen Railway Signal (5)	102⅞	126½	70	87⅜
Gen Refractories (‡4½)	75¾	88½	50	60
Gilette Saf Razor (c5)	116	143	80	102¾
Gimbel Bros	47	48⅛	10½	17½
Glidden Co (h2)	36¾	64⅜	26	35
Gobel, Adolf	56¼	66	9¼	14½
Gold Dust (2½)	71⅞	82	31½	40¼
Gold Dust pf (6)	....	120	95	100
Goodrich B F Co (4)	103½	105¾	42	45¼
Goodrich B F pf (7)	114	115⅜	98⅛	99
Goodyear Tire & Rub (5)	133⅝	154⅜	60	66½
Goodyear T & R 1 pf (7)	103¾	104⅞	87	95
Gotham Silk Hosiery (2½)	80¼	60	14	23¼
Graham-Paige Motors	53	54	7¾	8⅞
Graham-Paige ctfs	45½	49¼	7	9
Granby Consol (8)	90	102⅞	46¼	53½
Grand F W Stores (c 1)	84¾	96½	39	40
Grand F W St pfd (6½)	115	116	87⅜	93
Grand Union	31⅞	32⅞	9½	13¼
Grand Union pf (3)	53⅜	54¾	30	34¾
Granite City Steel (4)	....	63¾	32	40
Grant, W T (1)	*116	59	41½	41½
Great Northern pf (5)	111¼	128¼	85¼	97½
Great Northern pf cts (5)	108⅞	122¼	85½	96
Great North Ore (3¼)	29⅝	39¼	19	23¾
Great West Sugar (2.80)	37½	44	28	30½
Greene Can Copper (8)	173½	200½	106	115
Grigsby Grunow (2)	....	70	14¾	18¼
Gulf, Mobile & Nor	51½	59	18	30½
Gulf, Mobile & Nor pf (6)	102	103	75½	94
Gulf States Steel (4)	68½	79	42	46¾
Hahn Dept Stores	....	56¾	12	15
Hahn Dept St pfd (6½)	....	115	74¾	83½
Harbis. Walk.Refr. (‡2¼)	54	75	64	60
Hartman Corp A (2)	27½	31	21½	24
Hartman Corp B (1.20)	37½	41¾	13	17

Name	1928 Clos. Price.	Jan. 1–Dec. 1, 1929 High.	Low.	Close.
Hawaiian Pineap. (†2½)..	62½	72⅛	59⅞	61
Hayes Body (b 8% stk)...	....	68⅜	5½	8
Hercular Powder (3).....	....	130	80	80
Hercular Powder pf (7)...	....	121	116¼	116¼
Hershey Choc.....	66	143⅞	45	68
Hershey Choc pf (4).....	83¼	143¼	69⅝	82
Hershey Choc pr pf (6)...104½		106⅜	104	105
Hoe, R & Co A.....	17⅛	33	15	16⅝
Holland Furnace (e2¼)...	42¾	51	21	29¼
Homestake Mining (†7)...	75	93	65	80
Household Prod (†4).....	74	79½	40	52½
Houston Oil.....	98	109	23	47
Howe Sound (†4½).....	68¼	82½	34¾	37½
Hudson & Manhatt (3½)..	54	58⅜	34½	47
Hudson & Manhatt pf (5)	82	84	60	73¼
Hudson Motor Car (5)...	91¼	93½	38	47
Hupp Motor Car (†2).....	80⅜	82	18	20
Illinois Central (7).....	141½	153½	116	132
Independ. Oil & Gas (2)..	35	39⅜	17¾	24⅝
Indian Motorcycle.....	30¼	32½	3½	5⅞
Indian Refining.....	29⅞	53	13⅛	19½
Indian Refining ctfs.....	28	51¼	11⅛	18¾
Industrial Rayon.....	133	135	68⅛	85
Ingersoll Rand (†6¼).....	118	223½	120	155
Inland Steel (3½).....	79	113	74⅜	74⅞
Inspiration Copper (4)....	47	66¾	22	28¾
Interboro Rapid Transit..	48⅛	58⅜	15	17⅞
Intercontinental Rubber..	11⅜	14¼	2	4½
Int'l Agricultural.....	15¼	17⅜	4	4¼
Int'l Agricultural pr pf (7)	85	88½	48	48
Int'l Business Mach (5)...156		255	109	143¾
Int'l Cement (4).....	93¾	102¾	48	61
Int'l Combustion Eng....	69½	103¼	8	12½
Int'l Combust. Eng pf (7) 108½		121	30	40
Int'l Harvester (2½).....	97⅜	142	65	81
Int'l Harvester pf (7)....142⅜		145	137	140¼
Int'l Hyd El H (e2).....	....	59½	23	32⅜
Int'l Mach pf (3.20).....	95	102½	47	67¾
Int'l Mercantile Mar ct...	....	39½	18⅛	26
Int'l Nickel of Can (1)...	46	72¾	25	30⅝
Int'l Nickel of Can pf (7).	....	128	112	113
Int'l Paper pf (7).....	....	94½	77	84
Int'l Paper & Pwr A(2.40)	31	44¼	20	29½
Int'l Paper & Pwr B.....	18	33⅞	12	19
Int'l Paper & Pwr C.....	11½	26⅛	9	14
Int'l Paper & Pwr pf (7)..	90	95	77	81½
Int'l Printing Ink (3)....	60	68⅜	40	49¾
Int'l Rways of Cent Am..	50½	59	25	26
Int'l Shoe (2½).....	....	77½	54	60
Int'l Silver (†8).....	148	159½	95	103
Int'l Tel & Tel (2).....	198½	149¼	53	70½
Interstate Dept Stores (2)	89	93½	25⅛	35
Intertype Corp (††1¾)...	31½	38⅞	17	25
Island Creek Coal (4)....	53¼	69	39	45
Jewel Tea (4).....	*153¾	84½	39	46¾
Johns-Manville (3).....	199	242¾	90	117
Jordan Motor Car.....	16	16⅛	1½	2¾
Kansas City Southern (5).	88⅝	108⅞	60	78¾
Kansas City Sou. pf (4)...	68⅝	70½	63	67
Kaufmann Dep St (1½)...	29½	37⅛	18⅛	18¼
Kayser, Julius & Co (4)...	*85½	58½	30	40⅝
Keith-Albee-Orpheum....	44¾	46⅜	15½	17¾
Keith-Albee-Orph pf (7)..	129	138	70	80
Kelly Springfd Tire.....	23½	24	3⅞	4½
Kelsey Hayes Wheel (2)..	49¾	59¾	18⅝	22½
Kelvinator Corp.....	17	19¼	5	8¾
Kennecott Copper (5)....	156	104⅞	49⅜	57⅛
Kimberly Clark (†3).....	....	57⅜	45¼	50½
Kinney, G R (1).....	52½	44⅛	21½	23¼
Kolster Radio.....	73¼	78¾	5½	6
Kraft Phenix Cheese (1½)	38	76¼	27	36
Kresge S S Co (1.60).....	*86⅝	57⅜	28	33
Kress, S H Co (h1).....	117	114	53¼	64⅞
Krueger & Toll (1.34).....	37	46⅜	22½	25¾
Kroger Gro & Baking (cl)	119⅜	122½	38¼	56⅞
Laclede Gas (10).....	255	325	175	185
Lago Oil & Transport....	31	38⅜	16½	22⅜
Lambert Co (8).....	129⅜	157¼	80½	100⅜
Lehigh Port Cement (2½)	58⅜	65	30	39
Lehigh Valley (3½).....	100	102¼	65	71
Lehigh Valley Coal.....	....	32	10	16⅛
Lehigh Valley Coal pf (3).	....	44¾	34½	37½
Lehn & Fink Prod (3).....	63¼	68½	28	33
Libbey Owens (1).....	....	43	17	21⅞
Liggett & Myers (†5).....	92	106	80¼	90
Ligg't & Myers B (†5)....	90¼	106¼	80	91
Liggett & Myers pf (7)....	136	137½	125	136½
Lima Locomotive.....	50¼	57¾	31	35
Link Belt Co (2.60).....	....	61	37⅜	40
Lkuid Carbonic (†4¼).....	107	113⅞	40	55
Loews, Inc (†3¾).....	63½	84½	32	46½
Loews, Inc pf (6½).....	102¾	110⅜	80	90
Loft, Inc.....	9	11¼	4	4¾
Long Bell Lumber A.....	28¼	32½	12½	15
Loose-Wiles Biscuit (2.60)	70	88¾	39¼	51½
Lorillard, P Co.....	26	31½	14¼	18
Lorillard, P Co pf (7)....	88	99¼	67	83

Name	1928 Clos. Price.	Jan. 1–Dec. 1, 1929 High.	Low.	Close.
Louisiana Oil Refining....	14½	18	7	9¾
Louisv G & E A (1¾).....	39	72⅝	28	38
Louisville & Nashville (7).	145	154¾	110	131
Ludlum Steel (2).....	77	108¼	22	29⅜
MacAndrews & F (†2.85)..	48	46	30¼	32
McCall Corp (4).....	76	108	70	80
McLellan St A (2.20).....	....	59½	21	27
McCrory Stores B (2)....	104½	115½	79	79
McCrory Stores pf (6)....	116½	120	92½	96½
McGraw-Hill (2).....	....	48	30	38¾
McIntyre Porc Mines (1)..	21	28½	12½	14
McKeesport Tin Plate (4)	74¾	82	54	59¼
McKesson & Robbins (2)..	48	59	21⅛	33
McKeeson & Rob pf (3½)	58⅞	63	40	46¼
Mack Trucks (6).....	108½	114⅜	55½	70
Mackay Cos (7).....	125	150	110	110
Mackay Cos pf (4).....	84	84½	83⅛	84
Macy, R H & Co (ct3)...	185	255½	110	148
Madison Sq Garden (1½)..	22¼	24	11½	13
Magma Copper (5).....	70	82½	35	47⅛
Mallinson & Co.....	35	39⅜	6	10
Manati Sugar pf.....	45	50½	20	20
Mandel Bros.....	33½	38⅜	14	19¾
Manhattan Elec Supply...	30½	37¾	19⅜	22½
Manhat Elev mod gtd (d5)	54	57½	24	30
Manhattan Shirt (2).....	32	35⅝	19¾	21
Marlin-Rockwell (†3¼)..	76	89⅞	30	42
Marmon Motor Car (4)...	83	104	19	23½
Mathieson Alkali (e2)...	*182	72⅜	29	39¾
May Dept Stores (c2)....	97⅝	108½	46	57
Maytag Co (†2).....	23¾	29½	15⅜	16¼
Maytag pf (3).....	44⅞	49¼	29¼	30
Maytag i pf (6).....	89½	90⅜	76	76½
Melville Shoe (1.40).....	64	72	30	33
Mengel Co (2).....	78¾	34⅞	9	16⅜
Met Goldwyn Pic pf (1.89)	24½	27	21½	23½
Mexican Seaboard.....	65	69⅜	9¼	18
Miami Copper (4).....	32⅞	54½	20	27⅛
Mid-Cont Petroleum (2)..	37¾	39⅞	22⅛	28¾
Mich Steel (†3).....	....	122⅞	50	60
Middle States Oil pf ctfs.	3½	3⅝	¾	1¼
Midland St Prod pf (†12).	258¾	321	135	160¼
Miller Rubber.....	23	28⅞	5½	6
Minn & St Louis.....	3¾	8⅞	1¼	1⅜
Minn Mol Pow.....	....	43⅝	10	15
Minn Mol Pow pf (6½).....	....	102	65	70¾
Minn, St P & S S M pf....	70¾	87	68¼	75
Minn Honey (†3½).....	....	123¼	59	66
Mo, Kans & Texas.....	51	65¾	27½	37½
Mo Kans & Texas pf (7)..	103¾	107½	93¼	102½
Missouri Pacific.....	66	101¾	46	69
Missouri Pacific pf (5)....	119¾	149	105	126
Mohawk Carp Mill (†2¾).	75⅞	80½	35	42
Montgomery Ward (3)...	153	158⅞	49¼	56½
Moon Motors.....	6¾	5	1⅜	8½
Morrell Co (3.60).....	....	81¾	42	59
Motor Products (†10).....	*173	142	36	50
Motor Wheel (3).....	42¾	44¾	21	26
Mullins Mfg.....	77	81⅞	10	15½
Murray Corp (k3).....	73¾	100⅛	14⅞	18
Myers & Bro (2).....	....	67½	30	38½
Nash Motors (6).....	108¼	118⅞	40	51¾
Nat Air Tran.....	....	48¼	13	13½
Nat Acme (1½).....	30¾	41⅞	14⅜	18
Nat Bellas Hess (†1).....	*207¾	71	10	15
Nat Bellas Hess pf (7)....	117½	118	79¾	80
Nat Biscuit (†7½).....	197½	236¾	140	180¼
Nat Biscuit pf (7).....	143½	146	140	142
Nat Cash Reg A (†4).....	108	148¾	59	78
Nat Dairy Prod (†1½)..	*127¼	86½	36	51¾
Nat Dept Stores.....	28⅞	37¾	20¼	21¾
Nat Distillers Products...	37⅛	58	15	35
Nat Enam & Stmpg (2)...	52½	62¼	26¼	28
Nat Lead (5).....	130¼	210	129¼	140
Nat Power & Lt (1).....	46¾	71¾	23	31
Nat Radiator.....	15½	17	2	3¾
Nat Radiator pf.....	39¼	41	6	7
Nat Rys of Mexico 1 pf...	7¾	6¾	4	4
Nat Rys of Mexico 2 pf...	3¾	3⅜	1	1¼
Nat Supply (†7).....	145	144	98½	105
Nat Surety (5).....	138¾	155	80	85
Nat Tea (2).....	*366	91⅜	31½	39½
Nelsner Bros.....	....	98½	50	53½
Nevada Consol Cop (3)...	42¼	62⅛	23¼	30
Newport Co A (3).....	....	103	43	60
Newton St (3).....	....	113	35¼	48
N Y Air Brake (3).....	44½	49¾	35½	43
N Y Central (8).....	188	256½	160	174¼
N Y, Chi & St L (6).....	134½	192⅜	110	124½
N Y, Chi & St L pf (6)..	109	109¼	100	101¼
New York Dock.....	50	58⅜	33	36½
N Y Dock pf (5).....	86	90	82¾	84
N Y, N H & H (5).....	82	132½	80½	110¾
N Y, N H & H pf (7).....	115¾	134¾	114¾	122½
N Y, Ont & W.....	28¾	32	8	13¾
N Y Railways pf.....	6½	9⅜	1¾	2¼
Norfolk Southern (2½)...	44¾	48½	16	18¾

Name	1928 Clos. Price.	Jan. 1–Dec. 1, 1929 High.	Low.	Close.
Norfolk & West (†12)	193½	290	191	230
North Amer (b 10% stk)	95	186¾	66½	89½
North Amer pf (3)	53	54¾	48	51½
North Amer. Edison pf (6)	101¾	103¾	98	100¾
No German Lloyd (3.41)	64	64¼	45½	46
Northern Pacific (5)	108½	118⅝	75¼	91⅜
Northern Pac ctfs (5)	105⅝	114⅝	75	90
Oil Well Supply	30⅝	32	12	12
Oliver Farm Equip	....	64½	8	14½
Olive Farm Eq pf A (6)	....	99½	70	70
Olive Farm cvt pf (3)	....	69⅜	17	29½
Omnibus Corp pf (8)	....	90	65	73
Oppenheim Collins (5)	76⅜	84⅝	50	52½
Otis Elevator (†8)	282	450	195	231
Otis Steel (2½)	37	55	22¼	32⅜
Otis Steel prior pf (7)	103	108	89¾	89¾
Owens Ill Glass (4)	81¾	98¾	43	53
Pacific Gas & Elec (2)	53¾	98¾	42	53¼
Pacific Lighting (3)	73	146½	58⅛	72½
Packard Mot Car (†1.10)	*149¾	32½	13	15½
Pan-Am Petrol & Trans	46¾	69	40¼	61
Pan-Am Pet & Tr B	48⅜	69¼	40½	61
Panhandle Prod & Ref	12¼	15¼	3	5
Panhandle Prod & Ref pf	80	76	47½	50
Param't Famous Lasky (3)	55	75½	35	50
Park & Tilford (?3)	84	87⅞	23	25
Park Utah Con Min	12	13⅛	3½	3⅞
Pathe Exchange	11½	14⅞	3⅞	4⅛
Pathe Exchange A	25⅞	30	5	7⅜
Patino Mines & Ent (3.89)	36¾	47¾	24½	31⅝
Peerless Motor Car	19⅞	22½	5¼	6⅞
Penick & Ford (1)	39	60⅞	22	28½
Penn Railroad (4)	76½	110	72½	82¾
People's Gas, Chgo (8)	212½	404	208	235½
Pere Marquette (†8)	151	260	140	150
Pere Marquette pf (5)	94	97	92	98
Pet Milk (1½)	43	45¼	20	20⅝
Phelps Dodge (3)	....	79⅛	31	39
Philadelphia Co (†7)	162	285	157½	185
Phila Co 6% pf (3)	53	54	47½	50⅜
Phila & Read Coal & Ir	30¾	34	9½	13¾
Philip Morris & Co (1)	17⅜	23¼	5¾	10¾
Phillips-Jones (3)	51½	73	19½	24
Phillips Petroleum (1½)	45	47	24¼	38
Phoenix Hosiery	33	37⅝	10⅝	13
Pierce-Arrow A	28¾	37⅞	18	19½
Pierce-Arrow pf (6)	72¾	87½	68	68
Pierce Oil	2½	3⅜	1	1¼
Pierce Oil pf	28⅝	51¾	20	27
Pierce Petroleum	5⅜	5⅞	½	2⅝
Pillsbury Flour M (†2½)	57¾	63⅞	30	35½
Pirelli of Italy (2.88)	....	68	43¼	47⅛
Pittsburgh Coal	75⅜	83¾	54	64½
Pittsburgh & W Va (6)	141¼	148¾	90	93
Poor & Co B (2)	....	43⅞	20	30
Pto Rican Am Tob A (7)	79	95¾	51	64
Pto Rican Am Tob B	49½	50¾	8	15⅞
Prairie Oil & Gas (†2½)	64½	65⅝	40½	55¾
Prairie Pipe Line (†5)	....	65	45	58⅜
Pressed Steel Car	22⅞	25¾	6¼	10¾
Pressed Steel Car pf (7)	76½	81	57	59½
Proct & Gamble (2)	....	98	43½	57⅜
Producers & Refiners	22⅞	25⅞	4	9
Public Service N J (2.60)	82½	137¼	54	78⅛
Public Service N J pf (8)	143	151	139½	145
Public Service N J pf (7)	120⅛	124⅞	105	120
Public Service N J pf (6)	105	108¼	98	106
Public Serv N J 5% pf	95	96	92½	92½
Pub Serv E & G pf (6)	107¼	109¾	104½	106
Pullman Corp (4)	85	99¼	73	80⅝
Punta Alegre Sugar	19¼	21½	8½	8¾
Pure Oil (1½)	27	30⅜	20	22⅞
Purity Bakeries (4)	130½	148⅝	55	78⅛
Radio Corporation	*374½	114¾	26	33⅜
Radio Corp pf A (3½)	56⅛	57	50	53
Radio Corp pf B (5)	....	82½	62	68¼
Radio Keith Orph A	44½	46⅞	12	17
Rail Express (2)	....	61⅞	24	32¾
Raybestos Man (2.60)	....	58½	28	34
Reading (4)	107	147¾	101½	119
Reading 1 pf (2)	42½	50	41½	46¼
Reading 2 pf (2)	46¼	60¾	43⅜	49
Real Silk Hosiery Hills(5)	60⅜	84¾	36¼	46¾
Reis, R & Co	14⅜	16¼	4½	5¾
Remington Rand (50c)	30	57¾	20⅜	29
Remington Rand 1 pf (7)	90	96½	81	91¾
Remington Rand 2 pf (8)	94½	100½	93	99
Reo Motor Car (†1.40)	29½	31⅞	10¾	11½
Republic Brass	....	54⅞	25	30⅞
Republic Iron & St'l (4)	86	146¼	62¼	70½
Republic Ir & St pf (7)	109	115½	103¾	104
Reynolds Tob B (2.40)	*155	66	39	47⅞
Rhine Westp'a El Pr (1.92)	60⅜	64	45¼	45¼
Richfield Oil (2)	47½	49¾	20	29
Rio Grande Oil (k2)	....	42½	15	19
Ritter Dental (2½)	....	70	40	45
Royal Baking Powd (1)	42¾	43½	26	26
Royal Bak Powd pf (6)	104½	114⅞	95	114⅞
Roslia Ins Co of Am (2.20)	*253	96	28	37½
Roy du NY Shares (a3.20)	54½	64	43¼	52½
Safeway Stores (3)	192¼	195¼	90½	120¼
St Joseph Lead (†3)	69	94	38½	47¼
St Louis San Fran (8)	117⅞	133¾	101	111¼
St Louis San Fran pf (6)	94¾	96½	87	91
St Louis Southwestern	109¼	115¾	50	60½
St Louis So'west pf (5)	90	94	84	89¾
Savage Arms (2)	50⅛	51⅞	20½	25⅜
Schulte Retail Stores	37½	41½	8	8
Seaboard Air Line	16⅜	21¾	10	11
Seaboard Air Line pf	19½	41⅜	16¼	26
Seagrave (el.20)	16⅞	22¼	10⅜	11¼
Sears Roebuck (†2½)	179¼	181	80	94⅞
Second Nat Inv	....	15½	14	14½
Seneca Copper	5⅝	10½	2	2½
Servel, Inc	....	21⅜	7¼	8¾
Sharon Steel Hoop (2)	....	53¾	20	24
Sharp & D	....	22	19½	21
Shattuck, Frank G (i)	*127½	71	25¼	38
Shell Trans & Tr (a2.425)	56¼	55¾	43⅜	45½
Shell Union Oil (1.40)	27¾	31⅜	19	24
Shubert Theatre (5)	69⅝	74½	12	12¼
Simmons Co (g3)	95½	188	59½	80
Simms Petroleum (1.60)	23¾	40½	15	23⅛
Sinclair Consol Oil (2)	42⅛	45	21	26¼
Sinclair Cons Oil pf (8)	109⅝	111	103	107¾
Skelly Oil (2)	35¼	46½	28	33¼
Sloss Shef S & I Co pf (7)	106	112	62½	65
Snider Packing	12	16¼	3⅜	5
Snider Packing pf	32	64½	14	18½
Solvay Am pf w w (5½)	....	111	85	94½
Southern Calif Edison (2)	54¼	93¼	45½	56⅜
Southern Dairies A	42	50⅜	21	24
Southern Dairies B	15	15⅜	2¾	5
Southern Pacific (6)	127⅝	157½	105	119
South Pto Rico Sug (†2½)	43	45	23⅝	28
Southern Railway (8)	147½	162½	109	134⅛
Southern Rwy pf (5)	99	99½	93	96½
Spalding, A G (2)	....	63½	30	34½
Spang Chalfant & Co	50¾	52¼	15	24¾
Sparks With (1)	....	73	13¼	18¾
Spencer Kellog (1.60)	....	45	20	23
Spicer Mfg	50	66¾	21	21½
Spicer Mfg pfd (3)	....	55¾	38	40½
Spigel May Stern (3)	85	117⅞	39¼	40
Stand Brands (1½)	....	44¾	20	27⅝
Stand Brands pf (7)	....	118¾	114¼	117
Stand Com'l Tobacco (i)	36¾	43¾	8	8⅞
Stand Gas & Elec (3½)	84⅝	243¾	73½	109¼
Stand Gas & Elec pf (4)	65⅜	67	58½	65
Stand Invest (b6)	....	48	10	11¼
Stand Oil of Calif (h2½)	72	81¼	51½	62
Stand Oil of N J (†2)	55	83	48	64
Stand Oil of N Y (1.60)	45½	48⅛	31¾	35⅛
Stand Plate Glass	4½	9⅝	1¾	2½
Starrett, L S (2)	....	47⅞	30½	34⅝
Sterling Securities A	....	38	8¼	13
Sterling Securit. pf (1.20)	....	15½	8½	12
Sterling Sec cv pf (3)	....	55½	31	41
Stewart W Speed (J3½)	12¾	77	30	41¾
Stone & Webster	....	201½	64	82
Studebaker Co (†5)	78¼	98	38¼	42⅝
Submarine Boat	3⅛	4½	⅜	1
Sun Oil (p1)	65	86⅜	55¾	60
Superior Oil	10	24	5¾	7¼
Superior Steel	37	73¾	15	17
Sweets Co of America (1)	19⅜	22¼	5½	8¼
Symington A	13⅜	19⅜	6¼	8½
Telautograph Corp (†1.05)	20¾	25½	15	15½
Tenn Cop & Chem (1)	19	20⅞	9½	12
Texas Corp (3)	67	71⅞	50	56
Texas Gulf Sulphur (4)	79¼	85¼	42½	56⅞
Texas Pac Coal & Oil(b5)	18⅜	23⅞	9½	11¾
Texas Pac Land Trust	22¼	24½	6¼	8¾
Thatcher Mfg (1.60)	25	35	16½	21½
The Fair (2.40)	47	51⅞	29½	30
Thompson, J R (3.60)	60	62	30	36½
Tide Water Oil (80c)	37	40	14	20¼
Tide Wat Oil pf (5)	96	97½	85¼	88
Tide Water Asso Oil	21½	23½	10	13
Tide Wat Asso. Oil pf (6)	90	90⅞	74½	81½
Timken Roller Bear'g (3)	*143¼	139⅜	58½	71½
Timken Det Axle (†80c)	....	34⅜	11½	13½
Tobacco Products	101	22½	1	4¾
Tobacco Prod ctfs	....	16	1¾	2¾
Tobacco Pro A	112	22⅝	5¼	7
Tobacco Prod ctfs A	....	23½	19	4½
Transcontinental Oil	....	12¼	15¼	5½
Trico Products (2½)	....	42⅝	63	31
Truax Traer Coal (1.60)	....	31⅞	14	33
Twin City Rap Trans (4)	45½	58¼	27	15¼
Underw'd Elliott Fisher(5)	93½	181¼	82	28⅞
Union Bag & Paper	34¾	43	7	101
Un Carbide & Car (2.60)	197	140	59	12½
Union Oil of Calif (†2)	50½	57	42¼	77
				44¼

Name.	1928 Clos. Price.	Jan. 1–Dec. 1, 1929 High.	Low.	Close.
Union Pacific (10)	218½	297⅝	200	225
Union Pacific pf (4)	83½	85½	80	82
United Air & Tr	....	162	31	40¼
United Air & Tr pf (3)	....	109½	44⅞	56½
United Bisc of Am (1.60)	48	60	33¾	38½
United Bisc of Am pf (7)	120	136	114½	115
United Carbon (2)	....	111¾	40½	45½
United Cigar Stores	23¾	27½	4⅝	5¾
United Clg Stores pf (6)	103⅞	104	31	34
United Corp	....	75½	19	30
United Corp pf (3)	....	49⅞	42½	46⅛
United Elec Coal	71	81⅛	10¼	12⅛
United Fruit (ed)	104¼	158½	99	110
United Gas & Imp (1)	....	59⅛	22	29⅞
United Gas & Imp pf (5)	....	96½	90¼	96
United Paperboard	16½	26⅜	7	8
United Piece Dye	....	48⅞	15¼	20
U. S. Distrib	16½	23	9	18
U. S. Distrib pf (7)	77	97	71¼	92
U S Foreign Sec	....	72	17⅛	22¼
U S Foreign Sec pf (6)	....	92⅞	82	86¼
U S Freight Co (3)	....	134½	87⅝	90
U S Hoffman Mach (2)	45	49⅞	22	22
U S Indus Alcohol (6)	131⅛	243⅝	95	136½
U S Leather	33	35½	5	10¼
U S Leather A (4)	....	61⅞	15	16½
U S Leather pr pf (7)	60	107	89⅞	90
U S Realty & Imp (5)	104	119½	50½	67¾
U S Rubber	46¾	65	15	26⅜
U S Rubber 1 pf	86	92½	40¼	50
U S Sm Ref & M (3½)	65⅝	72⅞	29⅞	36½
U S Sm Ref & M pf (3½)	57	58	48	51
U S Steel (†8)	161¼	261¼	150	162⅛
U S Steel pf (7)	141⅜	144¼	137	140¼
U S Tobacco	*104½	71¾	55½	66¾
Univ Leaf Tobacco (3)	*75½	52⅜	25½	36
Utilities P & L A (e2)	42¾	58⅜	24⅜	31⅞
Vadsco Sales Corp	....	13½	3	5
Vadsco pf (7)	....	82	50	67
Vanadium Corp (†4)	101⅞	116½	37½	52
Van Raalte	27	42	20	20
Vick Chemical (2½)	*85	51⅞	33	35½
Virginia Caro Chem	18⅞	24¼	3⅛	6
Virginia Caro Chem 6% pf	60¼	65½	15	28½
Vir Caro Chem 7% pf (7)	95	97½	69	76
Wabash	74½	81⅜	40	40
Wabash pf A (5)	93½	104⅞	82	87
Wabash pf B (5)	93	91	77⅛	82
Waldorf System (1½)	25⅜	36½	20	25
Walworth Co (2)	23¾	49⅞	22	30
Ward Baking B	17⅛	21¼	1½	6
Ward Baking pf (7)	79⅛	87½	50	68
Warner Bros Pic (4)	*122¼	64½	30	42⅝
Warner Bros Pic pf (2.20)	55¾	59¼	25¼	37¼
Warner Quinlan (2)	39⅞	42⅞	15	23½
Warren Bros (†9)	163	207¾	115	143
Warren Fdry & Pipe	27	34¼	15½	23
Wesson O & S (2)	*96½	48	20	26
Wesson O & S pf (4)	*106	72½	49½	52¾
West. Dairy Prod A (4)	54½	60	36½	43¾
West. Dairy Prod B	27	40	7	14¾
Western Maryland	42¼	54	10	18⅝
Western Maryland 2 pf	45½	53½	14⅝	19¾
Western Pacific	37	41⅞	15	19⅞
Western Pacific pf	59⅜	67¾	37½	42½
Western Union Tel (8)	181	272¼	155	185
Westinghouse Air Br (2)	46½	67¾	36½	47⅞
Westinghouse E & M (4)	138	292⅛	100	133⅛
Weston Elec Inst	21¾	54¾	19⅛	28⅞
Weston Elec Inst A (2)	34½	36½	32½	33½
Westvaco Chlor (2)	....	94⅛	30	41
Wheeling & Lake Erie	67	110	70	100
Wheeling & Lake E pf	82	110	70	100
White Eagle Oil (2)	35⅛	38	25	78¼
White Motors (2)	41	53½	27¼	32⅝
White Rock Min Sprgs (†4)	46	55¾	27⅞	40
White Sewing Mach	4½	48	1	9
White Sew Mach pf (4)	56	57⅞	30½	33
Wilcox Oil & Gas	19	29¾	12⅞	15½
Wilcox Rich A (2½)	....	61¼	19	26½
Wilcox Rich B (c 2)	....	62	12¾	17¾
Willys-Overland (c1.20)	33	35	5¼	9⅞
Willys-Overland pf (7)	101	103	75	75
Wilson & Co	12	13½	3½	4
Wilson & Co A	25	27	6¾	8½
Wilson & Co pf	68⅞	79	35¾	44¾
Woolworth, F W Co (2.40)	*216	103⅞	52¼	76½
Worthington Pump	51	137¾	43	69½
Worthingt'n P. pf A (7)	87	100½	75	88
Worthingt'n P. pf B (6)	80	90½	66	84½
Wright Aeronautical (2)	*272	149½	30	40
Wrigley, Wm Jr (4)	74	80⅞	65	70
Yale & Towne Mfg (†5)	66	88	61¾	75
Yellow Tr & Coach	42¼	51¼	7½	10⅞
Young Spring & Wire (3)	53¼	59¾	33½	36½
Youngstown Sh & Tu (5)	114	143	91	106
Zenith Rad (2)	....	52¾	10½	11¾

Dividend rates as given in the above table are the annual cash payments based on the latest quarterly or half yearly declarations.

* Prior to stock division. † Partly extra. ‡ Plus 4% in stock. ² Plus $3 in preefrred stock. ¶Plus 1/25 in stock. a Paid this year—no regular rate. b Payable in stock. c Plus 5% in stock. d Payable when earned. e Payable in cash or stock. f Plus 10% in stock. g Plus 6% in stock. h Plus 2% in stock. j Plus 8% in stock. k Plus 3% in stock. n Plus 50c in special preferred stock. p Plus 9% in stock.

REAPPORTIONMENT TO FOLLOW 1930 CENSUS.

Congress in the extra session of 1929 passed a census and reapportionment bill—the House on June 6 by a vote of 272 to 105, and the Senate on June 13 by a vote of 48 to 37—and it was approved by the President on June 15. The bill provides for reapportionment of the seats in the House, retaining the total number at 435 as at present, following the returns of the census of 1930, and sets up a permanent mechanism for census taking and for Presidential declaration of reapportionment if Congress fails as it has since 1911 to obey on its own initiative the constitutional mandate requiring reallocation of House seats after each decennial census.

The distribution of seats as shown in the table on page 919 of the Almanac will remain therefore unchanged from 1910 until after the election of 1930. The latest census estimate of the changes likely to be made following the census of 1930 vary somewhat from earlier estimates and now stand: Losses—Indiana, Iowa, Kentucky and Mississippi, 2 each; Alabama, Kansas, Louisiana, Maine, Massachusetts, Nebraska, New York, North Dakota, Pennsylvania, Tennessee, Vermont and Virginia, 1 each. Gains—California, 6; Michigan, 4; Ohio, 3; New Jersey and Texas, 2 each; Arizona, Connecticut, Florida, North Carolina, Oklahoma and Washington, 1 each.

OLD AGE PENSIONS IN 1929.

The bills presented in 1929 in California, Minnesota, Utah and Wyoming were enacted into laws. The states of Montana, Nevada, Wisconsin, Kentucky, Colorado, Maryland and the Territory of Alaska had previously enacted old age pension laws. In 1929 old age pension bills passed one branch of the legislature in the States of Delaware, Illinois, New Jersey, Nebraska, Texas and Washington. A Commission to study the subject was created in New York to report to the legislature in 1930. At the end of 1929 pensions were being paid in Montana, Utah, Wisconsin and the Territory of Alaska. Pension payments under the California law begin Jan. 1, 1930.

The standard bill as presented by the American Association for Old Age Security, 104 Fifth Ave., New York City (Pres. Bishop Francis J. McConnell, Executive Secretary Abraham Epstein), provides for the payment of a pension to men and women of the age of 70 and upwards, who have no income above $1 a day, no children able to support them and who have lived in the State for 15 years and have been citizens of the United States for 15 years. The maximum pension is limited to $1 per day.

Of the eleven States having old age pension laws, six (California, Colorado, Kentucky, Minnesota, Montana and Wisconsin) provide a 70 year age qualification. Maryland, Nevada, Utah and Wyoming fix the minimum age at 65 years, and Alaska at 65 for males and 60 for females.

A maximum pension at $1 a day is followed in six states (California, Colorado, Maryland, Minnesota, Nevada and Wisconsin). Wyoming fixes the maximum at $30 a month, Montana and Utah at $25 a month, and Alaska fixes the maximum at $25 a month for males and $45 a month for females. Kentucky fixes the maximum on a yearly basis of $250.

In Alaska the Territory provides the funds for the payment of the pension. In California the State provides one-half and the county or city and county provide the other half of the cost of the pension. In Wisconsin the act provides that one-third of the cost will be refunded to the county by the State. In all other States the funds are to be provided by the counties.

BOND MARKET REVIEW FOR 1929.

By John A. Crone.

High money rates and a preference for equity securities slowed bond sales and new bond offerings, and contributed to declining quotations throughouto the largest part of 1929. Resuming the decline of 1928, bonds dropped steadily until the middle of March, when Secretary Mellon expressed the belief that it was an opportune time to buy bonds. This rally, however, lasted only until April 24 when bonds started their steady decline to October 4. Between that date and October 23 they regained more than two points, only to react almost as much up to November 4, when an abrupt rally set in which—in twelve business days—caused bonds to recover more than 2½ points, or the largest advance within so short a period in several years.

The average price of corporation bonds as of Dec. 6, 1929 was more than three points higher than the extreme low of Oct. 4, 1929 but nearly two points under the level that prevailed Dec. 6, 1928. The stock market crash between Oct. 23 and Nov. 14 at times brought about a heavy liquidation of bonds to protect speculative accounts.

Between Jan. 1 and Dec. 2, 1929, time money ranged from 9¾% to 4¼ ¾% and call money from 20% on March 26, the highest since Feb. 5, 1920, to 3% in the early part of December.

The Reparations Plan caused wide fluctuations in foreign bonds. Low prices for sugar and the threat of a tariff broke sugar prices—Cuba Cane Sugar, the biggest Cuban producer, went into receivership. Local tractions nose-dived as a result of the Supreme Court's unfavorable 7-cent Fare decision. Real estate financing was adversely affected by high money, as were also municipals, equipments, and United States governments—the latter, in some instances, selling at the lowest prices since 1921.

The outstanding features of financing were the huge amount of investment trust securites and the small amount of foreign—excluding Canadian—and real estate financing.

High money rates here caused the United States Treasury to pay 5¼% for June financing—the highest rate since 1921 (the December 1929 financing carried only 3¼% due to the drop in money—the lowest since Nov. 15, 1927); withheld approximately $300,000,000 of municipal financing and made it possible for London to outbid New York for a Montreal Loan. It brought about a resumption in foreign financing in France, reduced the number of bonds called for payment in advance of maturity date and, at one time, left only one national distributor of miscellaneous bonds apart from banking houses in this country, as other firms, which had heretofore confined their efforts to bonds, turned to other forms of securities.

Some of the unusual features of the new bond financing during the year included: the sale of $219,000,000 of American Telephone & Telegraph convertible 4½s 1939, a record-size utility bond offering to shareholders; a $65,000,000 Southern Pacific Railroad bond offering of 4½s, the first railroad bond in this country to carry warrants; $30,000,000 of American I. G. Chemical 5½s, which was a rare instance of an American corporation bond being guaranteed by a foreign corporation, I. G. of Germany; $32,000,000 Railway Express Agency serial 5s, which organization is owned by all the American railroads; $100,000,000 Texas Corporation convertible 5s of 1944, the largest oil issue of the year; and a change in Treasury financing methods.

Of the $216,000,000 Foreign bonds (this total excludes Canadian issues, some of which now represent subsidiaries of United States corporations because a large percentage of Dominion companies are financing in Canada) sold in New York in the twelve months ended Nov. 30, 1929, Europe issued $104,100,000 or 48%; South America $95,750,000 or 44% and Cuba $16,250,000 or 8%.

The Far East, which in 1928 sold $97,550,000, and Australia which marketed $57,500,000 here in 1928, did not float an issue in New York in the twelve months ended Nov. 30, 1929.

Foreign Government loans were $40,000,000, of which $10,000,000 went to Europe (Roumania) and $30,000,000 to South America (Chile).

Foreign Cities, States and Provinces borrowed $76,250,000, of which $32,500,000 or 45% went to Europe; $33,750,000 or 44% to South America and $10,000,000 (13%) to Cuba.

Foreign Corporations borrowed $99,850,000, of which $61,600,000, 61%, originated in Europe; $32,000,000, 32%, in South America, and $6,250,000 or 7% in Cuba.

Canada sold in this country in the twelve-month period ended Nov. 30, 1929, $416,202,000 of bonds and notes, of which $183,000,000, 44%, were Government (all being Canadian National Railway issues) $85,996,000, 21% municipals, and $147,206,000 or 35% corporations.

SIXTEEN BILLION OUTSTANDING.

Foreign loans of the United States publicly offered at present outstanding approximate $16,000,000,000. This does not include war debt nor private investments of American corporations. Even this vast sum is $4,000,000,000 less than Great Britain's foreign investment before the World War. Foreign loans from this country in view of the fact that Paris, London and Amsterdam promise to compete for such business probably will be less proportionately to Europe and may show an increase proportionately to South America, Canada, Australia and the Far East.

The public's purchases of securities, especially the expanding investment trusts, caused a shrinkage in the nation's savings accounts in banks of more than $195,000,000 for the year ended June 29, 1929, against an increase of over $2,300,000,000, the largest ever recorded, for the similar period ended June 29, 1928. Savings accounts totaling $28,217,656,000 as of June 29, 1929, represent the first recession in twenty years. A great portion of the money withdrawn from savings accounts, or never deposited in banks, went into stocks. This movement hit bonds in that it curtailed the bond-purchasing power of savings bank.

New securities in the twelve months ended Nov. 30, 1929 totaled $13,375,029,344, against $10,544,628,177 in the twelve months ended Nov. 30, 1928. These totals do not include United States Government financing or any issues not publicly offered in New York City. This is a gain of $2,830,401,167. One group alone, under which is included investment trusts, investment companies, holding corporations, finance companies and trading companies, accounted for $3,673,509,100 for the twelve months ended Nov. 30, 1929 as against $584,291,800 for the same period of the previous year; in other words, the increase in this single group alone was greater by $258,-817,033 than the entire increase in new securities floated during 1929 as against 1928.

New bond offerings in the twelve months ended Nov. 30, 1929 total $2,812,145,000 as against $4,175,-888,000 in the same period of 1928. Only one group—Utilities—amounting to $1,016,882,000—crossed the billion mark. Industrials aggregated only $696,948,000 as against $1,918,056,000 in the same 1928 period. Railroads totaled $435,295,000, against $553,130,000 in the twelve months perido ended Nov. 30, 1928.

The $13,375,029,344 new issues floated here in the twelve months ended Nov. 30, 1929 compares with new offerings of $1,367,330,410 marketed in London during the same period.

Municipalities, because of high money rates, financed whenever possible with short-term notes or bank loans, yet state and municipal flotations for the eleven months ended Nov. 30, 1929 were $1,163,333,-344, according to the Daily Bond Buyer, against $1,276,678,177 and $1,359,876,596 in the same 1928 and 1927 periods. Unlike November, 1928, when $240,000,000 highway bonds were voted, not a single issue had to be approved in November, 1929. The South Carolina legislature, however, authorized $65,000,000 and other states various amounts. Since Massachusetts floated the first highway bond in 1894, about $996,266,100, including refunding issues up to Dec. 31, 1928, were issued.

Bonds listed on the New York Stock Exchange as of Sept. 1, 1929 numbered 1,553 issues with a par or face value of $49,026,704,855 and a market value of $46,741,171,208. This compares with 1,534 issues Jan. 1, 1929 with a par value of $48,588,549,554 and a market value of $47,379,028,502. It is not possible to classify bonds in groups because the Exchange considers its classification of foreign government, foreign corporation, domestic railway and non-railway issues as obsolete and late in 1930 will further classify its bond listings. Bonds on the New York Curb Exchange now number 455 bonds of which 355 are domestic and 100 foreign issues.

Defaulted bonds at the close of 1929 totaled $458,524,245 (par value) against $527,770,305 at the end of 1928 and $693,405,465 at the end of 1927. Rail defaults of $98,807,550 compare with $94,163,-050 in 1928 and $321,037,670 in 1927, the latter being occasioned by the carryover of the Chicago, Milwaukee and St. Paul receivership. The Chicago and Alton and the Minneapolis and St. Louis now form the bulk of rail defaults. Utility defaults at the end of 1929 were $248,654,400—readjustment of the Chicago traction situation would lift $150,638,-

275—compared with $279,408,475 in 1928 and $267,471,175 in 1927. Industrial defaults of $123,858,620—largely due to Southern real estate defaults—compared with $154,198,780 in 1928 and $104,966,620 in 1927.

Bonds called for payment in advance of maturity, reflecting the high money rates that prevailed most of the year which prevented considerable refunding, totaled $890,784,950, or $950,000,000 below 1928 and $610,000,000 less than in 1927. Bond calls in 1928 were $1,841,787,230 and in 1927 were $1,501,861,700, so those of 1929 were the third highest on record.

REFUNDING OPERATIONS.

The three outstanding refunding operations, in order of their importance were: retirement of all bonds of the United States Steel Corporation and some of its subsidiaries bonds, retirement of all Anaconda Copper bonds and the calling for redemption of considerable Bethlehem Steel Corporation bonds, including some subsidiary obligations, in 1930.

Corporate maturities in 1930 total $1,256,946,120, consisting of $701,949,310 rails, $248,554,400 public utilities and $306,342,410 industrials. Corporate maturities in 1929 of $953,597,961 consisted of $460,465,120 rails, $253,760,950 utilities and $239,371,891 industrials. Maturities in 1928 totaled $915,876,865, including $305,419,620 rails, $185,639,122 utilities and $274,818,123 industrials. Record amount, $1,562,142,000, fell due in 1919.

Total bond sales on the New York Stock Exchange for the ten months ended Oct. 1, 1929 were $2,476,754,000, against $2,533,363,000 and $3,011,020,000 respectively in the same periods of 1928 and 1927. Liberty and Treasury sales of $111,040,000 in the 1929 period comparing with $150,709,000. Record low for any month was reached by this group in Aug., 1929, with sales of $8,510,000. Foreign government sales were $367,744,000 against $490,730,000 in the 1928 period. September sales of $28,172,000 were the lowest total since Dec. 1923, and October sales of $49,385,000 were largest since June, 1928. Foreign and domestic corporation bond sales of $1,997,970,000 compare with $1,891,834,000 in the first ten months of 1928. October sales of $287,989,000 were the largest in the history of the exchange, comparing with the previous high record in this class of $270,963,000 in Nov., 1924. Curb bonds sales up to Dec. 7, 1929 were $514,026,000, which compares with $834,893,000 in 1928 and $25,510,000 in 1921, or the first year the Curb moved indoors.

Bond dealings became so heavy on the New York Stock Exchange in November that contracts in 19 of the leading convertibles were cleared through the Stock Clearing Corporation. This was the first time bond transactions were cleared through the Night Clearing Branch, with the exception of the period April, 1918, to December, 1925, when Liberty Bonds were the subject of special daily clearances, and from March to April, 1922, when certain foreign government bonds were cleared.

Amounts of bonds, notes and stock issues by railroads, industrials, public utilities and investment trusts and companies—the latter being included in "Miscellaneous"—for the twelve months ended Dec. 1, 1929, including foreign corporation loans but excluding foreign government loans, United States Government obligations and municipals follow (000 omitted):

Class.	Bonds.	Notes.	Stock.	Total.
	$000	*$000*	*$000*	*$000*
Railroads	$435,259	$174,427	$179,244	$788,930
Utilities	1,016,882	106,475	1,675,158	2,798,515
Industrials	696,948	90,480	3,018,428	3,805,856
Miscellaneous	663,056	119,123	3,503,764	4,285,943
Total	$2,812,145	$490,505	$8,376,594	$11,679,244

FOREIGN GOVERNMENT LOANS.

Following is a compilation of Foreign Government loans assumed by American bankers in order of their presentation from Dec. 1, 1928, in thousands of dollars:

Description.	
Government:	*$000*
Roumania 7s, 1959	$10,000
Chile 6s, 1962	10,000
Mtg. Bank of Chile 6s, 1962	20,000
Total	$40,000

Similar data on foreign cities, states and provinces offered in this country in thousands of dollars follow:

Description.	
Foreign Cities, etc.	*$000*
Prov. of Hanover (Germany) 6½s, 1949	$4,000
City of Antwerp (Belgium) 5s, 1958	10,000
City of Lima (Peru) 6s, 1958	3,000
Antioquia (Colombia) 7s, 1945	1,750
Berlin City Electric Co. 6½s, 1959	15,000
Rio de Janeiro (Brazil) 6½s, 1959	6,000
Minas Geraes (Brazil) 6½s, 1959	8,000
Chilian Cons. Municipal Loan 7s, 1960	15,000
Hanover (Germany) 7s, 1939	3,500
Cuba Public Works (ctfs.) 6½s, 1932-33	10,000
Total	$76,250

Similar data on foreign corporations in thousands of dollars follows:

Description.	
Foreign Corporations:	*$000*
Dortmund Municipal Utilities (Germany) 6½s, 1948	$3,000
American I. G. Chemical 5½s, 1949	30,000
Prussian Electric 6s, 1954	4,000
Unterelbe P. & Lt. Co. 6s, 1931	600
Harpen Mining Corp. 6s, 1949	10,000
Ernesto Breda Co. 7s, 1954	5,000
Lautaro Nitrate Ltd. 6s, 1954	32,000
National Hotel of Cuba 6s, 1959	6,250
Italian Superpower Corp. 6s, 1963	4,000
Hansa Steamship Line 6s, 1939	5,000
Total	$99,850

Similar data on Canadian Government loans in thousands of dollars follows:

Description.	
Canadian Government:	*$000*
Canadian National Ry. Co. 4½s, 1948	$35,000
Canadian National Ry. Co. 5s, 1969	60,000
Canadian National Ry. Eq. 5s, 1930-44	18,000
Canadian National Ry. Co. 5s, 1969	40,000
Canadian National Ry. Co. 5s, 1969	30,000
Total	$183,000

Similar data on Canadian cities, states and provinces offered in this country in thousands of dollars follows:

Description.	
Canadian cities, etc:	*$000*
Prov. of British Columbia 4½s, 1969	$6,417
Greater Winnipeg Water 5s, 1959	1,750
Quebec 5s, 1959	1,749
Prov. of British Columbia 5s, 1954	6,056
Prov of Ontario 5s, 1959	25,000
City of Toronto 5s, 1954	10,274
Prov. of Manitoba 5s, 1954	2,526
Quebec 5s, 1959	3,524
Montreal Met. Commission 5s, 1966	3,100
Prov. of Alberta, 5s, 1959	2,500
Prov. of Saskatchewan 5s, 1959	2,000
Montreal Harbor Commission 5s, 1969	18,500
Prov. of Alberta 5s, 1959	2,500
Total	$85,996

Similar data on Canadian corporations in thousands of dollars follows:

Description.	
Canadian Corporations:	*$000*
Quebec Power Co. 5s, 1968	$8,106
Dominion Tar & Chemical 6s, 1949	4,000
Metropolitan Chain Properties, Ltd. 6s, 1948	2,600
Montreal Tramways 4½s, 1955	2,500
Cons. Invest. Corp. of Canada 4½s, 1959	15,000
Bell Tel. of Canada 5s, 1957	15,000
Power Corp. of Canada 4½s, 1959	10,000
Shawinigan Water & Power Co. 4½s, 1968	6,000
Foreign Powers Securities 6s, 1949	5,000
Canadian Pac. Rwy. Equip. 5s, 1944	30,000
Simpson's, Ltd. 6s, 1949	10,000
Can. Int'l. Paper 6s, 1949	25,000
Metropolitan Chain Properties, Ltd. 6s, 1948	3,000
Gatineau Power Co. 5s, 1956	11,000
Total	$147,206

UNITED STATES TARIFF COMMISSION.

Chairman—Thomas O Marvin. *Vice Chairman*—Alfred P. Dennis; Commissioners, Edgar B. Brossard, Sherman J. Lowell, Lincoln Dixon, Frank Clark; *Secretary*—John F. Bethune.

SECRETARY MELLON ON THE ECONOMIC OUTLOOK.

Secretary of the Treasury, Andrew W. Mellon, discussing the economic and financial condition of the country, in his annual report for 1929, said in part:

"During the fiscal year 1929 the Federal revenues reflected the prosperity prevailing in the calendar year 1928, which not only increased the incomes of corporations taxable as such, but also increased the taxable income distributed to individuals. This prosperity was reflected in increased wages and profits from industry and commerce and in the rising prices of securities, particularly stocks, realized gains on the sales of which increased individual incomes and, to an even greater extent, the tax collections.

The fiscal year 1929 closed with a surplus of $184,787,035 of ordinary receipts over expenditures chargeable against ordinary receipts, of which $123,601,014 had been applied to retire the public debt during the year. Measured in terms of total receipts, the surplus amounted to 4.58%.

The physical volume of industrial production for both manufactures and minerals was slightly higher at the beginning of the fiscal year than at any time during the preceding year, and each succeeding month showed substantial gains over the corresponding month a year earlier. The usual seasonal decline expected during the late fall and early winter months was not realized. The total increase during the year was somewhat over 10%. This increase more than offset a decline of 3% between 1927 and 1928, but the net increase of 7% over the 2-year period represented an average annual increase which approximated the customary long time rates of growth.

Automobile production during the year set a new high record with an increase of approximately 53%. The production of steel ingots, for which the manufacture of automobiles constitutes one of the major sources of demand, increased. However, the demand for steel in other lines did not parallel that for automobiles and therefore the net increase was only 22%, or less than half the increase for automobiles. There was a 2.6% increase in factory employment and a 5.7% increase in payrolls, in contrast to the downward trend noticeable in earlier years. Freight-car loadings increased 4.3%.

Building construction was one of the few lines of industrial activity showing decreases. The net decrease as measured by contracts awarded was 5.2%. Residential construction decreased 15.3%.

There was no important change in the price of commodities.

The foreign trade of the United States approached $10,000,000,000. Exports were 5.4 billions and general imports 4.3 billions. This was an increase of 10.2% in exports and 3.5% in imports over the preceding fiscal year.

According to figures published by the Department of Agriculture, the gross income of agriculture increased during the fiscal year from 12.3 billions to 12.5 billions, or less than 2%. The income from cotton production remained constant, that from meat animals and from dairy and poultry products showed some gains which were in part offset by decreases from grains, fruits and vegetables. The net income available for the *total* capital invested in agricultural production, including rewards for management, increased from 2.72 billion to 2.75 billion. Of these amounts 1.17 and 1.19 billion represented returns to the operators as rewards for management and returns on their *net* capital invested. The average prices received by farmers and those paid by farmers for commodities bought were practically the same in the fiscal year 1929 as in 1928.

FINANCIAL CONDITIONS.

The outstanding financial events of the fiscal year affecting either Federal revenues or expenditures were the continuance of an active and rising stock market, declining bond prices, a change in the character of security flotations, and the emergence of relatively high interest rates.

The total value of domestic capital stock issues increased from $2,343,000,000 to $5,259,000,000, or 124.5%. The increase in the turnover of all stocks and in the issuance of new domestic capital stock accounts for a large increase in the collections from the stamp tax on capital stock transfers and issues. The gains realized from such turnover also account for a large part of the increased revenue from individual income taxes.

Securities offered solely by domestic business corporations amounted to $7,011,600,000, exclusive of refunding issues, an increase of $2,486,200,000, or 54.9% over the preceding year. Of the amount offered $3,224,200,000 was in the form of common stock, an increase of 280%, and $1,418,400,000 in the form of preferred stock, an increase of 46.8%. The balance, representing bonds and notes, decreased 12.6%. Issues of securities by domestic corporations for refunding purposes in the form of bonds, notes, and preferred stock decreased from $2,039,400,000 to $603,500,000, while refunding through the issue of common stock increased from $154,400,000 to $505,400,000. Foreign securities offered in the United States, exclusive of refunding issues and consisting chiefly of bonds, decreased from $1,505,600,000 to $871,000,000 or over 42%.

Under the pressure of demand for funds arising out of the extraordinary situation prevailing in the stock market, interest rates rose during the fiscal year and increased the interest cost to the Federal Government.

Interest rates were rising at the beginning of the year, declined somewhat during the fall months, and rose again, beginning in January. The discount rate was increased at seven Federal Reserve banks from 4½ to 5% in July, 1928, followed by advances at other banks, the 5% rate prevailing by May 20, 1929. The New York bank raised its rate to 6% on Aug. 9, 1929. Interest rates, measured by the yields of 60 high-grade bonds, rose from 4.50% in June, 1928, to 4.73% in June, 1929, and commercial paper rates during the same period rose from 4¾–5 to 6%.

Federal Government borrowing was effected at much higher costs than during the preceding fiscal year. The Federal Government floated issues of certificates of indebtedness with 3⅛ and 4% coupon rates in June, 1928, but had to offer 4⅛% in September, 1928, 4¾% in October, 1928, and March, 1929, and 5⅛% in June, 1929, there being but one recession in the advance in rates, thatof a 4¼% issue in December, 1928. These rates were distinctly higher than in the preceding fiscal year when the coupon rates varied from 3 to 4%, so that the average rate paid upon the entire Federal interest-bearing debt at the end of the year was 3.95% as compared with 3.88% one year earlier.

A review of the policy of the Federal Reserve Board during the past year shows that it has endeavored to guard against an undue extension of credit through speculative channels and to conserve the country's credit resources for the purpose of meeting future requirements of industry and trade. The gold that came into the country during the year ending June 30, 1929, was not added to member bank reserves and did not constitute the basis of expansion of the country's credit structure, but was used to liquidate reserve bank credit. Chiefly as a result of the inflow of gold, total reserves of all reserve banks increased by more than $300,000,000 during the year. Since the banks' total note and deposit liabilities showed relatively little growth, the reserve ratio for all banks combined increased from 68% to 74.5%, and the volume of reserves in excess of legal requirements increased by about $300,000,000. At the end of the period, therefore, the reserve banks were in a stronger position than a year earlier, and were better prepared to meet any emergency demands that might arise, as well as to provide the basis for meeting the increase in the country's credit requirements growing out of year-to-year growth in the volume of industrial, commercial, and financial activity.

BRANCH AND GROUP BANKING.

In banking, as in other enterprises of this country, there is increasing evidence of a movement toward larger operating units. The number of branches of banks in operation has increased and more recently there has been a growth also in the number of groups in which several independent banks are operated more or less as a single system. Both of these developments reflect changes in the underlying economic situation.

Branch banking has always existed in this country to a limited extent in one form or another. At the present time the Federal reserve act and the national bank act, as amended in 1927, authorize national member banks to establish branches in foreign countries, and in insular possessions of the United States, and all member banks to establish branches within the corporate limits of the center in which the head office of the parent bank is situated and in which State laws permit State banks to operate branches (with certain restrictions as to the size of centers in which branches may be established by national banks). At the end of June, 1929, state-wide branch banking was permitted in 9 States and in the District of Columbia; branch banking in more limited form was specifically permitted in 11 States; and in 23 States the operation of branch systems was specifically prohibited.

In June, 1929, out of a total of 8,707 member

banks in the Federal reserve system, 354 were operating 2,291 branches. This represents an increase of 130 branches during the year.. On the same date 818 banks, including both member and non-member, were operating a total of 3,440 branches, an increase of 210 fof the year. The development of branch banking which is permitted by existing legal arrangements has facilitated the adaptation of banking facilities to requirements of urban areas.

More recently there has been a rapid increase in the organization of group systems of banks. Such groups comprise one or more banks that are brought under unified control and some degree of centralized management through acquisition by an individual or corporation of a controlling interest in their stock issues. Although technically each bank in a group is a separate corporation operating with its own capital funds and under the direct supervision of a local board of directors, a certain degree of unity is achieved for the group as a whole. At the end of June, 1929, it was authoritatively reported that there were in existence at the time 230 group systems of banks in the United States, which embraced about 2,000 banks. Group banking is a means of accomplishing in a measure the objects of more extensive branch banking systems than are permitted under the Federal reserve act or under existing legal arrangements in most States. Although banking groups may be expected in most instances to strengthen the banks which they control, the organization of such groups places great responsibilities upon the controlling interests, and is a matter of vital interest to State and national supervisory agencies.

In view of the fundamental economic situation which has given impetus to the organization of group-banking systems and to the growth in branch banking, it is desirable that these developments be carefully studied. In the meantime it is hoped that any further extension of group and branch banking organizations will proceed with moderation, and that hasty legislation, either to liberalize or to constrict limitations now in effect, will be avoided. Our banking structure, the product of many years of experience, is part of an intricate economic fabric whose parts are closely adjusted to one another, and a too rapid reorganization would be likely to create serious and costly disturbances that would affect the entire country.

The time has come when it would seem to be wise to undertake a thorough study of the situation with a view to determining the soundness of the present-day tendencies, and more particularly the limits of the economic units within which branch banking may be advantageously permitted.

The Secretary said that the issue of the new small-sized currency which began on July 10, 1929, requires for the replacement of all paper currency outstanding a total of approximately $5,000,000,000 in nearly 900,000,000 pieces. He announced to Congress on January 21, 1929, that it was inadvisable to submit a plan for the early retirement of the 2% bonds on which the National bank circulation of our 6,000 saving banks is based. To replace the large-sized national bank-notes the printing of small-sized notes was completed November 1, which are to be typographically surcharged with the name of each individual bank as issued from the vaults of the Treasury to replace old notes turned in.

AMERICAN MILLIONAIRES.

In the details contained in the compilation of tax statistics for 1927, New York State, with 136, easily led all other States in the number of taxpayers who reported personal incomes of $1,000,000 or more Figures by States for the "millionaire" class for 1927 follow:

California—4 from $2,000,000 to $3,000,000; 2 from $1,500,000 to $2,000,000, and 2 from $1,000,000 to $1,500,000.

Connecticut—1 from $1,000,000 to $1,500,000.

Delaware—3 from $2,000,000 to $3,000,000, and 4 from $1,000,000 to $1,500,000.

Dist. of Columbia—1 from $3,000,000 to $4,000,000

Florida—1 from $2,000,000 to $3,000,000, and 1 from $1,500,000 to $2,000,000.

Georgia—1 from $1,000,000 to $1,500,000.

Illinois—1 from $5,000,000 and over; 2 from $4,000,000 to $5,000,000; 1 from $3,000,000 to $4,000,000; 5 from $2,000,000 to $3,000,000; 4 from $1,500,000 to $2,000,000, and 12 from $1,000,000 to $1,500,000.

Indiana—2 from $1,000,000 to $1,500,000.

Iowa—1 from $1,500,000 to $2,000,000.

Maine—1 from $1,000,000 to $1,500,000.

Maryland—5 from $2,000,000 to $3,000,000, and 2 from $1,500,000 to $2,000,000.

Massachusetts—1 from $2,000,000 to $3,000,000; 2 from $1,500,000 to $2,000,000, and 4 from $1,000,000 to $1,500,000.

Michigan—1 from $4,000,000 to $5,000,000; 2 from $3,000,000 to $4,000,000; 4 from $2,000,000 to $3,000,000; 6 from $1,500,000 to $2,000,000, and 2 from $1,000,000 to $1,500,000.

Missouri—1 from $2,000,000 to $3,000,000; 1 from $1,500,000 to $2,000,000 and 2 from $1,000,000 to $1,500,000.

New Jersey—1 of $5,000,000 and over; 1 from $4,000,000 to $5,000,000; 2 from $3,000,000 to $4,000,000; 1 from $2,000,000 to $3,000,000; 6 from $1,500,000 to $2,000,000, and 5 from $1,000,000 to $1,500,000.

New York—7 of $5,000,000 and over; 2 from $4,000,000 to $5,000,000; 14 from $3,000,000 to $4,000,000; 22 from $2,000,000 to $3,000,000; 26 from $1,500,000 to $2,000,000, and 65 from $1,000,000 to $1,500,000.

North Carolina—1 from $1,000,000 to $1,500,000.

Ohio—2 from $2,000,000 to $3,000,000; 1 from $1,500,000 to $2,000,000, and 6 from $1,000,000 to $1,500,000.

Oklahoma—1 from $1,000,000 to $1,500,000.

Pennsylvania—1 of $5,000,000 and over; 2 from $4,000,000 to $5,000,000; 2 from $3,000,000 to $4,000,000; 6 from $2,000,000 to $3,000,000; 3 from $1,500,000 to $2,000,000, and 20 from $1,000,000 to $1,500,000.

Rhode Island—1 from $1,000,000 to $1,500,000.

Texas—1 from $1,500,000 to $2,000,000, and 1 from $1,000,000 to $1,500,000.

Utah—1 from $1,000,000 to $1,500,000.

Washington—1 from $1,000,000 to $1,500,000.

Wisconsin—1 of $3,000,000 and over, and 2 from $1,000,000 to $1,500,000.

New York State, in 1926, had four of $5,000,000 or more, three from $4,000,000 to $5,000,000, nine from $2,000,000 to $3,000,000, fifteen from $1,500,000 to $2,000,000, forty-four from $1,000,000 to $1,500,000.

Michigan, in 1926, had two of $5,000,000 or more.

THE FRENCH ACADEMY.

Elected	Names of Members.	Born.
1894....	Paul Bourget.....	Amiens, 1852.
1897....	Gabriel Hanotaux...	Beaurevoir, 1853.
1898....	Henri Emile Lavedan	Orleans, 1859.
1903....	Rene Bazin.....	Angers, 1853.
1907....	Maurice Donnay....	Paris, 1859.
1909....	Raymond Poincaré..	Bar-le-Duc. 1860.
1909....	Eugene Brieux.....	Paris, 1858.
1909....	Rene Doumic.....	Paris, 1860.
1909....	Marcel Prevost.....	Paris, 1862.
1911....	Henri de Regnier...	Honfleur, 1864.
1912....	Marshal Lyautey....	Nancy, 1854.
1914....	Pierre de la Gorce..	Vannes, 1846.
1914....	Henri Bergson.....	Paris, 1859.
1918....	Marshal Joffre.....	Rivesaltes, 1852.
1918....	Louis Barthou.....	Oloron-Ste. Marie, 1862.
1918....	Alfred Baudrillart...	Paris, 1859.
1918....	Jules Cambon.....	Paris, 1845.
1919....	Henry Bordeaux....	Thonon, 1870.
1920....	Joseph Bedier.....	Paris, 1864.
1920....	Louis Chevrillon....	Ruelle (Charente) 1864.
1922....	Pierre de Nolhac....	Ambert, 1859.
1922....	Georges Goyau.....	Orleans, 1869.
1923....	Henri Bremond.....	Aix-en-Province, 1865.
1923....	Georges de Porto-Riche.....	Bordeaux, 1849.
1923....	Edouard Estaunié...	Dijon, 1862.
1923....	Henri Robert.....	Paris, 1863.
1924....	Camille Jullian.....	Marseilles, 1869.
1924....	Georges Lecomte...	Macon, 1867.
1924....	Emile Picard.....	Paris, 1856.
1924....	Albert Besnard.....	Paris, 1849.
1925....	Duke de la Force (Aug. de Caumont)	Dieppe, 1878.
1925....	Louis Bertrand.....	Spincourt, 1866..
1925....	Paul Valery.....	Cette, 1871.
1927....	Abel Hermant.....	Paris, 1862.
1927....	Emile Male.....	Commentry, 1862.
1927....	Louis Madelin.....	Raon l'Etape, 1871.
1928....	Maur. G. Paleologue	Paris, 1859.
1929....	Pétain, Le Maréchal	(Couchy á la Tour) (Pas de Calais), 1856

AMERICAN RAILROADS IN 1929.

By John A. Crone.

American railroads in 1929 earned a record net income despite a decline of $170,000,000 in passenger receipts, rising costs and wages, increasing competition from buses, trucks, inland waterways and airplanes, and larger capital expenditures. Their properties, reflecting expenditures of $800,000,000, or $125,000,000 over 1928, are in the best condition in history. Railroad shares reached record high levels and, in the face of the severe stock market crash, staged impressive recoveries.

The St. Louis & O'Fallon Railroad valuation decision, the California Fruit Growers Rate Case—brought about through the Hoch-Smith Resolution—and the consolidation plan to be submitted by Interstate Commerce Commissioner Porter, are likely to have a more profound influence on American railroading than record net income or record rail share prices.

Valuation rates and consolidations are all more or less tied together in the Transportation Act of 1920. Curiously enough, the Transportation Act thus far has not accomplished any of the three main objectives.

The recapture of excess earnings—except for the voluntary surrender of certain sums by a few roads—to be used as a fund for weak roads has been a "flop." The fair rate of return upon the aggregate value of railroad property has been reached in only one of the years since 1920, and it has never been approximately attained by western railroads. Consolidation of carriers into a limited number of systems, as proposed by Prof. Ripley, apart from unification by lease or purchase of stock control, is yet an unfulfilled dream.

Two previous cases bearing on the question of railroad valuation came to the United States Supreme Court before the O'Fallon case. The constitutional validity of that provision of the Transportation Act which requires a carrier earning more than 6% on the value of its properties to pay over to the Government one-half of the excess, was contested by the Dayton-Goose Creek Railway. The United States Supreme Court in January, 1924, upheld the Constitutionality of the recapture clause of the Transportation Act. Later, Feb. 21, 1927, the Los Angeles & Salt Lake Railway tried to test the validity of the recapture act by claiming that the valuation placed on its properties by the Interstate Commerce Commission would injure its credit. The United States Supreme Court held that the road's claim could not be entertained without proof.

The first clear-cut case involving recapture of earnings and valuation was presented to the United States Supreme Court by the St. Louis and O'Fallon Railway Company, a carrier with 9 miles of main track and 12 miles of yard and siding. It runs from the Illinois coal fields to a connection with the Terminal Railroads Association of St. Louis at East St. Louis. The O'Fallon case, termed by a member of the Interstate Commerce Commission as "the greatest lawsuit in history," involves billions of dollars because the Commission in its report said:

"We are dealing here with one small railroad. Nevertheless what we do in this case we must in principle do for all railroads in the United States."

The Supreme Court rendered its O'Fallon decision May 20, 1929. This decision annulled the I.C.C. order dated Feb. 15, 1927, which required the O'Fallon to pay to the United States $226,880.66, which the Commission determined to be recapturable excess earnings for the three year and ten months period ended Dec. 31, 1923. The case came to the Supreme Court on appeal and cross-appeal of the U. S. District Court for Eastern Missouri after the U. S. Statutory Court at Kansas City on Dec. 19, 1927 declined to interfere on the ground that no confiscation was apparent.

"Whether the Commission acted as directed by Congress was the fundamental question presented," the Supreme Court explained in its decision. "If it did not, the action taken, being beyond the authority granted, was invalid. The only power to make any recapture arose from the statute."

The Interstate Commerce Commission apparently acted in the O'Fallon case under a summary method provided in Section 15a of the Transportation Act, whereby the value of the aggregate railroad property was to be computed without waiting for the slower process of finding the values of individual carriers under the La Follette Valuation Act which dates back to March 1, 1913, the purpose of which was to furnish some standard by which to test the reasonableness of railroad rates.

"The elements of value recognized by the law of the land for rate making purposes," the Supreme Court said, "have been pointed out many times by this Court. . . . Among them is the present cost of construction or reproduction. . . . In the exercise of its proper function this Court has declared the law of the land concerning valuations for rate-making purposes. The Commission disregarded the approved rule and has thereby failed to discharge the definite duty imposed by Congress. . . ."

If the Supreme Court had upheld the I.C.C. on the O'Fallon case it might have collected $300,000,000 excess earnings for the years 1920 to 1928. The O'Fallon case, however, changes this recapture estimate and will require at least six years of additional valuation work under the present system before valuations will be brought approximately up to date. Payments under the recapture clause to date total $8,607,128.51.

The O'Fallon decision apparently removes somewhat the recapture shadow. It does not permit roads to raise rates; they fear competition too much to make such an attempt. It does not give much comfort to weak roads who intended to lean on recapturable earnings of strong carriers. The I.C.C. recognized the principles of cost and reproduction laid down in the O'Fallon decision for the first time, Oct. 15, 1929, in valuing the New York Connecting Railway which is owned jointly by the Pennsylvania and the New Haven.

The general investigation into the freight rate structure which the I.C.C. was directed to inaugurate by the Hoch-Smith Resolution (Jan. 1925) constitutes the most elaborate series of hearings conducted by the I.C.C. in its 42-year existence. Under the Hoch-Smith Resolution, industry's freight rates would rise in prosperity and drop in adversity. The resolution, which became an amendment to the Interstate Commerce Act, under its second paragraph orders the I.C.C. to investigate rate structure. A case—the California Fruit Growers—is now pending before the U. S. Supreme Court.

The I.C.C. for the first time acting under authority of section 11 of the Clayton Act, which forbids purchase by one road of a competing line, proceeded against the Kansas City Southern for acquiring stock of the St. Louis & Southwestern Railway, and the Missouri-Kansas-Texas Railroad was discontinued July 8, 1929 as the first named divested itself of such stocks. The I.C.C. March 11, 1929 ordered Baltimore & Ohio, New York Central and the New York, Chicago and St. Louis Railroad to divest themselves of stock of the Wheeling & Lake Erie Railway Company. This was done by vesting title to the stock, owned jointly by three roads, in an individual trustee who may vote it for all purposes, except for consolidation of Wheeling & Lake Erie with any of the three companies mentioned.

The Interstate Commerce Commission is proceeding with a general consolidation plan, which is under the direction of Commissioner Claude R. Porter. Meanwhile it urges Congress to consider new legislation to prevent possible defeat by setting up holding corporations of the government's plan for "orderly" consolidations of railroads.

The I.C.C. annual report pointed out that a further means of unifying carriers through common control or affiliation has been developed and cites the Alleghany Corporation and the Pennroad Corporation as examples. The I.C.C. then cites two paragraphs of section 7 of the Clayton Anti-trust Act commenting that the second paragraph "is designed to prevent a corporation which is wholly or in part a holding company from acquiring the stock of two or more corporations engaged in commerce, including railroad companies, where the effect of such acquisition may be, among other things, substantially to lessen competition with each other." The I.C.C. regarding Pennroad and Alleghany said: "We have no direct jurisdiction over either of these companies," and then proceeds to show how such corporations might gain control of chains of railroad companies.

Railroads continued to extend the length of their present lines and build into new territory. They add 1,005 miles during 1929, which compares with 717 miles in 1928, and abandoned 540 miles against 587 miles in 1928.

Carriers applied to the I.C.C. for the approval of the issuance of $1,160,383,991 of securities of which $314,133,446 was stock. During 1929 the roads paid the Goverament $12,433,312 on loans granted after the lifting of war-time control. Improvement in net income is shown by the fact that the roads paid $361,000,000 dividends in 1923 and $509,000,000 in 1928.

Rate of freight traffic growth on steam railroads, according to the I.C.C. for the 14 years ended 1928 grew at the rate of 2.89% against 4.98% in the preceding 14 years. Steam roads had 63,311 locomotives at the end of 1928 against 67,936 at the end of 1918, but tractive locomotive power per engine grew

25.27%. Employees on Class I roads at the end of 1928 averaged 1,656,411.

The express business of this country now is conducted by the Railway Express Agency, Inc., owned by all principal roads. It began to operate March 1, 1929 taking over the American Railway Express and the Southern Express.

The net operating income of the Class I railroads (the 175 carriers and 13 switching and terminal companies whose annual gross revenues exceed $1,000,000) for 1929 approximated $1,300,000,000, thereby exceeding the previous record of $1,231,028,559 established in 1926, and comparing with $1,191,524,737 in 1928. Non-recurring back-mail pay approximated $28,000,000. The year ended with a downward trend in earnings.

New financing by railroads in the 12 months ending Dec. 1, 1929, totaled $788,930,390, which compares with $820,410,000 for the same period ending Dec. 1, 1928. Railroad stock was $179,244,390, bonds $435,259,000 and notes $174,427,000, which compare with $187,369,000, $553,130,000 and $79,911,000 respectively in the 12 months ending Dec. 1, 1928.

Wage levels continued slightly upwards, but the number of employees decreased. The net wage bill of all roads in 1928 was $2,631,000,000. Taxes were a trifle lower than the $389,432,415 tax bill for 1928.

Car loadings of revenue freight aggregated 47,661,409 cars from Jan. 1 to Nov. 30, 1929, as compared with 47,162,953 in the same 1928 period and 47,460,529 and 48,608,428 during the same periods of 1927 and 1926 respectively.

Passenger receipts may prove to be the lowest of any year since 1909. Progressive carriers, in an attempt to increase passenger competition, added airplanes as well as motor buses. Air-passenger business, from a railroad revenue point of view, was not successful in 1929, but officials believe it will be increased. Revenue passenger-miles for the first nine months of 1929 amounted to 23,926,000 miles, or a decline of 1.6% from the 24,311,000 reported for the same 1928 period. Long-haul passengers gained, but commuters declined.

Gross revenues for 1929 approximated $6,385,000,000, or about $200,000,000 ahead of 1928, but less than the record-breaking 1926 gross of $6,451,418,163. These figures do not fully reflect the enormous freight traffic volume of 1929 because passenger receipts in that year were about $170,000,000 less than those in 1926.

Capital expenditures of $573,820,000 in the first nine months compare with $500,167,000 in the same three-quarters of 1928, an increase of $73,653,000. Unexpended authorizations brought over into 1929 were greater by $51,540,000 than those brought over into 1928. Additional programs laid out during the first nine months of the year were $293,945,000 greater in amount in 1929 than in 1928. It is expected that aggregate capital expenditure in 1929 will reach $800,000,000.

Equipment expenditures in the first nine months of 1929 totaled $210,689,000, a gain of $44,722,000 or 26.9% over the same period of the previous year. Total orders for freight cars to Oct. 1, 1929 were 91,581 or nearly twice as many as in 1928. Freight cars on order Dec. 1, 1929 for first-quarter 1930 delivery approximated 50,000 cars. Locomotive orders to Oct. 1 were 1,565 or 364 greater than n 1928. Passenger train orders to Oct. 1 were 2,701, as against 2,767 in the same period of 1928.

Equipment orders were registering gains as the year closed. Equipment manufacturers were reopening plants that had been shut down in the previous year, and it is possible that some corporations who omitted dividends in 1928 may resume them in 1930.

The huge capital expenditure since 1923—approximately $6,000,000,000—enabled the railroads to set up the following new records for operating efficiency in the first nine months:

Car miles per car-day, 32.4 or an improvement of 5.9% over the 1928 period.

Net-ton-miles per car-day, 549, a gain of 7%.

Gross tons per train, 1,868, an increase of 2.4%.

Net tons per train, 808, a rise of 2.8%.

Gross ton-miles per train-hour, 24,549, a betterment of 4.6%.

Net ton-miles per train-hour, 10,618, a 5% advance.

Freight locomotive-miles per locomotive-day, 64.8, a 7.5% jump.

Passenger locomotive-miles per locomotive day, 120, or 4.7% more than the same period of 1928.

Percentage serviceable freight locomotives, 83.5 %, which represents a .2% decrease.

Percentage serviceable passenger locomotives, 83.9, up .4%.

Percentage serviceable freight cars, 93.9%, an improvement of .2%.

Gross ton-miles per ton of fuel, 16,203, a 2% gain over the 1928 period.

Passenger train car-miles per ton of fuel, 136, a 1.5% rise.

The Director General of Railroads (the Secretary of the Treasury) reported that out of the total of $632,660,978 securities acquired by the United States Government for additions and improvements made during the period of Federal control of the railroads, and for loans made to them, all had been sold or redeemed except $5,521,100 remaining on hand Nov. 1, 1929.

The total cost to the government of Federal control of the railroads (during 32 months) amounted to $1,696,000,000.

PUBLIC UTILITIES IN 1929.

By John A. Crone.

Public utilities in 1929, in point of combinations, earnings, expenditures, expansions, production, stock financing, extra dividends, and increased efficiencies, established a series of records never approximated in the history of the industry. Along with such notable performances, in a year during which the Golden Jubilee of Light was celebrated and a grateful world bestowed some slight measure of honor on Thomas A. Edison, utility securities advanced to unprecedented heights and declined from such peaks with breath-taking speed.

Accompanying these record-breaking developments, resulting from a pooling of the most powerful financial reservoirs in the world and the assemblage of a large part of the best managerial ability now available were new inventions, financial as well as technical, a searching investigation into utility propaganda by the Federal Trade Commission which was of little credit to most parties concerned, the disclosure of an attempt of certain powerful power interests to muzzle the freedom of the American press by purchasing a chain of newspapers, vitrolic attacks on utilities by publicity seeking politicians, a series of unfavorable court and utility commission decisions and ill-timed comment by a fakers' committee on the buying of public utility securities.

Some outstanding financial developments were: the entrance into the public utility field by the house of J. P. Morgan through the formation of the United Corporation, Niagara-Hudson Power Corporation and to some extent Commonwealth and Southern Corporation; accumulation of utilities by holding companies, trading companies and investment trusts which brought about frantic bidding by the public; the great growth of natural gas financing—especially through the medium of shares; formation of a new type of utility holding corporation in the Public Utility Holding Corporation of America; recapitalization of Middle West Utilities; and the formation of Utilities Power and Light together with its joining the Greater London and Counties Trust to acquire and own British utility properties.

Among the outstanding mergers or financial creations were: the United Corporation—formed by J. P. Morgan & Co., Drexel and Bonbright—which bought large minorities in United Gas Improvement, Public Service Corporation of New Jersey and Mohawk-Hudson Power; Commonwealth and Southern formed by Bonbright & Co., to hold Commonwealth Power, Southeastern Power and Light, Penn.-Ohio Edison and other companies; the Niagara-Hudson Power Corporation formed—under Morgan auspices—consisting of the Buffalo, Niagara and Eastern Power Corporation, Mohawk Hudson Power Corporation and the North Eastern Power Corporation; Electric Bond and Share's merger with Electric Bond and Share Securities and later with Electric Investors as well as its expansion in South America, India and China through its subsidiary American and Foreign Power; the Kopper's purchase of Massachusetts Lighting; Associated Gas and Electric's acquisition of General Gas and Electric through purchase of and Associated's acquisition of Rochester ,Central and all E. L. Phillipp's New York properties outside of Long Island.

SOUTH'S TREMENDOUS GAIN.

Studying the power output figures, monthly published by the Geological Survey, a reader must be impressed by the South's tremendous gain in the use of power reflecting the rapid industrial strides of that section. Use of power in the South shows a 50% gain over other sections—and this despite the development of cheap natural gas in some sections of that region.

Outstanding for its national importance in that it may influence the regulative bodies of other states was the decision of the Massachusetts Department of Public Utilities. The five commissioners unanimously refused Edison Electric Illuminating Co. of Boston, Oct. 11, 1929, permission to reduce the par

value of its shares from $100 to $25. The decision, which in the opinion of public utility officials, some corporation lawyers and utility commissioners may have overstepped its legal bounds, asserted "no public interest will be served by the reduction of the par value of the stock at this time." The decision said the company distributed practically all of its earnings in dividends "with the result that it has made little provision for depreciation or surplus."

The decision, which resulted in ordering a state investigation into the company's rates declared the par reduction would not effect a wider distribution and "such as would occur would, in our opinion, be to the disadvantage of the investor," added, "We think it obvious that the stockholders of the Edison Illuminating Co. of Boston cannot and should not hope for any material increase in dividends on stock until its rates are brought into line with those of municipal plants, having regard for those factors which warrant a higher price to be charged by a private company."

Utility shares had reached unprecedented heights and were in a highly vulnerable or weak market position technically when this decision came out so they tobogganned with lightning-like speed. The path of their descent was greased by sound, but ill-timed comments of the Committee on Public Service Securities of the Investment Bankers Association at Quebec Oct. 17, 1929, which cautioned "against speculative and uninformed buying and to counsel the prudent buying of utility securities."

The United States Supreme Court in a 6 to 3 decision reversed a statutory court decree upholding a 7-cent fare for the Interborough Rapid Transit, April 9, 1929. The Court disposed of the case chiefly on the ground that it had no jurisdiction. The point of the whole case turned on the timeliness of the I. R. T. seeking Federal intervention. The Supreme Court decision left unanswered the major question whether the fare fixed by contract between the company and the city was made subject to regulation by state authority after the passage of the Public Service Commission. Contrary to certain politicians and "bears" the "sacredness of contracts" was not involved nor the justice of a 5-cent fare. The court refused to consider the elevated lines and the subway as a unit and ruled the losses of the former could not be presented as proof the I.R.T. suffered confiscation from its operation of the subways at the contractual fare. This case will be taken up in the Transit Commission again then through the various state courts, a proper proceeding, when, if relief is not granted, it may be brought again before the Supreme Court.

Governor Roosevelt of New York State seeking to make progress in the development, ownership and operation of the water powers of this state is now conducting negotiations (December, 1929) with up-state utility operators to bring about an economic development of the water sites. His chief concern is rates—the Governor insisting that the public shall not be charged exhorbitant rates for power developed from the waters of this state, which, as a natural resource, belong to the people.

ELECTRIC LIGHT INDUSTRY.

An outstanding characteristic of the electric light and power industry in 1929 was the continued extension of 24-hour service to smaller towns and villages, many of which previously had no service, or only part-time service. Within the last five years over 4,000 communities were reached with electric service for the first time.

The shortage of water-power in many sections of the United States, because of a marked deficiency in rainfall, together with increased power demands resulting from abnormal industrial activity, required a much heavier output from the steam generating plants. Although hydro-electric energy was less than in 1928 the output of steam-electric plants increased by nearly 20 per cent.

Electricity production for public use in 1929 was estimated by the National Electric Light Association at 97,500,000,000 kilowatt-hours or the equivalent of all of the rest of the world combined. The industry in the last seven years added 1,350,000 kilowatts to its generating capacity, constructed over 50,000 miles of transmission lines above 22,000 volts; doubled energy output and increased customers by more than eleven millions. Total generating capacity at the end of 1929 neared 40,000,000 horsepower.

Approximately 800,000 new consumers were added during 1929, making total 24,000,000 now served. Of these, nearly 19,800,000 are household users against 25 years ago when all consumers only totaled 700,000. Use of electricity in the home during 1929 increased 16% while factory use in the same year increased only 12%. About 68% of the population of this country now live in electrically-wired homes. Within seven years 9,600,000 households have been connected up to receive electric service for the first time.

Electric service now has been extended to every city of 5,000 population or over to 97% of all communities between 1,000 and 5,000 and to 50% of all communities between 250 and 1,000; and more than 25% of all hamlets of less than 250 population.

Farms connected with electric power lines in the last three years have increased more than 250,000, making a total of more than 500,000 farms now enjoying service.

In mining and manufacture, electricity has become the power medium of the nation and the central station power plant of conversion of fuel and water into energy. Although local installation of boilers and engines has come nearly to a standstill there has been added, between 1919 and 1927, a net increase of 9,700,000 horsepower in factory prime movers in the form of electrical motors using power bought from interconnected systems. Three-quarters of all industrial power now is electrical and of this two-thirds is bought from the lines of light and power enterprises. Each factory wage-earner today, on the average, has nearly five horsepower at his command or more than twice that of 1900. Electrification varies with specific industries—in some it is almost 100 against 66% in German and 48% in English factories.

Railroads, especially the Pennsylvania, Lackawanna and Reading, plan to hurry electrification programs. Electrification of the Illinois Central Terminal at Chicago has been completed and is in operation.

Value of plant and equipment at the end of 1929 was approximately $11,000,000,000 being exceeded in amount only by agriculture, steam railroads and the oil-producing and refining industry. Gross revenues from the sale of electricity during 1929 was estimated at approximately $2,050,000,000 out of which the light and power industry paid $185,000,000 in taxes.

Electric power costs to the public, including industrial, commercial and domestic uses, remains at pre-war levels despite the fact that living costs are 70% above pre-war levels. Average price for household electricity throughout the nation is 28% below pre-war levels, a drop of 3% taking place during the past year, according to Paul S. Clapp, of the National Electric Light Association. Based on the changed purchasing power of the dollar, household rates are only 42% of those in 1913. Advances in efficiences of steam turbines and high-pressure boilers, following concentration of generation in large plants, have reduced the average consumption of coal from 3.2 pounds per kilowatt-hour in 1919 to 1.65 pounds in 1929. Lowered costs of electricity generated by fuels bring such power into increasingly sharp competition with waterpower, which forms but 36% of all power generated by the electric light and power enterprises of this country.

ELECTRIC RAILWAYS.

The local transportation business in the United States, according to an official statement issued by the American Electric Railway Association, has been passing through a stage of transition in recent years, but it is gradually settling down to a firmer basis.

Competition of 25,000,000 automobiles and the coming of the motor bus have caused changes in the riding habits of people and have affected directly public transportation. Members of the American Electric Railway Association, who control more than 80% of the local transportation of the United States, now are operating about 70,000 electric rail cars and 12,000 buses. This represents a total mileage approximating 60,000, divided 40,000 electric railways and 20,000 bus routes. The industry carried about 16,000,000,000 passengers during 1929, 15,000,000,000 by rail cars and 1,000,000,000 by bus.

A ong with the change in riding habits has gone a change in transportation styles the old heavy type rail car giving way to new, bright, comfortably equipped cars, with aluminum bodies, well padded seats and almost noiseless motors. These new cars, none of which are to be seen in New York City or vicinity, have attractive features.

Contrary to popular impression electric railway tracks all over the country are not being torn up as they are around New York. Although electric railways have abandoned about 11% of their total track mileage, most of this abandoned rail has been in small communities. About 4,000 miles of rail has been vacated in 100 communities having an average population of 15,000. Less than 40% of it has been replaced with any other form of transportation, indicating that there no longer exists in these communities a demand for public transportation.

The average rate of cash fare charged by electric railways of the United States in cities of 25,000 and more population was 8.41 cents as of Nov. 1, 1929. This is the peak fare for all time. The fare at the close of the previous fiscal year was 8.23 cents.

RAIL COMMISSIONERS, NATIONAL AND STATE.

Interstate Commerce Commission—Washington, D. C. Ernest I. Zewis, of Indiana, Chairman; Balthasar H. Meyer, of Wis.; Clyde B. Aitchison, of Ore.; Joseph B. Eastman, of Mass.; Johnston B. Campbell, of Wash.; Frank McManamy, of D. C.; Thomas F. Woodlock, of N. Y.; Richard V. Taylor, of Ala.; Ezra Brainerd, Jr., of Okla.; Claude R. Porter, of Iowa; Patrick J. Farrell, of D. C.

George B. McGinty, Ga., Secretary; Thomas A. Gillis, Penna., Asst. Sec'y; James L. Murphy, La., Asst. to Sec'y; John B. Switzer, Md., Chief Clerk and Personnel Officer; Guy L. Seaman, Mo., Disbursing Clerk; A. H. Laird, Jr., N. J.; Purchasing Agent; Alexander Wylie, Ill., Director, Bureau of Accounts; Charles D. Mahaffie, Ore., Director, Bureau of Finance; Ulysses Butler, Penna., Chief Examiner; Arja Morgan, Penna., Chief Bureau of Informal Cases; Thomas P. Healy, N. Y., Director, Bureau of Inquiry; Daniel W. Knowlton, Conn., Chief Counsel; Alonzo G. Pack, Colo., Chief Inspector, Bureau of Locomotive Inspection; Wilfred P. Borland, Wash., Director, Bureau of Safety; W. P. Bartel, Wis., Director, Bureau of Service; Max O. Lorenz, Wis., Director, Bureau of Statistics; W. V. Hardie, Okla., Director, Bureau of Traffic; Charles F. Staples, Minn., Director, Bureau of Valuation.

STATE RAILROAD COMMISSIONERS.

Alabama—Public Service Commission—Montgomery: Hugh White, Pres.; H. F. Lee, Asso. Comr.; Frank P. Morgan, Asso. Comr.; Lamar Wiley, Sec'y; J. H. Alldredge, Chief Rate Expert.

Arizona—Corporation Commission—Phoenix: Loren Vaughn, Chairman; W. D. Claypool, Comr.; Amos A. Betts, Comr.; F. J. K. McBride, Sec'y; L. G. Reif, Rate Expert.

Arkansas—R. R. Commission—Little Rock: Reece Caudle, Chairman; C. S. Henderson, Comr.; Ed. Harper, Comr.; Grady Hays, Sec'y; A. D. Beals, Chief Rate Clerk.

California—R. R. Commission—San Francisco: Thomas S. Louttit, Pres., Com'r; Clyde L. Seavey, Ezra W. Decoto, Leon O. Whitsell, W. J. Carr, Com'rs; W. J. Handford, Wm. T. Satterwhite, W. R. Williams, Thos. M. Gannon, Examiners; Henry G. Mathewson, Sec'y; W. P. Geary, Rate Expert; W. C. Frankhauser, Financial Expert; Arthur T. George, Att'y; Ira H. Rowell, Asst. Att'y; E. T. McGettigan, Chief Auto Stage Dept.; Henry A. Frazier, Recorder; A. G. Mott, Chief Engineer.

Colorado—Pub. Util. Commiss.—Denver: Otto Bock, Chairman; Daniel S. Jones, Worth Allen, Com'rs; John W. Flintham, Sec'y.

Connecticut—Pub. Util. Commiss.—Hartford: Richard T. Higgins, Chairman, W. Hartford; C. C. Elwell, New Haven; Joseph W. Alsop, Avon; Henry F. Billings, Sec'y, Hartford.

Delaware—No railroad commission.

Florida—R. R. Commission—Tallahassee: A. S. Wells, Chairman; E. S. Matthews, Mrs. Mamie G. Eaton, Com'rs; Lewis G. Thompson, Sec'y; T. T. Turnbull, Counsel; J. H. Tench, Rate Expert; A. B. Green, Tel. Eng.; W. Linhart, Asst. Tel. Eng.; Fred Pettijohn, Accountant.

Georgia—Pub. Serv. Commiss.—Atlanta: Jas. A. Perry, Chairman, Atlanta; Albert J. Woodruff, Vice-Chairman, Decatur; Walter R. McDonald, Augusta, Calvin W. Parker, Waycross, Perry T. Knight, Atlanta, Com'rs; Robt. N. Springfield, Sec'y, Atlanta; E. M. Price, Rate Expert, Atlanta; S. J. Smith, Jr., Spec. Atty., Commerce; J. Houstoun Johnston, Consulting Eng., Atlanta.

Idaho—Pub. Util. Commiss.—Boise: Frank E. Smith, Pres.; J. M. Thompson, J. D. Rigney, Com'rs; M. A. Kiger, Sec'y.

Illinois—Commerce Commission—Springfield: Charles W. Hadley, Chairman, Wheaton; J. Paul Kuhn, Batavia; G. Gale Gilbert, Mt. Vernon, Walter H. Wilson, Chicago, William M. Brinckman, Chicago, Phil W. Collins, Com'rs; Julius Johnson, Sec'y, Springfield; Frank A. Heermans, Asst. Sec'y; C. N. Posegate, Chief Engineer; W. M. Hammond, Chief Accountant

Indiana—Pub. Serv. Commiss.—Indianapolis: J. W. McCardle, Chairman; F. T. Singleton, Howell Ellis, C. F. McIntosh, Jere West, Com'rs; Fred I. King, Secretary.

Iowa—Bd. of R. R. Commiss.—Des Moines: B. M. Richardson, Chairman; Fred P. Woodruff, Charles Webster, Com'rs; Geo. L. McCaughan, Sec'y; J. H. Henderson, Commerce Counsel.

Kansas—Pub. Serv. Commiss.—Topeka: Jesse W. Greenleaf, Chairman; Charles D. Shykers, Clinton H. Montgomery, Com'rs; C. H. Benson, Sec'y.

Kentucky—R. R. Commiss.—Frankfort: Moses R. Glenn, Chairman, Dawson Springs; Oscar Vest Carrollton, Tom H. Lauhon, Cattlettsburg, Com'rs; Lucile Tobin, Sec'y, Frankfort; John F. Dugan, Rate Clerk, Louisville; Murrell Glenn, Official Stenographer, Dawson Springs.

Louisiana — Pub. Serv. Commiss. — Baton Rouge: Francis Williams, Chairman, New Orleans; Dudley J. Le Blanc, Abbeville, Harvey G. Fields, Farmerville, Com'rs; Henry Jastremski, Sec'y, Baton Rouge.

Maine—Pub. Util. Commiss.—Augusta: Albert J. Stearns, Chairman, Norway, Herbert W. Trafton, Com'r, Fort Fairfield; Albert Greenlaw, Eastport; George F. Giddings, Clerk, John Goodwin, Chief Eng.; Elmer E. Parkman, Chief Insp.; F. J. McArdle, Ch. of Rates; Albert E. Lamb, Ch. Acct.; R. C. Hanks, Official Reporter, all of Augusta.

Maryland—Pub. Serv. Commiss.—Baltimore: Harold E. West, Chairman; J. Frank Harper, Steuart Purcell; Wm. Cabell Bruce, Gen. Coun.; John Henry Lewin, People's Coun.; Frank Harper, Exec. Sec'y and Ch. of Bur. of Rates and Accts.

Massachusetts—Dept. of Pub. Util.—State House, Boston: Henry C. Attwill, Chairman, Lynn; Everett E. Stone, Springfield; Leonard F. Hardy, Huntington, Lewis Goldberg, Brookline, Henry G. Wells, Haverhill, Com'rs; A. A. Highlands, Sec'y, 167 State House, Boston.

Michigan—Pub. Util. Commiss.—Lansing: James Bice, Chairman; Robert H. Dunn, Samuel Odell, Alva M. Cummins, Russell A. Gorman, Com'rs; Foster M. Wintermute, Ch. Rate Insp.; J. Carl Sheil, Sec'y; Jane Thompson, Asst. Sec'y.

Minnesota—R. R. and Warehouse Commiss.—St. Paul: O. P. B. Jacobson; Frank W. Matson; C. J. Laurisch; Thomas Yapp, Sec'y; G. G. Grant, Dir. of Personnel; A. L. Flinn, Rate Expert; D. F. Jurgensen, Eng.

Mississippi—R. R. Commiss.—Jackson: C. M. Morgan, Pres., Hattiesburg; W. R. Scott, Starkville, S. E. Alexander, Rolling Fork, Com'rs; J. W. Williams, Sec'y; M. C. Moore, Rate Expert; Miss Emmie Greer, Asst. Rate Expert; Mrs. Virginia Reid, Stenographer, all of Jackson.

Missouri — Pub. Serv. Commiss. — Jefferson City: Milton R. Stahl, Chairman; Almon Ing, S. M. Hutchinson, J. H. Porter, J. Fred Hull, Com'rs; D. D. McDonald, Gen. Coun.; Jas. P. Painter, Asst. Coun.; David P. Janes, Sec'y; V. E. Smart, Ch. of Transportation.

Montana—Bd. R. R. Commiss.—Ex-Officio. Pub. Serv. Commiss.—Irrigation Commiss.—Trade Commiss.—Helena: Lee Dennis, Chairman; Leonard C. Young, Daniel Boyle, Com'rs; Francis A. Silver, Sec'y and Coun.; R. F. McLaren, Asst. Sec'y; H. B. Schaefer, Traffic Expert.

Nebraska—State Ry. Commiss.—Lincoln: John E. Curtis, Chairman; C. A. Randall, Vice-Chairman; John H. Miller, Comr.; Hugh Drake, Sec'y; Mary E. Sheehan, Asst. Sec'y; U. G. Powell, Rate Expert; Hugh La Master, Coun.; B. E. Forbes, Ch. Eng.; L. W. Kemmer, Ch. Acct.

Nevada—Pub. Serv. Commiss.—J. F. Shaughnessy, Chairman, Carson City; Geo. W. Malone, Carson City, H. R. Martin, Reno, Com'rs; Frank B. Warren, Sec'y, Carson City.

New Hampshire—Pub. Serv. Commiss.—Concord—John W. Storrs, Chairman; Fred H. Brown, Mayland H. Morse, Com'rs.

New Jersey—Bd. Pub. Util. Commiss.—Trenton: Joseph F. Autenrieth, Pres.; Harry Bacharach; Chas. Browne; Emmett T. Drew, Sec'y.

New Mexico—State Corp. Commiss.—Santa Fe: Hugh H. Williams, Chairman; Max Fernandez, Joseph S. Baca, Com'rs; M. A. Otero, Jr., Atty. Gen. Legal Adviser to State Corp. Com.

New York—Pub. Serv. Commiss.—100 State St., Albany, N. Y. New York Office—120 Broadway: William A. Prendergast, Chairman; Wm. R. Pooley, George R. Van Namee, George R. Lunn, Neal Brewster, Com'rs; Chas. G. Blakeslee, Coun., Albany, N. Y., Francis E. Roberts, Sec'y, Albany, N. Y.

North Carolina—Corp. Commiss.—Raleigh: William T. Lee, Chairman; Geo. P. Pell, I. M. Bailey, Com'rs; R. O. Self, Clerk; Elsie G. Riddick, Asst. Clerk, W. G. Womble, Dir. of R. R. Trans'n; Rebecca Merritt, Reporter.

North Dakota—Bd. of R. R. Commiss.—Bismarck: C. W. McDonnell, Pres.; Fay Harding, Ben. C. Larkin, Com'rs; Mary E. Parsons, Sec'y; T. C. Madden, Com. Coun.; Hope Snyder, Ch. Clerk; E. M. Hendricks, Rate Expert; D. Rickert, Reporter. E. H. Morris, Ch. Eng.; C. F. Martin, Statistician.

Ohio—Pub. Util. Commiss.—Offices—State Office Building, Columbus: Roscoe C. McCulloch, Chairman; Frank W. Geiger, William Klinger, Com'rs; Thomas J. Herbert, Atty.; Ira E. Sprankle, Supt. of Invest.; D. S. Archer, Asst. Sec'y; E. H. Hanna, Statistician; J. W. Herold, Supt. Bur., Rates and Serv.; W. R. L. Dwyer, Ch. Eng.

Oklahoma—Corp. Comm.—Oklahoma City: C. C. Childers, Chairman; Fred Capshaw, E. R. Hughes, Com'rs; E. D. Hicks, Jr., Sec'y.

Oregon—Pub. Serv. Commiss.—Salem: Frank

STATE RAILWAY BOARDS—*Continued.*

J. Miller, Chairman; H. H. Corey, O. C. Bortzmeyer, Com'rs; Herbert H. Hauser, Sec'y.

Pennsylvania—Pub. Serv. Commiss.—Harrisburg: William D. B. Ainey, Chairman, Harrisburg; S. Ray Shelby, Uniontown; James S. Benn, Philadephia; J. W. Brown, Lancaster; Samuel Walker, Butler; Emmerson Collins, Williamsport; Charles H. Young, New Castle; John Fox Weiss, Coun.; John G. Hopwood, Sec'y; John P. Dohoney, Ch., Bur. of Acct.; F. Herbert Snow, Ch., Bur. of Eng'ing; Paul E. Fickenscher, Chief, Bur., of Rates and Tariffs; B. F. Morgal, Ch., Bur. of Accts. and Statistics; E. M. Vale, Chief, Bureau of Public Convenience.

Rhode Island—Pub. Util. Commiss.—102 State Office Building, Providence: Wm. C. Bliss, Chairman; Samuel E. Hudson; Robt. F. Rodman; George A. Carmichael, Sec'y;.R. R. Anderson, Agt.

South Carolina—R. R. Commiss.—Columbia: Sam. C. Blease, Chairman; J. H. Nance, Vice-Chairman; John C. Coney, Earle R. Ellerbe, T. H. Tatum, R. H. McAdams, J. E. Beamguard, Com'rs; J. P. Darby, Sec'y; Z. F. Sloan, Rate Clerk; B. H. Barre, Gas and Elec. Eng.; W. W. Goodman, Supt. Motor Transportation.

South Dakota—Bd. of R. R. Commiss.—Pierre: D. E. Brisbine, Chairman; J. J. Murphy, Vice-Chairman; J. W. Raish, Comr.; E. F. Norman, Sec'y; Herman Bode, Coun.; D. L. Kelley, Traffic Expert; Ross Miller, Eng.; J. N. Peller. Statistician.

Tennessee—R. R. Pub. Util. Commiss.—Nashville: Harvey H. Hannah, Chairman; L. D. Hill, Porter Dunlap, Com'rs; D. B. Thomas, Sec'y; J. O. Hendley, Rate Expert; Roy H. Beeler, Atty.; F. G. Proutt, Eng.; Malcolm R. Williams, Eng.; N. J. Rains, Auditor.

Texas—R. R. Commiss.—Austin: Clarence E. Gilmore, Chairman; C. V. Terrell, Lon A. Smith, Com'rs; C. F. Petet, Sec'y.

Utah—Pub. Util. Commiss.—Salt Lake City: E. E. Corfman, Pres.; Thomas E. McKay, G. F McGonagle, Com'rs; F. L. Ostler, Sec'y.

Vermont—Pub. Serv. Commiss.—Montpelier: Henry B. Shaw, Chairman, Burlington; Eli H. Porter, Wilmington; Ernest H. West, Dorset; Kathryn M. Levarn, Clerk, Montpelier.

Virginia—State Corp. Commiss.—Ninth Floor, State Office Building, Richmond, Va.: Louis S. Epes, Chairman, and Com'r; Lester Hooker, Wm. Meade Fletcher, Comr's; R. T. Wilson, Clerk of Comm.

Washington—Dept. of Pub. Works—Formerly Pub. Serv. Commiss. of Wash.—Olympia: John C. Denney, Dir.; Fred K. Baker, Super. of Transp.; C. E. Van Etten, Sec'y; C. R. Lonergan, Rate Expert and Ch. of Transp. Div.; F. Harper Craddock, Ch. Eng.; Jno. C. Hurspool, Coun.; R. E. Ostrander, Legal Asst.

West Virginia—Pub. Serv. Commiss.—Charleston: I. Wade Coffman, Chairman; J. J. Divine, C. E. Nethken, Com'rs.

Wisconsin—R. R. Commiss.—Madison: Lewis E. Gettle, Chairman; Adolph Kanneberg; A. R. McDonald; Wm. M. Dinneen, Sec'y.

Wyoming—State Bd. of Equalization and Pub. Serv. Commission—Cheyenne: Claude L. Draper, Chairman; Fenimore Chatterton, Campbell H. McWhinnie, Members; W. O. Carleton, Sec'y.

Bd. of Ry. Commiss. for Canada—Ottawa, Ont: Hon. H. A. McKeown, K.C., Ch. Com'r; S. J. McLean, M.A., LL.B., Ph.D., Asst. Ch. Com'r; Thomas Vien, K.C., Deputy Ch. Com'r; Calvin Lawrence, Hon. T. C. Norris, John August Stoneman, Com'rs; A. D. Cartwright, B.A., Sec'y; E. A. Primeau, LL.B., French Asst. Sec'y; R. Richardson, Asst. Sec'y and Registrar; A. G. Blair, K.C., Coun.; T. L. Simmons, Ch. Eng.; H. A. K. Drury, Asst. Ch. Eng.; John Murphy, Elec. Eng.; W. E. Campbell, Ch. Traffic Officer; Geo. A. Brown, Asst. Ch. Traf. Off.; George Spencer, Ch. Oper. Off.; Clyde Leavitt, Ch. Fire Inspector.

National Asso. of R. R. and Utilities Commiss.—Charles Webster, Pres., Iowa; Harvey H. Hannah, 1st Vice-Pres., Tennessee; John J. Murphy, 2d Vice-Pres., South Dakota; James B. Walker, Sec'y, New York, 270 Madison Ave., N. Y. City; John E. Benton, Gen. Solicitor, Wash., D. C.; Clyde S. Bailey, Asst. Sec'y and Asst. Gen. Solicitor, Washington, D. C.

Next annual convention at Charleston, S. C., Nov. 12-15, 1930.

United States Board of Mediation—Washington, D. C.: Samuel E. Winslow, Chairman; George A. Cook, Sec'y; G. Wallace W. Hanger, Edwin P. Morrow, Oscar B. Colquitt, John Williams, Members; Robt. F. Cole, Ch., Div. of Adminis.; John W. Walsh, Ch., Tech. Div. A.; Thos. E. Bickers, Ch., Tech., Div. B; Harrison H. Reed, Ch., Tech. Div. C.

American Railway Association—R. H. Aishton, Pres.; W. G. Besler, 1st Vice-Pres.; Hale Holden, 2d Vice-Pres.; Alfred P. Thom, Gen. Coun.; H. J. Forster, Sec'y and Treas. Headquarters—30 Vesey St., New York City; Chicago Office—431 South Dearborn St.; Washington Office—Transportation Bldg., 17th and H Sts., N. W.

Board of Directors—W. W. Atterbury, Pres., Penna. R. R.; L. W. Baldwin, Pres., Missouri Pac. R. R.; E. W. Beatty, Chairman and Pres., Can. Pac. Ry.; W. R Cole, Pres., Louisville & Nashville R. R; P. E. Crowley, Pres., N. Y. Cen. Lines; J. M. Davis, Pres., D. L. & W. R. R.; L. A. Downs, Pres., Illinois Cen. R. R.; J. E. Gorman, Pres. Chicago, Rock Is. & Pac. Ry.; C. R. Gray, Pres., Union Pacific Sys.; Fairfax Harrison, Pres., Southern Ry. Sys.; Hale Holden, Chairman, Exec. Com., Southern Pac. Co.; E. E. Loomis, Pres., Lehigh Valley R. R.; A. D. McDonald, Vice-Chairman of Exec. Com., Southern Pacific Co.; A. C. Needles, Pres., Norfolk & West. Ry.; J. J. Pelley, Pres., N. Y., N. H. & H. R. R.; F. W. Sargent, Pres., Chicago & N'western Ry.; W. B. Storey, Pres., Atchison, Topeka & Santa Fe Ry. Sys.; Sir H. W. Thornton, K.B.E., Chairman of the Bd. of Dir. and Pres., Can. Nat'l Rys.; Percy R. Todd, Pres., Bangor & Aroostook, R. R.; R. B. White, Pres., Cen. R. R. of N. J.; Daniel Willard, Pres., Baltimore & Ohio R. R.; J. J. Bernet (ex-officio), Pres., Chesapeake & Ohio Ry.; S. M. Felton (ex-officio), Chairman, Western Presidents' Conference Committee (Chairman of Bd., C. G. W. R. R.); L. F. Loree (ex-officio), Chairman, Eastern President's Conference (Pres., D. & H. Co.).

Executive Committee—C. R. Gray, J. J. Bernet, J. E. Gorman, L. W. Baldwin, W. W. Atterburg, W. R. Cole, A. C. Needles, J. M. Davis.

Committee on Public Relations of the Eastern Railroads—(Eastern Presidents' Conference)—143 Liberty St., New York City: E. E. Loomis, Chairman, Pres., Lehigh Valley R. R. Co.; P. E. Crowley, Pres., N. Y. Cen. Lines; C. E. Denney, Pres., Erie, R. R.; W. W. Atterbury, Pres., Penna. R. R.; John Henry Hammond, Chairman, Bangor & Aroost. R. R.; J. M. Fitzgerald, H. H. Hertell, Assts. to Chairman.

Western Railways' Committee on Public Relations—105 West Adams St., Chicago: C. H. Markham, Chairman, Ill. Cen. Sys., Chairman; C. D. Morris, Asst. to Chairman; P. G. Otterback, Asst. to Chairman.

Members of Committee—Fred W. Sargent, Pres., Chicago & N'western Ry.; F. E. Williamson, Pres., Chi. Burl'ton & Quincy R. R.; S. M. Felton, Chairman, Chi. Gr. Western R. R.; J. E. Gorman, Pres., Chi., Rock Is. & Pac. R. R.; H. A. Scandrett, Pres., Chi., Mil., St. P. & Pac. R. R.; Ralph Budd, Pres., Gr. Northern Ry.; L. W. Baldwin, Pres., Missouri Pac. Lines; J. M. Kurn, Pres., St. L.-San Fran. Ry.; Paul Shoup, Pres., Southern Pac. Co.; Carl R. Gray, Pres., Union Pac. Sys.

Trunk Line Association—143 Liberty St., New York, N. Y.: Robert N. Collyer, Chairman; W. S. Curlett, Asst. to Chairman;

Freight Department—Freight Traffic Managers' Committee: Harry Wilson, Chairman; General Freight Committee: W. R. Askew, Chairman; Southern and Southwestern Freight Committee of T. L. A.: W. L. O'Neil, Chairman.

Passenger Department—C. M. Burt, Chairman; C. L. Hunter, Asst. to Chairman.

Baltimore & Ohio R. R.; Buffalo, Rochester & Pittsb. Ry.; Central R. R. of New Jersey; Chesapeake & Ohio Ry.; Delaware & Hudson Co.; Delaware, Lackawanna & Western R. R.; Erie, R. R.; Lehigh & New England, R. R.; Lehigh Valley, R. R.; New York Central R. R.; New York, Ontario & Western Ry.; Norfolk & Western Ry.; Pennsylvania R. R.; Reading Company; Virginian Ry.; Western Maryland Ry.; West Shore R. R.

(Covers territory on and east of a line beginning at Lewiston, N. Y., thence along the line of the New York Central R. R. to Buffalo, N. Y.; thence along the line of the Pennsylvania R. R. through Dunkirk, N. Y., and Mayville, N. Y., to Corry, Pa.; thence via P. & E. Division of the Pennsylvania R. R. to Erie, Pa., inclusive, returning to Corry, Pa.; thence south of Corry, Pa., along the line of the Pennsylvania R. R. through Oil City, Pa., to Foxburg, Pa.; thence along the line of the Baltimore & Ohio R. R. to Butler, Pa.; thence south to Pittsburgh; thence via Baltimore & Ohio R. R. through Washington, Pa., and Wheeling, W. Va., to Point Pleasant, W. Va.; thence north of the line of the N. Y. C. R. R. (Ohio Central Lines) to Gauley Bridge, W. Va.; thence returning to Baltimore & Ohio R. R. south of Point Pleasant to Kenova, W. Va.; thence north of the line of the Chesapeake & Ohio Ry., east of Gauley Bridge, W. Va.)

Trunk Line Association—General Baggage Agents Committee—143 Liberty St., New York: Wm. Skinner, Chairman; F. E. Hammann, Sec'y.

Trunk Line Freight Inspection Bureau—143 Liberty St., New York, N. Y.: W. J. Edwards, Mgr.

Western Railroad Association—Samuel M. Felton, Pres., Chicago; George S. Payson, Gen. Coun. and Treas., 400 No. Michigan Ave., Chicago.

THE UNITED STATES SHIPPING BOARD.

GENERAL ADMINISTRATION.

(As of Dec. 1, 1929.)

Chairman—T. V. O'Connor; *Vice Chairman*—E. C. Plummer; *Commissioners*—Jefferson Myers, R. K. Smith, H. I. Cone, S. S. Sandberg, A. H. Denton.

Assistant to the Chairman—M. G. Irvine; *Secretary*—Samuel Goodacre; *General Counsel*—Chauncey G. Parker; *Disbursing Officer*—Heber M. Wells; *Chief Clerk*—M. J. Pierce.

UNITED STATES SHIPPING BOARD MERCHANT FLEET CORPORATION.

(As of Dec. 1, 1929.)

Trustees—T. V. O'Connor; E. C. Plummer; Jefferson Myers; R. K. Smith; H. I. Cone; S. S. Sandberg; A. H. Denton.

President—T. V. O'Connor; *Vice President*—E. C. Plummer; *Vice President, Administration*—J. C. Jenkins; *Vice President, Operations*—E. A. Kelly; *Secretary*—Samuel Goodacre; *Treasurer*—Heber M. Wells; *General Comptroller*—Lewis D. Parmelee; *Director of Traffic*—F. G. Frieser; *Director of Supplies*—H. Y. Saint; *Director of Insurance*—B. K. Ogden.

Brig. Gen. A. C. Dalton, Vice President and General Manager, resigned Jan. 29, 1929. No successor was appointed and the duties of General Manager devolved on the President of the Board.

The total amount appropriated by Congress for the purposes of the United States Government owned merchant marine, created by Act of Congress, approved September 7, 1916, amended and enlarged by other acts, is shown in the following table. The appropriations to June 30, 1929, inclusive, as given below (cents omitted) are net, that is, the totals exclude amounts returned to the United States Treasury or reappropriated, totaling $74,646,000 to that date.

From Inception to June 30, 1928:

	Net Appropriations
U. S. Shipping Board	$4,735,275
U. S. S. B. Merchant Fleet Corporation	3,574,006,006
For Fiscal Year Ending June 30, 1929:	
U. S. Shipping Board	288,750
U. S. S. B. Merchant Fleet Corporation	13,400,000
For Fiscal Year Ending June 30, 1930:	
U. S. Shipping Board	359,750
U. S. S. B. Merchant Fleet Corporation	16,134,250
Grand Total	$3,608,924,031

VESSELS OF THE FLEET.

The list of U. S. Shipping Board cargo vessels in hands of operators as of Oct. 31, 1929, was as follows:

Northern Europe: United Kingdom and Ireland	No.	D.W.T.
American Hampton Roads Line	4	31,330
Dixie U. K. Line	15	129,652
Mobile Oceanic Line	8	69,390
Oriole Lines	18	154,857
Texas Ukay Line	17	160,691
Total	62	545,920
Bordeaux-Hamburg Range		
American France Line	9	78,141
American Diamond Lines	14	121,737
Mississippi Valley European Line	5	48,764
Mobile Oceanic Line	7	61,746
Southern States Line	21	187,590
Texas Star Line	14	129,713
Yankee Line	4	34,406
Total	74	662,097
Southern Europe; Spanish Atlantic and Portuguese Ports		
Gulf West Mediterranean Line	3	26,025
Spanish Mediterranean Ports		
Gulf West Mediterranean Line	7	56,991
French Mediterranean, West Coast of Italy and Adriatic Sea Ports		
Dixie Mediterranean Line	7	57,426
Export Steamship Corp.	7	59,737
Texas Mediterranean Line	3	25,785
Total	17	142,948
British India		
American Pioneer Line	6	54,766
Australia and New Zealand		
American Pioneer Line	12	108,613
Orient		
American Pioneer Line (Roosevelt)	9	94,301
American Gulf Orient Line (Tampa)	10	118,549
Total	19	212,850
East Coast South America		
American Brazil Line	6	45,650
American Republics Line	14	117,742
Gulf Brazil River Plate Line	1	7,840
Total	21	171,232
Grand Total	221	1,981,442

As of Oct. 31, 1929, the following vessels were also active:

Cargo ships with otherGov'tDepts.	1	7,840
Cargo (Bareboat Charter)	7	59,498
Total	8	67,338

The number, type, kind and deadweight tonnage of the vessels controlled by the U. S. Shipping Board Merhant Fleet Corporation on Oct. 31, 1929, were:

	No.	D.W.T.
Steel Vessels		
Passenger and Cargo	2	17,000
Cargo	523	4,369,839
Refrigerators	10	70,277
Tugs	4	.....
Unfinished Cargo	1	9,400
Total Steel	540	4,466,516
Concrete Vessels		
Tankers	1	7,500
Wood Vessels		
Tugs	7	.....
Total Vessels	548	4,474,016

319 vessels of 2,425,236 deadweight tons were tied up as of Oct. 31, 1929.

During the fiscal year 1929, 191 vessels were sold. Of this total 168 were cargo ships; of which 18 were sold for unrestricted operation, 10 with privilege of transfer to foreign registry, 15 with buyer obligated to recondition and improve them, 82 for dismantling and scrapping, 32 for restricted operation in the three trade routes with which they were sold, and 11 cargo ships were sold for restricted operation by the purchasers of trade routes sold in preceding years.

In addition, 6 passenger vessels and 5 combined passenger and cargo vessels were sold for restricted operation in the trade routes in which formerly operated by the U. S. Shipping Board. These ships were: Leviathan, America, George Washington, President Harding, President Roosevelt and Republic, of the United States Line; and American Banker, American Farmer, American Merchant, American Shipper and American Trader of the American Merchant Line.

Other sales included 3 refrigerator ships and 9 tankers.

From July 1, 1929, to Nov. 15, 1929, 83 vessels were sold. This total includes 82 cargo ships, of which 8 were sold as a line for restricted operation, 2 were sold to augment the services of a trade route purchased in a preceding year, 13 were for unrestricted operation, 3 subject to improvements, 34 with transfer of flag privileges and 22 for scrapping. The other vessel sold was a tanker.

From June, 1921 to Nov. 15, 1929, 1,456 ships of 6,333,000 deadweight tons have been sold and delivered. Twenty lines with provisions for restricted operation were sold and delivered during the same period.

The Merchant Marine Act of 1928 increases the construction loan fund from $125,000,000 to an amount not to exceed $250,000,000. The Board may set aside revenues from sales, and proceeds from securities covering deferred payments on sales. Appropriations are authorized in addition to amounts credited to the fund by the Board. The fund continues to be a revolving fund so that payments shall be credited to the fund but interest on loans shall be covered into the Treasury as miscellaneous receipts.

On Oct. 31, 1929, the construction loan fund totaled $99,594,801.33, of which $65,486,572.01 was the unexpended cash and appropriation balance, $24,608,229.32 was the outstanding balance of advances made to borrowers, and $9,500,000 was the amount transferred to the diesel conversion fund. As of the same date, the unexpended balance in the diesel fund was $488,024.41.

The operating losses of the Merchant Fleet Corporation during the fiscal year ended June 30, 1929, amounted to approximately $14,435,000. This compares with a loss of $16,279,000 in 1928; slightly less than $16,000,000 in 1927; nearly $20,000,000 in 1926; $30,000,000 in 1925 and $41,000,000 in 1924.

The U. S. Shipping Board controls and operates the Hoboken Terminal and also controls other terminals which are leased to private operators and are located in the following ports: Boston, Brooklyn, Philadelphia, Norfolk and Charleston, S. C. The U. S. Shipping Board also owns and operates five fuel oil bunker stations.

Big Problems of 1929-1930.

ENFORCEMENT OF THE NATIONAL PROHIBITION ACT.

The Eighteenth (Prohibition) Amendment to the Constitution was submitted to the States by Congress on Dec. 18, 1917. The first State (Mississippi) ratified it on Jan. 8, 1918, and on Jan. 16, 1919, the thirty-sixth State (Nebraska) ratified it, whereupon, by proclamation of the Secretary of State, Jan. 29, 1919, it became effective one year from that date, Jan. 16, 1920. By Feb. 25, 1919, the Legislatures of forty-five States had ratified it; the forty-sixth State, New Jersey, ratified in on March 9, 1922. It was not ratified by Connecticut and Rhode Island. In nearly all the ratifying States the vote was decisive and in the majority overwhelming. New York, Maryland, Montana, Nevada and Wisconsin have no State enforcement acts.

The Wartime Prohibition Law, designed as a measure to conserve grain during the war, was enacted in November, 1918, and became effective June 30, 1919.

The Volstead act (the National Prohibition Act) was drawn up to enforce the Eighteenth Amendment when it came into effect, Jan. 17, 1920, and was passed by Congress early in October, 1919. It was vetoed by President Wilson, and was immediately passed over his veto on Oct. 28—the vote in the House being 176 to 55, and in the Senate 65 to 20. The Willis-Campbell act strengthening the Prohibition act became a law on Nov. 23, 1921.

On the date the Eighteenth Amendment was declared ratified there were six States that were "bone dry" by popular vote. These were Washington, Oregon, Montana, Colorado, Utah and Arizona, with 4.2 per cent. of the total population of the United States. There were six States "bone dry" by legislative act—Idaho, South Dakota, Nebraska, Kansas, Georgia and Florida—with 7.6 per cent. of the total population. There were eighteen States with State-wide restrictions but affording some method for residents to obtain alcoholic beverages lawfully. There were Alabama, Arkansas, Indiana, Iowa, Maine, Michigan, Mississippi, Nevada, New Hampshire, New Mexico, North Carolina, North Dakota, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia, with 32.5 per cent. of the total population. The remaining eighteen States—Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, Ohio, Kentucky, Illinois, Wisconsin, Minnesota, Missouri, Louisiana, Wyoming and California—with 55.7 per cent. of the total population were "wet," that is, without any State-wide "dry" law. All the States which had "bone dry" laws had acquired them after the World War began in 1914.

SUMMARY OF THE VOLSTEAD ACT.

The word "liquor" as used in the law includes alcohol, brandy, whiskey, rum, gin, beer, ale, porter, and wine, or other beverages containing one half of one per cent. or more of alcohol. All persons are forbidden to manufacture, sell, barter, transport, import, export, deliver, furnish or possess any intoxicating liquor except under the provisions of the act. The law permits under regulation denatured alcohol and denatured rum; medicinal preparations made according to regular formulas, patent medicines, toilet articles, antiseptic preparations, flavoring extracts and syrups, provided these are unfit for beverage uses; vinegar and sweet cider. In the manufacture of cereal beverages, the production of high-proof beer is permitted as a part of the process but it must be de-alcoholized before offered for sale. Liquor for non-beverage purposes and sacramental wine may be manufactured, &c., under certain regulations. Manufacturers of exempt articles may purchase and keep liquor for such purposes under certain conditions, but may not sell it or use it, except as ingredients of the articles manufactured. No more alcohol may be used in articles which may be used as beverages than the necessary amount for solution of certain elements and for preservation of the articles.

No one may manufacture, &c., liquor without a permit, but liquor prescribed by a physician may be bought without a permit. A person conducting a bona fide hospital or sanatorium for alcoholics may under certain regulations purchase and use liquor for the treatment of patients under physician's direction.

Any one having a permit to manufacture, &c., wine for sacramental purposes may sell it only to a rabbi, minister, priest, or officer authorized by congregation on special application.

Only licensed active physicians holding permits may prescribe liquor and then only if they believe that the use of liquor as medicine by the person is necessary.

Under the 1921 amendment physicians may prescribe only spirituous and vinous liquors but may not prescribe more than a pint of spirituous liquors or a quart of wine within ten days.

Various types of records are prescribed for manufacturers, wholesale and retail druggists, and common carriers.

It is unlawful for a person to ship liquor without notifying the carrier of the contents of the package; for the carrier to accept for shipment a package of liquor unless certain information appears on the label; to receive, ship or transport a package of liquor bearing false statements; to give carrier an order for delivery of liquor to a person who has no right to receive it; to advertise in any way liquor, its manufacture or sale or where it may be secured except that manufacturers or wholesale druggists holding permits may furnish price lists and advertise in trade journals and foreign newspapers mailed to this country; to advertise, manufacture, sell or possess any utensil, recipe, etc., for the unlawful manufacture of liquor; to solicit or permit one's employees to solicit orders for liquor or information how it may be secured.

Any one injured by an intoxicated person shall have right of action for damages against the person who sold the liquor unlawfully to the intoxicated person.

Possession of liquor in one's private dwelling only for the personal consumption of the owner, his family and bona fide guests is legal if obtained lawfully prior to the effective date of the 18th Amendment to the Constitution.

A good deal of misunderstanding has arisen over the exemptions made in the interest of home manufacture and consumption of liquor. "Non-intoxicating cider and fruit juices" may be manufactured, exclusively for use in the home; and here the Bureau of Prohibition interprets the word "non-intoxicating" to mean non-intoxicating in fact without reference to an exact percentage of alcoholic content. Fruit juices, except cider, thus manufactured are subject to tax if they exceed one-half of 1 per cent in alcoholic content under the revenue laws.

THE JONES LAW.

The Jones Law, an amendment making more drastic the National Prohibition Act was passed by the Senate, 65 to 1, on Feb. 19, 1929; by the House, 283 to 90 on Feb. 28, and approved by President Coolidge on March 2. It reads:

That wherever a penalty or penalties are prescribed in a criminal prosecution by the National Prohibition Act, as amended and supplemented, for the illegal manufacture, sale, transportation, importation, or exportation of intoxicating liquor, as defined by section 1, Title II, of the National Prohibition Act, the penalty imposed for each such offense shall be a fine not to exceed $10,000 or imprisonment not to exceed five years, or both; Provided, That it is the intent of Congress that the court, in imposing sentence hereunder, should discriminate between casual or slight violations and habitual sales of intoxicating liquor, or attempts to commercialize violations of the law.

Sec. 2. This Act shall not repeal nor eliminate any minimum penalty for the first or any subsequent offense now provided by the said National Prohibition Act.

In 1909 Congress decreed that "all offenders which may be punished by ..... imprisonment for more than one year shall be decreed felonies." (Section 335 of the Criminal Code). Section 146 of the Code provides that whoever, having knowledge of the commission of a felony "conceals and does not ..... disclose and make known the same to some one of the judges or other persons in civil or military authority under the United States shall be fined not more than $500 or imprisoned not more than three years, or both." Section 332 says that whoever "counsels, commands, induces or procures" a felony is equally guilty as a principal actor in the commission of the felony itself.

MEDICINAL PROVISIONS.

The medicinal provisions in the Act are:

Not more than a pint of spirituous liquor to be taken internally shall be prescribed for use by the same person in a period of 10 days. No physician shall prescribe, nor, shall any person sell or furnish on any prescription, any vinous liquor that contains more than 24 per cent of alcohol by volume, nor shall anyone prescribe or sell or furnish on any prescription more than one-fourth of 1 gallon of vinous liquor, or any such

vinous or spiritous liquor that contains separately or in the aggregate more than one-half pint of alcohol, for use by any person within any period of 10 days. Physicians are required to obtain a permit and keep a record of all prescriptions. Prescriptions must be written upon prescribed forms except in emergency cases. No physician shall be provided with more than 100 prescription blanks for use in any period of 90 days unless he shall make it clearly to appear to the commissioner that for some extraordinary reason a larger amount is necessary.

From the Congressional Record is taken this classification of the several states:

States in which no provision is made for prescribing of alcohol or intoxicating liquor are: Arizona, Idaho, Maine, New Mexico, North Dakota, Georgia (pure alcohol may be prescribed but required to be so medicated as to be unfit for beverage use), Kansas, Nebraska (may prescribe intoxicating liquor provided other ingredients are such as to prevent its use as a beverage), North Carolina, Utah, Washington, and West Virginia.

States in which pure alcohol only may be prescribed are: Alabama, Arkansas, Oklahoma, Delaware, Oregon, Florida, South Carolina, Indiana, Tennessee, and Mississippi.

States in which spirituous liquor only may be prescribed are: Illinois, Montana, New York, Ohio, and Wyoming.

States in which spirituous or vinous liquors may be prescribed are: South Dakota and Iowa.

States in which intoxicating liquor may be prescribed under limitations are: Colorado, Michigan, Minnesota, Missouri (save malt liquors), and New Hampshire.

There are no regulations under State law in Pennsylvania, Louisiana, and Massachusetts.

There is no state code in the matter in Maryland, Nevada and New York.

Dr. Doran reported in July 17 that the number of physicians who have obtained permits to issue prescriptions for liquor in 1928 was 111,864 (the 1920 census returned 144,977 physicians in the country).

The present stocks (June 30, 1929) of medicinal whiskey total about 9,549,017 gallons. The first permits to distill whiskey since 1920 were issued Oct. 10 for about 1,400,000 gallons of bourbon whiskey with 600,000 gallons of rye whiskey to be allotted later—the whiskey to be aged four years in the wood before being put into the trade.

MORE MONEY APPROPRIATED.

Senator Harris in January asked for an appropriation of $50,000,000 additional for the enforcement of the Prohibition Law. The Committee on Appropriations cut this to $25,000,000. In response to a letter of inquiry, Secretary Melion said such a sum could not be wisely and effectively spent until a thorough survey was made of the needs of the situation.

A total appropriation of $270,000,000 for prohibition enforcement put on the Treasury deficiency bill on an amendment by Senator Bruce, was rejected in the conference report which was then sustained by a margin of two votes by the Senate. President Coolidge then sent a supplementary estimate of $2,427,514 to Congress and $1,719,654 was voted.

Secretary Mellon in a report on Nov. 19 to the Senate called for by the Harris resolution said that since March 4, 1929, when $1,719,654 became available, the prohibition bureau had spent $1,319,536 for 275 additional agents and other workers.

The Association Against the Prohibition Amendment in a pamphlet published May 12, 1929, estimated that in 1928, the ninth year of Federal enforcement, the cost to the country (after deducting $5,500,000 in fines) was $36,000,000, with a loss to the people of $850,000,000 in Federal revenue, and $50,000,000 in State, county and city revenue. Commissioner James M. Doran answered this in a letter made public June 15, saying:

"In the nine-year period the government has collected $44,674,832 in fines and penalties assessed under the dry law, and in addition taxes on distilled spirits and fermented liquors have yielded an aggregate of $415,927,960.76, or a total of $460,502,892.76.

"Collections under laws having to do with the alcoholic liquor traffic, therefore, exceeded by $247,324,307.76 the amounts expended to enforce the Volstead act."

His figures for the fiscal year 1928 were:

Expenditures.

Prohibition	$11,610,669.91
Customs	450,000.00
Coast Guard	15,426,540.00
Dept. of Justice (estimated)	9,000,000.00
Total	$36,487,209.91
Collections	21,872,072.17
Net cost	$14,615,137.74

Collections.

Fines and penalties	$6,183,942,72
Proceeds from the sale of seizures and fines under customs laws	380,333.00
Taxes on distilled spirits and fermented liquors	15,307,796.45
Total	$21,872,072.17

KILLINGS IN NINE YEARS.

The Treasury Department on Apr. 5 gave out an official report which showed that since the Eighteenth Amendment became effective in 1920, nine years ago, 190 persons have been killed in the enforcement of the prohibition laws. Of these, 135 were citizens killed by prohibition agents and 55 were prohibition agents who met death in the line of duty. The figures for the nine years are:

In 1920, agents 6, citizens 5; 1921, agents 8, citizens 14; 1922, agents 12, citizens 13; 1923, agents 4, citizens 17; 1924, agents 2, citizens 22; 1925, agents 5, citizens 20; 1926, agents 6, citizens 17; 1927, agents 5, citizens 16; 1928, agents 7, citizens 10; 1929, agents none, citizens 1.

Notable killings during the year 1929 will be found recorded in the diary of Events of the Year, beginning on page 94.

JUDICIAL DIVISIONS.

Alfred E. Norris, of 55 East 72d St., New York City, a broker, was exonerated by the United States Court of Appeals in Philadelphia, Oct. 3, of complicity in the case of Joel D. Kerper, so-called "society bootlegger," reversing the verdict of the lower court, which held that a purchaser of liquor could be penalized as an abettor of illegal transportation. The majority opinion, written by Judge W. H. S. Thomson, said:

"It appears that while the legislative department of the government has deliberately and intentionally made the purchaser of liquor gulitless of any offense under the prohibition law, the executive department of the government seeks here, by indirection, to make of the same fact, namely the purchase, a crime subjecting the purchasers to a maximum fine of $10,000 and imprisonment for a term of two years.

"Such a condition is scarcely conceivable and yet it is the position of the Government."

Judge Charles I. Dawson, former Kentucky Attorney General, charging the United States Grand Jury at Louisville, Ky., Oct. 15, instructed them to indict, if the evidence warranted, the buyer as well as the seller of liquor, declaring that the widespread impression that it is not against the law to purchase liquor is erroneous.

Federal Judge J. W. Woodrough in dismissing an indictment at Omaha, Nebr., against two men charged with operating a still, said: "Although (Fereral) agents see, hear and smell violations of the liquor law in a residence, they must obtain a search warrant before making a raid, seizing the evidence and arresting the owner."

The United States Supreme Court in Washington on Oct. 21 refused to review the case of A. C. Bamsey, convicted on evidence obtained by officers in his home without a search warrant, thereby sustaining the decision of the Supreme Court of Iowa which held that a search warrant was not necessary under Iowa law.

The United States Circuit Court in New York on July 17, 1929, held that being a bootlegger involved no "moral turpitude" to justify deportation of an alien.

Repeal of the Eighteenth Amendment as an "unpopular and undesirable law," which might lead to conditions "approximating those of Russia under the Czaristic regime," was advocated by a Philadelphia grand jury in a presentment returned May 31 to Judge Raymond MacNeille.

George W. Wickersham, former Attorney-General and Chairman of the National Crime Commission, in a letter to Governor F. D. Roosevelt of New York read at the Conference of State Governors at Groton, Conn., July 16, said:

"The Eighteenth Amendment confers upon the States concurrent jurisdiction with the National Government for the enforcement of this measure. Thus far the Federal Government alone has borne the burnt of enforcement.

"It seems to me that the Governors' Conference might well consider approaching the Federal Government on some feasible proposal to share this burden. If the National Government were to attend to preventing importation, manufacture and shipment in interstate commerce of intoxicants, the State undertaking the internal police regulations to prevent sale, saloons, speakeasies and so forth, national and State laws might be modified so as to become reasonably enforceable and one great source of demoralizing and pecuniarily profitable crime removed."

PROHIBITION LAW FEDERAL COURT RECORD FOR 1927-1928 AND 1928-1929.

The Department of Justice reported on Oct. 20, 1929, the table printed below of the number of instituted cases, convictions and pleas, and fines in the Federal Courts in the fiscal years 1927-28 and. 1928-29. These cases represented 51.3% of the 110,655 of all kinds, civil and criminal, brought during the year 1928-29. For the fiscal years 1921 to 1929, inclusive, a grand total of 407,456 prohibition cases were brought. By years the cases brought numbered: 1921, 29,114; 1922, 34,984; 1923, 49,021; 1924, 45,878; 1925, 50,743; 1926, 44,492; 1927, 40,709; 1928, 55,729; and 1929, 56,786. The table follows:

STATE.	Cases Instituted.		Convictions and Pleas.		Fines Assessed *Dollars.*	
	1928.	1929.	1928.	1929.	1928.	1929.
Alabama	633	538	511	504	57,562	51,932
Alaska	26	39	19	22	8,550	6,451
Arizona	423	438	354	333	57,159	105,520
Arkansas	423	806	416	657	30,813	49,185
California	1,031	1,328	684	1,122	209,935	318,192
Colorado	254	200	134	158	46,278	40,846
Connecticut	102	133	102	131	28,025	24,405
Delaware	111	60	95	47	13,567	4,213
District of Columbia	2,630	1,661	1,898	822	82,102	83,307
Florida	798	936	400	796	61,626	55,790
Georgia	1,983	2,588	1,948	2,047	102,121	82,369
Hawaii	264	349	236	293	31,764	35,730
Idaho	321	339	284	294	118,301	79,800
Illinois	1,426	2,452	1,188	2,029	437,795	744,532
Indiana	550	489	423	437	90,796	46,889
Iowa	357	232	366	216	154,637	74,099
Kansas	14	23	6	25	300	2,985
Kentucky	3,690	3,662	3,628	3,291	547,114	560,488
Louisiana	1,332	904	1,266	811	229,270	185,585
Maine	140	149	134	118	21,455	15,298
Maryland	1,387	1,234	1,500	1,251	181,740	124,216
Massachusetts	419	414	343	420	47,171	61,038
Michigan	1,397	1,442	1,304	1,328	674,352	833,900
Minnesota	1,159	1,420	1,017	1,180	224,761	260,815
Mississippi	803	567	625	474	206,819	111,384
Missouri	1,460	1,515	1,308	1,375	375,011	258,485
Montana	728	1,126	663	989	76,045	114,608
Nebraska	504	208	356	167	67,445	21,627
Nevada	100	152	122	131	33,250	30,427
New Hampshire	347	319	330	297	97,666	80,659
New Jersey	486	822	251	623	34,429	88,705
New Mexico	179	250	122	167	13,693	81,080
New York:						
N. D.	1,975	2,295	1,718	1,838	451,424	420,927
East. D	2,074	2,220	2,238	1,872	214,164	146,039
So. D.	8,823	7,816	7,453	6,686	211,437	278,733
West. D.	918	1,489	491	616	79,611	94,235
Total	13,790	13,820	11,900	11,012	956,636	939,934
North Carolina	1,514	1,792	1,225	1,573	93,694	95,803
North Dakota	58	40	35	22	4,530	5,256
Ohio	1,141	1,174	1,048	1,041	213,178	221,164
Oklahoma	1,668	1,556	1,695	1,308	105,504	164,805
Oregon	235	153	237	140	47,676	23,650
Pennsylvania	1,858	2,198	1,731	1,807	266,610	370,050
Porto Rico	23	40	16	19	4,282	7,566
Rhode Island	163	265	186	202	57,902	68,089
South Carolina	408	643	303	429	96,216	90,893
South Dakota	170	203	118	143	14,475	22,925
Tennessee	1,398	1,407	1,241	1,206	158,040	175,105
Texas	2,924	2,562	2,599	2,303	293,752	268,174
Utah	122	63	57	45	7,185	2,225
Vermont	57	74	37	61	11,766	15,128
Virginia	395	346	345	307	35,659	23,175
Washington	745	643	791	594	359,548	177,281
West Virginia	2,909	2,109	2,637	1,675	127,882	100,161
Wisconsin	591	816	507	628	71,499	116,819
Wyoming	83	82	79	59	16,485	11,425
Total	55,729	56,786	48,820	47,100	7,303,563	7,476,300

ACTION IN STATES IN 1929.

Wisconsin held on Apr. 2, 1929, a state-wide referendum ordered by the Legislature on Feb. 6, that resulted as follows: Favoring the repeal of the State enforcement act, 350,337; against 196,402; favoring amendment of the law so as to repeal beer penalties, 321,688; against 200,545. Thereupon the House by a vote of 56 to 33, and the Senate by a vote of 21 to 9, passed a bill repealing the enforcement act, and Gov. Kohler signed the reapeal on May 29.

The **Maryland** House of Deputies by a vote of 64 to 45 on Feb. 5, 1929, killed a State prohibition enforcement bill.

The **Missouri** House of Representatives on Apr. 29 killed a bill to repeal the bone dry law of 1923.

The **Illinois** House of Representatives by a vote of 77 to 66 on Apr. 23 passed a bill calling for a State-wide referendum on the repeal of the State Liquor Enforcement Act. The Senate, however, defeated the bill by a vote of 28 to 21 on June 6.

The **New York** Assembly by a vote of 74 to 72 on March 13 killed the Jenks billl to restore a state prohibition enforcement bill. A bill to establish county local option in the enforcement of the Federal prohibition law failed in passage.

Senator Howell of Nebraska said on the floor of the Senate on Sept. 20, 1929, that "enforcement in the City of Washington can be made effective and placing the responsibility on the President who can dismiss any official. The President promptly asked him to lay definite facts before the Department of Justice promising vigorous inveestigation with intent to make Washington "a model in this country." The arrests for drunkenness in the City of Washington during the fiscal year 1928-29 numbered 14,198. A ruling of the Treasury on Mar. 22 recognized diplomatic immunity for the transportation of liquor properly imported, to the embassies for personal use.

At the request of President Hoover, John L. McNab, lawyer of San Francisco, on Oct. 1, undertook the task of formulating legislation to bring about better prohibition enforcement and relief of court congestion.

PROHIBITION BUREAU.

In the interest of more effective administration and enforcement of the National Prohibition Act, the Congress, on March 3, 1927, by statute created a Bureau of Prohibition in the Department of the Treasury, the effective date of the Act being April 1, 1927. The most important provision of the Act is to make the entire personnel of the Bureau, both in Washington and in the field, subject to the Civil Service Laws. Pursuant to the act the working organization of the Prohibition Unit of the Internal Revenue Bureau was transferred to the Bureau of Prohibition. Dr. James M. Doran was appointed Commissioner of Prohibition at the head of the Bureau of Prohibition.

Hon. Seymour Lowman was appointed to succeed Gen. L. C. Andrews as Assistant Secretary of the Treasury, in charge of the Customs, Coast Guard, and Prohibition Services.

A list of the Administrators together with headquarters and territory embraced in each district as of Dec. 1, 1929, is here given:

1.—Boston, 261 Franklin St. Maine, New Hampshire, Vermont, Massachusetts, Rhode Island and Connecticut.—Jonathan S. Lewis.

2.—New York, 641 Washington St. Southern and Eastern Judicial Districts of New York—Maj. Maurice Campbell.

3.—Buffalo, 268 Main St. Western and Northern Judicial Districts of New York—Capt. Edwin S. Ross, Actg.

4.—Newark, 1060 Broad St. New Jersey—Capt. Wm. J. Calhoun.

5.—Philadelphia, Earle Theatre Bldg. Eastern and Middle Judicial Districts of Pennsylvania—Col. Samuel O. Wynne.

6.—Pittsburgh, Plaza Bldg. Western Judicial District of Pennsylvania and West Virginia—Commander J. D. Pennington.

7.—Baltimore, Ft. Henry. District of Columbia, Maryland and Delaware—Thomas E. Stone.

8.—Richmond, Federal Bldg. Virginia, North Carolina and South Carolina—Capt. R. Q. Herrick.

9.—Savannah, American Bank Bldg. Southern Judicial District of Florida and Georgia—Robt. E. Tuttle.

10.—New Orleans, Custom House. Louisiana, Mississippi, Alabama and Northern Judicial District of Florida—O. D. Jackson.

11.—Louisville, Post Office Bldg. Kentucky and Tennessee—Ernest Rowe, Acting.

12.—Columbus, Columbian Bldg. Ohio and Indiana—W. N. Woodruff.

13.—Chicago, Transportation Bldg. Illinois, Iowa and Eastern Judicial Dist. of Wisconsin—E. C. Yellowley.

14.—St. Paul, Post Office Bldg. Minnesota, North Dakota, South Dakota and Western Judicial District of Wisconsin—Sigurdt B. Qvalel.

15.—Topeka, Aetna Bldg. Nebraska, Oklahoma and Kansas—George H. Wark.

16.—St. Louis, Title Guaranty Bldg. Missouri and Arkansas—Sam S. Haley.

17.—Fort Worth, Ft. Worth Nat'l Bank Bldg. Texas—Carl Jackson.

18.—Denver, Mercantile Bldg. Colorado, Wyoming and New Mexico—John F. Vivian.

19.—Helena, Montana Bldg. Montana, Idaho and Utah—O. D. John F. J. Herbert.

20.—Seattle, Thompson Bldg. Washington, Oregon, Alaska—Roy C. Lyle.

21.—San Francisco, Custom House. Northern Judicial District of California and Nevada—Wm. G. Walker.

22.—Los Angeles, Transportation Bldg. Southern Judicial District California and Arizona—Wm. R. Woods, Jr.

23.—Honolulu, Federal Bldg. Territory of Hawaii—Capt. W. P. King.

24.—San Juan, Post Office Bldg. Porto Rico—Col. A. J. Hanlon.

25.—Detroit, 1010 Barium Tower. Michigan—N. Boyd F. Miller (Acting).

26.—Albany, New York. Broadway Arcade Building. Wm. D. Moss, Administrator. Counties of Albany, Broome, Chenango, Clinton, Cortland, Delaware, Essex, Franklin, Fulton, Hamilton, Herkimer, Jefferson, Lewis, Madison, Montgomery, Oneida, Onondaga, Otsego, Rensselaer, St. Lawrence, Saratoga, Schenectady, Schoharie, Warren an Washington of the Northern Judicial District of New York, Counties of Ulster, Columbia, Dutchess, Greene, Orange, Putnam, Sullivan and Rockland of the Southern Judicial District of New York.

27.—Salt Lake City, Utah, Clift Building. German E. Ellsworth, Admr. Utah, Arizona and Nevada.

SECRETARY MELLON'S REPORT.

Secretary of the Treasury Mellon in his Annual Report said:

"During the past year the organization of the Bureau of Prohibition has been completed in accordance with the act of March 3, 1927. All field offices were surveyed and set up to operate with maximum efficiency. With the exception of a comparatively small number of agents, all positions of the bureau have been brought within the classified civil service. Employees in the Bureau on June 30, 1929, numbered 4,664, an increase of 68 in the year.

"The instruction of agents in the proper and lawful methods of operation was carried forward during the year by experts. About 750 agents, mostly new recruits, attended the lectures. All agents now have specific instructions regarding the rights of citizens as guaranteed by the fourth and fifth amendments of the Constitution, the proper method of securing search warrants and executing them, and the technique of making investigation of the larger and more important cases, and the proper form of writing a report.

"Prohibition agents made 66,878 arrests during the fiscal year and seized 7,299 automobiles, valued at $2,879,013, and 89 boats, valued at $260,845. Federal agents also made arrests, or assisted in obtaining evidence, in a large number of cases against individuals prosecuted in State courts.

"There has been a substantial increase during the past fiscal year in the quantity of completely and specially denatured alcohol manufactured, which can be readily accounted for on account of the following facts: An increase of several million automobiles registered in the United States has required additional millions of gallons of completely denatured alcohol for antifreezes purposes and a tremendous quantity of specially denatured alcohol to furnish lacquers, which are now used exclusively in finishing automobiles. There has been an expanding market for lacquers manufactured from specially denatured alcohol to finish furniture and the interior of residences. The tremendous expansion of the rayon industry has required additional millions of gallons of specially denatured alcohol. The growth and expansion of chemical industries has also required more alcohol, which is the basic raw material used in thousands of preparations and processes.

MRS. WILLEBRANDT'S REPORT

Mrs. Mabel Walker Willebrandt, who was appointed Assistant Attorney General in May, 1921, and has been since then in charge of Federal prohibition prosecutions, resigned on May 28, 1929, and G. Aaron Youngquist was appointed to succeed her. Mrs. Willebrandt in her report to the Attorney-General for the fiscal year 1928, said:

"There was a substantial increase in almost every important phase of prohibition enforcement under the national prohibition act during the year. The number of individual jail and prison sentences reported was 21,602, an increase of 1,989. The average sentence was 147 days. The number of criminal prohibition prosecutions instituted was 56,786; cases terminated, 56,455; cases pending at the close of the year, 18,690; cases terminated: Convictions, 47,100; nolle prossed or discontinued, 4,835; quashed, dismissed, demurrer, etc., 3,043; acquittals, 1,477. There were about 32 convictions to each acquittal.

The aggregate of fines, forfeitures, and penalties imposed was $7,476,300 and the total amount collected was $4,200,052.

The number of violators put on probation was 3,321, an increase of 949. The aggregate time covered by these probationary sentences was 8,067 years; total time covered by jail and prison sentences was more than 9,663 years, an increase of 963 years. There were 4,885 trials by jury and 43,183 pleas of guilty.

"One of the most noticeable gains in prohibition enforcement was in the matter of padlock or injunction proceedings. There were 7,455 petitions for injunctions, which was an increase of 1,949 over the preceding year, and the number of permanent injunctions increased to 6,303 compared with 3,999 the year before, a gain of more than 57 per cent.

"The number of civil cases terminated during the year was 10,961, compared with 8,617 the year before and an increase of 276 cases pending. The aggregate amount of judgments in favor of the United States was $465,480.89 as against $382,853.25 the preceding year. A total of $27,478.28 was collected by United States attorneys in cases where no civil suit was actually commenced.

THE "FLYING SQUADRON."

"Funds transferred last year from the Bureau of Prohibition to this department for employment of special assistants to the Attorney General for

assistance in grand jury and trial work in the more difficult liquor cases were subsequently increased by the second deficiency act of March 4, 1929. Under this provision this department has now appointed 10 men whose qualifications include experience in criminal trial work in the capacity of assistant United States attorneys and State's attorneys and on the State jurdiciary. They form the nucleus of an organization which will be of valuable assistance to the United States attorneys in clearing crowded dockets or in the trial of complicated and difficult cases. As these special prosecutors stand subject to call to any place in the country, the United States attorneys may feel free to advise with this department and to request their assistance whenever the situation in their districts may warrant doing so.

"Most of these special assistants are allotted to the trial of criminal and injunction cases arising under the liquor laws and of kindred offenses, as bribery, perjury, etc., when cisely allied to liquor, matters.

"In the celebrated New York night-club cases, contrary to the general belief ,considerable successs was obtained. Of 98 defendants in 22 clubs, 18 stood trial in 8 separate cases. Fifteen were convicted while only three were acquitted—a doorman and two women entertainers. The remaining 80 were sentenced on pleas of guilty. The total fines imposed aggregated $18,660; total actual jail time, 125 months and 10 days; total jail time suspended, 138 months; and total time on probation 59½ years. In addition to the criminal cases padlock actions brought closing orders aggregating 18 years, while 4 bars were destroyed pursuant to court orders.

LIQUOR SMUGGLING BY WATER CRAFT

"The control of liquor smuggling in our marginal territorial water and upon the high seas adjacent thereto continues to be a problem. This year we do not report the domestic vessels seized while engaged in this unlawful activity because we have not succeeded in obtaining complete data on such seizures. We believe, however, that the number continues about as heretofore. Small motor boats of less than 5 tons burden are still a source of trouble.

"The seizures of foreign liquor-running vessels this year were fewer in number, 17, than those occurring during the preceding year, 28. The larger vessels are gradually abandoning the trade. A greater proportion of the captured foreign vessels is made up of motor boats.

"The Government of the United States has been desirous of strengthening the liquor-smuggling treaty of June 6, 1924, now effective between Canada and the United States. (44 Stat. 2097.) The chief defect of this treaty lies in the fact that it permits the official clearance through Canadian customs of intoxicating liquor consigned to the United States and intended to be illegally introduced here. In January, 1929, a conference was held in Ottawa, the matter is still being considered by the Canadian Government.

"Liquor smuggling across our international boundary on the north is receiving special consideration by our Government. As indicated in the last annual report, the volume of contraband liquor smuggled in this locality was steadily increasing in volume. Most of the difficulty arises in the waterways of the Great Lakes system. Special effort is now being made to coordinate more effectively the preventive forces of the United States.

"THE 'I'M ALONE' INCIDENT

"The pursuit and sinking by the Coast Guard of the British schooner 'I'm Alone in the Gulf of Mexico in March, 1929, has developed into a matter of very considerable international importance. The vessel—an admitted rum runner—was detected by the Coast Guard off the Louisiana coast on March 20, 1929, with a load of liquor. It is claimed by the United States that the schooner was within boarding distance from the shore, as specified in the British-American extraterritorial seizure convention of 1924. The vessel refused to heave to upon the demand of the Coast Guard, and was thereafter pursued for two days and finally sunk. The Canadian Government has taken issue with the United States in this matter, and the case has been referred to international arbitralton, as provided in the treaty of 1924."

Following Mrs. Willebrandt's statement of the Government's position regarding the sinking of the 'I'm Alone" by the American Coast Guard 200 miles out in the Gulf of Mexico on March 22. it should be said that the two governments have agreed to submit the case to arbitration under the provisions of the Ship Liquor Treaty of 1924 between the United States and Great Britain. Canada, in the arbitration, seeks redress for the sinking of the ship. The Canadian position was that the convention "does not extend the territorial limits of the United States nor confer any general jurisdiction" within the so-called treaty waters beyond the internationally recognized three-mile limit.

Canada held that the schooner was outside treaty waters, and that even if she were within those waters when the pursuit was initiated, such pursuit could not legally have been continued beyond one-hour's steaming distance from the American shore. Canada maintained that the pursuit was not continuous, inasmuch as it was begun by the Coast Guard cutter Wolcott and two days later was completed by the cutter Dexter, which sank the schooner with the Wolcott in sight but with its gun out of commission. The United States asserted that the pursuit was continuous, inasmuch as both Coast Guard boats were operating conjointly as a unit of the same force and under one command.

Justice Willas Vandevanter of the United States Supreme Court and Eugene Lafleur, a Montreal lawyer, were named Aug. 7 as commissioners on the part of the United States and Canada, respectively, to artitrate the case.

ENFORCEMENT IN NEW YORK CITY.

Detailed figures of the Federal enforcement of the law in the Southern District of New York State, Charles H. Tuttle, United States Attorney, and the Eastern District, Howard W. Ameli, United States Attorney, which together covered the City of New York with its environs, for the last four fiscal years, are as follows:

Southern District, covering the Boroughs of Manhattan and the Bronx, in New York City and the counties up the river to and including Columbia.

	1926.	1927.	1928.	1929.
Prosecutions commenced...	2,517	5,076	8,607	6,033
Prosecutions terminated....	3,566	4,243	8,731	6,036
Pleas of guilty..	1,845	3,992	7,841	5,644
Trials by jury...	44	66	32	37
Convictions....	1,854	4,030	7,863	5,670
Acquittals or discontinued.....	23	28	9	14
Nolled.....	1,323	354	312	343
Quashed.....	366	156	556	595
Pending June 30	771	950	1,721	1,836
Total of fines..	$185,128	$156,256	$225,420	$235,956

Eastern District of New York State, covering Queens, Kings and Richmond Counties of Greater New York and Nassau and Suffolk Counties.

	1926.	1927.	1928.	1929.
Prosecutions commenced..	2,490	2,208	2,074	2,343
Prosecutions terminated....	2,246	2,214	2,714	2,485
Pleas of guilty..	1,996	1,881	2,208	1,886
Trials by jury..	99	99	94	176
Convictions....	2,051	1,932	2,238	1,958
Acquittals.....	44	48	51	104
Nolled or discontinued.....	0	0	38	0
Quashed.....	151	234	387	423
Pending June 30	1,541	1,532	892	1,098
Total of fines...	$230,092	$189,696	$182,424	$163,253

Outstanding prosecutions during this period in the Southern District of New York include the conviction of Rudolph Wylke and six other defendants for a large scale conspiracy to smuggle liquors from foreign countries into the United States by means of independently owned vessels. This group had a long history of violations of law and constituted one of the most completely organized criminal associations known to be smuggling liquors.

The conviction of "Tommy" Guinan represents one of a class of successful prosecutions against persons engaged in the operation of night clubs where liquors were sold at exorbitant prices and usually behind locked doors.

In the so-called Bernstein case, the Government convicted after trial fifteen defendants who had engaged in a closely knit organization for the purpose of diverting denatured alcohol from legitimate trade channels and thereafter operating large stills for its "cleaning" and subsequent sale for consumption.

A substantial number of liquor smuggling vessels have been forfeited, tremendous quantities of liquor aggregating millions in value at retail prices have been forfeited, and destroyed, and vigorous use has been made of the contempt powers of the Court against violators of personal injunctions. 775 padlock actions were begun and decrees secured in favor of the Government in 546. One case was decided against the Government.

Police Commissioner Whalen of New York City, in an address to the Rotary Club at the Waldorf on April 4, 1929, said that there were 32,000 "speakeasies" in New York City.

PRESIDENT HOOVER'S FIRST ANNUAL MESSAGE.

President Hoover in his annual message presented to Congress, Dec. 3, 1929, said in part:

"I wish to emphasize that during the past year the Nation has continued to grow in strength; our people have advanced in comfort; we have gained in knowledge; the education of youth has been more widely spread; moral and spiritual forces have been maintained; peace has become more assured. The problems with which we are confronted are the problems of growth and of progress.

FOREIGN RELATIONS.

"We are not only at peace with all the world, but the foundations for future peace are being substantially strengthened. Through the Kellogg-Briand pact a great moral standard has been raised in the world. By it fifty-four nations have covenanted to renounce war and to settle all disputes by pacific means.

"In January, 1926, the Senate gave its consent to adherence to The Court of International Justice with certain reservations. In September of this year the statute establishing the court has, by the action of the nations signatory, been amended to meet the Senate's reservations and to go even beyond those reservations to make clear that the court is a true international court of justice. I believe it will be clear to everyone that no controversy or question in which this country has or claims an interest can be passed on by the court without our consent at the time the question arises. The doubt about advisory opinions has been completely safeguarded. Our adherence to the International Court is, as now constituted, not the slightest step toward entry into the League of Nations. I shall direct that our signature be affixed to the protocol of adherence and shall submit it for the approval of the Senate with a special message at some time when it is convenient to deal with it.

"In the hope of reducing friction in the world, and with the desire that we may reduce the great economic burdens of naval armament, we have joined in conference with Great Britain, France, Italy, and Japan to be held in London in January to consider the further limitation and reduction of naval arms. We hold high hopes that success may attend this effort."

"We still have marines on foreign soil—in Nicaragua, Haiti, and China. In the large sense we do not wish to be represented abroad in such manner. About 1,600 marines remain in Nicaragua at the urgent request of that government and the leaders of all parties pending the training of a domestic constabulary capable of insuring tranquility. We have already reduced these forces materially and we are anxious to withdraw them further as the situation warrants. In Haiti we have about 700 marines, but it is a much more difficult problem, the solution of which is still obscure. If Congress approves, I shall dispatch a commission to Haiti to review and study the matter. Our forces in China constitute 2,605 men, which we hope also further to reduce to the normal legation guard.

"It is my desire to establish more firmly our understanding and relationships with the Latin American countries by strengthening the diplomatic missions to those countries. It is my hope to secure men long experienced in our Diplomatic Service, who speak the languages of the peoples to whom they are accredited, as chiefs of our diplomatic missions in these States.

NATIONAL DEFENSE.

Our Army and Navy are being maintained in a most efficient state under officers of high intelligence and zeal. The extent and expansion of their numbers and equipment as at present authorized are ample for this purpose.

"We can well be deeply concerned, however, at the growing expense. From a total expenditure for national defense purposes in 1914 of $267,000,000 it naturally rose with the Great War, but receded again to $612,000,000 in 1924, when again it began to rise until during the current fiscal year the expenditures will reach to over $730,000,000, excluding all civilian services of those departments. Programs now authorized will carry it to still larger fixtures in future years. The total of our expenditures is in excess of those of the most highly militarized nation of the world.

"Upon the conference shortly to be held in London will depend such moderation as we can make in naval expenditure. If we shall be compelled to undertake the naval construction implied in the Washington arms treaty as well as other construction which would appear to be necessary if no international agreement can be completed, we shall be committed during the next six years to a construction expenditure of upward of $1,200,000,000 besides the necessary further increase in costs for annual upkeep.

"In 1914 the officers and men in our regular forces, both Army and Navy, were about 164,000, in 1924 there were about 256,000, and in 1929 there were about 250,000. Our citizens' army, however, including the National Guard and other forms of reserves, increase these totals up to about 299,000 in 1914, about 672,000 in 1924, and about 728,000 in 1929.

"Under the Kellogg pact we have undertaken never to use war as an instrument of national policy. From a defense point of view our forces should be proportioned to national need and should, therefore, to some extent be modified by the prospects of peace, which were never brighter than to-day.

"In addition to the very large program of air forces which we are maintaining in the Army and Navy, there has been an enormous growth of commercial aviation. This has provided unanticipated reserves in manufacturing capacity and in industrial and air personnel, which again adds to our security.

GENERAL ECONOMIC SITUATION.

"The country has enjoyed a large degree of prosperity and sound progress during the past year with a steady improvement in methods of production and distribution and consequent advancement in standards of living. Progress has, of course, been unequal among industries, and some, such as coal, lumber, leather, and textiles, still lag behind. The long upward trend of fundamental progress, however, gave rise to over-optimism as to profits, which translated itself into a wave of uncontrolled speculation in securities, resulting in the diversion of capital from business to the stock market and the inevitable crash. The natural consequences have been a reduction in the consumption of luxuries and semi-necessities by those who have met with losses, and a number of persons thrown temporarily out of employment. Prices of agricultural products dealt in upon the great markets have been affected in sympathy with the stock crash.

"Fortunately, the Federal reserve system had taken measures to strengthen the position against the day when speculation would break, which together with the strong position of the banks has carried the whole credit system through the crisis without impairment. The capital which has been hitherto absorbed in stock market loans for speculative purposes is now returning to the normal channels of business. There has been no inflation in the prices of commodities; there has been no undue accumulation of goods, and foreign trade has expanded to a magnitude which exerts a steadying influence upon activity in industry and employment.

"The sudden threat of unemployment and especially the recollection of the economic consequences of previous crashes under a much less secured financial system created unwarranted pessimism and fear. It was recalled that past storms of similar character has resulted in retrenchment of construction, reduction of wages, and laying off of workers. The natural result was the tendency of business agencies throughout the country to pause in their plans and proposals for continuation and extension of their businesses, and this hesitation unchecked could in itself intensify into a depression with widespread unemployment and suffering.

"I have, therefore, instituted systematic, voluntary measures of cooperation with the business institutions and with State and municipal authorities to make certain that fundamental businesses of the country shall continue as usual, that wages and therefore consuming power shall not be reduced, and that a special effort shall be made to expand construction work in order to assist in equalizing other deficits in employment. Due to the enlarged sense of cooperation and responsibility which has grown in the business world during the past few years the response has been remarkable and satisfactory. We have canvassed the Federal Government and instituted measures of prudent expansion in such work that should be helpful, and upon which the different departments will make some early recommendations to Congress.

"I am convinced that through these measures we have reestablished confidence. Wages should remain stable. A very large degree of industrial unemployment and suffering which would otherwise have occurred has been prevented. Agricultural prices have reflected the returning confidence. The measures taken must be vigorously pursued until normal conditions are restored.

AGRICULTURE.

"The agricultural situation is improving. The gross farm income as estimated by the Department

of Agriculture for the crop season 1926-27 was $12,100,000,000; for 1927-28 it was $12,300,000 000; for 1928-29 it was $12,500,000,000; and estimated on the basis of prices since the last harvest the value of the 1929-30 crop would be over $12,650,000,000. The slight decline in general commodity prices during the past few years naturally assists the farmers' buying power.

"The number of farmer bankruptcies is very materially decreased below previous years. The decline in land values now seems to be arrested and rate of movement from the farm to the city has been reduced. Responsible farm leaders have assured me that a large measure of confidence is returning to agriculture and that a feeling of optimism pervades that industry.

"The most extensive action for strengthening the agricultural industry ever taken by any government was inaugurated through the Farm Marketing act of June 15 last. Under its provisions the Federal Farm Board has been established, comprised of men long and widely experienced in agriculture and sponsored by the farm organizations of the country. During its short period of existence the board has taken definite steps toward a more efficient organization of agriculture, toward the elimination of waste in marketing, and toward the upbuilding of farmers' marketing organizations on sounder and more efficient lines. Substantial headway has been made in the organization of four of the basic commodities—grain, cotton, livestock, and wool. Support by the board to cooperative marketing organizations and other board activities undoubtedly have served to steady the farmers' market during the recent crisis and have operated also as a great stimulus to the cooperative organization of agriculture. The problems of the industry are most complex, and the need for sound organization is imperative. Yet the board is moving rapidly along the lines laid out for it in the act, facilitating the creation by farmers of farmer-owned and farmer-controlled organizations and federating them into central institutions, with a view to increasing the bargaining power of agriculture, preventing and controlling surpluses, and mobilizing the economic power of agriculture.

THE TARIFF.

"The special session of Congress was called to expedite the fulfillment of party pledges of agricultural relief and the tariff. The pledge of farm relief has been carried out. At that time I stated the principles upon which I believed action should be taken in respect to the tariff:

" 'An effective tariff upon agricultural products, that will compensate the farmer's higher costs and higher standards of living, has a dual purpose. Such a tariff not only protects the farmer in our domestic market but it also stimulates him to diversify his crops and to grow products that he could not otherwise produce, and thus lessens his dependence upon exports to foreign markets. The great expansion of production abroad under the conditions I have mentioned renders foreign competition in our export markets increasingly serious. It seems but natural, therefore, that the American farmer, having been greatly handicapped in his foreign market by such competition from the younger expanding countries, should ask that foreign access to our domestic market should be regulated by taking into account the difference in our costs of production. * * *

" 'In considering the tariff for other industries than agriculture, we find that there have been economic shifts necessitating a readjustment of some of the tariff schedules. Seven years of experience under the tariff bill enacted in 1922 have demonstrated the wisdom of Congress in the enactment of that measure. On the whole it has worked well. In the main our wages have been maintained at high levels; our exports and imports have steadily increased; with some exceptions our manufacturing industries have been prosperous. Nevertheless, economic changes have taken place during that time which have placed certain domestic products at a disadvantage and new industries have come into being, all of which create the necessity for some limited changes in the schedules and in the administrative clauses of the laws as written in 1922.

" 'It would seem to me that the test of necessity for revision is, in the main, whether there has been a substantial slackening of activity in an industry during the past few years, and a consequent decrease of employment due to insurmountable competition in the products of that industry. It is not as if we were setting up a new basis of protective duties. We did that seven years ago. What we need to remedy now is whatever substantial loss of employment may have resulted from shifts since that time. * * *

" 'In determining changes in our tariff we must not fail to take into account the broad interests of the country as a whole, and such interests include our trade relations with other countries.'

"I am firmly of the opinion that their application to the pending revision will give the country the kind of a tariff law it both needs and wants. It would be most helpful if action should be taken at an early moment, more especially at a time when business and agriculture are both cooperating to minimize future uncertainties. It is just that they should know what the rates are to be.

"I have been most anxious that the broad principle of the flexible tariff as provided in the existing law should be preserved and its delays in action avoided by more expeditious methods of determining the costs of production at home and abroad, with executive authority to promulgate such changes upon recommendation of the Tariff Commission after exhaustive investigation.

"There is no fundamental conflict between the interests of the farmer and the worker. The prosperity of one rests upon the well-being of the other. Nor is there any real conflict between the East and the West or the North and the South in the United States. The complete interlocking of economic dependence, the common striving for social and spiritual progress, our common heritage as Americans, and the infinite web of national sentiment, have created a solidarity in a great people unparalleled in all human history. These invisible bonds should not and can not be shattered by differences of opinion growing out of discussion of a tariff."

The President's discussion of the finances of the Government and reduction of taxation will be found in his Budget Message. (See Index.) In repeating his suggestion regarding public buildings as given also in his Budget Message, he asked again that the Fine Arts Commission be required to pass upon private buildings proposed for sites facing on public buildings and parks in Washington.

The President said that it had been found advisable to review the proposed Atchafalaya River floodway before making recommendation to Congress on Mississippi flood control, but asks for an appropriation of $35,000,000.

RECOMMENDATIONS FOR COMMISSIONS.

He asked for legislation to expedite the consolidation of railway systems and to relieve the Interstate Railway Commission of much detail work

He asked for a full time Federal Power Commission with enlarged powers; for the reorganization of the Radio Commission on a permanent basis; and for a special commission to negotiate and complete contracts for the utilization of the power at Muscle Shoals.

He announced that he had appointed a Commission on Conservation of the Public Domain, with a membership representing the major public land States and at the same time the public at large; also a committee representative of the important educational associations and others to investigate and present recommendations on public education; and a voluntary committee to assist in a nation-wide movement for abolition of illiteracy.

He recommended that the purpose of the Sheppard-Towner Act should be continued through the Children's Bureau for a limited period of years; and that the Congress should consider the desirability of confining the use of Federal health and welfare funds by the States to the building up of such county or other local units, and that such outlay should be positively coordinated with the funds expended through the United States Public Health Service directed to other phases of the same county or other local unit organization.

He also recommended a new Federal prison and a reorganization of the probation and parole systems; and that appointments of third-class poastmasters be made under the Civil Service Law.

REORGANIZATION OF GOVERNMENT DEPARTMENTS.

Reorganization of the departments of government, the President declared, is a necessity of sound administration; of economy; of more effective governmental policies and of relief to the citizen from unnecessary harassment in his relations with a multitude of scattered governmental agencies.

All administrative activities of the same major purpose should be placed in groups under single-headed responsibility; and, all executive and administrative functions should be separated from boards and commissions and placed under individual responsibility, while quasilegislative and quasijudicial and broadly advisory functions should be removed from individual authority and assigned to boards and commissions.

But he sees no hope for the development of a sound reorganization of the Government unless

Congress be willing to delegate its authority over the problem (subject to defined principles) to the Executive, who should act upon approval of a joint committee of Congress or with the reservation of power of revision by Congress within some limited period adequate for its consideration.

MERCHANT MARINE.

"Under the impulse of the merchant marine act of 1928," said the President, "the transfer to private enterprise of the Government-owned steamship lines is going forward with increasing success. The Shipping Board now operates about 18 lines, which is less than half the number originally established, and the estimate of expenditures for the coming fiscal year is based upon reduction in losses on Government lines by approximately one-half. Construction loans have been made to the amount of approximately $75,000,000 out of the revolving fund authorized by Congress and have furnished an additional aid to American shipping and further stimulated the building of vessels in American yards. I appointed an interdepartmental committee, consisting of the Secretary of Commerce, as chairman, the Secretary of the Navy, the Postmaster General, and the chairman of the Shipping Board, to make a survey of the policies being pursued under the act of 1928 in respect of mail contracts; to inquire into its workings and to advise the Postmaster General in the administration of the act.

"In review of the mail contracts already awarded it was found that they aggregated 25 separate awards imposing a governmental obligation of a little over $12,000,000 per annum. Provision had been imposed in five of the contracts for construction of new vessels with which to replace and expand services. These requirements come to a total of 12 vessels in the 10-year period, aggregating 122,000 tons. That study has now been substantially completed and the committee has advised the desirability and the necessity of securing much larger undertakings as to service and new construction in future contracts. The committee at this time is recommending the advertising of 14 additional routes, making substantial requirements for the construction of new vessels during the life of each contract recommended. A total of 40 new vessels will be required under the contracts proposed, about half of which will be required to be built during the next three years. The capital cost of this new construction will be approximately $250,000,000, involving approximately 460,000 gross tons. Should bidders be found who will make these undertakings, it will be necessary to recommend to Congress an increase in the authorized expenditure by the Post Office of about $5,500,000 annually. It will be most advantageous to grant such an authority.

THE BANKING SYSTEM.

"It is desirable that Congress should consider the revision of some portions of the banking law.

"The development of 'group' and 'chain' banking presents many new problems. The question naturally arises as to whether if allowed to expand without restraint these methods would dangerously concentrate control of credit, and whether they would not in any event seriously threaten one of the fundamentals of the American credit system—which is that credit which is based upon banking deposits should be controlled by persons within those areas which furnish these deposits and thus be subject to the restraints of local interest and public opinion in those areas. To some degree, however, this movement of chain or group banking is a groping for stronger support to the banks and a more secure basis for these institutions.

"The relinquishment of charters of national banks in great commercial centers in favor of State charters indicates that some conditions surround the national banks which render them unable to compete with State banks; and their withdrawal results in weakening our national banking system.

"It has been proposed that permission should be granted to national banks to engage in branch banking of a nature that would preserve within limited regions the local responsibility and the control of such credit institutions. It might be found advantageous to create a joint commission embracing Members of the Congress and other appropriate Federal officials for subsequent report.

VETERANS.

"The doors of the Government's hospitals have been opened to all veterans, even though their diseases or injuries were not the result of their war service. In addition adjusted service certificates have been issued to 3,433,300 veterans. This in itself will mean an expenditure of nearly $3,500,000,000 before 1945, in addition to the $600,000,000 which we are now appropriating anually for our veterans' relief. While some inequalities have arisen, substantial and adequate care has been given and justice administered.

"I am conviced that we will gain in efficiency, economy, and more uniform administration and better definition of national policies if the Pension Bureau, the National Home for Volunteer Soldiers, and the Veterans' Bureau are brought together under a single agency. The total appropriations to these agencies now exceed $800,000,000 per annum.

PROHIBITION.

"The enforcement of the laws enacted to give effect to the eighteenth amendment is far from satisfactory and this is in part due to the inadequate organization of the administrative agencies of the Federal Government. With the hope of expediting such reorganization, I requested on June 6 last that Congress should appoint a joint committee to collaborate with executive agencies in preparation of legislation. It would be helpful if it could be so appointed. The subject has been earnestly considered by the Law Enforcement Commission and the administrative officials of the Government. Our joint conclusions are that certain steps should be taken at once. First, there should be an immediate concentration of responsibility and strengthening of enforcement agencies of the Federal Government by transfer to the Department of Justice of the Federal functions of detection and to a considerable degree of prosecution, which are now lodged in the Prohibition Bureau in the Treasury; and at the same time the control of the distribution of industrial alcohol and legalized beverages should remain in the Treasury. Second, provision should be made for relief of congestion in the Federal courts by modifying and simplifying the procedure for dealing with the large volume of petty prosecutions under various Federal acts. Third, there should be a codification of the laws relating to prohibition to avoid the necessity which now exists of resorting to more than 25 statutes enacted at various times over 40 years. Technical defects in these statutes that have been disclosed should be cured. I would add to these recommendations the desirability of reorganizing the various services engaged in the prevention of smuggling into one border patrol under the Coast Guard.

"The District of Columbia should be the model of city law enforcement in the Nation. While conditions here are much better than in many other cities, they are far from perfect, and this is due in part to the congestion of criminal cases in the Supreme Court of the District, resulting in long delays. Furthermore, there is need for legislation in the District supplementing the national prohibition act, more sharply defining and enlarging the duties and powers of the District Commissioners and the police of the District, and opening the way for better cooperation in the enforcement of prohibition between the District officials and the prohibition officers of the Federal Government. It is urgent that these conditions be remedied.

LAW ENFORCEMENT AND OBSERVANCE.

"No one will look with satisfaction upon the volume of crime of all kinds and the growth of organized crime in our country. We have pressing need so to organize our system of administering criminal justice as to establish full vigor and effectiveness. It is the most serious issue before our people.

"Under the authority of Congress I have appointed a National Commission on Law Observance and Enforcement, for an exhaustive study of the entire problem of the enforcement of our laws and the improvement of our judicial system, including the special problems and abuses growing out of the prohibition laws. The commission has organized its work under subcommittees dealing with the many contributory causes of our situation and has enlisted the aid of investigators in fields requiring special consideration.

"Pending further legislation, the Department of Justice has been striving to weed out inefficiency wherever it exists, to stimulate activity on the part of its prosecuting officers, and to use increasing care in examining into the qualifications of those appointed to serve as prosecutors. Increases in appropriations are necessary.

"However much we may perfect the mechanism, still if the citizen who is himself dependent upon some laws for the protection of all that he has and all that he holds dear, shall insist on selecting the particular laws which he will obey, he undermines his own safety and that of his country. His attitude may obscure, but it can not conceal, the ugly truth that the lawbreaker, whoever he may be, is the enemy of society. Our laws are made by the people themselves; theirs is the right to work for their repeal; but until repeal it is an equal duty to observe them and demand their enforcement."

PRESIDENT HOOVER'S BUDGET MESSAGE.

President Hoover in his message to Congress, Dec. 4, 1929, presenting the budget for 1930-31 noted that by deducting the revolving loan fund of $150,000,000 for the Federal Farm Board appropriated in the 1930 budget and for which no corresponding figure for the 1931 budget could at present be fixed, the total estimates of appropriations in 1931 exceeds those of 1930 by $4,304,000.

Notable increases are: $8,800,000 for enlarging the Capitol grounds, House and Senate office buildings and new Supreme Court building; $2,800,000 for the Interstate Commerce Commission; $3,300,000 for forest service; $1,100,000 for plant quarantine; $2,500,000 for public roads; $3,100,000 for Indian educational, health and industrial service; $2,500,000 for aeronautics in the Department of Commerce; $1,100,000 for Federal Court expenses; $2,250,000 for Federal prisons; $15,600,000 for the Navy; $8,550,000 for military expenses in the War Department; $1,275,000 for the Bureau of Prohibition; $2,450,000 for the Coast Guard; $3,300,000 for the District of Columbia; $5,000,000 for flood control and $5,000,000 for rivers and harbors.

The President, speaking of the public building program, said:

"Many of the difficulties have been overcome and it is expected that the work will now proceed expeditiously, resulting in the completion of 34 new or enlarged buildings in the fiscal year 1930 and 40 in the fiscal year 1931. The program calls for a total expenditure of approximately $300,000,000 in addition to the proceeds of sale of abandoned property. Individual projects have already been authorized by the Congress at limits of cost in excess of $260,000,000. There were brought forward into the fiscal year 1930 appropriation balances aggregating $41,481,099. This is increased by appropriations made at the last session of the Congress, amounting to $39,475,500, making the total amount available for expenditure $80,956,599. Of this amount the Treasury Department contemplates spending about $59,500,000 in the fiscal year 1930. The Budget for 1931 carries estimates for public buildings, including the purchase of additional land in Washington, amounting to $30,000,000. Supplemental thereto an estimate of about $5,000,000 will be submitted at a later date when the Treasury Department has concluded its survey of new projects. The appropriation of these amounts will provide the Treasury with ample funds to continue the work during the fiscal year 1931.

"The War Department is also carrying forward a building program, involving an ultimate expenditure of about $118,000,000, for the housing of military personnel, made necessary by the need for the replacement of World War temporary construction and to provide for the increase in the pre-war strength of the Regular Army. There has already been appropriated for this purpose $37,193,899, and $16,062,860 is carried in the estimates for 1931 with authority to make contracts for $3,000,000 additional. The estimates for 1931 also carry $3,311,000 for technical buildings for the air services of the Army and Navy, and $3,176,000 for other buildings for various purposes for the Army, Navy, and Panama Canal.

"For completing the $15,000,000 program for additional hospital facilities for the Veterans' Bureau, $2,000,000 is provided for liquidating contracts previously authorized by the Congress.

"In furtherance of the $10,000,000 program for houses and offices for our foreign representatives, $1,700,000 is included in these estimates.

NATIONAL DEFENSE AND AIR SERVICE.

"The estimates for direct appropriations for the War and Navy Departments for 1931 provide a total of $719,089,000 for national defense. This is exclusive of all items of a non-military character. Provision is made for carrying forward the Air Service programs of the two services, the housing program of the Army, and the requirements of the Navy with regard to the modernization of old battleships and the construction of new ships authorized by the act of February 13, 1929, as well as the light cruisers and submarines authorized by prior law. With regard to the 15 new cruisers authorized by the act of last February, provision is made for continuing work on the two cruisers already laid down and on the aircraft carrier and three cruisers to be laid down late in the fiscal year 1930 and for the commencement of the construction of the second and third blocks of five cruisers each, late in the fiscal year 1931.

"Under the Air Service programs for the Army and Navy, the budget calls for a total of $33,000,000 for the procurement of airplanes, their engines, etc., and for the same purposes for the Coast Guard, Department of Commerce, and the National Advisory Committee for Aeronautics a total of $460,000. With regard to the Army, provision is made for the procurement of the 443 airplanes pertaining to the fourth increment of the 5-year program authorized by the Congress. This program calls for 1,515 planes to be on hand and on order on June 30, 1931, and this goal will be reached or closely approached by the funds already appropriated and the amounts estimated in this Budget. The present shortage in the program is about 40 planes pertaining to prior increments. Concerning the Navy Air Service, the last, or fifth, increment of the 5-year program authorized by the Congress will be reached in 1931. This program contemplates about 1,000 planes and 2 ighter-than-air ships to be on hand and on order at the close of that fiscal year. To accomplish this, provision is made for the procurement of 269 airplanes and their equipment, and for continuing the work on the 2 lighter-than-air ships now under contract. For airways, the inspection and licensing of commercial planes and pilots, and furnishing weather reports, there is included in the estimates of the Department of Commerce $8,925,830 and in those for the Weather Bureau $1,400,000. By June 30, 1931, there will be about 18,400 miles of airways lighted and equipped.

"The estimates for 1931 provide for 84,500 enlisted men for the Navy and 18,000 enlisted men for the Marine Corps, the same as for 1930, and for the same number of ships in commission; and for the Army an average strength of 12,000 officers, 998 warrant officers and 118,750 enlisted men, exclusive of the 6,500 Philippine scouts; also the annual two weeks training of 20,000 reserve officers and longer periods of 840 reserve officers for the attendance of 37,500 men at the Citizen Military Training Camps in the United States and 3,000 in the Philippines, for an enrollment of 127,500 students in the Reserve Officers' Training Corps units, and for the maintenance of the National Guard at an aggregate strength of 190,000."

The President gave the following summary of estimated receipts and expenditures (exclusive of postal revenues and postal expenditures paid from postal revenues):

	Est., 1931.	Est., 1930.	Act., 1929.
	Dollars.	*Dollars.*	*Dollars.*
Receipts:			
Customs..	602,000,000	602,000,000	602,262,786
Income tax	2,460,000,000	2,480,000,000	2,330,711,823
Int. rev...	640,000,000	635,000,000	607,307,549
Misc.rec'ts	523,727,666	532,263,434	492,968,067
	4,225,727,666	4,249,263,434	4,033,250,225
Exp'd't'rs.	4,102,938,700	4,023,681,900	3,848,463,190
Surplus...	122,788,966	225,581,534	184,787,035

"The increase in actual receipts for 1929 over the estimate is due," the President said, "mainly to an unforeseen increase in receipts from the individual income tax. On the expenditure side, the total excess over the estimate, $54,000,000, is but slightly in excess of the amount paid to the railroads on account of back mail pay, an expenditure which could not have been anticipated in the estimate.

"For 1930 there is a marked improvement over the financial situation as estimated in the Budget for 1930 transmitted to the Congress in December, 1928. Receipts show an increase of about $408,000,000 and the expenditures about $243,000,000. On the receipt side the increase in the estimate is reflected generally in the income tax, $305,000,000, due to an abnormal increase in the incomes reported by individuals for 1928 and to this exceedingly prosperous business year; miscellaneous internal revenue, $76,000,000, derived in the main from a steady expansion of the tobacco tax and increased stamp-tax receipts; customs, $20,000,000; and miscellaneous receipts, about $7,000,000. On the expenditure side the principal items making up the increase in the estimate are $75,000,000 for the net expenditures from the revolving loan fund of the Federal Farm Board, $77,000,000 for public-debt retirements, $12,790,000 for the postal deficiency, $23,000,000 for the construction and modernization of naval ships, $42,000,000 for the Treasury Department, mainly to the settlement of war claims and the public building program, and $11,800,000 for the Veterans' Bureau.

TAX REDUCTION.

"With an estimated surplus of over $225,000,000 this year and $122,000,000 next year it is felt," the President said, "that some measure of reduction in taxes is justified. Since the fiscal year 1921 four

PRESIDENT HOOVER'S BUDGET AT A GLANCE.

President Hoover gave out on Dec. 5 his Federal "budget at a glance"—a rearrangement of the budget as presented to Congress.

The statement shows that approximately 72 cents of every dollar to be spent by the Federal government during the next fiscal year must go to pay for past wars and preparedness for any that may occur in the future.

Only eight cents of every dollar will be spent to keep the actual machinery of the government functioning; 13 cents will be devoted to the social aids and subsidies, and the remaining 7 cents to maintaining the government's fiscal affairs.

Of the $3,830,445,231 which Congress has been asked to appropriate for the fiscal year beginning next July 1, the sum of $2,733,213,283 must be provided for payment of principal and interest on the public debt, incurred to prosecute war, outlays for pensions, hospitalization and other expenses incurred on behalf of veterans of former wars and for national defense—the Army, Navy, Marine Corps and National Guard.

The statement showing in detail how the government's money has been apportioned is as follows:

	Appropriations.	
	Estimates, 1931.	Actual, 1930.
GROUP I.		
Public Debt:		
Principal	$635,324,000	$623,894,100
Interest	619,000,000	656,000,000
	$1,254,324,000	$1,279,894,100
Veterans of former wars	759,799,895	757,044,485
National defense	719,089,388	692,399,804
Total Group I	$2,733,213,283	$2,729,338,389
GROUP II.		
Legislative	$11,568,208	$10,698,973
Executive	422,320	447,220
Judicial, law enforcement and regulatory commissions	88,310,150	76,922,014
Fiscal administration and control of currency and banking	76,507,067	76,193,434
Foreign relations	16,735,902	14,257,626
Administration of territories and dependencies	1,918,693	872,785
Service agencies to the departments and independent establishments	33,599,520	33,406,455
Civil pensions and allowances	21,148,000	20,797,000
Balance of postal deficiency after deducting losses due to contract air-mail routes, foreign air-mail routes and to transportation of foreign mail in American vessels	50,098,000	57,514,000
Total Group II	$300,307,860	$291,109,507
GROUP III.		
Public health	$20,804,072	$19,774,123
Education	14,491,938	14,410,563
Indian affairs	20,508,330	17,523,516
Conservation of national resources	47,796,767	43,801,966
Agricultural marketing revolving fund	*	150,000,000
Other aids to agriculture	51,755,016	48,818,044
Aids to labor	6,510,170	6,033,286
Aids to aviation, including losses on air-mail routes	22,517,630	20,362,620
Aids to industry and trade	14,922,044	13,800,242
Aids to merchant marine, including losses on transportation of foreign mail in American vessels	57,286,042	58,928,750
Public buildings and public works	246,012,061	245,786,830
Bureau of the Census	8,497,000	19,000,000
Total Group III	$511,193,070	$658,239,940
GROUP IV.		
Refunds (taxes, customs, etc.)	$162,582,500	$153,009,000
Trust funds (veterans' insurance, Indian funds, etc.)	74,617,240	95,318,650
District of Columbia	47,880,228	44,540,115
Miscellaneous	705,050	4,586,050
Total Group IV	$285,731,018	$297,453,815
Total exclusive of postal service payable from postal revenues	$3,830,445,231	$3,976,141,651

COMPARATIVE SUMMARY OF RECEIPTS, EXPENDITURES AND SURPLUS.

Fiscal Year.	Receipts.	Expenditures	Surplus.	Fiscal Year.	Receipts.	Expenditures	Surplus.
	Dollars.	*Dollars.*	*Dollars.*		*Dollars.*	*Dollars.*	*Dollars.*
1924 Act...	4,012,044,701	3,506,677,715	505,366,986	1928 Est...	4,075,598,091	3,621,314,285	454,283,806
1925 Est...	3,601,968,297	3,534,083,808	67,884,489	1928 Act...	4,042,348,156	3,643,519,875	398,828,281
1925 Act...	3,780,148,684	3,529,643,446	250,505,238	1929 Esv...	3,831,735,661	3,794,745,469	36,990,192
1926 Est...	3,880,716,942	3,618,675,186	262,041,756	1929 Act..	4,033,250,225	3,848,463,190	184,787,035
1926 Act...	3,962,755,690	3,584,987,313	377,767,817	1930 Est...	4,249,263,434	4,023,681,900	225,581,534
1927 Est...	3,824,530,203	3,494,222,308	330,307,894	1931 Est...	4,225,727,666	4,102,938,790	122,788,966
1927 Act...	4,129,394,441	3,493,584,519	635,809,922				

Note—The figures are exclusive of postal revenues and postal expenditures paid from postal revenues, and the expenditures include reduction of the public debt required to be made from ordinary receipts. The budget estimate for 1930 presented last year was revised when the 1931 estimate was sent in.

reductions in taxes have been made. Experience has shown that each reduction in taxes has resulted in revenue in excess of the mathematically computed return under the reduced rates. Undoubtedly an increase in the prosperity of business brought forth by tax reduction is partly responsible for this experience. Such reduction gives the taxpayer correspondingly more for his own use and thus increases the capital available for general business. Under the present circumstances I am in favor of a reduction in income taxes to be effective on returns for the calendar year 1929, which will be due March 15, 1930.

"Our finances are in sound condition. The public debt which at its peak in August, 1919, amounted to $26,596,000,000, stood at $16,931,000,000 on June 30, 1929. We are wisely committed to a policy which insures the further progressive reduction of the debt. We will reach in 1931 for the first time the period when the annual reduction required by law in the principal of the debt will be greater than the annual interest charges on the debt. We are also committed to the annual amortization of our other long term commitments—such as the adjusted service certificate of the veterans of the World War and our liability under the retirement laws affecting civilian personnel. Our estimated expenditures for this and the next year are well within our expected receipts."

THE UNITED STATES BUDGET FOR 1930-1931.

The Budget of the United States for the fiscal year ending June 30, 1931, as presented to Congress Dec. 1, 1929 by President Hoover, is given herewith, with the corresponding figures for 1928, 1929 and 1930 (cents omitted):

	Estimates of Appropriations, 1931.	Appropriations, 1930.	Appropriations, 1929, (*a*)	Appropriations, 1928.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*
Legislative Establishment:				
Senate	3,232,764	2,951,651	Not Segregated.	Not Segregated.
House of Representatives	8,153,394	7,580,361	"	"
Architect of the Capitol	11,084,347	2,506,800	"	"
Botanic Garden	173,790	173,060	"	"
Library of Congress	2,248,722	2,068,612	"	"
Government Printing Office	2,370,000	3,419,000	"	"
Miscellaneous	182,050	166,960	"	"
Total, legislative establishm't	28,345,067	18,866,445	17,913,873	16,554,580
Executive Office	422,320	447,220	437,180	438,460
Independent establishments:				
Alaska relief funds	15,000	15,000	15,000	15,000
Amer. Battle Monuments Com'n.	1,000,000	600,000	700,000	600,000
Arlington Mem. Bridge Com'n	1,000,000	2,000,000	2,300,000	2,500,000
Board of Mediation	328,380	302,270	347,902	390,000
Board of Tax Appeals	690,000	663,863	720,740	712,780
Bureau of Efficiency	224,330	224,330	210,350	210,350
Civil Service Commission	1,362,952	1,226,862	1,130,352	1,007,422
Commission of Fine Arts	9,080	9,080	7,300	7,300
Employees' Compensation Com'n	4,210,000	4,073,326	3,755,010	2,698,240
Fed. Board for Vocational Educ'n.	8,420,000	8,799,520	8,220,000	8,165,230
Federal Farm Board (*b*)	1,900,000	151,790,000	.....	.....
Federal Oil Conservation Board	22,220	.....	.....	.....
Federal Power Commission	187,250	179,500	120,290	42,500
Federal Radio Commission	168,610	164,440	364,070	.....
Federal Reserve Board	2,560,336	2,605,751	2,700,000	2,700,000
Federal Trade Commission	1,437,460	1,277,760	1,048,000	984,350
General Accounting Office	4,181,000	4,092,000	3,820,000	3,833,006
Housing Corporation	298,950	243,450	475,750	564,236
Interstate Commerce Commission	10,329,963	7,548,825	7,654,745	7,811,314
Mt. Rushmore Nat'l Mem. Com'n	60,000	.....	.....	.....
Nat'l Advisory Committee for Aeronautics	1,321,000	1,292,200	600,000	525,000
Porto Rican Hurricane Relief Commission	1,000,000	.....	.....	.....
Protecting interests in oil lands	.....	100,000	.....	.....
Public Bldgs. and Parks of the Nat'l Capital	3,591,640	2,888,061	2,652,980	2,422,950
Public Buildings Commission	100,000	.....	.....	.....
Smithsonian Institution	1,189,683	1,106,183	1,004,162	939,711
Tariff Commission	825,000	789,000	754,000	682,000
U. S. Geographic Board	14,600	9,200	4,300	3,945
U. S. Shipping Board and Merchant Fleet Corp	6,396,000	11,494,000	13,688,750	12,290,000
U. S. Veterans' Bureau	589,755,000	597,375,000	560,060,000	545,865,000
Miscellaneous	.....	.....	214,374	(*c*) 614,000
Total, Executive Office and independent establishments	643,021,234	801,316,831	613,005,812	595,520,808
Department of Agriculture	165,088,506	155,729,990	154,723,794	139,862,989
Department of Commerce	52,382,270	58,795,609	33,375,580	30,630,450
Department of the Interior	304,302,348	311,346,078	300,632,539	285,810,120
Department of Justice	32,017,292	27,937,370	26,808,063	26,400,890
Department of Labor	12,219,770	10,774,430	11,078,340	10,159,516
Navy Department	380,392,526	362,061,247	364,233,362	318,131,956
Post Office Department:				
Service payable from postal rev.	760,470,577	734,235,725	690,949,212	724,966,200
Deficiency payable from Treasury	78,500,000	85,000,000	83,495,830	30,370,000
State Department	17,238,659	14,794,946	14,466,236	12,155,119
Treasury Department	348,107,000	342,631,717	345,940,278	275,732,633
War Dept., inc. Panama Canal	466,626,332	463,452,777	408,605,352	371,904,165
District of Columbia	47,880,228	44,540,115	40,357,308	38,824,385
Total, ordinary, incl. Postal Ser.	3,336,591,809	3,430,483,276	3,110,885,529	2,883,023,811
Reduction in principal of the public debt:				
Sinking fund	395,624,000	382,720,000	370,153,408	354,157,085
Other redemptions of the debt	239,700,000	241,174,100	172,289,300	182,963,650
Principal of the public debt	635,324,000	623,894,100	542,422,708	537,120,735
Interest on the public debt	619,000,000	656,000,000	675,000,000	720,000,000
Total, incl. Post Office Dept.	4,590,915,809	4,710,377,376	4,328,028,236	4,140,144,546
Deduct Service payable from postal revenues	760,470,577	734,235,725	690,949,212	724,960,200
Total payable from Treasury	3,830,445,232	(*b*) 3,976,141,651	3,637,079,024	3,415,178,346

(*a*) Exclusive of additional amounts required to meet the provisions of the act approved May 28, 1928, amending the Classification Act of 1923, approximately $20,000,000.

(*b*) $150,000,000 included in appropriations for 1930 for Federal Farm Board revolving loan fund. No corresponding figure included for 1931.

(*c*) Contains an item of $600,000 appropriation for Alien Property Custodian.

THE PUBLIC DEBT OF THE UNITED STATES.

The total gross debt of the United States on Nov. 30, 1929, on the basis of the daily Treasury statements (cents omitted) was:

Bonds:	
2% Consols of 1930	$599,724,050
2% Panama's of 1916-36	48,954,180
2% Panama's of 1918-38	25,947,400
3% Panama's of 1961	49,800,000
3% Conversion bonds	28,394,500
2½% Postal Savings bonds	18,053,360
	$771,373,490
First Liberty Loan of 1932-1947	$1,938,788,250
4¼% Fourth Liberty Loan of 1933-38	6,268,269,050
	$8,207,057,300
4¼% Treasury Bonds of 1947-52	$758,984,300
4% Treasury Bonds of 1944-1954	1,036,834,500
3¾% Treasury Bonds of 1946-1956	489,087,100
3¾% Treasury Bonds of 1943-1947	493,037,750
3½% Treasury Bonds of 1940-1943	359,042,950
	$3,136,986,600
Total bonds	$12,115,417,390
Treasury Notes	$2,648,600,550
Treasury Certificates	1,658,283,000
Total interest-bearing debt	$16,422,300,940
Matured Debt on Which Interest Has Ceased	$33,104,730
Debt Bearing No Interest:	
United States notes	$346,681,016
Less gold reserve	156,039,088
	$190,641,928
Deposits for retirement of national-bank and Federal reserve bank notes	39,993,824
Old demand notes and fractional currency	2,054,151
Thrift and Treasury savings stamps, unclassified sales, etc.	3,465,183
	$236,145,086
Total gross debt	$16,951,550,756
Net balance in general fund	$123,894,244
Gross debt less net balance	$16,567,656,512

POST WAR DEBT REDUCTION FOR 1929.

In his report for 1929 Secretary of the Treasury, Andrew W. Mellon, said:

"The war debt reached its highest point on Aug. 31, 1919. In the full decade hereafter ending on Aug. 31, 1929, the gross debt outstanding had been reduced from $26,594,267,878 to $16,805,433,171, a decrease of $9,788,834,707, which was accomplished (1) through expenditures aggregating $4,451,698,144 chargeable to ordinary receipts under the established program for the liquidation of the debt; (2) through the application of $4,367,624,775 surplus of ordinary receipts; and (3) through net reduction of $969,511,788, in the general fund balance. The annual interest charge on Aug. 31, 1919, was $1,105,690,254, and on Aug. 31, 1929, $652,471,596. The gross debt outstanding was reduced 36.8% during this 10-year period, and the interest-bearing debt was reduced 37.3%. The annual interest charge was reduced 41%.

The gross debt was reduced in the fiscal year 1929 from $17,604,290,562.93 to $16,931,197,747.40. The reduction of $673,092,815.33 was brought about through expenditures aggregating $549,603,703.75 for sinking fund and other accounts chargeable to ordinary receipts and through the application of $123,489,111.58 surplus receipts.

The refunding of the third Liberty Loan, which matured on Sept. 15, 1928, was completed through an issue on July 16, 1928, of 3⅜% Treasury bonds of 1940-1943, in amount $359,042,950, and through two issues of Treasury certificates of indebtedness, 4½% on Sept. 15, 1928, in amount $549,310,700, and 4¾% on Oct. 15, 1928, in amount $308,806,000. On Oct. 31, 1929, a balance of $14,757,450 third Liberty Loan bonds had not been presented for payment.

Other financing during the year was restricted to the usual quarterly issues of Treasury certificates of indebtedness at the maturities of other certificates. On Dec. 15, 1928, three series became due, in total amount about $530,000,000, and the Treasury offered for that date two series of 4¼% Treasury certificates, one in amount $209,918,000, with nine months' maturity, and the other in amount $310,245,500, with maturity of one year. Two series matured on March 15, 1929, in total amount $506,000,000, and one series on June 15, 1929, in amount $470,000,000. To meet the Treasury's requirements one series was issued on March 15, 1929, at 4¼%, with nine months' maturity, in amount $475,998,500, and another on June 15, 1929, at 5⅛%, likewise with nine months' maturity, in amount $404,209,500.

In the first quarter of the fiscal year 1930 there was offered for subscription on Sept. 6 an issue of 4⅞% Treasury certificates of indebtedness, dated Sept. 16, with a nine months' maturity, to meet the Treasury requirements, and in particular to provide for about $510,000,000 maturing certificates on Sept. 15, 1929. In connection with this issue the Treasury offered to purchase up to $100,000,000 face amount 3½% Treasury notes, through the optional tender of such notes at 98, in part payment of subscriptions for the new certificates. For this issue subscriptions aggregating $1,480,696,500 were received, and a total of $549,707,500 was allotted and issued.

This issue of 4⅞% Treasury certificates of indebtedness is the first under the act of June 17, 1929, which authorized issues exempt, both as to principal and interest, from all taxation except estate and inheritance taxes. The exceptionally large oversubscription is attributed in part to the tax-exempt feature, as it constitutes an inducement to purchase for individual investors desirous of obtaining more complete exemption from the surtaxes as well as from the normal rates levied on incomes. There was no additional inducement given for corporations to subscribe, as they have enjoyed exemption from income tax on such issues under earlier statues.

On July 15, 1929, one of the most interesting features of the war financing was brought to a close, when a small amount of the series of 1924 Treasury savings certificates matured. Through the sale of these securities, which extended from Dec. 3, 1917, to July 15, 1924, cash aggregating $1,623,126,447 was received into the Treasury. To June 30, 1929, accrued discount aggregating $227,488,697 had been paid or placed to the credit of outstanding certificates, making the total redemption value to that date $1,850,615,144, all of which has been paid except $25,809,656 outstanding on that date, including a balance of $13,028,019.35 maturing on July 15, 1929.

For the fiscal year 1929 an appropriation of $370,241,327 was available for debt retirement through the cumulative sinking fund. Through this fund in the nine years, 1921-1929, inclusive, the total par value of debt retired amounts to $2,799,099,350.

REDUCTION IN INCOME TAXES.

Secretary of the Treasury Mellon after a conference with President Hoover and leaders of the Senate and House at the White House on Nov. 13, 1929, made public the Treasury's recommendations for a reduction in the income tax estimated to amount to $160,000,000. The announcement of this projected relief was welcomed by a public that had suffered from the Wall Street crash.

The recommendations made by the Secretary in his Report to Congress were:

The enactment by the Congress of a joint resolution declaring:

(1) That the normal tax rate on the income of individuals for the calendar year 1929, payable in 1930, shall be ½ per cent, 2 per cent, and 4 per cent, instead of the existing rates of 1½ per cent, 3 per cent, and 5 per cent.

(2) That the tax rate on the income of corporations for the calendar year 1929, payable in 1930, shall be 11 per cent instead of the existing 12 per cent.

This should result in a decrease of income tax collections during the calendar year 1930 of approximately $160,000,000, about equally divided between the fiscal years 1930 and 1931.

The Secretary urged that if this were done by a joint resolution it could be done quickly without attempting to revise the existing law, and would permit Congress with equal facility next year to make the proposed rates permanent, fix other rates for 1930 income, or by failure to take any action automatically restore existing rates.

Chairman Hawley of the Ways and Means introduced in the House the joint resolution suggested on the opening of the session on Dec. 2, and it passed on the 5th. The Finance Committee of the Senate reported out the resolution by unanimous vote, but it was passed 63 to 14, on Dec. 14, and approved on the 16th.

FOREIGN DEBT FUNDING AGREEMENTS.

Country.	Date of Agreement.	Original Principal (Net).	Funded Interest.	Funded Debt.
		Dollars.	*Dollars.*	*Dollars.*
Belgium	Aug. 18, 1925	377,029,570.06	40,750,429.94	417,780,000
Czechoslovakia	Oct. 13, 1925	91,879,671.03	23,120,328.97	115,000,000
Estonia	Oct. 28, 1925	12,066,222.15	1,763,777.85	13,830,000
Finland	May 1, 1923	8,281,926.17	718,073.83	9,000,000
France	April 29, 1926	3,340,516,043.72	684,483,956.28	4,025,000,000
Great Britain	June 19, 1923	4,074,818,358.44	525,181,641.56	4,600,000,000
Hungary	April 25, 1924	1,685,835.61	253,164.39	1,939,000
Italy	Nov. 14, 1925	1,647,869,197.96	394,130,802.04	2,042,000,000
Latvia	Sept. 24, 1925	5,132,287.14	642,712.86	5,775,000
Lithuania	Sept. 22, 1924	4,981,628.03	1,048,371.97	6,030,000
Poland	Nov. 14, 1924	159,666,972.39	18,893,027.61	178,560,000
Roumania	Dec. 4, 1925	36,128,494.94	8,461,505.06	44,590,000
Yugo-Slavia	May 3, 1926	51,037,886.39	11,812,113.61	62,850,000
Total		9,811,094,094.03	1,711,259,905.97	11,522,354,000

The Treasury received during the fiscal year 1929, on account of indebtedness of foreign governments to the United States, the sum of $199,131,569, of which $38,790,661 represented principal and $160,340,908 represented interest. Total payments received up to the end of the fiscal year on account of the principal of the funded indebtedness amounted to $191,339,786; on account of interest to $904,966,431.

The agreement with France providing for the funding of its indebtedness to the United States, concluded April 29, 1926, was ratified by the French Government July 27, 1929. It was ratified by the Senate on Dec. 16, 1929.

The Austrian Relief debt agreement, on a principal ndebtedness of $24,055,709, awaits the assent of Italy to the joint agreement of the nine creditor governments, but Austria, exercising her option, began payments to the United States of annual installments on Jan. 1, 1929. The schedule calls for the payment of 5 annual installments of $287,556, then 10 of $460,093; and then 25 of $743,041.

Czecho-Slovakia has not ratified its funding agreement, but is making payments regularly under it.

The Greece Relief and Refuge debt agreement, executed May 10, 1929, under Act of Congress, approved Feb. 14, 1929, covered a principal indebtedness of $48,236,629 (against which $15,000,000 had been advanced in cash), to be refunded over a period of 62 years. The schedule of payments is $40,000 the first year, $50,000 the second, $60,000, the third, $220,000 the fourth, $260,000 the fifth, then $300,000 for five years, and then $350,000 for 52 years.

GOVERNMENT LIQUOR CONTROL IN CANADA.

Under the Canadian Constitution the sale of liquor is regulated by provincial, not Federal, authority.

Under the **Quebec** law any adult can buy a single bottle of any liquor, or a gallon of wine, government guaranteed, at a fixed price, from a government commission store between 9 A. M. and 6 P. M. any week day. In any licensed tavern he may buy and consume on the premises beer by the glass until 10 P. M. There are no bars. He may buy, from a grocer, beer by the half-dozen bottles or have it delivered by the case. A hotel may serve wines and beers with meals under permit. There are ninety government stores in the province but none in a town that does not wish one. In rural communities an individual may order by mail from the nearest vender and receive his purchase by mail. All transactions with the commission stores are for cash, no loitering is allowed, and the authorities will refuse to sell to any one obviously intoxicated or boisterous.

The revenue derived for the province under the Alcoholic Liquor Act for the fiscal year ending June 30, 1926, was $1,839,395; for 1927, $5,700,000; and for 1928, $7,000,000.

Ontario in 1924 gave a majority of 30,000 against government control of the sale of liquor. In 1925 the provincial parliament passed a law permitting on and after May 21 the sale of beer with an alcoholic content of 4.4 per cent. which, under the Canadian system of reckoning alcoholic strength, was much nearer the American 2.75 per cent. beer. It also allowed native wines and permitted the manufacture of home brew on filing of notification, 17,000 being filed. Whiskey could be had only on physicians' prescriptions from government venders; $5,000,000 annually was paid for liquor under prescriptions (which cost from $2 to $3 each). Premier G. Howard Ferguson, Conservative, with a following of two-thirds of the last legislature which had eighteen months to run, went to the people in a general election, Dec. 1, 1926, on the liquor question as the main issue, announcing his intention of enacting, if returned to power, a bill authorizing the sale of liquor in government stores, subject to local option; every person over twenty-one years of age to be entitled under certain restrictions to a permit by which he or she can procure liquor or beer at reasonable cost from government venders. His victory was overwhelming; the Conservatives carried seventy-five seats out of 112 with some members of the minority parties also pledged to the government control plan. All the fifteen Toronto seats went to the government by large majorities.

Premier Ferguson won 92 seats in the election of October, 1929, which was regarded as a great endorsement of his policy.

Premier Ferguson introduced in the Provincial Legislature on March 9, 1927, the Liquor Control Act which was passed and went into effect on June 1, 1927. It provided that liquors, wines and beer would be sold only in stores operated by the Government and sales made only by permits: (1) individual permit (a) for residents of Ontario, and (b) for tourists and temporary residents not exceeding one month; (2) special permit (a) for physicians, etc., and those engagd in mechanical and scientific pursuits; (b) for ministers for sacramental purposes and (c) for any special purpose named in the permit. Druggists are not allowed to sell liquors. Distilleries and breweries may sell only to the Government.

A commission headed by D. B. Hanna, formerly general manager of the old Canadian Northern Railway administers the law. The penalties for violations are severe.

In the fiscal year ending Oct. 31, 1928, from profit on the actual sale of liquor, revenue was derived to the extent of $7,225,000; and from liquor permits, $893,390.

Nova Scotia, for years a stronghold of prohibition, in a referendum on Oct. 31, 1929, voted on two propositions: For the existing temperance act, 20,862, against 30,442; for government control, 36,563 against 9,682. Practically every town in the Province gave a majority for government control.

Prince Edward Island gave a large majority for the existing prohibition law on July 18, 1929, repeating the result of a similar plebiscite held June 25, 1928. This, the smallest province, is the only one now under a prohibition law.

The **New Brunswick** legislature on April 19, 1927, put the sale of liquor under Government control by an act modeled after the Ontario act. Profits in the fiscal year 1927-28 were $335,027.

Manitoba went dry in 1916 after a referendum, but the act did not prohibit the importation of liquor for personal use. Four years later another referendum made the law invalid. In the summer of 1923 there was a double referendum, the first providing for the Government sale of liquor under the Moderation League's bill was carried by a vote of 107,609 to 68,879; the second to allow sale in hotels and restaurants was defeated by a majority of 36,907 That law has been in force since Aug. 7, 1923. The gross revenues in the fiscal year ending April 30, 1928 were $1,493,707; net revenues, $1,345,117; sales tctaled $3,985,006.

Saskatchewan abolished bars in 1915, went "bone-dry" in 1917, and turned to government control in 1924. Sales in the fiscal year 1928-29 totaled $14,607,805, profits $3,083,947.

Alberta voted dry in 1915, and for government control in 1923. The revenue in 1928 was $2,761,009.

British Columbia went dry in 1916, but wet and for government control in 1920. The revenue for 1928 was $2,752,229.

THE FEDERAL FARM BOARD.

The Seventy-first Congress, called in extra session, April 15, 1929, by President Hoover, by a practically unanimous vote after a clash over the export farm debenture proposals, enacted a Farm Relief bill (Agricultural Marketing Act) which was approved Jun. 15, 1929. It is entitled "An Act to establish a Federal Farm Board to promote the effective merchandising of agricultural commodities in interstate and foreign commerce and to place agriculture on a basis of economic equality with other industries." It proposes to "protect, control and stabilize" such commerce "by minimizing speculation; by preventing inefficient and wasteful methods of distribution; by encouraging the organization of producers into effective associations or corporations under their own control for greater unity of effort in marketing and by promoting the establishment and financing of a farm marketing system of producer-owned and producer-controlled cooperative associations and other agencies; and by aiding in preventing and controlling surpluses in any agricultural commodity, through orderly production and distribution, so as to maintain advantageous domestic markets and prevent such surpluses from causing undue and excessive fluctuations or depressions in prices for the commodity."

The Act creates a Federal Farm Board appointed by the President of 9 members, including the Secretary of Agriculture ex-officio, appointed two for one-year terms, two for two, one for three, one for four, one for five and one for six and subsequent appointments to be for six-year terms, each at a salary of $12,000 a year and necessary expenses. Advisory committees appointed by the cooperative associations are provided for.

The Board is given broad powers for investigation, and $1,500,000 was appropriated for administrative expenses.

A revolving fund of $500,000,000 was authorized, of which $150,000,000 was appropriated for the fiscal year 1929-1930. The Board is authorized upon application by any cooperative association to make loans to assist in effective merchandising of agricultural commodities and food products thereof; the construction, purchase or lease of marketing facilities when suitable facilities are not available; the formation of clearing house associations; and extending the membership of the cooperative association by educational methods. The rate of interest on loans shall not exceed 4 per cent, and payments of principal and interest shall be covered into the revolving fund.

The Board may recognize under certain limitations a stabilizing corporation for any commodity, duly organized, all the voting stock of which (or membership interest) is owned only by cooperative associations handling the commodity, and which may act as a marketing agency for its members; and it may also assist in forming producer-controlled clearing house associations to effect economic distribution and minimize waste and loss.

The Board is specifically authorized upon application of cooperative associations to enter into agreements subject to certain limitations for the insurance of the cooperative associations against loss through price decline.

Members, officers and employees of the Board are forbidden to speculate directly or indirectly in any agricultural commodity or product thereof, or in contracts relating to, or in stock or membership interests in cooperative associations; and such associations, their officers, employees and members are forbidden to disclose confidential information; and the inclusion of any prediction with respect to cotton prices in any government report or bulletin is expressly prohibited.

The term "Cooperative Association" is expressly defined as meaning any association qualified under the "Act to Authorize the Association of Producers of Agricultural Products," approved Feb. 18, 1922. One-third of the 6,000,000 farmers are members of such cooperatives.

PERSONNEL OF THE FARM BOARD.

The Federal Farm Board as appointed by President Hoover is made up as follows:

Alexander Legge, chairman, of Chicago. President of the International Harvester Company. Born on a Wisconsin farm sixty-three years ago. A personal friend of the President and a former member of the War Industries Board. He will serve for one year.

James C. Stone, vice-chairman, of Lexington, Ky., President of the Burley Tobacco Growers' Cooperative Association, owner of livestock farms, and a bank director.

Carl Williams, of Oklahoma City, editor of the Oklahoma Farmer-Stockman and an active force in many cooperative organizations, such as the Oklahoma Cotton Growers' Association and the Farmers' Cooperative Marketing Association.

C. B. Denman, of Missouri, President of the National Livestock Producers' Association, which operates in twelve states, with an annual business of $150,000,000.

Charles C. Teague, of California. President of the California Fruit Growers' Cooperative and of the Walnut Growers' Cooperative Association, which together market more than $150,000,000 of agricultural products annually.

William F. Schilling, of Minnesota, President of the Twin Cities Milk Producers' Association and former President of the State Dairymen's Association.

Charles S. Wilson, former New York State Commissioner of Agriculture, an active farmer, and Secretary of the Western Fruit Growers' Cooperative Packing Association.

Samuel R. McKelvie, Governor of Nebraska, 1919-1923, editor of *The Nebraska Farmer*, who represents the wheat growers. Appointed for one year.

Arthur M. Hyde, Secretary of Agriculture, ex-officio.

The Board (with the exception of Mr. McKelvie, whose appointment was not announced until July 30) met on call of President Hoover on July 15, who told them they were invested "with responsibility, authority and resources such as have never before been conferred by our government in assistance to any industry."

The Board was overwhelmed at the start by requests for loans from individual farmers who misunderstood the terms of the act.

LARGE COOPERATIVES ORGANIZED.

Farmer cooperative groups representing 650,000 grain growers, after a two-days' conference, July 26 and 27, at Chicago, with members of the Board, 52 officials of wheat pools, cooperative elevators and farmer controlled sales agencies, selected a committee of 16, William H. Settle, chairman, to organize the Farmers' National Grain Corporation with a capital of $10,000,000, to be increased ultimately to $20,000,000, to be owned and controlled by the farmer agencies, farmer-owned grain elevators, farmers' grain sales agencies, and farmers' grain pools.

Announcement was made on Aug. 11 of the formation of a $50,000,000 cooperative marketing association, the United Growers of America, as a national agency to effect unity between national and local cooperatives and growers' organizations dealing in fruit and vegetables. The chairman of the board is Julius H. Barnes, Chairman of the Board of the United States Chamber of Commerce, and at one time president of the United States Food Administration grain corporation. Another member is William M. Jardine, Secretary of Agriculture in the Coolidge administration. It will in its initial work serve sixty subsidiary corporations in twenty-five states covering all parts of the country. Other directors are: Robert W. Bingham of Louisville, Ky.; Arthur R. Rule of New York; Henry W. Jeffers of New York; John Burgess of Minneapolis; and Gray Silver of Martinsburg, W. Va., organizer of the farm bloc in Congress.

Plans for the National Livestock Marketing Agency, with a capital of $1,000,000, were unanimously agreed upon by sixty-six representatives of twenty-nine cooperative livestock marketing associations, having 700,000 members in conference with members of the Board in Chicago, Oct. 23 and 24. Last year, these agencies transacted $300,000,000 worth of business represented by 12,461,000 head of livestock.

At the Baton Rouge Conference in July, attended by members of the Farm Board, the National Chamber of Agricultural Cooperatives was launched, starting with a membership of more than 2,000,000 farmers, including producers of cotton, wheat, corn, sugar, and tobacco, and representatives of the livestock industry, to coordinate and strengthen the work of the cooperatives.

LOANS GRANTED.

The Federal Farm Board has, among others, granted loans of $2,500,000 to the North Dakota-Montana Wheat Growers Association; $6,000,000 to the Staple Cotton Cooperative Association of Greenwood, Miss.; $2,500,000 to the North Carolina Cotton Growers Cooperative Association, mostly supplemental to loans obtained from banks.

Chairman Legge announced on Oct 26 that in order to assist wheat farmers to hold back their crops and at the same time have money with which to pay their obligations, the Board proposes to loan to wheat cooperatives sums sufficient to bring the total amount borrowed from all sources by such associations to the amount shown in a schedule that rates the wheat price at eight cities from $1.12 to $1.25 a bushel. These

loans will be carried until the close of the marketing season.

There is a grain cooperative in every wheat state. It is open to the membership of every wheat farmer. The farmer may join, ship his wheat to a designated concentration point where it will be graded and classed, and draw his advance. The cooperative will market the wheat in orderly fashion through the year, and will settle with the farmer on the basis of the final price obtained.

The Board is confident that, considering the soundness of underlying conditions which affect the price of wheat, the plan described above furnishes a completely safe basis for making loans from the Board's revolving fund. The Board places no limit on the amount of Government money to be so loaned. Nearly $100,000,000 is available for the purpose and, if necessary, the Board will also ask Congress to appropriate more.

Farmers' Cooperative associations transacted business to the amount of $2,300,000,000 in the 1927 marketing season, according to a preliminary report in February by the Division of Cooperative Marketing of the Department of Agriculture for the 11,400 active associations listed by the Department.

The largest amount of business credited to any one group was $680,000,000, this being the sum of the transactions by the associations handling grain. The associations marketing dairy products had a total business of $620,000,000; the livestock associations, $320,000,000; the fruit and vegetable associations, $300,000,000; the associations marketing cotton, $97,000,000; the poultry and egg associations, $40,000,000; the nut marketing associations, $14,600,000; tobacco associations, $22,000,000; and the associations handling wool, $7,000,000. The business of the associations selling miscellaneous products and buying farm supplies amounted to nearly $200,000,000.

The associations handling dairy products and shipping livestock have made enormous strides since 1915, while the associations handling grain, fruits and vegetables have made gains of about 100 per cent and 50 per cent respectively.

FARM RELIEF AND THE TARIFF FIGHT.

The Seventy-first Congress met on Apr. 15, 1929, being called in extra session by President Hoover to pass measures for agricultural relief and to revise the tariff to furnish additional relief to the farmers.

The Agricultural Marketing Act creating the Federal Farm Board (see that article) was passed and was approved by the President June 15. A bill appropriating $150,000,000 as a first installment of the revolving fund, and $1,500,000 for administrative expenses of the Farm Board was passed and approved June 18. The House went on record against both export farm debentures and the equalization fee. The Senate voted in the export debenture clauses, but retreated from its position when the bill went to conference.

After hearings before the Ways and Means Committee the House passed a tariff revision bill on May 28. The bill materially increased many rates. The House again went on record against incorporating the export farm debenture features offered, and for the inclusion of the flexible tariff provisions, in principle substantially like the existing law by which the President under certain limitations may raise or lower rates to meet discriminations by foreign governments.

The Senate after protracted hearings in Committee, battled over the rates on the floor. Congress adjourned on Nov. 22, leaving about half of the rates to be acted on in the regular session which convened Dec. 2. The debate brought out what was practically a coalition of Democratic and Western Republicans (facetiously dubbed "Sons of the Wild Jackass" by Senator Moses), against the eastern and "Old Guard" Republicans, the latter supporting the increased rates of the House bill. The former, having control, voted in the export farm debenture features, and threw out the flexible tariff provision. Nine of the 15 rate schedules were completed for committee amendments which numbers 298 in all. Of these, 163 amendments were adopted which eliminated proposed increases in the tariff rates and restored present duties or reduced the levies below the existing law. The other 135 amendments increased rates over the existing law; sixty of these were on agricultural or related products including raw materials. Few of the industrial rate increases involved important products. All but 25 of the increases approved were recommended by the finance committee dominated by the "Old Guard" and the majority of the 25, championed by the coalition, were for higher duties on the agricultural products.

For the Tariff law of 1922, see the World Almanac for 1929, pages 249-254.

PRESIDENT HOOVER'S WATERWAY PROGRAM.

President Hoover, defying a three-days downpour of rain, participated at Cincinnati, Oct. 22, 1929, in the ceremonies signalizing the deepening of the Ohio river, from Pittsburgh to Cairo, Ill., at a cost of $125,000,000. Fifty-four locks and dams have been constructed to ensure a year-round nine-foot channel. The uncompleted Ohio River System carried 21,000,000 tons on the main river and 26,000,000 additional tons on its tributaries from July 1, 1927 to June 30, 1928.

President Hoover at Louisville, Ky., on Oct. 23, outlined his waterways program entailing the expenditure of about $20,000,000 a year as follows:

"1. As a general and broad policy I favor modernizing of every part of our waterways which will show economic justification in aid of our farmers and industries.

"2. The Mississippi system comprises over 9,000 miles of navigable streams. I find that about 2,200 miles have now been modernized to nine feet in depth, and about 1,400 miles have been modernized to at least six feet in depth. Therefore some 5,000 miles are yet to be connected or completed so as to be of purpose to modern commerce. We should establish a nine-foot depth in the trunk system. . . .

"3. We must design our policies so as to establish private enterprise in substitution for government operation of the barges and craft upon these waterways.

"4. We should complete the entire Mississippi system within the next five years. We shall then have built a great North and South trunk waterway entirely across our country from the Gulf to the Northern boundaries, and a great East and West route half-way across the United States. Through the tributaries we shall have created a network of transportation. We shall then have brought a dozen great cities into direct communication by water, we shall have opened cheaper transportation of primary goods to the farmers and manufacturers of over a score of States.

"5. At the present time we have completed 746 miles of intracoastal canals. We still have approximately 1,000 miles to build. We should complete this program over a period of less than ten years.

"6. We should continue improvement of the channels in the Great Lakes; we should determine and construct those works necessary for stabilizing the lake levels.

"7. One of the most vital improvements to transportation on the North American Continent is the removal of the obstacles in the St. Lawrence River to ocean-going vessels inward to the Great Lakes. Our nation should undertake to do its part whenever our Canadian friends have overcome those difficulties which lie in the path of their making similar undertakings.

"8. We shall expedite the work of flood-control on the lower Mississippi in every manner possible.

"9. With the constantly expanding volume of our commerce, we must maintain unceasing development of our harbors and the littoral waterways which extend inland from them.

"At the present time we are expending approximately $85,000,000 per annum on new construction and maintenance of these works. To complete these programs within the periods I have mentioned will require an increase in the government outlay by about $10,000,000 per annum, not including the St. Lawrence, at most, including that item, an increase in our expenditures of say $20,000,000 a year. A considerable proportion of this will end in five years' time. It is of the nature of a capital investment.

"This annual increase is equal to the cost of one-half of one battleship. If we are so fortunate as to save this annual outlay on naval construction as the result of the forthcoming naval conference in London, nothing could be a finer or more vivid conversion of swords to plowshares."

NATIONAL COMMISSION OF FINE ARTS.

(Interior Department Building, Washington, D. C.)

Chairman—Charles Moore; other members, Abram Garfield, Benjamin W. Morris, Ferruccio Vitale, Ezra Winter, John W. Cross, and Adolph A. Weinman. *Secretary and Executive Officer*, H. P. Caemmerer.

THE NAVAL DISARMAMENT CONFERENCE.

The problem of Naval Disarmament and reduction on the part of the great powers was partially solved by the adoption of the 5-5-3-1.75-1.75 battleships ratio for the United States, Great Britain, Japan, France and Italy at the Washington Conference of 1921-22 (see The World Almanac for 1923, pages 675-685). A further conference of the five powers called by President Coolidge to consider the other classes of warships was attended by Great Britain, Japan and the United States, France and Italy declining the invitation. It met at Geneva June 20, 1927, but having reached a deadlock, adjourned without action Aug. 3 (see The World Almanac for 1928, pages 34, 35). An agreement reached between Great Britain and France in July, 1928, came to naught, because the United States found itself unable to accept it (see The World Almanac for 1929, pages 154, 155).

The subject was brought up anew at Geneva, April 22, 1929, before the Reparatory Disarmament Conference of the League of Nations by Hugh S. Gibson, United States Ambassador to Belgium and Chairman of the American delegation to that Conference. He outlined a new approach to the naval armament part of the problem. "My government believes," he said, "that there can be no complete and effective limitation of naval armaments unless all classes of war vessels, including cruisers, destroyers and submarines, are limited. My government cannot find any justification for the building and maintenance of large naval establishments save on the ground that no power can reduce except as a result of general reduction. The principal naval powers have nothing to fear from the naval strength of the countries non-signatory to the Washington treaty. The cruiser strength of all the non-signatory countries in the world does not attain to one-half the cruiser tonnage of the greatest single fleet. My country is convinced that expenditure for disproportionate naval establishments is indefensible in that it can be avoided by a sensible agreement among the naval powers."

Mr. Gibson declared that the Kellogg-Briand Pact of Paris had radically altered conditions.

"The American Government," he continued, "has found no reason for modifying its view that the simplest, fairest and most practical method is that of limitation of tonnage by categories," and suggested that "it might be desirable in arriving at a formula for estimating equivalent tonnage to consider certain factors which produce variations such as age, unit, displacement and calibre of guns."

The United States, he said, is now as in 1927 ready to agree to any reduction, however drastic, of naval tonnage which leaves no type of vessels unrestricted and which maintains the relative status of existing treaties with respect to the powers represented at the conference.

His speech made a profound impression and the reaction in all the capitals was highly favorable.

Prime Minister MacDonald soon after taking over the British Government held long conferences on the subject with Charles G. Dawes, the newly arrived American Ambassador to Great Britain. On July 24, the day the Kellogg-Briand Pact of Paris was promulgated in Washington, Mr. MacDonald in the House of Commons announced that the United States and Great Britain had been carrying on conversations which, based on the principal of parity, had marked an advance toward mutual agreement; that he would personally discuss any differences in direct communications in October with President Hoover at the White House in October, that after two nations were in agreement the other naval powers would be invited into a conference which he hoped would forward the cause of general disarmament; and that Great Britain herewith announced suspension of work on two cruisers (the Surrey and the Northumberland), one submarine depot ship and two contract submarines.

On that same day President Hoover, responsive to Mr. MacDonald's statement, announced that he had held up the construction of three of the five cruisers authorized for this year's naval program, the contracts for the other two having already been awarded to private shipyards.

HOOVER-MACDONALD JOINT STATEMENT.

At the close of the British Prime Minister's visit to Washington, Mr. MacDonald and Mr. Hoover on Oct. 9 gave out a joint statement in which they said:

"The exchange of views on naval reduction has brought the two nations so close to agreement that the obstacles in previous conferences arising out of Anglo-American disagreements seem now substantially removed. We have kept the nations which took part in the Washington naval conference of 1922 informed of the progress of our conversations, and we have now proposed to them that we should all meet together and try to come to a common agreement which would justify each in making substantial naval reductions. An agreement on naval armaments cannot be completed without the cooperation of other naval powers, and both of us feel sure that, by the same free and candid discussion of needs which has characterized our conversations, such mutual understandings will be reached as will make naval agreement next January possible.

"In view of the security afforded by the peace pact, we have been able to end, we trust forever, all competitive building between ourselves with the risk of war and the waste of public money involved, by agreeing to a parity of fleets, category by category.

"Success at the coming conference will result in a large decrease in the naval equipment of the world and, what is equally important, the reduction of prospective programs of construction which would otherwise produce competitive building.

"We hope and believe that the steps we have taken will be warmly welcomed by the people whom we represent as a substantial contribution to the efforts universally made by all nations to gain security for peace—not by military organization—but by peaceful means rooted in public opinion as enforced by a sense of justice in the civilized world."

On Oct. 7 the British Secretary of State for Foreign Affairs, Arthur Henderson, sent identical notes to the American, French, Italian and Japanese Ambassadors in London for transmission to their governments, inviting them to join in a conference of the five naval powers in London on Jan. 21, 1930 to deal with the question of naval disarmament. In it he said that conversations with the American Ambassador had left "no point outstanding of sufficient importance to prevent an agreement"; that "it has been agreed to adopt the principle of parity in each of the several categories and that such parity shall be reached by Dec. 31, 1936"; that "subject to the assent of other signatory powers it would be desirable to reconsider the battleship replacement programs provided for in the Washington treaty of 1922 with the view of diminishing the amount of replacement construction implied under that treaty"; and that while both the British and American governments had publicly favored the total abolition of the submarine "they recognize that no final settlement of this subject can be reached except in conference with the other naval powers."

All the governments promptly and cordially accepted the invitations. The replies, the preparatory consultations and the various interviews given out later indicated that Japan would present a new ratio of 10-10-7 for the cruiser class, that Italy, whose merchant marine of 3,200,000 tons is very nearly as great as France's, would insist on parity with France, that France might insist on parity in the Mediterranean, and that Japan, France and Italy strongly favored retention of the submarine.

The **British** delegation to the Conference will consist of Prime Minister J. Ramsay MacDonald, Foreign Secretary Arthur Henderson, First Lord of the Admiralty A. V. Alexander, and the Secretary for India, Wedgewood Benn. **Australia** will be represented by J. E. Fenton, Minister of Customs.

The **Japanese** delegation will consist of Reijiro Watasuki, former Premier, Adm. Hyo Takarabe, Minister of Marine, and Tsuneo Matsudaira, Ambassador to Great Britain.

The **French** delegation will consist of Premier Andre Tardieu, Foreign Minister Aristide Briand, Minister of Marine Georges Leugues and Vice-Adm. Violette.

The **Italian** delegation consists of Foreign Minister Dino Grandi, Adm. Giuseppi Sirianni, Minister of Marine, Adm. Acton, and Antonio Chiaramonte Bordonaro, Ambassador to Great Britain.

The **American** delegation will consist of Secretary of State Henry A. Stimson, Senator David A. Reed, Senator Joseph T. Robinson, Secretary of the Navy Charles Francis Adams, Ambassador Charles G. Dawes, Ambassador Dwight W. Morrow, and Ambassador Hugh S. Gibson.

With all the delegations will be naval advisers. The American ones headed jointly by Admiral W. V. Pratt, Commander-in-Chief of the United States fleet, and Rear Admiral Hilary P. Jones, retired, will include: Rear Adm. William A. Moffett, Chief of the Bureau of Aeronautics; Rear Adm. Joel R. P. Pringle, President of the Naval War College; Rear Adm. Harry E. Yarnell, Chief of the Bureau of Engineering; Rear Adm. Arthur R. Hepburn, Chief of Staff, Commander-in-Chief, United States Fleet; Capt. Alexander H. Van Beuren, Bureau of Construction and Repair; Capt. W. W. Smyth, Bureau of Ordnance; Commander Harold C. Train, on duty with the general board; and Lieut. Com. Charles W. A. Campbell, Flag Lieutenant to Commander-in-Chief, United States Fleet.

THE WORLD COURT.

The Permanent Court of International Justice (usually referred to in the United States as the World Court) owes its existence to the initiative of the League of Nations acting under Article 14 of the Covenant which provided that:

> The Council shall formulate and submit to the Members of the League for adoption plans for the establishment of a Permanent Court of International Justice. The Court shall be competent to hear and determine any dispute of an international character which the parties thereto submit to it. The Court may also give an advisory opinion upon any dispute or question referred to it by the Council or by the Assembly.

The Council of the League on Feb. 13, 1920 appointed an advisory committee of ten to draft a plan for the Court. All were citizens of nations in the League except one, Elihu Root, formerly Secretary of State of the United States. The Statute or law which they drafted with some changes was adopted unanimously at the First Assembly of the League at Geneva on Dec. 13, 1920 and submitted to the member nations for ratification, with a protocol declaring acceptance of the Statute and of the jurisdiction of the Court, the nations acting independently and separately. By Sept. 14, 1921 it had been ratified by 26 nations, four more than the necessary majority. The protocol was subsequently ratified by 50 of the 54 nations now in the League, and by Brazil and Costa Rica which have resigned from the League. Eleven of these 52 nations had not by Nov. 15, 1929 ratified their signatures.

The 54 nations now in the World Court are:

Albania, Australia, Austria, Belgium, Bolivia, British Empire, Bulgaria, Canada, Chile, China, Colombia, Cuba, Czechoslovakia, Denmark, the Dominican Republic, Esthonia, Ethiopia, Finland, France, Germany, Greece, Guatemala, Haiti, Hungary, India, Irish Free State, Italy, Japan, Latvia, Liberia, Lithuania, Luxemburg, Netherlands, New Zealand, Nicaragua (joined in Sept., 1929), Norway, Panama, Paraguay, Persia, Peru (joined in September, 1929), Poland, Portugal, Roumania, El Salvador Serb-Croat-Slovene State (now Yugo-Slavia), Siam, Union of South Africa, Spain, Sweden, Switzerland, Uruguay and Venezuela, all members of the League; and Costa Rica and Brazil, both of which resigned from the League, but are still in the Court. Twelve of the 54 have not yet ratified their signatures; these are: Bolivia, Colombia, Costa Rica, the Dominican Republic, Guatemala, Liberia, Luxemburg, Nicaragua, Paraguay, Persia, Peru and Slavador.

Nine nations of the world are outside the Court. They consist of two nations that are members of the League but not of the Court, viz., Argentina and Honduras, and of the 7 nations in the world that are not members of the League, viz., Afghanistan, Ecuador, Egypt, Mexico, the Russian Union of Soviet Socialist Republics, Turkey, and the United States of America. This does not include 3 very small states, Andorra, Lichtenstein and Monaco.

The Court is open to every nation of the world, under conditions laid down by the Council of the League in May, 1922, which require a declaration accepting the Court's jurisdiction in accordance with the terms of the Covenant and with the Statute and Rules of the Court and engaging to carry out the Court's decision in good faith and not to have recourse to war against another nation that obeys it.

The first body of eleven judges and four deputy judges, were elected at the September, 1921, meeting of the Assembly and Council, and held its preliminary session on Jan. 30, 1922. It is expected that in 1930 the distinction of deputy judges will be abolished making a bench of 15 judges. The annual sessions begin on June 15 and the Court may hold as many extraordinary sessions as it deems necessary. The Court has to date, Nov. 15, 1929, delivered 14 judgments and 16 advisory opinions. The judges serve a term of 9 years and are eligible for reelection. The salary of each is 15,000 Dutch florins (a little over $6,000) with a duty allowance for expenses. If there is on the Bench no judge of the nationality of a contesting party, such a judge may be selected by that party for that case only. The present judges are:

Rafael Altamira y Crevea, Spain; Dionisio Anzilotti, Italy; Antonio Sanchez de Bustamante, Cuba; Sir Cecil Hurst, Great Britain (elected in September, 1929); Max Huber, Switzerland; Charles Evans Hughes, the United States of America (elected in September, 1928); B. C. J. Loder, The Netherlands; D. G. Nyholm, Denmark; Yorozu Oda, Japan; Epitacio da Silva Pessoa, Brazil; Henri Fromageot, France (elected in September, 1929).

The four Deputy-Judges are:

F. V. N. Beichmann, Norway; Demetre Negulesco, Roumania; Wang Chung-hui, China; and Milhailo Yovanovitch, Yugo-Slavia.

The Registrar of the Court (since 1922) is M. Ake Hammarskjold, Counsellor of Legations of H. M. the King of Sweden; the post of Deputy Registrar, provided for in 1926, is now held by M. Olivan, of Spain.

The judges are elected according to a plan devised by Elihu Root when on the Advisory Committee in 1920. Each nation in the Hague Permanent Court of Arbitration (established in 1899) appoints four members of it as a national group; these national groups make the nominations (only two of which may be of its own nationality) for judges of the World Court. From these nominees the Council of the League and the Assembly, acting concurrently but independently, elect the judges by majority vote. Only one judge of any nationality may be elected.

By article 38 of the Statute the Court is empowered to apply:

1. International conventions, whether general or particular, establishing rules expressly recognized by the contesting states;
2. International custom, as evidence of a general practice accepted as law;
3. The general principles of international law recognized by civilized nations;
4. Subject to the provisions of Article 59 (which provides that "the decision of the Court has no binding force except between the parties and in respect of that particular case") judicial decisions and the teachings of the most highly qualified publicists of the various nations, as subsidiary means for the determination of rules of law.

This provision shall not prejudice the power of the Court to decide a case *ex aequo et bono*, if the parties agree thereto.

The Statute of the Court provides that "the jurisdiction of the Court comprises all cases which the parties refer to it and all matters specifically provided for in treaties and conventions in force."

The second provision refers to cases coming up under the Treaty of Versailles, disputes arising under the mandate system or in connection with the work of the International Labor Organization, cases arising under conventions, and the recent treaties of arbitration and conciliation, including the Locarno treaties.

Twenty-two nations have made 250 arbitration and conciliation treaties since the war, wherein jurisdiction is given the Court fir resort to the Permanent Court of International Justice. The treaties vary in terms; some provide for the exclusive and compulsory intervention of the Court in all disputes or in certain classes of disputes; others provide for the possible intervention of a tribunal other than the Court, the latter being given compulsory competence if the parties disagree; and one provides for the intervention of the Permanent Court of International Justice, but the wish of one of the parties is sufficient to cause another tribunal to be substituted for it.

A so-called "Optional Clause" was inserted in the Statute by which a nation might also declare that it accepted the jurisdiction of the Court as compulsory *ipso facto* and without special agreement, in any legal dispute in the first four of the five classes of disputes in which the Advisory Committee had given it compulsory jurisdiction.

Forty-two states have accepted (Nov. 15, 1929) the optional clause, some with conditions or for fixed periods of years and nearly all on condition of reciprocity. Fifteen states, including France, Italy, and the United Kingdom, with all the British dominions, signed this clause in September, 1929. The eighteen states at present bound by the clause are: Austria, Belgium, Bulgaria, Denmark, Estonia, Ethiopia, Finland, Germany, Greece, Haiti, The Netherlands, Norway, Panama, Portugal, Spain, Sweden, Switzerland and Uruguay.

The expenses of the Court for 1928 were approximately $386,000; and the estimate for 1930 is about $437,615. These are borne by the members of the Court on a pro rata basis similar to that obtaining in the League.

President Harding submitted the Protocol and accompanying Statute of the World Court to the Senate on Feb. 24, 1923 with the request that the Senate should give its assent to American adhesion to the Court on the basis of four "conditions and understandings" set forth in a letter from Secretary of State Hughes. President Coolidge added a fifth. Acceptance of the proposal was further recommended by President Coolidge in his annual messages of 1923 and 1924, in his inaugural address of March 4, 1925, and in his annual message on Dec. 8 following. It was not until Jan. 27, 1926, however, that the

Senate, after prolonged consideration of various resolutions and amendments, adopted by a vote of 76 to 17 the Swanson resolution embodying the conditions under which the United States declared its adherence to the Court and its approval of the protocol and statute.

The first Senate reservation repudiated any legal relation on the part of the United States to the League of Nations, or the assumption of any responsibilities under the Treaty of Versailles. The second stipulated that the United States should participate, upon an equality with other states, in any proceedings of the Council or Assembly of the League for the election of judges of the Court. By the third reservation the United States undertook to pay such fair share of the expenses of the Court as Congress should determine.

The fourth reservation declared that the United States might at any time withdraw its adherence to the protocol, and that the statute of the Court should not be amended without its consent; while by the fifth reservation which was rewritten by the Senate, it was stipulated "that the Court shall not render any advisory opinion except publicly after due notice to all States adhering to the Court and to all interested States and after public hearing or opportunity for hearing given to any State concerned; nor shall it without the consent of the United States, entertain any request for an advisory opinion touching any dispute or question in which the United States has or claims an interest."

To these five numbered reservations the Senate resolution added the further "understanding" that recourse to the World Court "for the settlement of differences between the United States and any other State or States can be had only by agreement thereto through general or special treaties concluded between the parties in dispute"; together with the stipulation that the adherence to the protocol and statute "shall not be so construed as to require the United States to depart from its traditional policy of not intruding upon, interfering with, or entangling itself in the political questions of policy or internal administration of any foreign State' nor be construed "to imply a relinquishment by the United States of its traditional attitude toward purely American questions."

The Conference of Signatory States met in Geneva in September, 1926. The United States declined an invitation to be represented. Ready and unconditional acceptance was given to all the United States reservations except the first part of the fourth, and the fifth, which proved stumbling blocks. These also were accepted, but with the condition that if the situation produced by the acceptance did not work out well, it could be denounced at any time, by a two-thirds vote of the signatories.

The Conference was willing that the United States should have the right to prevent the Court from giving an advisory opinion, without its consent, in any case in which we were a party.

Negotiations were renewed by President Coolidge in 1928. To reconcile the differences the Advisory Committee of Jurists adopted on March 18, 1929 a protocol, superseding the original protocol, which placed the United States on an equality with the signatory States for the election of judges; provided that no amendment of the Statute may be made without consent of all contracting States; provided that the Court shall render advisory opinions in public session after due notice and opportunity to be heard; provided for informing the United States of any proposal for obtaining an advisory opinion, and for a speedy exchange of views thereon; provided for attributing to an objection of the United States the same force and effect as is attached to the vote of any member of the League; and provided for the withdrawal of the United States, if no agreement can be reached, "without any impution of unfriendliness or unwillingness to cooperate generally for peace and good will."

A revision of the Statute including modifications which would give further satisfaction to the Senate reservations, was adopted by the League Assembly unanimous vote in Sept. 14, 1929. To this new protocol immediately 48 signatories of the World Court Statute attached their signatures.

Secretary of State Stimson, on Sept. 5, 1929, announced that having carefully examined the draft protocol that it, "if ratified by the other signatory powers, would meet the objections raised by the Senate and fully protect the United States against dangers anticipated by the Senate . . . and if it was accepted by the other States I would recommend to the President that it be signed and submitted to the Senate for its consent to ratification."

President Hoover, in his annual message, expressed complete approval and said he would submit the protocols to the Senate in due course.

By authorization of the president, Jay Pierrepont Moffat, Charge d'Affaires at Berne, signed, on Dec. 9, the three protocols on behalf of the United States.

THE LEAGUE OF NATIONS.

The League of Nations now has a membership of fifty-four states. Germany entered the League Sept. 10, 1926. Nations not in the League are: Afghanistan, Brazil, Costa Rica, Ecuador, Egypt, the Hedjaz and Nejd, Mexico, Soviet Russia (U. S. S. R.), Turkey, and the United States of America. The role of member states is:

Albania	France	Nicaragua
Argentine	Germany	Norway
Australia	Great Britain	Panama
Austria	Greece	Paraguay
Belgium	Guatemala	Persia
Bolivia	Haiti	Peru
Bulgaria	Honduras	Poland
Canada	Hungary	Portugal
Chile	India	Rumania
China	Irish Free State	El Salvador
Colombia	Italy	Siam
Cuba	Japan	South Africa
Czechoslovakia	Latvia	Spain
Denmark	Liberia	Sweden
Dominican Rep.	Lithuania	Switzerland
Estonia	Luxemburg	Uruguay
Ethiopia	Netherlands	Venezuela
Finland	New Zealand	Yugo-Slavia

The five permanent members of the Council are: France, Germany, Great Britain, Italy and Japan. The non-permanent members have been increased to nine, to have three-year terms by classes. Those elected Sept. 1927, are: Cuba, Finland and Canada; elected Sept. 10, 1928, Spain, Venezuela and Persia; and elected Sept., 1929, Peru, Poland and Yugo-Slavia. A retiring member may not be re-elected unless the Assembly so decides by two-thirds vote, though an exception is made in the case of Poland.

The election of Germany to the League with assurance of a permanent seat on the Council was informally agreed upon at the Locarno Conference. At the session March 8–17, 1926, Brazil, Poland and Spain claimed permanent seats also and blocked the plan temporarily. Brazil, defeated in her aspirations, withdrew in June from the Council and after the June meeting announced her resignation from the League. Spain also filed her resignation. Though requested to withdraw her resignation in 1928 Brazil on May 8 refused to do so and it became effective in June. Spain on a like request reconsidered her resignation on March 22, remains a member, and was elected to a non-permanent seat on the council.

Argentina, which withdrew its delegation from Geneva during the first Assembly in 1920, took steps in its Chamber of Deputies in September, 1926, favoring re-entry. However, in 1928 the Chamber cut out of the budget the appropriation for her quota of the League expenses which had hitherto been made annually.

Costa Rica, when asked to reconsider its resignation, requested an opinion on the Monroe Doctrine from the League. The request was referred to the several states. Costa Rica made no decision.

The Assembly meets annually in September, at Geneva, where the Secretariat, Sir Eric Drummond, Secretary General, with a staff of 500 has its permanent headquarters. As these have been entirely outgrown in September, 1929, the foundation stone was laid for new and permanent buildings to include an Assembly Hall, an office building and a library for which John D. Rockefeller, Jr., gave $1,000,000. The Council meets three times a year holding its June meeting in 1929 in Madrid. The Council meeting held at Lugano, in December, 1928, was suddenly faced by the Bolivia-Paraguay clash. Prompt action urging a settlement by peaceful means was taken. Within a few days both countries accepted the good offices of the Pan-American conference of Conciliation and Arbitration then in session in Washington. The League commission of inquiry kept at work with other countries using their offices and on Sept. 28, 1929, the two countries signed a conciliation agreement but leaving the fixed boundare dispute unsettled.

The Preparatory Commission for the Disarmament Conference appointed by the Sixth Assembly in 1925, has been studying the matter without advancing far due largely to the deadlock reached in the conference looking to a reduction of naval armament.

Model treaties were adopted in 1928 and in 1929 after the ratification, July 19, of the Pact of Paris, a committee was given the work to prepare a report on necessary amendments to bring the Covenant of the League into harmony with it.

The Tenth Assembly which met Sept. 2-25, 1929.

without one member absent, also set its Economic Organization the task of convening a conference for the conclusion of a customs truce, whereby nations would agree not to increase their protective tariffs above the present levels for a period of two or three years, and not to relax any efforts being made to reduce their tariffs.

For the work of the League on the World Court and the International Labor Bureau, see those articles.

The annual budget of the League for 1929-30 is 28,650,000 Swiss francs ($5,650,000), and is prorated among the members.

The American agent for all League of Nations year books and other documentations is The World Peace Foundation, 40 Mt. Vernon St., Boston, Mass., of which the Rev. Dr. W. H. P. Faunes is President of the Board of Trustees, Raymond T. Rich, Secretary, Denys P. Myers, Director of Research, and Marie J. Carroll, Librarian.

THE PACT OF PARIS RATIFIED AND IN FORCE.

The Pact of Paris renouncing war as an instrument of national policy was signed in Paris Aug. 27, 1928, by the plenipotentiaries of 15 nations. Notes were sent on the same day through the American missions abroad to 48 nations inviting their adherence to the Pact, and through the French government to the Soviet government of the U. S. S. R. (Russia).

The preamble of the treaty reads:

"The President of the German Reich, the President of the United States of America, his Majesty the King of the Belgians, the President of the French Republic, his Majesty the King of Great Britain, Ireland, the British Dominions Beyond the Seas, Emperor of India, his Majesty the King of Italy, his Majesty the Emperor of Japan, the President of the Republic of Poland, the President of the Czechoslovak Republic:

"Deeply sensible of their solemn duty to promote the welfare of mankind:

"Persuaded that the time has come when a frank renunciation of war as an instrument of national policy should be made to the end that the peaceful and friendly relations now existing between their peoples may be perpetuated:

"Convinced that all changes in their relations with one another should be sought only by pacific means and be the result of a peaceful and orderly process; and that any signatory power which shall hereafter seek to promote its national interests by resort to war should be denied the benefits furnished by this treaty:

"Hopeful that, encouraged by their example, all the other nations of the world will join in this humane endeavor and by adhering to the present treaty as soon as it comes into force bring their peoples within the scope of its beneficent provisions, thus uniting the civilized nations of the world in a common renunciation of war as an instrument of their national policy;

"Have decided to conclude a treaty, and for that purpose have appointed as their respective plenipotentiaries: (Names follow)

Article 1 reads: "The High Contracting Parties solemnly declare in the names of their respective peoples that they condemn recourse to war for the solution of international controversies, and renounce it as an instrument of national policy in their relations with one another."

Article 2 reads: "The High Contracting Parties agree that the settlement or solution of all disputes or conflicts of whatever nature or of whatever origin they may be, which, may arise among them, shall never be sought except by pacific means."

Article 3 prescribes methods of ratification and that the treaty shall take effect as soon as all their several instruments of ratification shall have been deposited at Washington.

Russia (U. S. S. R.) promptly announced to the French Government her adherence to the Pact of Paris. The 48 nations to which notes inviting adherence were sent by the United States Government were:

Albania	Estonia	Norway
Afghanistan	Ethiopia	Panama
Argentina	Finland	Paraguay
Austria	Greece	Persia
Bolivia	Guatemala	Peru
Brazil	Haiti	Portugal
Bulgaria	Honduras	Roumania
Chile	Hungary	Salvador
China	Iceland	Serbs, Croats, Slovenes
Colombia	Latvia	Siam
Costa Rica	Liberia	Spain
Cuba	Lithuania	Sweden
Denmark	Luxemburg	Switzerland
Dominican Rep.	Mexico	Turkey
Ecuador	Netherlands	Uruguay
Egypt	Nicaragua	Venezuela

In the covering note Secretary Kellogg set forth that there was nothing in the treaty which restricts or impairs the right of self-defense, a right inherent in every sovereign state and implicit in every treaty. Every nation is free at all times and regardless of treaty provisions to defend its territory from attack and invasion and it alone is competent to decide whether circumstances require recourse to war in self-defense. If it has a good case the world will applaud and not condemn its action. He further pointed out that the League of Nations Covenant imposes no primary obligation to go to war; that, if the parties to the Treaty of Locarno are under any positive obligation to go to war, such obligation certainly would not attach until one of the parties has resorted to war in violation of its solemn pledges thereunder; that a violation of a multilateral anti-war treaty through resort to war by one party thereto would automatically release the other parties from their obligations to the treaty-breaking state.

The British note of May 19 said: "There are certain regions of the world, the welfare and integrity of which constitute a special and vital interest for our peace and safety. His Majesty's Government has been at pains to make it clear in the past that interference with these regions cannot be suffered."

It may be noted that in the treaty there is no stipulation to disarm; there is no direct reference to arbitration; and there are no reservations as to the nature of disputes.

The Japanese Emperor ratified the treaty June 27 1929, and the ratification by Japan, the last of the fifteen signers, was received by the State Department and formal announcement made with impressive ceremony at the White House on July 24. The treaty was then declared in force. President Hoover, in his annual message, Dec. 3, announced that 52 nations had signed the Peace Pact.

Secretary of State Stimson, acting under the treaty, on Dec. 2, 1929, sent notes to China and Soviet Russia (both signatories) urging that peaceful steps be taken to adjust their difficulties in Manchuria China made a sympathetic response. Russia replied that it was not a friendly act.

TACNA-ARICA TREATY SIGNED BY CHILE AND PERU.

Chile and Peru reached by direct negotiations in Lima a settlement of the Tacna-Arica problem which had troubled South America for 46 years. President Hoover, exercising his good offices at the request of both parties formally presented the proposal for a joint basis of settlement to the two countries on May 15, 1929, received their immediate acceptances and formally announced the agreement in Washington on May 17. The treaty embodying that agreement was signed in Lima June 3 and was ratified by the Congresses of both countries July 2 and 4, and ratifications were exchanged in Santiago, Chile, on July 28, the 108th anniversary of Peruvian independence.

The War of the Pacific which Chile fought against Peru and Bolivia grew out of the complaints of Chilean Nationals in the Peruvian provinces Tacna, Arica and Antofagasta on the northern boundary of Chile. It began in 1879 and ended with the fall of Lima in 1880 and was concluded by the Treaty of Ancon, Oct. 20, 1883. By this treaty Chile annexed Antofagasta and retained possession of the provinces of Tacna and Arica for 10 years when a plebiscite was to be held to determine the sovereignty. No agreement subsequently could be reached, diplomatic relations were severed 17 years ago and the dispute remained a sore spot in Latin-American relations.

Brought into conference in Washington the two countries in 1922 agreed to submit the issue to the good offices of the President of the United States as arbitrator. President Harding accepted the responsibility on Jan. 29, 1923. Two years were taken up in presenting the evidence and arguments. It fell to President Coolidge to hand down, March 5, 1925, an award specifying that the plebiscite should be first held. A mixed commission headed by Gen. John J. Pershing, and on his resignation by Maj. Gen. Wm. Lassiter, undertook this in 1925 and 1926 but the negotiations collapsed.

Secretary Kellogg, undaunted by this failure continued his efforts and induced the two countries in

July, 1928, to reestablish diplomatic relations. The ambassadors exchanged were each of unusual distinction and capacity and the direct negotiations then urged were begun in September, facilitated so far as possible by the American ambassadors, Moore and Culbertson, and brought to a successful issue in 1929.

Tacna and Arica lie to the north of the Chilean nitrate beds and being mostly arid are of no great economic value. The area of the territory is about 9,500 square miles with approximately 45,000 population. The city of Tacna has about 12,000. The seaport Arica has about 10,000 but is important as having the only harbor for many miles and being the western terminus of the Arica-La Paz railroad that furnishes Bolivia an outlet to the Pacific.

By the treaty the province of Tacna was alloted to Peru and Arica to Chile. The boundary begins at Concordia, ten kilometers (6.41 miles) north of the bridge over the Lluta River and runs at that distance north of and parallel to the Arica La-Paz railroad to the Bolivian frontier. The sulphur deposits of Tacora remain in Chilean territory and the irrigation canals in Peruvian subject to certain water rights. Peru received a wharf, custom house and station for the railroad from Tacna to Arica as a free port on the Bay of Arica with absolute freedom of transit. The works are to be constructed by Chile. Chile delivered without cost all public works and government-owned property in Tacna. Children born in the provinces can at 21 elect their nationality. The Arica fort is to be dismantled. The two countries agreed to erect on the Morro de Arica, a towering headland of the bay, a peace monument commemorative of the renewal of friendly relations, and of the valor of their soldiers who fought there the last great battle in the War of the Pacific. Chile paid over to Peru $6,000,000 as the difference in cost between the construction of a free port in Arica and the development of a new port for Peru at Las Yaradas north of Arica which had first been agreed to; Peru used the money as capital for a National Savings Bank, created by government decree in August. Tacna was turned over to Peru on Aug. 29, 1929.

On the exchange of ratifications at Santiago, a protocol was made public in which both countries declared that no part of the territory concerned could be ceded to a third power thus blocking the Bolivian desire to regain an outlet to the Pacific which Bolivia lost in the War of the Pacific when Chile annexed the Province of Antofagasta.

PAN-AMERICAN RELATIONS AND BOUNDARY DISPUTES.

At the conclusion on Jan. 5, 1929 of the International Conference of American States on Conciliation and Arbitration which met in Washington Dec. 10, 1928, pursuant to a resolution adopted by the 1928 Pan-American Conference in Havana, the 20 republics signed a general treaty of inter-American arbitration, Peru, Haiti, Brazil, Panama, Nicaragua Cuba and the United States, without reservations, and the 13 others with certain reservations. A generaal Convention of Inter-American Conciliation was signed by 19 republics without reservations and by Chile with a reservation making exception of "questions which may rise from situations or acts prior thereto."

The dispute over the boundary between Bolivia and Paraguay in the Grand Chaco, a vast wilderness 100,000 to 150,000 square miles in extent lying between the Paraguay and Pilcamayo Rivers which resulted in an armed clash between their frontier forces on Dec. 5, 1928, remained unsettled throughout 1929. Immediate action by the International Conference of American States on Conciliation and Arbitration in session at that time in Washington, and by the Council of the League of Nations in session at Lugano, in urging peaceful settlement of the trouble that had caused a severence of diplomatic relations and threatened war, fortunately secured from both countries assurances that war would be avoided and a peaceful settlement sought. The situation remained strained and dubious.

The International Conference appointed a commission of neutral American nations, the members representing the United States, Mexico, Colombia, Uruguay and Cuba, Mr. Gen. Frank R. McCoy, Chairman, who visited South America and succeeded in partially restoring diplomatic relations between the two countries, but were obliged to leave unsettled the broad question of the ownership of the Chaco as plans drawn up for submitted the matter to arbitration did not prove acceptable to the disputant governments.

Secretary Stimson, on Oct. 2, 1929, made public identic notes that had been sent to each country of the five nations represented on the Commission of Neutrals, urging them to enter into direct negotiations for a settlement of the basic question of the boundary line and of all others dependent on that and offering their good offices with a view to overcoming obstacles that may arise, and of bringing the negotiations to a successful conclusion. Efforts were made to persuade Argentina, Brazil and Chile to join this move of neutral nations but all declined to join the commission. The outcome was unsettled on Dec. 1, 1929. Paraguay desired an unlimited arbitration of the Chaco, and Bolivia desired that the zone to be submitted to arbitration be limited in advance.

Brazil and Paraguay signed a treaty, ratified Oct. 19, 1929, settling all disputed boundaries. By it Brazil recognized the Paraguayan title to territory on the west bank of the Paraguay River between Bahia Negra and the mouth of the Apa River.

Brazil and Colombia ratified on Nov. 15, 1929 a treaty signed at Rio de Janeiro Nov. 15, 1928, which settled their only remaining boundary question through reciprocal perpetual free navigation of the Amazon. The boundary is a straight line running to the Brazilian town of Tabitienga on the Amazon from the outlet of the Appaoris River into the Caqueta.

Brazil and Great Britain, on June 29, 1929, exchanged ratification of the demarkation of the boundary between Brazil and British Guiana. Brazil is negotiating for the demarkation of the boundaries with French and Dutch Guiana.

Bolivia and Argentina ratified the treaty signed at La Paz July 9, 1925, settling a dispute of 100 years' standing and definitely fixing their boundaries.

Brazil and Uruguay, who have just finished the Jaguaro international bridge, have renewed work on the demarkation of their boundaries.

The British Government has sent a friendly note to Argentina protesting against the establishment of an Argentine wireless station in the South Orkney Islands as an invasion of its possessions. Argentina has replied that it is merely enjoying its rights of dominion over these islands.

THE BUSINESS PRESS OF THE UNITED STATES.

The business press of the United States is now made up of approximately 1,800 individual publications and there is virtually no industry, trade, profession or specialized service that does not have one or more business papers devoted to it. Broadly speaking, business papers are divided into three groups. These are industrial and technical, merchandising and trade, and professional and specialized services.

The first publication in the United States of the character of a business paper was the *New York Prices Current*, started in 1795. By 1840 there were a number of flourishing specialized journals in the fields of industry and trade. The post Civil War period and the ten years ending with 1879 saw the establishment of 58 different business papers which are still existent. Since then the growth of this class of periodicals, either as weeklies, semi-monthlies or monthlies, has been much more rapid and extensive as to field.

Some of the business publications of the United States and Canada, in 1905, established a trade associations based upon definite standards of practice in the editorial, advertising and circulation branches of their business. This is The Associated Business Papers, Inc., a non-profit organization with offices at 52 Vanderbilt Ave., New York City. Its present officers are: C. A. Musselman, Chilton Class Journal Co., Philadelphia, Pres.; Warren C. Platt, National Petroleum New, Cleveland, Vice-Pres.; Edward H. Ahrens, Ahrens Publishing Company, New York, Treasurer; and F. M. Feiker, Managing Director, New York.

Working in close co-operation with this assocaition is the National Conference o. Business Paper Editors, the professional organization of the editors of these papers. Its objective is to advance business paper editing as a profession and the men working in it. This Conference meets in Washington with various government officials several times a year and also holds periodic meetings in various sections of the country. An office is maintained in New York with The Associated Business Papers. The officers are:

G. D. Crain, Jr., Class and Industrial Marketing, Chicago, Pres.; Norman G. Shidle, Chilton Class Journal Company, Philadelphia, Vice-Pres.; E. L. Shaner, Iron Trade Review, Cleveland, Treas.; and Thomas H. Ormsbee, New York City, Sec'y.

By action of President Hoover the Washington business paper correspondents now attend the regular press conferences at the White House Executive Offices. These correspondents have their own organization with the following officers:

Paul Wooton, Chairman; Harold Lane, Vice-Chairman; and Henry Ralph, Secretary.

Antarctic Exploration—Byrd, Wilkins, Mawson.

Compiled by National Geographic Society, Washington, D. C., Gilbert Grosvenor, LL.D., Litt. D., Pres.

Commander Richard E. Byrd, accompanied by Bernt Balchen, pilot, Captain Ashley McKinley, aerial surveyor, and Harold I. June, radio operator, reached the South Pole Nov. 29, 1929, on a flight which began at Little America, the base of the expedition, at 3:29 p.m. Nov. 28. When his dead reckoning and observations combined to tell him that he was over the Pole, he sent a radio announcing that "My calculations indicate that we have reached the vicinity of the South Pole." Balchen then turned to the right, flew at right angles to Grosvenor Trail for some six miles and then turned left, flying parallel to that Trail extended for an equal distance. Then he circled around until he struck the extension of the Grosvenor Trail, along which he flew until he reached the point where the original right turn was made. Here all hands stood and saluted the memory of Floyd Bennett, who accompanied Commander Byrd to the North Pole and would have gone with him to the South Pole but for his untimely death. At the same time a trap-door in the bottom of the fuselage was opened and through it was dropped a silk American flag weighted with a stone carried from Floyd Bennett's grave. Also there were dropped a British flag in memory of Captain Robert F. Scott, a Norwegian flag in memory of Captain Roald Amundsen and a French flag in tribute to the people who had been so kind at the end of Byrd's transatlantic flight.

The trip to the Pole and back was one of the most amazing feats in the history of aviation. The *Floyd Bennett*, a big trimotored cabin monoplane built by Edsel Ford, took off with a total weight of 15,000 pounds. Carrying Captain McKinley, with his surveying camera and three month's food supply, added 600 pounds and reduced the ceiling 1,000 feet.

About 304 miles due south of Little America, the trail party under Lawrence Gould was sighted and messages and photographs were dropped, the latter being so marked as to indicate the site of the mountain base depot, where the overland party would find supplies.

Reaching the base of the mountain it was decided to fly through the pass marked by the Liv's Glacier instead of the one marked by the Axel Heiberg. After tremendous efforts to gain elevation, hard battles with eddies and gusts, and hairbreadth escapes from icy side walls, the summit finally was crossed but not until two 125-pound bags of concentrated food were thrown overboard and many tins of gasoline emptied into the tanks and their containers heaved overboard. Meanwhile, McKinley never missed a shot with his big surveying camera.

After passing the crest of the mountains the way was open to the Pole. The Plateau ranges from 7,000 to 11,000 feet. To the west a great new mountain range was sighted.

As in the flight to the North Pole, Commander Byrd found the Bumstead sun compass of inestimable assistance. In the high winds that blow in the polar regions a plane is too unsteady for the most accurate sextant observations, but so long as the sun shines the sun compass is a perfect guide alike in directing the route and determining when the Pole is reached. This compass was invented by Albert H. Bumstead, cartographer of the National Geographic Society, and was one piece of physical equipment that reached both Poles.

On the flight back a somewhat different route was taken from the Pole to permit Captain McKinley with his big aerial survey camera, to map a wider area of the Polar Plateau. The course led to the Axel Heiberg Glacier. After descending the mountains over that great ice river a successful landing was made at Depot No. 8, where gas and food were deposited for the Lawrence Guild sled party engaged in geological reconnaissance. The plane took off safely after an hour spent in caching these materials, and at 10:10 a.m. landed at its home base at Little America, just 18 hours and 59 minutes after starting on its great adventure. The flyers had seen an area of the Antarctic Continent larger than that comprised in the States of New York, Pennsylvania, Virginia, and North Carolina.

No expedition ever reached the polar regions either north or south as completely equipped, or so adequately staffed as the Byrd Expedition to the South Pole. It carried a complement of 55 men, 75 dogs, and 3 airplanes. Four ships were required to move its personnel and equipment to New Zealand—the *City of New York*, the *Eleanor Bolling*, the *C. A. Larsen*, and the *Str James Clark Ross*. Two Eskimos were taken along. Four radio transmitters were carried.

A radiogram from Commander Byrd describes in part the role of the National Geographic Society in the expedition. "At a crucial period of our preparations for this expedition, the National Geographic Society came to our assistance with encouragement and a substantial grant and so helped in a big way to make our expedition possible. Now in the midst of the more difficult operations and when there still is a financial deficit back home the National Geographic comes again to our assistance by duplicating its original grant of $25,000, and so encouraging greatly every man in camp." The news of this second grant reached Commander Byrd just before he started upon his flight to the South Pole.

A YEAR IN THE ANTARCTIC.

The outstanding events in the chronology of the expedition were as follows:

Dec. 2, 1928—The *City of New York* and the *Eleanor Bolling* sailed from Dunedin, New Zealand, for the Barrier, the *Eleanor Bolling* towing the *City of New York*.

Dec. 11—The *C. A. Larsen* joined them near Scott Islands. The *Eleanor Bolling* transferred 87 tons of coal to the *City of New York* and returned to Dunedin. The *C. A. Larsen* took the *City of New York*, in tow.

Dec. 14—On this seventeenth anniversary of Amundsen's discovery of the South Pole, the *C. A. Larsen* and the *City of New York* entered the ice pack.

Dec. 25—The ships sighted the Barrier.

Jan. 6, 1929—The expedition base, Little America, 2,300 miles from the nearest human habitation, was established.

Jan. 16—The first flights of the expedition were made, seven in all. The Fairchild ship, *Stars and Stripes* was used.

Jan. 18—Commander Byrd, with the *Stars and Stripes* and the *Virginian*, the latter a Fokker plane, took off, discovering Marie Byrd Land and charting the Rockefeller Mountain Range.

Jan. 25—The world's two-way code conversation between an airplane and land was established when Commander Byrd held a two-way conversation with the New York Times radio station.

Jan. 27—Commander Byrd flew over King Edward VII Land, saw 14 mountain peaks, discovered a new island, and returned safely after a 5-hour flight.

Jan. 28—The *Eleanor Bolling* arrived at the Barrier, the first steel ship that ever touched the Antarctic Continent.

Jan. 31—A breaking off of huge blocks of ice from the top of the Barrier almost swamped the *City of New York* and the *Eleanor Bolling*. Commander Byrd jumped into the freezing water to help rescue a man carried into the sea by the collapsing ice.

Feb. 2—The *Eleanor Bolling* departed for Dunedin.

Feb. 14—Commander Byrd returned with the *City of New York* from an attempt to reach King Edward VII Land by sea.

Feb. 18—Commander Byrd took off for a flight over King Edward VII Land. He discovered a 10,000-foot peak and two mountain ranges, and explored a 40,000-square mile zone, which he claimed for the United States.

Feb. 22—The *City of New York* left the port of Little America for Dunedin.

Mar. 7—Lawrence Gould, Bernt Balchen, and Harold I. June flew to the Rockefeller Mountains on a geological reconnaissance.

Mar. 18—Commander Byrd flew to the rescue of Gould, Balchen, and June, stranded in the Rockefeller Range. The Fokker plane in which they had come to the mountains on the 7th was totally wrecked in a storm which blew it from its moorings on the 10th.

Mar. 22—Commander Byrd returned to his base after rescuing the Gould party stranded in the mountains.

Oct. 15—The supporting party of the Byrd Expedition started south with its dog teams.

Nov. 4—The Geological party started south to explore the Queen Maud Mountains. It was headed by Lawrence Gould.

Nov. 19—Commander Byrd flew the *Floyd Bennett* to the depot at the base of the Queen Maud Mountains, left supplies there, and then flew back. Gasoline shortage forced a landing 95 miles from Little America on the return. But the *Stars and Stripes* carried out a fresh supply and all hands returned safely.

Nov. 28—Commander Byrd set out for the South Pole.

Nov. 29—The Pole was reached and the flyers returned safely to Little America.

SIR HUBERT WILKINS' EXPEDITION.

Captain Sir Hubert Wilkins sailed from New York on a second expedition September 28, going to Monte-

video on the *Northern Prince*, where he arrived Oct. 15, 1929. He spent a fortnight there and then sailed for Deception Island aboard the whaler *Melville*. He took with him Orval Porter, Victor Olsen, and Parker Cramer, who were with him on his previous expedition, and Al Cheeseman, instead of Lieutenant Carl Ben Eielson, who went to the rescue of the stranded flyers in the Canadian Northwest. He left his planes of the previous expedition at Deception Island, and expected to find them in shape for the 1929-30 work. It was his plan on this expedition to attempt to make a 2,000-mile flight along the rim of the Antarctic Continent west of the so-called Graham Land, and if this proved successful to then fly 2,500 miles to the Bay of Whales, on Ross Sea where he would visit Commander Byrd at the latter's base. Sir Hubert further planned to try to locate a suitable spot on the Antarctic Continent for a meteorological station which he hopes to build as one of a chain of twelve for studying Antarctic weather and its relation to that of temperate lands. The expedition expected to make several additional short flights, but did not plan to attempt to reach the South Pole. Sir Hubert did sterling work in the region he covered last year, and both expeditions have been sponsored by the American Geographical Society.

Captain Sir Hubert Wilkins with his staff consisting of Lieutenant Carl Ben Eielson, Pilot Joe Crosson, Engineer Orval Porter, and Radio Operator Victor Olsen, arrived at Deception Island, November 6, 1928, to undertake the exploration of the sector of the Antarctic Continent immediately south of South America. He carried with him two Lockheed-Vega monoplanes, one of which he used in his Arctic flight. It was not until Dec. 20th that they were able to take the air for anything more than tuning-up flights around the Deception Island base. On that date they took off and were in the air at 8:20 a.m., heading south at a speed of 125 miles an hour. They flew across the Bransfield and De Gerlache Straits to Brialmont Bay and then over the Palmer Coast of what has come to be known as Graham Land. Once across this they followed the coast until they reached a point 71° 20' South Latitude, and 64° 15' West Longitude. Here they found that nearly one-half of their gas supply was gone, and saw that several storm areas were developing. They thereupon made a direct flight back to their base. They had proved that the so-called Graham Land is not a peninsula of the Antarctic Continent as most maps had shown, but a long series of rather narrow islands, separated by narrow channels. Their flight took them across the Antarctic Circle and gave them the honor of being the first aviators to fly into the South Frigid Zone.

On Jan. 10 another flight of 250 miles on more or less the same course was made. It was decided then to end their undertakings for that season and to return again in the autumn of 1929.

SIR DOUGLAS MAWSON'S WORK.

Sir Douglas Mawson sailed from Cape Town in mid-October, 1929, aboard the *Discovery*, for a two-season cruise of that sector of the Antarctic Ocean which stretches westward toward Ross Sea from Enderby Land. The area he will explore includes the coast line discovered, traced, and charted by Admiral Charles Wilkes in 1840. His expedition headed first for Kerguelen Island, reached Hog Island, of the Crozet group, Nov. 9. Thence the *Discovery* sailed to Possession Island, where it anchored off American Beach, while the leaders of the expedition went ashore to observe the flora and fauna. Later it sailed for Kerguelen Island. By Nov. 25 its coaling was completed and the *Discovery* was ready to turn its prow southeastward to work its way to the continental shores within the Antarctic Circle.

The expedition carried with it a small scout plane, fitted with pontoons, with which it hoped to aid the navigator in finding open water and free lanes while sailing the *Discovery* through ice floes. It also was planned to use the plane in scouting work along the coast and over islands, if and when these were reached.

The expedition planned to establish no base on land, but to move out ahead of the closing ice at the approach of the Antarctic winter, sailing back to Australia to await the opportunities of the following summer season. In the event that the *Discovery* should be unable to make its way out of the floes at the close of the season, the expedition carried a supply of food, clothing, fuel, sledges, and emergency gear sufficient to meet any situation a winter frozen in the ice might involve.

GRAF ZEPPELIN'S TRIP AROUND THE WORLD.

The great event in aviation in 1929 was the trip around the world made by the German dirigible, Graf Zeppelin, under command of Dr. Hugo Eckener. The great airship, which flew to America and back in 1928 (see The World Almanac for 1929, pages 122 and 123), left Friedrichshafen at 9:29 p.m. Wednesday, July 31, 1929, passing over Lyons, France, 5:10 a.m. Thursday and Gibraltar at 10 p.m., dropped mail at Santa Marta, the Azores, 3 p.m. Friday, was 330 miles northeast of Bermuda 10 p.m. Saturday and turning south to avoid storm; passed over New York at 7:35 p.m. Sunday and landed at Lakehurst, N. J., at 8:52 p.m. Twenty passengers were carried. The times are Eastern Standard time. The elapsed time was exactly 93 hours and estimated mileage 5,331 land miles.

The Graf Zeppelin, returning, left Lakehurst 12:39 a.m. ThursdayAug. 8, and reached Friedrichshafen 8:33 a.m. Saturday, Aug. 10, completing the trip of 4,200 miles in 55 hours and 24 minutes. The great dirigible carrying 16 passengers and crew left Friedrichshafen 11:34 a.m. Wednesday Aug. 14, flew over Berlin and Danzig for Tokio, crossing Russia and Siberia without incident and landed at Kasumigaura airport at 5:27 a.m. Wednesday completing 6,800 miles in 101 hours 53 minutes. The welcome in Japan was wonderfully enthusiastic.

The Graf Zeppelin left the Japanese airport at 2:18 a.m. Friday, Aug. 23, for Los Angeles where it arrived at 9:11 a.m. Monday, Aug. 26—5,500 miles from Tokio in 78 hours 58 minutes. Leaving at 4:14 a.m. Tuesday, Aug. 27, the great airship passed in continuous flight over El Paso, Kansas City, Chicago, Akron, Cleveland, Newcastle, Bellefonte, New York, and landed at Lakehurst at 8:13 a.m. on Thursday, Aug. 29. The elapsed time was 21 days 7 hours 34 minutes, and the mileage approximately 19,300.

The continuation of the trip to the home hangar at Friedrichshafen was made without Dr. Eckener, Captain Ernest Lehmann, second in command, in charge. The dirigible, flying by way of the Azores, arrived there the morning of Sept. 4 in 67 hours from Lakehurst. The total mileage from Friedrichshafen to Friedrichshafen was 21,238.

On March 28, the Graf Zeppelin returned from a cruise to the Near East, covering 5,040 miles in 31 hours and 30 minutes.

The Graf Zeppelin has made fifty trips during which it has covered a total distance of 72,648 miles. Seven trips have been of more than 3,000 miles each.

The Graf Zeppelin has consumed 307,465 cubic yards of fuel gas, 80,507 quarts of benzine and 14,933 quarts of oil, an average of 359 quarts for every 62.1 miles. Besides the crew the airship has carried a total of 1,574 passengers, $20,000 worth of letters and postcards and a total useful load of 876,434 pounds.

REFUELING ENDURANCE RECORDS IN 1929.

Endurance flights by planes refueling in the air were aviation features of 1929. From Jan. 1 to Jan. 7 the attention of the air-minded of the world was fixed upon the United States Army Fokker monoplane, with three Army Wright Whirlwind motors of 225 h.p. each, Question Mark in charge of Major Carl Spatz with a crew of four, Capt. Ira Eaker, Lieut. Elwood Quesada, Lieut. H. A. Halverson, and Sergt. Roy Hooe, who flew above Los Angeles, Cal., staying aloft for 150 hours 40 minutes and 15 seconds.

The distance traveled was estimated at more than 11,000 miles; the speed averaged 70 miles an hour. The plane consumed 5,205 gallons of gasoline and 202 gallons of oil.

Then R. G. Robbins and James Kelly flew the monoplane Fort Worth in a refueling flight, May 20-26, over Fort Worth, Texas, for 172 hours 31 minutes.

Thorwald Johnson and Owen Houghland sought the record in a monoplane over Minneapolis, Minn., July 23-29, but were forced down after a flight of 149 hours 32 minutes.

Byron K. Newcomb and Roy L. Mitchell took up the task with their plane City of Cleveland above Cleveland and on July 6 placed the record at 174 hours and 59 seconds.

R. B Reinhart and L. W. Mendell were then still in the air and they raised the record with the biplane Angelus over California near Culver City to 246 hours 43 minutes 32 seconds, flying on July 2-12.

Then for the fifth time in the year the record fell. Dale Jackson and Forest O'Brine flying over St. Louis for near 17 days—July 13-30—set the refueling endurance mark at 420 hours 21 minutes 30 seconds in the St. Louis Robin, a Curtiss-Robertson small cabin monoplane with a Curtiss Challenger air-cooled radial motor developing 170 h.p. The plane was refueled 47 times and consumed 3,590 gallons of gas. The joint earnings of the pilots exceeded $31,250.

They landed in excellent physical condition; Jackson had lost no weight and O'Brine had gained 1½ pounds. The motor was working smoothly.

Joe Glass and Glenn Loomis attempted to better the record over Houston, Tex., in their monoplane Billion Dollar City, but were forced down by an accident to their motor July 27 after being aloft 233 hours 12 seconds.

The record in 1928 was 53 hours 36 minutes 41 seconds made by Haldeman and Stimson at Jacksonville, Fla.

SOLO ENDURANCE FLIGHTS.

Notable solo endurance airplane flights reported in the press in 1929 were: Martin Jensen at Roosevelt Field, L. I., on March 28, stayed up 35 hours, 33 minutes, 30 seconds; Herbert J. Fahy at Los Angeles, Cal., on May 29 was aloft 36 hours, 56 minutes and 36 seconds; while Vern Speich at Long Beach, Cal., on Oct. 3 made the record 38 hours and 48 seconds.

For the women, Miss Evelyn Trout at Los Angeles on Feb. 11 made a flight of 17 hours, 5 minutes and 37 seconds; Miss Louise McPhetridge at Oakland, Cal., stayed up 22 hours, 3 minutes and 12 seconds; and Miss Elinor Smith at Roosevelt Field, L. I. on April 24 made the record 26 hours, 21 minutes and 32 seconds.

Mlle. Maryse Bastie, a French girl, taking off from Le Bourget, Paris, July 28 at 5:17 a.m., remained aloft 26 hours, 21 minutes, 32 seconds. She flew a 40 h.p. Caudron monoplane.

TRANSOCEANIC FLIGHTS OF 1929.

Three French aviators, **Jean Assollant, Rene Lefevre, Armendo Lotti** and a stowaway made a non-stop flight in the Yellow Bird from Old Orchard, Me., U. S. A., to near Comillas, Spain, June 13-14, 1929, an estimated distance of 3,128miles, in 29 hours 52 minutes, an average of 105 miles per hour. Later the flight was continued to Paris.

The French aviators, **Capt. Diendonne Costa** and **Maurice Bellonte** attempted a westward trans-Atlantic flight from Paris to New York, starting on July 13, 1929 in the plane Question Mark. They flew to within 150 miles of the Azores where they encountered high head wind and fog. The plane was turned toward Europe again and a landing made near Villa Coublay, France, after a non-stop flight of approximately 3,180 miles in 28 hours.

Four Spanish aviators, **Maj. Ramon Franco, Com. Eduardo Gonzajes Gallarza, Capt. J. Ruiz de Alda** and **Serg. Pedro Madariaga**, rose from Cartagena in a Spanish hydroplane on June 21 in a westbound Atlantic Ocean flight. For almost eight days no word was received regarding the plane or crew, although planes and ships scouted the coast and the Azores. On June 29 the plane and crew were picked up 100 miles southeast of Santa Maria Island of the Azores by the British aircraft carrier Eagle. Fuel had given out on June 22 and the plane drifted for seven days without injury to the aviators.

The Spanish aviators, **Capt. Ignacio Jimenez** and **Capt. Francisco Iglesias** in the monoplane Jesus Del Gran Poder made a non-stop flight of the Atlantic Ocean westward from Seville, Spain to Bahia, Brazil, Mar. 24-26, 1929. The distance is estimated as 4,100 miles. The time was 43 hours, 48 minutes.

Roger Q. Williams and **Lewis H. Yancey**, American aviators, made a non-stop flight of the Atlantic Ocean in the plane Pathfinder from Old Orchard, Me., to Santander, Spain, July 8-9, 1929. The aviators had planned to make Rome in one flight but headwinds and fog held them back and lack of gasoline forced a descent at Santander after a flight of 3,400 miles in 31 hours 32 minutes. Later the plane was flown to Rome where a great reception was given them.

Two Polish fliers, **Maj. Casimir Kubala** and **Maj. Ludwik Idzikowski** attempted a westward Atlantic Ocean flight in the plane Marshal Pilsudski, taking off from Le Bourget, France, July 13, 1929, less than an hour ahead of the French plane Question Mark. Some 200 miles from the Azores motor trouble developed and a forced landing was made near Horta, the plane being wrecked. Maj. Idzikowski was killed in the subsequent explosion and Maj. Kubala severely injured.

Two Swiss aviators, **Oscar Kaesar** and **Kurt Luescher** flew from Le Bourget, France, in the monoplane Young Switzerland on Aug. 18, 1929, in an attempt to make the westbound Atlantic Ocean flight. They were reported over the Azores the following day but were not heard from again.

Urban F. Diteman, of Billings, Mont., started alone in the monoplane Golden Hind from Grace Harbor, Newfoundland to make a trans-Atlantic flight, on Oct. 22, 1929. He was never heard from.

SCHNEIDER TROPHY RACE.

The elventh race for the Schneider international hydroplane trophy was held on the Solent, off Cowes, Eng., Sept. 7, 1929. Two teams of three fliers each raced, representing Great Britain and Italy. Flying-Officer H. R. D. Waghorn won the trophy for Great Britain. He flew the thirty-one mile course at the rate of 328 miles per hour; T. Dal Molin (Italy) was second with a record of 284 miles per hour; Flight Lt. D'Arcy Greig (Britain) third, 282 miles; Flying Officer Atcherley (Britain) was disqualified though he made 325 miles per hour. The other two Italians were forced down.

The results and speed per hour of series of races are:

Place.	Winner and Nation.	M.P.H.
1913 Monaco	Prevost (France)	45.75
1914 Monaco	C. H. Pixton (G. B.)	86.8
1919 Bournemouth	Race annulled.	
1920 Venice	Luigi Bologna (Italy)	107
1921 Venice	G. de Briganti (Italy)	111
1922 Naples	H. C. Biard (G. B.)	145.7
1923 Cowes	Lt. Rittenhouse (U.S.A.)	177.38
1925 Baltimore	Lt. J. Doolittle (U.S.A.)	232.5
1926 Hampton Rods.	Maj. de Bernhardi (It.)	264.496
1927 Venice	Flt.-Lt. Webster (G. B.)	281.54
1929 Cowes	F.-O. Waghorn (G. B.)	328.63

New World Speed Records were set up following the Schneider Cup Race by the fliers of Great Britain's team. On September 10, 1929, Major A. H. Orlebar flew the Supermarine S6 over a three kilometre course on the Solent off Calshot twice in each direction at an average speed of 355.80 miles per hour. His fastest single flight was at the rate of 368.80 miles per hour. On September 12, 1929, in the same plane Major Orlebar raised the record to 357.70 miles per hour. All of these records are subject to homologation by the International Aviation Federation.

The Seventh Around-England Air Race was flown, starting at London, Eng., July 5, 1929, and finishing there on the 6th. Three hundred and forty-one planes competed in this 1,100 mile race. The King's Cup was won by Flight-Lieut. Atcherley in a Gloster-Grebe plane with an average speed of 150.30 miles per hour.

NOTABLE CROSS-COUNTRY FLIGHTS.

Capt. Frank M. Hawks, flying a Lockheed Vega monoplane, left Roosevelt Field, L. I., at 5:21:51 a.m. on Thursday, June 27, 1929, landed at Los Angeles at 12:23:23 a.m. on Friday the 28th, stayed there for a rest and service and refueling of his plane seven hours and 14 minutes, took off again at 7:37:47 a.m. and landed back at Roosevelt Field at 1:16 Saturday morning the 29th. He made the trip from New York to Los Angeles in 19 hours and 10 minutes, the old record being 24 hours, 51 minutes, made by Capt. Charles B. Collyer and Harry I. Tucker; and that from Los Angeles to New York in 17 hours, 43 minutes, breaking the old record (his own made on Feb. 5) of 18 hours, 22 minutes. His elapsed time from coast to coast and back was 43 hours, 59 minutes.

George Holdeman flew from Windsor, Can., to Havana, Cuba, on Feb. 23, 1929, a distance of 1,404 miles, in 12 hours, 53 minutes.

Arthur Walker and Nicholas Mamer established a refueling transcontinental non-stop round trip, Spokane to New York to Spokane, ending August 20, 1929. The plane, Sun God, left Spokane on Aug. 16, and during its flight covered 7,200 lineal miles and was in the air 120 hours, 2 minutes.

The Russian aviators, Dmitry Fugayet, Simon Shestakof, Boris Stergilof and Phillip Bolotof, in the plane Land of the Soviets, flew from Moscow east by way of Siberia and Alaska to New York with a number of stops between Aug. 23 and Nov. 1, 1929. The distance was estimated as 12,500 miles.

Squadron Leader A. G. Jones-Williams and Lieut. N. H. Jenkins established a non-stop flight record from England to India on April 24 26, 1929, when they flew a Fairey-Napier monoplane from Lincolnshire, Eng., to Karachi, India, an estimated distance of 4,130 miles in 50 hours, 48 minutes. The flight as about 287 miles short of the world's record.

Capt. Dieudonne Coste and Maurice Bellonte, French aviators, established an unofficial world's distance record flight by flying from Paris to Tsitsihar in northern Manchuria, where they landed Sept. 29, 1929, a distance variously estimated as from 4,900 to 5,500 miles. The flight was non-stop, non-refueling and if recognized by the International Aviation Federation will supplant the record of Rome to Natal, Brazil, in 1928, by the Italian fliers Ferrarin and Del Prete.

NEW ALTITUDE RECORDS.

Dressed in only a leather flying suit lined with soft fur, sheep-skin boots, a face helmet and mask and two pairs of mittens, Lieut. Apollo Soucek, U. S. N., piloted a Wright Apache land airplane, powered with a Wasp motor and supercharger, to an altitude of 39,140 feet (11,930 meters), nearly eight miles, above

the Naval Air Station at Washington on May 8. He broke the world record of 38,418 feet held by Lieut. C. C. Champion, also a naval aviator.

Lt. Soucek, on June 4, set up an altitude mark for seaplanes, 38,560 feet (11,753 meters) in a Wright Apache with Pratt and Whitney 425 h.p. supercharged engines at Washington, D. C. The old record was 37,995 feet (11,581 meters) made by Lt. C. C. Champion, U. S. N., in a sister plane on July 4, 1927.

Lt. Soucek's land plane record stood as a world record for about a fortnight for on May 25, Willi Neuenhofen, flying a Junders H34 monoplane with a Bristol-Jupiter 420 h.p. engine, at Dessau, Germany, reached 41,704 feet (12,739 meters).

On Feb. 12, Lieut. H. Johnston and Capt. A. W. Stevens reached nearly 39,000 feet at Dayton, Ohio

OTHER AVIATION FEATURES.

The world's largest airship, and the first rigid lighter-than-air craft to be put into the air by Great Britain since the war, is the R-101, with two decks of luxurious two-berth staterooms, a glass enclosed promenade and dining room, a smoking room and a dance floor, having accommodations for 100 passengers. The ship with its five engines is expected to do at least 70-80 miles an hour. It was launched at dawn on Oct. 12 at Cardington, in Bedfordshire, Eng., and on Oct. 14 made its first flight, over London for four hours, at a height of 2,000 feet and covering 200 miles, at a speed not exceeding fifty-eight miles an hour. The ship carried fifty-two persons.

The R-101, built for service on the England-India air route by British Government engineers, is 732 feet long and 131 feet in diameter. Its height, including the control car, is 140 feet, and its lifting gas displacement 5,000,000 cubic feet. The principal frames are made of stainless steel tubing. Aluminum alloy is used for minor structural members. Hydrogen is the lifting gas used as America has a monopoly on the non-inflammable helium gas.

The ship is propelled by five Beardmore engines, each developing 600 h.p., using heavy oil which reduced the cost one-fifth and practically eliminates the danger of fire.

LARGEST OF ALL AIRPLANES.

The huge German passenger seaplane, DO-X, on Oct. 21 took off from Lake Constance with 159 passengers and a crew of ten. It carried fuel for 750 hours and weighed altogether fifty-two long tons It left the surface in fifty seconds, and reached a speed of 110 miles an hour during its hour. Dr. Dornier is making plans for a transatlantic crossing in the spring.

An airplane powered with a Diesel engine flew from Detroit to Langley Field, Va., 650 miles, on May 14, 1929, in about 6 hours, 50 minutes, for its first public demonstration. The cost of fuel was said to be $4.68 for the 54 gallons consumed.

Glyer Kronfield, of Vienna, set an altitude mark of 2,225 meters (7.231 feet) above Newstady, Bavaria, April 22, 1929. Lieut. Dinart set a new duration mark for gliders of 14 hours, 45 minutes, over Rosellen Field in East Prussia, Oct. 20.

HONORS IN AVIATION.

Daniel Guggenheim received June 11, 1929 the first "Spirit of St. Louis" medal for exceptional services to aeronautics awarded by the American Society of Mechanical Engineers.

Mr. Guggenheim's contributions to flying include his gift of $500,000 to New York University for the founding of a school of aeronautics in 1925, the establishment of the Daniel Guggenheim Fund for the Promotion of Aeronautics with $2,500,000 in 1926, and a gift of $500,000 to Chile to advance civil and commercial aviation there.

The title of "Best Aviator in the World in 1928" was awarded by the International League of Aviators, Jan. 25, 1929, to the Italian, Col. Arturo Ferrarin, who flew from Rome to Natal, Brazil. Dr. Hugo Eckener, commander of the Graf Zeppelin, was awarded the lighter-than-air trophy.

Nine women pilots finished in the Women's Derby flight from Los Angeles, Cal. to Cleveland, Ohio, a feature of the National Air Race meet held in Cleveland Aug. 25 to Sept. 2, 1929. Louise Thaden won, time: 20 hours, 2 minutes, 2 seconds elapsed time; Gladys O'Donnell was second, 21 hours, 21 minutes, 43 seconds; and Amelia Earhart third, 22 hours, 12 minutes, 42 seconds.

Lt. James H. Doolittle on Sept. 25, 1929, took off flew and landed his plane at Mitchell Field, L. I., absolutely "blind"; his instruments were his only guide.

CIVIL AERONAUTICS IN THE UNITED STATES.

The annual report of Clarence M. Young, Director of Aeronautics, filed with the Secretary of Commerce, Nov. 25, 1929, for the fiscal year 1928-29, gives the number of licensed flyers as 28,153, and flying schools as about 600; 32 air lines carrying express, 47 carrying mail, and 61 carrying passengers, with 29,227 miles of established airways, 10,183 of which are lighted for night flying, with 2,065 miles of lighted airways under construction. Scheduled operations are 69,029 miles a day.

A condensed comparative summary for the last three calendar years, prepared from the Department of Commerce Reports, is here given:

	1926.	1927.	1928.
Airplane miles flown, all operators	4,318,087	5,870,489	9,888,307
Airplane miles flown daily, average	11,830	16,083	27,091
Passengers carried for hire	5,782	8,679	33,414
Express and freight carried—pounds	1,733,090	2,263,580	1,847,836
Airplane miles flown with mail	4,240,407	5,543,578	7,846,296
Airplane miles with contract mail	1,948,144	4,223,143	7,846,296
Total mail carried—pounds	810,855	1,654,165	4,061,210
Mail carried by contract—pounds	377,206	1,270,299	4,061,210
Mail income to contractors	$765,549	$2,643,454	$7,433,166
Miles of all airways in operation Dec. 31	8,404	9,122	16,667
Average mail income per scheduled trip	$590	$1,307	$1,979
Average mail load per scheduled trip—pounds	182	545	973
Average mail income per contract mile flown	$0.39	$0.625	$0.94
Airways in operation Dec. 31—number	16	22	47
Lines in operation Dec. 31—number	16	23	63
Mail operators Dec. 31	12	16	21
All operators Dec. 31	14	19	37
Total revenues, all operators	$765,549	$2,643,454	$7,996,978
Average passenger-mile rate	$0.12	$0.106	$0.11
Airplanes in service and reserve—number	....	128	268
Value of such airplanes	....	$1,838,462	$5,226,570
Pilots employed—number	....	107	275
Total personnel employed	....	462	1,036
Capital invested	$5,000,000	$7,053,650	
Passenger and express income	....	....	$519,238
Miles lighted airways, Dec. 31	2,041	4,668	6,988
Appropriations, Dept. of Commerce, air navigation aids	$300,000	$4,091,500	$3,659,850
Pilots licensed or pending—number	....	3,242	5,605
Student permits, issued or pending—number	....	545	10,528
Airplanes licensed or pending—member	....	2,299	4,156
Airplanes identified or pending—number	....	851	2,164
Municipal airports, Dec. 31—number	....	240	412
Private and commercial airports, Dec. 31—number	....	263	391
Navy and Marine Corp. airports, Dec. 31—number	....	17	17
Army, Nat. Gd., and Reserve airports, Dec. 31—number	....	62	64
Marked auxiliary fields, Dec. 31—number	....	320	340
Production of airplanes—number	1,186	1,995	4,346
Value of airplanes	$8,871,027	$14,504,999	$43,812,318
Total value of all air products	$17,694,905	$21,161,853	$64,662,491
Exports (airplanes, engines, and parts)	$1,027,210	$1,903,583	$3,664,723
Exported airplanes—number	50	63	162
Concerns engaged in air industry—number	600	900	1,400
Gov't. consumption, airplanes—number	532	621	857

AUTOMOBILE (A. A. A.) RACE AND TRACK RECORDS.

AMERICAN STRAIGHTAWAY RECORDS.

Distance	Date.	Place.	Driver.	Make.	Time.	Average.
(s) 1 mi.	2/17/19	Daytona Beach	DePalma	Packard Spl.	38.33	92.71 m.p.h.
(f) 1 k.	3/11/29	Daytona Beach	Segrave	Leon Irving Napier	9.66	372.478 k.p.h. (231.447 m.p.h.)
(f) 1 mi.	3/11/29	Daytona Beach	Segrave	Leon Irving Napier	15.56	231.362 m.p.h.
(f) 5 k.	3/29/27	Daytona Beach	Segrave	Sunbeam	55.18	326.17 k.p.h. (207.508 m.p.h.)
(f) 5 mi.	4/25/20	Daytona Beach	Milton	Duesenberg	2:00.04	159.114 m.p.h.
(f) 10 mi.	2/16/19	Daytona Beach	DePalma	Packard Spl.	4:09.31	148.409 m.p.h.

SPEEDWAY COMPETITIVE.

Mi.	Time.	Miles per Hr.	Driver.	Place.	Date	Mi.	Time.	Miles per Hr.	Driver.	Place.	Date
5	2 10.5	137.931	Hill	Los Angeles.	1926	150	1 07 82.41	133.716	De Vore	Atlan. City.	1926
10	4 24.6	136.054	Duray	Los Angeles.	1926	200	1 30 39.11	132.375	McDonogh	Atlan. City.	1926
15	6 28.02	139.168	McDonogh	Atlan. City.	1926	300	2 14 14.18	134.091	Hartz	Atlan. City.	1926
20	8 48.02	136.314	Duray	Los Angeles.	1926	350	3 24 42.99	102.56	Anderson	Brooklyn	1925
25	10 58.90	137.426	McDonogh	Atlan. City.	1926	400	3 56 30.9	101.16	Lewis	Indianapolis	1925
50	22 04.59	135.890	McDonogh	Atlan. City.	1926	450	4 28 00.10	101.16	De Paolo	Indianapolis	1925
75	32 34.53	138.142	McDonogh	Atlan. City.	1926	500	4 56 39.46	101.13	De Paolo	Indianapolis	1925
100	44 52.41	533.709	Lewis	Los Angeles.	1926						

American Speedway Qualifying Record—Lockhart at Atlantic City, May 7, 1927. 1½ Miles—36.66 Sec.—147.729 m.p.h. Avg.

American Speedway Record—Duray at Detroit, Mich., June 14, 1928. 2½ Miles—60.739 Sec.—148.174 m.p.h. Avg.

American Dirt Track Qualifying Record—Lockhart at Cleveland, Ohio, September 25, 1927. 1 Mile—38.94 Sec.—92.45 m.p.h. Avg.

STRAIGHTAWAY RECORDS REGARDLESS OF CLASS, NON-STOCK.

Miles.	Time.	Driver.	Place.	Date.	Miles.	Time.	Driver.	Place.	Date.
10	5 14.40	Bruce Brown.	Daytona	1909	150	1 55 18.00	Disbrow	Jacksonville.	1911
20	13 11.92	Burman	Jacksonville.	1911	200	2 34 12.00	Disbrow	Jacksonville.	1911
50	35 52.41	Burman	Jacksonville.	1911	250	3 14 15.00	Disbrow	Jacksonville.	1911
100	1 12 45.20	Burman	Daytona	1908	300	3 53 33.50	Disbrow	Jacksonville.	1911

AMERICAN 122 CU. IN. RECORDS (Standard Distances.)

Miles.	Driver.	Time.	Avge.	Track.	Miles.	Driver.	Time.	Avge.	Track.
5	Hill	2 10.50	137.931	Los Angeles	200	McDonogh	1 30 39.11	132.375	Atlantic City
10	Duray	4 24.60	136.054	Los Angeles	250	McDonogh	1 51 53.03	134.068	Atlantic City
25	McDonogh	10 58.90	137.426	Atlantic City	300	Hartz	2 14 14.18	134.091	Atlantic City
50	McDonogh	22 04.59	135.890	Atlantic City	350	Lewis	3 27 23.84	101.25	Indianapolis
100	Lewis	44 52.40	133.709	Los Angeles	400	Lewis	3 56 30.19	101.16	Indianapolis
150	Devore	1 07 82.41	133.716	Atlantic City	500	DePaolo	4 56 39.46	101.13	Indianapolis

AMERICAN 91.5 CU. IN. RECORDS (Standard Distances.)

Miles.	Driver.	Time.	Avge.	Track.	Miles.	Driver.	Time.	Avge.	Track.
5	Lockhart	2 14.77	133.560	Atlantic City	200	Lewis	1 32 15.97	130.058	Atlantic City
10	Lockhart	4 25.37	135.659	Atlantic City	250	Duray	2 00 16.60	124.712	Los Angeles
25	Lockhart	11 19.73	132.405	Charlotte, N.C.	300	Gleason	2 54 21.49	103.236	Indianapolis
50	Lewis	22 53.25	131.075	Atlantic City	350	Gleason	3 25 51.86	102.009	Indianapolis
100	Keech	45 31.30	131.805	Atlantic City	400	Gulotta	3 57 39.15	100.988	Indianapolis
150	Woodbury	1 08 09.10	132.058	Atlantic City	500	Meyer	5 01 33.75	99.482	Indianapolis

AMERICAN 1 MILE CIRCULAR DIRT TRACK RECORDS (Standard Distances.)

Dist.	Place.	Driver.	Time.	Average.	Dist.	Place.	Driver.	Time.	Average.
1 mi.	Cleveland	Lockhart	38.94	92.45 m.p.h.	10 mi.	Cleveland	Lockhart	7 00.71	86.569 m.p.h.
2 mi.	Cleveland	Lockhart	1 23.53	86.196 m.p.h.	25 mi.	Cleveland	Lockhart	17 42.42	84.712 m.p.h.
3 mi.	Cleveland	Lockhart	2 05.43	86.104 m.p.h.	50 mi.	Cleveland	Lockhart	35 55.72	83.499 m.p.h.
4 mi.	Cleveland	Lockhart	2 46.55	86.465 m.p.h.	75 mi.	Cleveland	Lockhart	54 25.72	82.677 m.p.h.
5 mi.	Cleveland	Lockhart	3 38.12	86.488 m.p.h.	100 mi.	Syracuse	Shaw	1 14 00.80	81.066 m.p.h.

GORDON BENNETT INTERNATIONAL BALLOON RACE, 1929.

The Gordon Bennett International Balloon Race for 1929 started from St. Louis, Mo., September 28. The distance achieved have been scaled by the United States Geological Survey, and the barographs were calibrated by the Bureau of Standards. The official standing of contestants was:

Balloon	Country	Pilot and Aide.	Landing Place	Distance Miles
Goodyear VIII	U. S.	W. T. Van Orman, Alan MacCracken	3 mi. SE Troy	341
Army	U. S.	Capt. W. E. Kepner, Capt. J. F. Powell	2 mi. N. Neptune	338
"Navy"	U. S.	Lt. T. G. W. Settle, Ensign W. Bushnell	10 mi. SW. Eaton	304
"Belgica"	Belgium	Ernest Demuyter, Franz Lecharlier	Corydon, Ind.	226
"Danmark"	Denmark	George Schenstrom, S. A. U. Rasmussen	5 mi. SE. Bedford	209
"Lafayette"	France	Georges Blanchet, Howard A. Scholle	Stinesville, Ind.	200
"Barmen"	Germany	Hugo Kaulen, Jr., Fritz Ebener	4 mi. SE. Melvin, Ill.	171
"Essen Stadt"	Germany	Eric Lelmkugel, George Froebel	Catlin, Ill.	169
"Argentina"	Argentina	D. Eduardo Bradley, Francisco J. Cadaval	Fairbanks, Ind.	155

The National Balloon Race to select the United States team for the Gordon Bennett race started from Pitt Stadium, Pittsburgh, Pa., May 4, 1929.

It resulted in the choice of these:

First—Navy Balloon No. 1, Lieut. T. G. W. Settle, Ensign W. Bushnell, to Savage Harbor, Prince Edward Island, Canada, 952 miles, in 43 hours and 20 minutes, a new record for both distance and duration; second—Detroit Times, E. J. Hill, A. G. Schlosser, Harkness, N. Y., 465 miles; third—Goodyear VII, W. T. Van Orman, approximately same distance.

RADIO TELEGRAPHY AND TELEPHONY.

(Prepared for The World Almanac by the Information Department of the American Telephone and Telegraph Company).

Radio traces its descent directly to the theoretical work of James Clerk Maxwell, who in 1865, as a result of his profound researches in mathematical physics, made the declaration that visible light consists of electrical waves in the ether and that electromagnetic waves of other wavelengths not visible as light also existed. In 1887 Heinrich Hertz of Germany gave an experimental proof of the existence of these latter electrical waves.

EARLY WORK OF MARCONI.

Between the years 1894 and 1896 Guglielmo Marconi of Italy initiated his experiments on the coherer, a device invented by Branley. At about the same time, Marconi modified the original radiating system of Hertz by connecting one terminal of the spark gap to the earth and the other to a large aerial conductor. This was the first use of an elevated conductor for transmitting and receiving as a radio antenna.

Marconi, by 1898, had succeeded in sending telegraph messages a distance of 14½ miles. By 1901 he had telegraphed from Cornwall to the Isle of Wight, a distance of 200 miles. In this year he also first succeeded in sending signals across the Atlantic Ocean, and in 1903 sent a complete message.

The first worker to use inductive coupling was Sir Oliver Lodge.

The crystal detector was introduced in 1906 as a result of the work of Dunwoody and Pickard in America.

In 1903 Poulsen of Denmark developed a form of electric arc operating in a hydrogen atmosphere and in a magnetic field in such a way that sustained electrical oscillations of frequencies up to 20,000 to 30,000 cycles were generated. Those arcs provided a source of continuous waves, in contrast with damped waves, with various resulting advantages. The Poulsen arc subsequently played an important part in the development of long distance radiotelegraphy.

About 1910 another form of continuous wave generator was perfected, namely, the high-frequency alternator. The names best known in this connection are those of Fessenden, Alexanderson and Goldschmidt. This device was quite extensively used in the subsequent development of high power radiotelegraphy.

VACUUM TUBE.

One of the outstanding inventions in the entire history of the radio art is the thermionic vacuum tube. In the most common form this contains a heated filament which gives off electrons. These are attracted to a plate in the tube, passing through a grid interposed between the filament and the plate. A small amount of electrical energy employed to vary the potential of the grid has a marked effect on the current flowing between the plate and filament; whence the tube has large amplifying properties.

The vacuum tube as we now know it was invented in 1906 by Lee De Forest an American, who introduced the grid into the previously used two-element tube of Fleming, an Englishman. The vacuum tube or "audion" of this period contained an appreciable amount of residual gas which proved to be largely responsible for its irregular behavior. Since it gave promise as an electric amplifier, the Bell Telephone System became interested in developing it, beginning in 1912, as a means of accomplishing transcontinental telephony. The telephone research workers and also those of the General Electric Co., interested in electron physics and X-rays undertook a thorough study of its electrical characteristics and applied means for thoroughly exhausting the gas from the tube. Remarkable developments resulted in the realm of X-rays and current rectification. In the field of telephony a tube resulted which was so satisfactory as a telephone repeater that the development of much larger tubes was immediately undertaken, with the object of applying them to radio telephony.

Tubes capable of producing 25 watts of high frequency energy were perfected by 1915 and were used in the successful transoceanic radio telephone experiments of that year. The tubes were also used as modulators for so modifying the high frequency current that it embodied the characteristic of speech, thus making radio telephony practical.

In recent years there have been important further increases in the power of vacuum tubes, brought about by water cooling. Tubes of this type of 10 and 20-kilowatt ratings are standard equipment and tubes of larger capacity have been used successfully in experimental tests.

Even earlier than its use in transmitting, the vacuum tube had proved of the greatest importance in the reception of radio signals. For this purpose it may be used as amplifier, detector or oscillator. This makes it possible to receive signals so faint that the limiting factor is interfering noise, due to atmospheric and other electrical disturbances, and has led to important developments in directive antennas for reducing the effects of such disturbances. There have been important improvements in recent years in the filaments of small and moderate sized vacuum tubes, resulting in a reduction of amount of power required for heating the filament and also in increased life of the tube.

ANTENNA DEVELOPMENT.

During the World War the loop or frame antenna, having the directional properties of transmitting and receiving most efficiently in its own plane, came into use. This antenna is the basis of the radiocompass now widely used in navigation for determining the position of ships at sea. It is also used in recently developed systems of directing airplanes so as to enable them to fly directly toward their destinaton.

Another antenna development, suitable for transmission, is the multiple tuned antenna having several parallel paths to ground, thereby lowering the resistance offered to the ground currents and raising the radiating efficiency of the antenna. This type of antenna has been used at large radiotelegraph transmitting stations.

Another antenna of special interest is the so-called "wave antenna" used for reception, which is a long wire on poles like a telephone line, of a length about equal to the wavelength of the signals to be received. This antenna has the desirable property of great directional discrimination, being sensitive for signals coming head-on, and greatly attenuating signals from all other directions including that opposite to the head-on direction. By using this antenna, and especially by suitably combining two or more such antennas to form an array, substantial progress has been made in overcoming the effects of static.

Important antenna developments have accompanied the study and use of very high frequencies, often called "short waves," for radio transmission. Antennas for this purpose have been designed in entirely different types from those above. These antennas have excellent directional properties and some types have been called "beam" antennas since the purpose in using them at the transmitting station is to send out electrical waves in more or less of a beam, as in the case of a beam of light from a search light. An antenna of this type consists of an array of wires, arranged to be excited in some definite phase relation and usually including a second set of wires acting as a reflector. Such antennas are also used for receiving, a function in which their directional properties are of great value in increasing the strength of the signals with respect to interfering disturbances.

RADIOTELEPHONY.

The development of radiotelephony was largely built up around the vacuum tube. This device, when properly connected with other electrical facilities, made available a means of modulating high-frequency currents, so that they might embody the variations of the voice. It also provided a highly satisfactory means of generating high frequency oscillations, and of amplifying and detecting them.

By 1915 the development of the vacuum tube had progressed to such a point that engineers of the Bell System transmitted speech successfully from Arlington, Va., to Paris, the Canal Zone, California and Hawaii, the last distance being nearly 5,000 miles.

During the war, radiotelephony was successfully developed between airplanes and stations on the ground and between airplanes in flight. Within the last few years the remarkable growth of interest in aviation has brought aircraft radio again into the foreground and further developments are now in progress, including telephone, telegraph and direction-finding.

Between the years 1920 and 1922, following earlier sporadic radiotelephone broadcasts radio became definitely established as a regular means of public entertainment in the United States. The increase of the power of broadcast transmitters brought about by the employment of water-cooled tubes has substantially extended the reliable service area of broadcasting stations, and the use of quartz crystals to give accurate control of frequency has reduced interference between stations and improved the

stability of operation with a resulting increase in the fidelity of transmission.

Improvements in the fidelity of receiving apparatus have steadily taken place. There has been within the last year or two a marked trend toward sets deriving their entire power supply from the lighting circuit in the home. There has also been a simplification in the controls of the set, these having now been reduced usually to the absolute minimum of a station selector, a volume control and a switch for turning the set on and off. The "dynamic" type of loudspeaker, giving faithful reproduction for the very low pitches, has come into quite extensive use. The use of larger tubes in the last stages of amplification of receivers during the last two or three years has increased the available output and improved the quality so that high-grade loudspeakers may be adequately operated.

An important development in radio broadcasting began in 1922 with the effective extension of radio studios to outside points such as concert halls, the scenes of athletic events, etc., by means of suitable connecting telephone lines. By a more elaborate use of this method, several stations were enabled to transmit the same program. Special engineering attention has been given to the telephone lines used to supply program material to radio stations. These provide for the faithful transmission of a wide range of low, medium, and high pitches, the present limits being, roughly, 100 to 5,000 cycles per second. These circuits have mostly been furnished by open-wire lines, but increased use of circuits in cable, with their greater reliability, is in prospect.

During 1921 to 1924, announcements were made of successful experiments in extending the land telephone system by radio to ships at sea so that two-way telephone conversations could be carried on between any person on land and any passenger on a ship. Following further development work during 1929, a commercial ship-to-shore telephone service is now being initiated, beginning with service between the land lines of the Bell System, and the S.S. Leviathan.

The development of water-cooled vacuum tubes, in conjunction with some of the improved antennas which have been described, and also an improved method of modulation known as "single sideband transmission," and the discovery that in the region of 60 kilocycles atmospheric electric disturbances are much less for receiving stations when located in northern latitudes, made possible the opening of commercial transatlantic radiotelephony in 1927. The 60-kilocycle facilities as now employed consist of an eastbound channel from Rocky Point, Long Island, to Cupar, Scotland, and a westbound channel from Rugby, England, to Houlton, Maine.

On December 1, 1929, in addition to the low frequency channel, three high frequency systems were in commercial service, transmission taking place from Lawrenceville, N. J., to Baldock, England, and from Rugby, England, to Netcong, N. J. Terminal control points are provided at New York and London where connections are made to the land line telephone systems of North America and Europe.

Radiotelephone circuits which have been reported as open for commercial service in other parts of the world include connections between Madrid and Buenos Aires, Amsterdam and Java, Paris and Algiers, Berlin and Buenos Aires, and between Berlin and Bangkok.

USE OF "SHORT WAVES."

Experiments on high-frequency transmission, recorded in previous issues of The World Almanac, have been actively continued. In general, it may be said that the use of high frequencies as compared to low frequencies has the advantage of requiring a more moderate sized transmitting and receiving antenna and somewhat less power, and of having greater freedom from atmospheric electric disturbances. However, they have the disadvantage of great variability, the received intensity often fluctuating at a rapid rate. The studies of high frequencies have brought out an interesting phenomenon known as the "skip distance" effect. Instead of the signal strength decreasing steadily with distance from the transmitting station signals at great distances may, under the same conditions, be strong, while at intermediate distances they are faint or even inaudible. Another interesting characteristic of high frequencies is that their properties vary markedly with the time of day, it being generally necessary to change the frequency at certain times of the day in order to maintain uninterrupted communication. There are times, however, as during magnetic disturbances; when all high frequencies are useless so that high frequencies in common with other frequencies in the radio spectrum cannot, it appears, be expected to give as continuous service as is afforded by wire communication.

High frequencies have been used chiefly for long distance radiotelegraphy between fixed points by radio companies, governments and amateurs. They have been used to some extent by ships and aircraft and this use is rapidly being extended. The accurate control of high frequencies has necessitated the use of quartz crystals. These crystals have the piezoelectric property of slightly altering their shape upon the application of an electric field, and conversely producing an electric potential difference when a mechanical strain is applied. As a result of these characteristics, one of the mechanical natural frequencies of the crystal can be reproduced electrically by proper association with a vacuum tube. This current furnishes an accurate means for maintaining the frequency of transmission.

PICTURE TRANSMISSION AND TELEVISION.

Since signals for the transmission of pictures or of television may be sent by either radio or wire, these matters are not restricted to the radio field. In this account of the development of the radio art, it therefore seems appropriate to describe chiefly those systems which have been demonstrated or are now in use employing radio channels.

The "photoradio" process used by the Radio Corporation of America for the facsimile transmission of material employs at the transmitting station a scanning process which effectively transforms the picture from a half-tone into a back and white dotted picture. In this way signals are transmitted at frequent intervals instead of continuously and the effects of the variable ether path are partially overcome. At the receiving end chemically treated paper is darkened by the action of a jet of hot air under the control of the incoming signals. This process requires about half an hour for the transmission of a 9 in. x 7 in. picture, and during 1929 continued in operation across the Atlantic between New York and London, and across the Pacific between San Francisco and Honolulu. During 1929 a transcontinental "photoradio" service was also inaugurated between New York and San Francisco.

A striking development in electrical communication within the last two years has been television. This was accomplished by wire over a distance of some 200 miles between New York and Washington, D. C., at a demonstration by the Bell System on April 7, 1927. The speakers and performers at Washington were readily recognized on the receiving screens at New York. The voices were also transmitted and reproduced by means of a loud speaker. A radio demonstration at the same time consisted of the transmission of television and speech signals from Whippany, N. J., 22 miles from New York, to the Bell Telephone Laboratories building in New York City.

At demonstrations during 1928 and 1929 the Bell Telephone Laboratories showed improvements in the television apparatus. One of these improvements consisted of the use of crystals for controlling the frequency of the transmitting and receiving apparatus, thus eliminating the necessity for the transmission of synchronizing current. Other improvements made possible the transmission of a scene in the open air, illuminated by ordinary sunlight, and the transmission and reproduction of television in color.

The General Electric Company has also been active in this field and has demonstrated television upon a screen such as one would use for a home motion picture projector. Other parties, notably C. Francis Jenkins of Washington, have been active in television or the related field of picture transmission.

Various workers in Europe have also been engaged in the study of optical transmissions by electricity. Baird in England has used both visible and infra-red light and is also reported to have demonstrated the reproduction of television images in color. In Germany, Karolus has perfected a cell through which light passes in variable amounts under the control of an electric field. This furnishes a rapid method of varying an intense beam of light. In France, Belin has also conducted investigations on optical transmissions, using the cathode ray oscillograph. During the past year, Zworykin of the Westinghouse Electric Company made important contributions to television reception, using a cathode ray oscillograph.

On account of the great popular interest in television, it should be explained that the apparatus required is rather elaborate and that even under laboratory conditions the art has not yet come near the stage of development required to reproduce scenes with the fineness of detail of the regular motion picture.

RADIO BROADCASTING.

The outstanding popular development in radio is the broadcasting of music, news and other material from radio-telephone stations. The fact that radio waves normally spread out in all directions from a

transmitting station makes radio a peculiarly appropriate means for the conduct of a one-way communication service intended to reach large numbers of listeners. Radiotelephone broadcasting in the way in which we now know it began in 1920 when station KDKA of the Westinghouse Electric and Manufacturing Company, Pittsburgh, Pa., began the transmission of programs on regularly published schedules. It was not long after that time before large numbers of broadcasting stations came into operation, accompanied by a rapid increase in the number of receiving sets through which this service is made available to the listeners.

The interconnection of broadcasting stations puts a given program before an audience which is much greater than any otherwise available. In consequence, it is economically feasible to expend a much greater effort in the preparation of material and programs of high excellence and to employ artists of the greatest ability. These systems are supported through the sale of program time or the lease of facilities to national advertisers who desire to bring their names or the names of their products before the public in a favorable way.

Extensive connections are operated on a regular daily basis covering large portions of the country, the National Broadcasting Company having three networks with permanent connections to about 67 stations, and the Columbia System having permanent connections to about 58 broadcasting stations. Additional connections are frequently made to both systems and other groups of stations are also frequently connected together for the simultaneous transmission of program features. Over 150 stations are thus served and the length of the permanent program circuits used by all systems totals about 34,000 miles.

It has been estimated that approximately 10,000,000 radio receivers are now in use in the United States, giving service to something between 30,000,000 and 60,000,000 listeners. It is estimated that the radio receiving equipment sold in the United States during the year 1929 had a market value of approximately $600,000,000.

FINANCIAL SUPPORT.

The organization of programs supported or "sponsored" by national advertisers now appears quite definitely to be the major element in the answer to the question, "Who will pay for the broadcasting?" Most stations engaged in this service recognize however, that the quality of the program material must always be maintained at a high standard and that either the sponsored programs or the normal programs—known as "sustaining" programs—furnished by the stations must be of such a nature as to maintain the interest and good-will of the listeners. Otherwise, the value of the station's service to those employing its facilities would largely be lost.

In addition to the stations which either regularly or from time to time form part of a general distribution system for broadcast programs, there are large numbers of stations which are engaged in a purely local broadcasting service. These stations are for the most part of lower power than the former, ranging from 100 to 500 or 1,000 watts. The programs which they provide are ordinarily of interest primarily to the residents of their own communities, and the basis of support of such stations seldom warrants the investment of large amounts of money, either in high power equipment or in a permanent, extensive program staff.

BROADCASTING ABROAD.

Broadcasting service in other countries has, in general, followed the technical lead of the United States. The basis of organization, however, is in many instances quite different. In the United States no governmental restriction is placed upon the use of radio receiving apparatus by broadcast listeners. In many other countries, however, a listener's fee is required, this being ordinarily payable at any post office. Part or all of the money collected from these fees is then used to support the broadcasting service. In some countries the organizations preparing the radio programs are under more or less government control.

The total number of broadcasting stations in the world outside the United States is about 500, compared with 614 in the United States on November 1, 1929.

TRANSOCEANIC RADIOTELEGRAPHY.

In the United States the Radio Corporation of America now has transmitting stations in the east at Rocky Point, L. I., Marion, Mass., New Brunswick, N. J., and Tuckerton, N. J., and receiving stations at Riverhead, L. I., for the exchange of radiotelegraph messages with about 15 countries in Europe, Africa, North and South America. In addition to these, Australia is reached via Montreal. These transmitting and receiving stations are connected to "Radio Central" in New York City where the keying of all transmitters is done by machine and where the received signals from all receiving stations are read. This affords accurate and fast transmission to and from the business center of New York without relaying.

For Pacific business the Radio Corporation has transmitting stations at Bolinas, Cal., Kahuku, Hawaii, and Manila, and receiving stations at Marshall, Cal., Koko Head, Hawaii, and Manila. These stations transact business with Hawaii and four points in Asia and the Philippine Islands.

The Tropical Radiotelegraph Company transmits from Miami or New Orleans to 13 points in Central and South America. Increasing use, for long-distance telegraph transmission, of the very high and very low frequencies existing on both sides has been made. With the high frequencies, very rapid speed of transmission have been realized.

During the year 1929, a merger of the British radio and cable interests was consummated. Such coordination of radio and cable services, rather than continued competition, has also been under discussion in the United States.

TRANSATLANTIC RADIO TELEPHONY.

In the realm of radio telephony the outstanding development of recent years is the commercial transatlantic telephone service, the technical aspects of which have already been described. This service was established on January 7, 1927, between the New York zone and the London zone, and was rapidly extended to include all of the United States and most of the telephones in Canada, Cuba and Mexico in the New World and one after another of the nations of the European continent. A telephone subscriber in the United States can now reach any one of more than 28,500,000 telephones in the United States, Canada, Cuba and Mexico, in twenty European countries and in Ceuta, Africa. In September, 1929, transatlantic service was placed on a twenty-four hour basis.

In June, 1929, a transoceanic radio telephone transmitting center was opened at Lawrenceville, N. J. At that point are short wave transmitters for service to Europe, supplementing the long wave transmitting circuit from Rocky Point, L. I. The radio receivers for the three transatlantic circuits now operating are located at Netcong, N. J. Some time early in 1930 a short wave transmitter and receiver at Lawrenceville and Netcong respectively will establish radio telephone service with Argentina, in South America.

SHIP-TO-SHORE RADIO TELEPHONY.

Early in December, 1929, commercial telephone service between the Steamship Leviathan and the land telephone system was inaugurated. The first instance of two-way radio telephony through the telephone wire network to a vessel at sea took place in 1916. Following this first test, extensive experimental investigation was undertaken during the years 1919-1922. The present commercial service is available when the steamship is within 500 miles of New York. The land radio transmitter is at Deal Beach, N. J., and the receiver at Forked River, N. J.

In ship-to-shore telephone service there are a number of difficult technical problems arising, principally due to the fact that on shipboard the radio transmitter and receiver must be located in close proximity. However, a powerful land transmitter and special types of directive antennas on land for transmission and reception help to offset the limitations of a ship as a site for radio telephone equipment.

MARINE RADIO SERVICE.

An extensive marine service is operated by the Radiomarine Corporation of America, by the Mackay Radio and Telegraph Company and others, by which telegraph messages are transmitted to and from persons on board ship. This service is furnished by transmitting stations along the Atlantic, Pacific and Gulf Coasts and on the Great Lakes. The station at Chatham, Mass., is the most powerful marine station in the world, capable of communicating with vessels all the way across the Atlantic. About 12,000 ships in all parts of the world are now equipped with radio.

During 1929 continued progress has been made looking toward the complete elimination of spark transmitters. The substitution of vacuum tube transmitters removes interference with broadcast reception, gives greater distance range and allows more simultaneous transmissions for the transaction of ship business.

Radio systems, based on the directional properties of the loop antenna, whereby ships within a few hundred miles of shore may obtain their location in fog or at other times, have continued to prove their value. The U. S. Navy system, with compass sta-

tions on shore. furnishes locations to ships as requested, but can handle only one vessel at a time along a given section of the coast. The Lighthouse Bureau system with radio beacon transmitters on land, and requiring radio-compasses aboard ships has unlimited traffic capacity, and the amount of equipment ashore and on board ships has increased greatly. The number of beacons on the Atlantic, Pacific and Great Lake Coasts of the United States had increased to 65 on June 30, 1929. Throughout the rest of the world there were 57 additional beacons, according to the latest information of the Radio Division of the Department of Commerce. The number of American vessels equipped with radio-compasses was 1,903 on June 30, 1929, and continued to increase during the following years Since the installation of a radio-compass is not required by law, this large employment indicates its value. Such radio-compasses are also useful for locating a vessel in distress and some notable rescues have been effected in this way.

An international conference on the Safety of Life at Sea was held at London in Aprill and May, 1929 At this conference important rules were adopted requiring the installation of radio equipment on practically all ocean-going vessels of 1600 tons or more and calling for the installation, after a period of years, of radio-compasses on all ocean-going passenger vessels of 5,000 tons or more.

AIRCRAFT RADIO.

The growth of aviation leading to the establishment of regular commercial service will, more and more, require operation of aircraft on schedule time under varying weather conditions. For overcoming fog and other conditions of poor visibility, radio is of invaluable assistance.

Under a recent law, the Department of Commerce is charged with the development of aids to aerial navigation. The Department has especially devoted itself to the development of a directive type of radio beacon and installations of beacon apparatus have been made on a number of important airways. Radio telephone transmitting stations have also been erected at many of the fields on these airways for the broadcasting of weather reports and other information of general benefit to aircraft. Moderately low frequencies are employed for both of these services (285-350 kc).

Many air transport lines have decided that their responsibility for the safety of life and property necessitates the operation of private, ground-to-plane, two-way radio telephone systems for the dispatch of their planes. Numerous experimenta, installations have been employed during the past year and several large operators plan the complete equipment of their systems. Radio telephony is to be employed for the domestic overland routes using moderately high frequencies (1500-6000 kc). Continuous wave radio telegraphy is being employed for communication on long distance, over-water routes.

NUMBER OF STATIONS.

The increase in the number of American radio transmitting stations is shown by this table. The figures are for June 30 of the year indicated.

	1912	1928	1929
Commercial ships equipped with radio	485	2,166	2,113
Government ship stations	..	1,216	1,211
Radiotelephone broadcasting	0	691	614
Amateur stations	1,224	16,928	16,829
Commercial and government land stations, special and geophysical stations	..	872	1,149
Commercial aircraft stations	..	5	97

AMATEUR RADIO.

The amateurs of the United States, organized into the American Radio Relay League, have been on service in a number of catastrophes including the devastating storm which struck Porto Rico and Florida during 1928. At such times, regular communication facilities may be seriously disrupted, and the services of amateurs prove to be of considerble value for the transmission of emergency messages.

GOVERNMENTAL REGULATION.

A law passed by Congress in 1910 and amended in 1912 requires suitable radio equipment on certain classes of steamers clearing ports of the United States when these ships carry 50 or more persons, including passengers and crew.

The first law, covering in a general way the regulation of wavelengths used and interference produced by radio transmitting stations, was enacted by Congress in 1912. Under the provisions of this law, the Secretary of Commerce was authorized to issue licenses to radio stations and operators and to make the necessary inspections and give appropriate examinations. The extension of the uses of radio for broadcasting and other purposes made it necessary for the Secretary of Commerce to place certain limitations on the operation of transmitting stations n order to avoid undue interference. This resulted in the carrying of a number of cases to the courts for determination of the authority of the Secretary of Commerce under the 1912 law. By 1926 it became evident that, under the decisions rendered, the Secretary of Commerce did not have athority too refuse to grant a license or to specify the frequency or wavelength to be used by the applicant. As a result, many additional broadcasting stations began operation, some of them on frequencies which resulted in serious interference with the service previously rendered by other stations.

FEDERAL RADIO COMMISSION.

In order to remedy this situation, Congress passed what is known as the "Radio Act of 1927." This Act called for the establishment of a Federal Radio Commission, one member to be chosen from each of the five zones into which the country was divided.

The Commission was given broad regulatory powers over all classes of radio transmitting stations and was authorized to specify the frequency, power, location and other conditions of their operation.

The law authorized the Commission to grant or revoke any license when it deemed that "public convenience, interest or necessity" would be served thereby. It is under the authority of this law that the Commission has been making certain changes in the frequencies which broadcasting and other classes of stations are authorized to use.

In the spring of 1928, an amendment to the Radio Act of 1927 was passed by Congress under the terms of which the Federal Radio Commission was directed to apportion broadcasting assignments equally to the five zones, into which the country is divided, and in each zone to allot these assignments for use in the several states in proportion to their population. Under the terms of this amendment, the Commission put into effect on November 11, 1928, a reallocation of the broadcasting stations of the country.

In effect, the Commission in this reallocation recognized three principal classes of broadcasting stations, and specified the channels which are to be used for stations of each class. The existing broadcasting stations were then assigned to channels in accordance with this plan, time divisions being required where necessary in order to minimize interference and to make the apportionment of full time assignments as required by the law. The classes of full time assignments are:

1. Stations to which full use of a clear channel is granted (5 kw. or more in power).
2. Stations which are assigned to a channel for simultaneous operation with from one to four other stations (power ordinarily 250 to 1000 watts).
3. Stations which are assigned to a channel jointly with about 25 other stations distributed throughout the country (up to 100 watts in power).

In addition a number of other stations are authorized to operate during the daytime or at such other times (as early evening or late at night) as will not cause interference with the operation of the station or stations which are assigned for the primary use of these channels.

The Commission has announced certain regulations which must be met by broadcasting stations. Some of these are aimed at the reduction of interference and include, among others, the provision that no station shall deviate more than one-half kilocycle (500 cycles) from its assigned frequencies. Others are related more directly to the interest shown by the listeners in the various types of program material and include, for example, a requirement that suitable announcement be made when a program consists of phonograph records or other mechanically produced material.

"SHORT-WAVE" STATIONS.

In addition to broadcasting, one of the regulatory problems which is assuming increasing importance is that of assignment of high frequencies or short waves for use by various radio services. It has already developed that the number of applications for short-wave assignment is far greater than the number of available channels and the granting of licenses, therefore, involves the question of determining the relative extent to which public interest would be served by the various proposed services.

The **Federal Radio Commission** (as of Nov. 25, 1929) is composed of Ira E. Robinson, Chairman; Eugene O. Sykes; Charles McK. Saltzman; and Harold A. Lafound (one vacancy); Carl H. Butman, Secretary. The office is Dept. of the Interior Bldg., 18th and F Streets, Washington, D. C.

MOTION PICTURES.

The Department of Commerce announces that, according to data collected at the biennial census taken in 1928, the establishments engaged primarily in the production of motion picture films in 1927 reported a total production cost amounting to $134,343,360, an increase of 43.5 per cent as compared with $93,636,348 for 1925, the last preceding census year.

The "Motion Pictures" industry, as constituted for census purposes, embraces all processes and activities connected with the *production* of motion pictures, such as the photography of scenes, the development of exposed films, the printing of projecting films, and other studio and laboratory work necessary in connection with the preparation of projection films for use. It does not, however, include distribution and projection in theatres.

Of the 142 establishments reporting for 1927, 78 operated in California, 21 in New York; 6 in New Jersey; 6 in Ohio; 5 in Illinois; 4 in Pennsylvania, 3 in Massachusetts; 3 in Michigan and 16 in 10 other States.

The statistics for 1927 and 1925 are summarized in the following table.

	1927.	1925.
No. of estab. (studios and laboratories)	142	132
Salaried offic. and empl.	7,598	5,945
Wage earners (aver. no.)	8,415	5,573
Salaries	$56,298,560	$35,950,778
Wages	18,637,005	13,065,756
Cost of mater., suppl., fuel, and purch. power	34,867,472	33,258,368
Materials and supplies	$34,320,696	
Fuel and power	546,776	
Paid for contract work	15,476,548	$5,368,593
Total cost of production	$134,343,360	$93,636,348

	1927.	1925.
Negative films:		
Theatrical—		
Number	1,347	
Cost of production	$92,593,732	
Educational	337,159	
News	2,499,660	$64,036,805
Advertising	617,466	
Other	615,262	
Unfinished productions	13,267,338	7,451,652
Laboratory work:		
Positive films	12,491,088	
Receipts for laboratory work done for others	11,921,655	22,147,891
Horsepower	32,160	29,472

The difference of $9,063,775 between the total cost of production and the sum of the items for salaries, wages, cost of materials, and amount paid for contract work is made up of miscellaneous items such as story costs, home-office overhead, stars' expenses, insurance, etc., and profit from laboratory work done for others.

Many studios are rented, together with the necessary electric power, stage settings, labor, and minor-role actors, to the producing companies. The rentals paid for such studios are included in the item "Paid for contract work."

WHEN SPEECH PLAYS TRUANT ON THE WIRE.

(From a Statement to The Almanac by the Bell Telephone Laboratories.)

Briefly, the situation which makes necessary the use of delay networks in transatlantic and long-wire telephony is this:

There are various places in all telephone circuits where a portion of the speech current is necessarily reflected, or otherwise caused to return, back toward its point of origin.

Due to the high speed of electric waves, the time between speaking a word into the transmitter and hearing its reflection in one's own receiver is very small when the telephone circuit is of short or medium length.

When, however, the line is long, the lag between speaking a word and hearing it in the receiver is a sufficiently large fraction of a second to be embarrassing and confusing to the speaker if the feeding-back is not prevented.

Furthermore, under certain circumstances, the feeding-back effect would cause voice-currents to pass back and forth in the line an indefinite number of times, and thus to set up a singing condition under which conversation would be impossible.

To avoid these difficulties, switches are introduced into the telephone circuit which allow the voice currents to proceed in one direction only and not to return.

Obviously, to permit two-way conversations over a single pair of wires, these switches must be operated, to reverse their effect, each time the speaker at one end of the line finishes saying something and the speaker at the other end begins to reply.

To accomplish these switchings, a highly sensitive relay is placed in the circuit—so sensitive that it is operated by the tiny voice currents. This relay resets the switches each time the conversation changes direction. Although the relay is very fast-operating, it does take an appreciable time to accomplish the switching.

Were the voice currents permitted to pass to the line immediately after energizing the relay, the switches would not quite be turned when the first syllable reached them, and a fraction of a second's worth of talk would be chopped off at the beginning of each remark.

To avoid this the voice currents are permitted to activate the relay, then are led to a delay network (a complicated electric circuit of condensers and inductance coils) where they are delayed slightly longer than the switching time.

Thus, by the time they reach the point where the switches are located, the voice currents find the circuit completely established, and proceed without meeting violence.

These voice-operated relays and their associated delay-networks have been in use for several years on long distance lines and the transatlantic wire-and-radio circuit.

HARDENING THE CRIME LAWS IN NEW YORK.

The Legislature in 1927 and 1928 hardened the Baumes Laws. A Central Bureau of Criminal Records was created on and after July 1, 1927, and is a Division of the State Department of Correction.

The District Attorney representing the people, may now appeal the same as the defendant, except in case of acquittal.

In case of acquittal the police must, on demand, return to the defendant all *finger prints*, as well as photographs of the defendant, and copies thereof.

It is no longer necessary to prove previous convictions. A report from the State or local Bureaus of criminal identification is sufficient.

Trial courts have no discretion to permit a convicted second offender under the Baumes laws to escape the special penalties for such classes of criminals provided by these statutes, according to a unanimous decision of the Court of Appeals in 1928.

The minimum punishment for murder in the second degree is now 20 years.

A person who has been admitted to bail in connection with a charge of felony and who wilfully fails to appear as required and thereby incurs a forfeiture of his bail is guilty of a felony if he does not appear or surrender himself within thirty days.

Persons who flee the State to evade testifying in proceedings like the Queens County sewer investigation, conducted under the Public Officers' act, disregarding subpoenas, may be held in contempt of court.

If such a witness should be held in contempt a Supreme Court Justice could issue an order directing that his property be seized so as to secure the payment of a fine running as high as $100,000, which could be imposed.

The bill also provides that subpoenas may be served on witnesses who have left the State. If such witnesses cannot be located the subpoenas may be served through publication.

A person who being a dealer in or collector of any merchandise or property, or the agent, employee or representative of such dealer or collector, fails to make reasonable inquiry that the person selling or delivering any stolen or misappropriated property to him has a legal right to do so, shall be presumed to have bought or received such property knowing it to have been stolen or misappropriated. This presumption may however be rebutted by proof.

Scientific Progress in 1929.

(Covering period from Oct. 1, 1928, to Oct. 1, 1929.)

Compiled by the National Geographic Society, Washington, D. C. Gilbert Grosvenor, LL.D., Litt.D., President.

ARCHAEOLOGY.

Through the work of eleven expeditions of the National Geographic Society in the Southwest of the United States, a chronology for that region has been established, going back to A. D. 700. The dates of the rise, golden age, and decline of nearly forty prehistoric Indian settlements have been fixed; and a weather chart 1229 years long has been worked out. Eight of these expeditions, under the leadership of Neil M. Judd, excavated and restored Pueblo Bonito, the great pre-Columbian Indian communal center of Chaco Canyon, New Mexico. This work has brought a flood of light on the ways, customs, and manners of the people who lived in that region more than five centuries before the discovery of America by Columbus. Three other expeditions collected ancient beams, timbers, and fragments of charcoal for the purpose of building up an unbroken succession of tree-rings back from living trees to the remotest period possible. This work was under the supervision of Dr. A. E. Douglass, of the University of Arizona. By a careful matching together of the fat and lean year cycles in the lives of trees as revealed in the ring records of beams and timbers derived from them, Dr. Douglass was able to piece together the stories of trees running back to A. D. 700. The joint result of these two lines of research constitutes one of the outstanding triumphs of American archaeology and of prehistoric geography. In its revelation of new horizons of history in America it has played a role comparable to that played by the translation of the Rosetta Stone in opening up new vistas of Egyptian history. Through the work of Dr. Douglass the Society was able to announce that Pueblo Bonito had its beginnings in A. D. 919; reached its golden age in A. D. 1067, and was still occupied in A. D. 1127.

University of California anthropologists announced the discovery of evidences of a prehistoric tribe of Indians, dating back almost 3,000 years, in a cavern in Nevada.

An American Museum of Natural History expedition, under Charles L. Bernheimer, found graves in southern Utah, which disclosed a culture dating back from 3,000 to 10,000 years.

Highway builders near Santa Fe, New Mexico, discovered the ruins of an ancient pueblo, with a fine series of pictographs.

J. L. Nusbaum, Department of the Interior, in cooperation with C. C. Smith and M. R. Harrington, investigated the "lost city of the Moapa Valley," the Pueblo Grande de Nevada.

Dr. E. L. Hewett, University of New Mexico, found at Ungshshe, New Mexico, a burial place in which the dead had been interred more in keeping with the practices of ancient Roman tribes than according to the customs of the Pueblo Indians of the Southwest.

F. M. Setzler, Indiana Historical Bureau, opened an Indian mound near Winchester, Indiana, eighty feet in diameter and eight feet high, surrounded by a 31-acre earthwork. A skeleton of a middle-aged man lay three feet beneath a sacrificial pit, resting on partially decomposed bark.

Dr. E. B. Delabarre, Brown University, found beneath the childish pictures and signs of Dighton Rock traces of the name Miguel Corte-Real and the date, 1511.

Dr. H J. Spinden, Harvard University, announced the conclusion that the Indian population of the New world in the twelfth century A. D. was probably 50,000,000.

Dr. S. G. Morley, Carnegie Institution of Washington, excavated a spiral-shaped tower at Chichen Itza, Yucatan.

Six pyramids smaller than those of the Sun and Moon were found at San Juan Tootihuacan, near Mexico City.

The pyramid of Tenayuca, near Mexico City, was opened up, disclosing many striking relics of the Aztec age.

A British Museum expedition studied Maya ruins near Punta Gorda, British Honduras.

A German expedition making observations at the Inca Temple of the Sun on the shores of Lake Titicaca, concluded that it was built with knowledge of the angle of ecliptic obliquity, about 13,000 years ago.

An Inca cemetery at Copiapo, Chile, yielded nearly 300 pottery vessels, tools of copper, bronze, and stone, gold earrings, and a gold headband an inch and a half wide.

Drainage operations in Lake Nemi near Rome revealed part of one of Caligula's ships. Copper nails, which had lost none of their brightness through the nineteen centuries of their submergence, and leaden sheets were found.

The American School of Classical Studies is to excavate the business center of ancient Athens. To lay bare the streets and buildings which were the familiar haunts of Pericles, Plato, Socrates, and Demosthenes, more than thirty blocks must be razed, and the debris of four succeeding civilizations must be removed.

Excavations near Palazzolo Acreide, Sicily, revealed the ruins of Acrilae. A temple, believed to antedate that of Zeus at Syracuse, massive city walls, and ancient dwellings were unearthed.

Dr. D. M. Robinson, Johns Hopkins University, announced that excavations of Olynthus reveal once palatial homes, fine material culture, and art objects of exquisite workmanship.

The Durham University Excavation Committee discovered at Birdoswald, in the Roman Wall, a garrison for a thousand men of the First Cohort of Hadrian's Dacians.

A group of Druidical monoliths older than those at Stonehenge were discovered at Woodhenge, south Britain.

Prof. V. G. Childe, University of Edinburgh, announced evidences of gruesome human sacrifices found during the reconstruction of the village of Skara Brae, Orkney Islands.

Excavations at the Swedish Stone Age village in the swamps of Dag, Ostergotland, revealed a settlement surrounded by a stockade and a street paved with flat stones.

Excavations in the Taman Peninsula, opposite the Crimea, disclosed the remains of an old Greek theater.

Excavations were continued at the site of the ancient Roman city of Aquincum, near Budapest.

Excavations near Szeged, Hungary, produced many relics of the bronze age.

Dr. J. H. Breasted, University of Chicago, announced plans for a new building for the Oriental Institute, an annual grant for the carrying forward of a ten-year program of research, and an endowment for teaching.

Alan Rowe, University of Pennsylvania, reported the discovery of a great slab altar at which the Canaanites in biblical Beth-Shan worshipped their deity 3,500 years ago.

A Toledo Museum of Art-University of Michigan expedition reported the discovery of three ancient cities buried at Tel Omar—Selukia, one of the provincial capitals of Alexander the Great; Opis, its predecessor, a trade post of the Sumerians; and Akshak, the oldest, a contemporary of Ur.

Yale University excavations at Doura-Europos, on the Euphrates, reveal it as a frontier outpost of Hellenistic and Roman civilization after the reign of Alexander the Great.

Dr. Edward Chiera, University of Chicago, announced the discovery of the palace of Sennacherib and the excavation of the palace of Sargon II, the latter at Khorsabad, Assyria, and the former ten miles away. Fragments of frieze work from Sargon's courtyard, slabs depicting foreign emissaries bearing presents to Sargon, a sculpture of Sargon and his "prime minister," and a great stone bull weighing forty tons, were among the finds.

Sir Flinders Petrie reported Tell Faras, Palestine, a link in Israel's traditional history. Beneath a Roman fort of the time of Vespasian he found a Greek city, and below that a town which may have been Beth-palet, mentioned in Joshua XV.

Prof. William Bade, Pacific School of Religion, reported the discovery of houses dating between 1100 and 1200 B. C., in the ruins at Tel el Nasbeh, which he believed to be the Biblical city of Mizpah.

C. Leonard Woolley, University of Pennsylvania-British Museum expedition to Ur, reported the finding of a royal tomb of unhewn limestone, containing four chambers; also deposits of silt and clay eight feet thick, which may be the remains of the flood described in Genesis. The Sumerians of Ur used the arch, apse, column, and dome. Panels unearthed show mules standing on their hind feet, drinking from goblets, and monkeys in upright position, serving as bartenders. The skull of a queen of an early Dynasty, who had a straight nose, regular features, and intelligence, was found. Fragments of walls, dating about 3000 B. C., tell of a temple of the Moon god lying at the foot of a smaller and older Ziggurat than Ur's, and an old cemetery yielded relics and data on the people of Ur 5,000 years ago.

J. W. Crowfoot, British School of Archaeology, identified Ophel, a burial place for Jewish kings.

P. L. O. Guy, University of Chicago expedition at Megiddo, announced plans to excavate beneath King Solomon's stables, in the hope of finding more remote communities in the lower strata.

The Danish Museum excavated Sellun, believed to be the site of Shiloh.

Miss Dorothy Garrod, British School of Archaeology, found in a cave on Mt. Ephraim bones and implements of the race represented by the Galilee skull. In another cave on Mt Carmel, she found tools of Old Stone Age times, though of a more recent culture than the finds at Mt. Ephraim.

Prof. Stephen Langdon, Field Museum-Oxford University joint expedition to Mesopotamia, announced that painted pottery and plate tablets, covered with picture writing, unearthed at Kish, show that it was founded by the Elamites.

Dr. David G. Lyon reported the excavation of the ruins of a dwelling of 400 rooms at Nuzi, near Bagdad. It contained a temple, baking rooms, lavatories, and a suit of bronze plate armor.

The University of Pennsylvania expedition at Beisan discovered a large basalt bas-relief, figuring lions and dogs in Babylonian style, and an iron chariot such as described in Joshua XVII.

The Museum at Stamboul undertook the excavation of the Church of St. John of the Studium.

An Italian expedition excavating the site of Philadelphia found Byzantine and Arab relics below the Roman stratum.

The Museum of Berlin excavated an old citadel and a series of temples at Pergamum, Asia Minor.

The Austrian Archaeological Society excavated the Basilica of St. John at Ephesus, built by the Emperor Justinian. It also unearthed a large swimming bath with mosaic floors, marble statues, and a central heating system. Remains of a church of the time of the Emperor Constantine were found in a still lower stratum.

The New York Metropolitan Museum announced the recovery of the statues of Queen Hatshepsut from the quarry into which they were thrown by Thotmes III. The work of putting together the remains of two granite sphinxes, two Kdeling statues, and fragments of three other pieces of sculpture was continued.

The Vienna Academy of Science reported the discovery of tombs and graves near Gizeh, in which were buried rulers and members of the aristocracy of a period antedating the Pyramid of Cheops.

Excavations at Djemila, Algeria, revealed a temple dedicated to the family of the Emperor Septimius Severus, together with a forum, an altar of the gods, and a market place.

Excavations of the cities of Oea, Sabratha and Leptis Magna, Phoenician trading centers, were continued by the Italian National Museum.

Alonzo W. Pond, Logan Museum, Beloit, Wisconsin, brought back from Algeria two human skeletons believed to be 20,000 years old.

An expedition of the University of Florence discovered a rock painting in the Marandellas district of Rhodesia, depicting a Bushman fighting Bantus. Beneath it is an older picture showing an Arab typically dressed.

Miss G. Caton-Thompson undertook the excavation of the ruins of Zimbabwe, Rhodesia.

Excavations at Chitaldroog, Mysore, revealed temples and inscriptions of the 11th and 12th centuries A. D., and fragments mentioning the founder of the Kadamba dynasty, 5000 B. C.

Anu Ghose, a Bengal geologist, discovered in Madras Presidency, India, a series of rock edicts of Asoka, Buddhist Emperor, from 264 to 228 B. C.

Excavations in Sind revealed a civilization contemporaneous with that of Ur.

ASTRONOMY.

The work of charting variations of solar radiation continued through the year at the National Geographic Society's Mount Brukkaros Solar Observatory, Southwest Africa, under the auspices of the Smithsonian Institution. The Society made a grant of $10,000 for the continuation of the work, bringing its total grants for the construction and operation of the Observatory up to $65,000. The work at Mount Brukkaros is synchronized with that of the Smithsonian Institution's other solar observatories in California and Chile. These researches now have progressed to the stage where Dr. Charles G. Abbot, Secretary of the Smithsonian Institution, is enabled to announce periodicity in the rise and fall of the amount of radiation in cycles of 11 and 15 months and of 2.15 and 11 years. The 2.15-year cycle has been recognized in the meteorology and crops of Europe for a century, and in the advance and retreat of glaciers. Dovetailing with these periodicity records are the results of the tree-ring researches of Dr. Andrew E. Douglass, referred to in the notes on Archaeology. Under the auspices of the National Geographic Society Dr. Douglass undertook to build up a chronology from tree-rings that would link up the civilization of Pueblo Bonito with the modern calendar, and found at the end that his records were equally valuable in making a weather chart for correlating weather changes with solar radiation changes as revealed at Mount Brukkaros and other stations. Basing his conclusions upon the results of the two lines of investigation, Dr. Abbot announced: "It now seems probable that, with the aid of these periodicities, the principal variation of the sun and the behavior of all that hangs upon it can be predicted for several seasons in advance."

Drs. Humason and Pease, Mount Wilson Observatory, reported the study of three nebulae at the bounds of the universe fifty million light years, or 300,000,000,000,000,000,000 miles away. Spectroscopic analysis of their light indicates that they are traveling at the rate of 4,900 miles, 4,600 miles and 3,100 miles respectively. Their velocity as interpreted by the spectroscope is in proportion to their distances from the earth. Since it is not believed possible that matter moves at such velocity, the conviction is growing among astronomers that the apparent velocities are illusionary, perhaps caused by distortions of light waves that might be accounted for through such a curvature of space as that predicted by Einstein.

Dr. Harlow Shapley, Harvard College Observatory, announced that the nucleus of our universe centers in the constellation of Sagittarius. It is 29,000 light years in diameter and 16,000 light years in thickness.

Dr. Adrian Van Maanen, Mount Wilson Observatory, announced that measurement of the parallax of 99 Hercules tends to confirm the conclusion of Mrs. Maud Makemson, University of California, that it is a triple instead of a double star.

Dr. Harlow Shapley, Harvard University, announced that the space between the various island universes is virtually clear of celestial bodies. He reported the location of several thousand of these new island universes; the discovery of approximately 1,000 faint and distant variable stars whose positions in the heavens do not remain fixed; the conclusion that our own galaxy is apparently whirling in space around a common center 300,000,000,000,000,000 miles from the earth.

Prof. A. S. Eddington, Cambridge University, announced that some regions of the sky are occupied by great clouds of calcium and sodium.

Drs. Pettit and Nicholson, Mount Wilson Observatory, developed a thermo-couple, weighing only one-thousandth of a gram, which they used in measuring the heat of distant stars. They found that the giant Betelgeuse, 27,000 times as large as the Sun, is the greatest heat-producing star.

Dr. Harlan T. Stetson, Harvard University, announced that the variations of latitude observed by astronomers seem to be due to the moon. Miss Margaret Olmstead calculated thousands of United States Naval Observatory latitude observations, taking into account the moon's position in each. The results showed that these latitude changes are not only a daily proposition, but a systematic one.

Dr. Ernest W. Brown, Yale University, announced, on the basis of 340 observations of the moon's obscurations of stars, that the earth apparently often abruptly increases or decreases its speed of rotation as much as 1-300th of a second a day. An effort is being made to correlate these changes in rotation periods with the frequency of earthquakes.

Dr. Seth B. Nicholson, Mount Wilson Observatory, announced that the temperature of the moon reaches 265° F. at high noon and falls to 196° below zero F. at the time of a total eclipse.

Dr. Paul S. Epstein, California Institute of Technology, announced that temperature measurements during a lunar eclipse indicate that the moon has a surface of some coarse material resembling volcanic ash.

Dr. C. G. Abbot, Secretary of the Smithsonian Institution, succeeded in observing, with a new type of radiometer of his own invention, the spectrum of the planets, Jupiter and Mars. He also reported a remapping of the solar spectrum, beyond the visible red. The new map gives 2,000 lines; the old one gave 550. The results are already being used, notably in the identification of the chemical elements in the sun.

Dr. Charles E. St. John, Mount Wilson Observatory, reported the existence of 58 elements in the sun out of 90 known in the earth, and 4,207 additional spectra lines in the sun due to other elements in the earth. The sun spectrum shows a total of 21,835 lines, of which 12,502 have been identified.

Dr. F. E. Fowle, Smithsonian Institution, announced that one of the two layers of ozone in the earth's atmosphere is due probably to ultra-violet

light from the sun, while the other shows a close relationship to sun spots.

The U. S. Naval Observatory party observing the eclipse of the sun on May 9, made 13 exposures of different lengths with its 62-foot camera, 46 exposures with smaller cameras, and motion pictures of the eclipse.

Yerkes Observatory reported the Schwassman-Wachmann comet to be a periodic one with an interval of 82 months between visits.

Forbes' comet was first observed by a South African astronomer on Wednesday, November 21.

Dr. Albert Einstein announced an extension of his theory of relativity in a way to unite the laws of the field of gravitation and those of electro-magnetism. He abandons the classical, physical conception that each body through its mass, causes everywhere in space a certain effect known as gravity, supplanting it with the view that gravity manifests itself only in the immediate surroundings of the body in what he calls its gravity field or area. Each body with its gravity area acts upon space in such a manner as to shape or reshape it. Accordingly, bodies derive their movements from the peculiarities of their gravity areas rather than from a general intereffect of gravity of all bodies upon each other. Similarly, each body in an electric condition is surrounded by an electric field or area, from whose peculiarities and permutations the laws of electric manifestations are derived.

A Flagstaff, Arizona, operator discovered an egg-shaped meteorite of stony type and containing over five per cent of sulphur in the form of iron sulphide.

BIOLOGY.

Ernest G. Holt, who headed a National Geographic Society expedition to Venezuela for the study of the migratory birds which spend their winters there and their summers in North America, joined the Brazilian-Venezuelan Boundary Commission party as a biologist representing the National Geographic Society in the international boundary survey. This new field of work is one of the most interesting and least known of the zoological zones of the New World. It lies beyond the territories of hostile tribes both in Venezuela and Brazil.

Mr. and Mrs. J. E. Williamson, Field Museum of Natural History, made studies of the undersea life off the Bahama Islands, using marine apparatus, including a flexible metallic tube, at the end of which is a steel chamber with a large glass window of special design. They secured photographs, motion pictures, and color sketches for ten undersea habitat groups at the Field Museum.

James A. G. Rehn, Philadelphia Academy of Natural Science, studying the migration of animal and insect life between North and South America, gathered much data upon the flow of life between the two continents across the Panama land bridge, and found numerous species of "stranded relics of these great and gradual movements," which aid in the study of the tremendous response of living creatures to climatic and other changes.

An Oxford University Exploration Club expedition went to British Guiana to investigate the wild life of the rain forest.

Dr. Waldo L. Schmitt, Smithsonian Institution, brought from Juan Fernandez Island a rare species of crab, and a spider never before found except in South Africa, New Zealand, and Australia. These, with botanical evidence heretofore gathered, indicate that this Chilean island belongs to Australasian land masses rather than South American.

An American Museum of Natural History expedition explored the valleys of the Negro, Cassiquiare, and Orinoco rivers, collecting 6,000 birds and 1,000 specimens of other fauna and flora.

The American Museum of Natural History sent out an expedition to search for the long-haired tiger in Siberia, and to collect a group of saiga antelope in Russian Turkestan.

Dr. F. B. H. Brown, Bishop Museum, Honolulu, announced that studies of plants of the dogwood family in South Sea islands indicate that in Cretaceous times seeds of the North American ancestors of these plants floated out over the ocean that covered much of our continent and were carried to these antipodean islands by currents which long have ceased to exist.

The Crane Pacific expedition, Field Museum of Natural History, started on a circumnavigating voyage of the Pacific.

William K. Vanderbilt began a world cruise to collect rare specimens of marine life.

The Gifford Pinchot South Seas expedition brought back a large collection of biological specimens, including a huge sea bat of the genus *Manta*, and many species of birds desired by the National Museum.

Dr. Lee S. Crandall returned from the wilds of Papua to the New York Zoological Park with a collection of 250 birds, including some rare species of birds of paradise.

Dr. Robert Broom, Victoria College, South Africa, announced a striking likeness between the skull measurement of the present-day Korannas and those of the "Bushveldt skull" found north of Pretoria with the bones of an extinct species of buffalo.

G. Proctor Cooper, Yale University, obtained logs of 130 species of trees, ranging from corkwood to ironbark, on the Firestone Rubber Plantations in Liberia, to be tested for strength and other properties in the Yale Forest School laboratory.

Henry C. Raven headed a joint Columbia University-American Museum of Natural History expedition to study the gorilla in its native habitat.

The Straus African Ornithological expedition brought back from Africa 300 species of birds, some new to science.

Dr. Alexander Wetmore, Smithsonian Institution, reported that the collections in the National Museum are appraised at $115,000,000, but could not be duplicated for twice that amount. One of the latest accessions is a collection of 300,000 insects willed to the Museum by Dr. Charles F. Baker, who collected them in the Philippines and Malayan countries.

Prof. W. G. McDougall, Duke University, announced that the behavior of rats and their descendants in a tank of water leads to the conclusion that a trait acquired in one generation seems to be transmitted to descendants. In the tank he placed a platform connected to dry land by two gangways, one brilliantly lighted but electrically wired so as to administer a slight electric shock to rats using it. On the platform he placed his rats and allowed them to choose between the two routes to shore. Rats of each succeeding generation seemed to learn more quickly than their predecessors the avoidance of the brightly lighted, electrically charged gangplank.

Dr. Sara E. Branham, U. S. Public Health Service, announced that disease carriers exist among mice just as among humans. Guinea pigs and wild grey rats gave no indication of such disease carriers.

Dr. Herman Eidmann, University of Munich, by putting paint on ants attending aphids and dabs of a similar color on the twigs where each ant was first seen, proved that each individual ant herder looks after its own particular herd of aphids from day to day during the season.

Dr. D. M. Whitaker, Stanford University, measured the temperature inside a single cell of a living organism, using a thermocouple, with wires less than 1-25,000 of an inch in diameter.

Prof. W. A. Kepner and J. W. Nuttycombe demonstrated that an almost microscopic animal, the *Microstomum*, remembers the habits of its ancestors 22 generations removed. Its normal food is the hydra. Kept therefrom for 22 generations it went through the same process in swallowing hydra and manipulating the latter's stinging cells that characterized its remote ancestors. A *Microstomum* of the 16th generation that knew no hydra, had the upper and lower ends cut off. The middle third of the body regenerated new ends and the resultant animal went through the same process as its remote ancestors.

Dr. W. R. Coe, Yale University, described experiments on the *Lineus*, a common sea-worm. Slices cut clear across the body at any place back of the creature's brain produced replicas of the original worm. Each of these slices split in two, or even into four pieces, develops into a perfect worm. One of these slices, taken from the forward end of the worm will, if partly split lengthwise, leaving the pieces attached to each other by one edge, develop two new heads, but will keep the same tail. On the other hand, if it be taken from toward the tail, it will grow only one head but two tails.

Dr. R. T. Renwald, Omaha, Nebraska, announced the development of a new race of chickens without wings or toenails. Their freedom from molting enables him to overcome the slack egg-laying periods in normal hens.

Dr. Oscar Riddle, by causing doves to lay an unusual number of eggs, produced females only. By crossing distantly related forms or species, he obtained males exclusively.

Dr. A. M. Banta, Carnegie Institution of Washington, in laboratory tests paralleling early spring conditions, produced 840 generations of water fleas, all females. Females alone in bottles produced only female young; where crowded together they produced both males and females, the proportion of the former increasing as the crowding became intensified.

Drs. Charles Sheard and G. M. Higgins, Mayo Foundation, announced that under ultra-violet rays eggs hatched from one to two days earlier than those incubated the normal way.

Dr. A F. Shull, University of Michigan, by the control of the amount of light received, produced winged or wingless aphids at will. Long periods of light alternated with short ones of darkness, increased the number of winged offspring, while short

light and long dark periods brought a predominance of wingless ones.

The U. S. Department of Agriculture announced that angle worms put through a process of "scouring" are taken much quicker by game fishes than untreated ones. The worms, placed in a container filled with moistened sphagnum moss for three or four days, become pink and transparent.

J. A. B. Nolla, Porto Rican phytopathologist, developed an anti-aphid spray loaded with the spores of a parasitic fungus.

The U. S. Department of Agriculture installed traps on a number of airplanes in order to discover the flight habits of destructive insects, including the pink boll worm.

Dr. F. H. Herrick, Western Reserve University, continued his study of the family life of the American eagle. From a tower 96 feet high he kept constant watch of the habits of the eagle. These eagles mate for life; one pair or its successors have occupied the same nest without break for 35 years.

Harvard University awarded $58,000 to 41 professors to carry on research projects. These projects include: color changes in the skin of semi-tropical fishes; the behavior of variable stars; city planning and zoning progress in the United States; the physics of the air; the nature of acidity; the properties of matter under high pressure; the ancient flora of Newfoundland

Miss Jane Goldschmidt, Smith College, demonstrated the primacy of sight over touch by wearing prism glasses for several days. Straight surfaces which through the glasses appeared curved, felt curved as well.

Dr. Robert Hegner, Johns Hopkins University, announced a high degree of similarity between the protozoa inhabiting the intestinal tracts of men and monkeys. The more distantly related animal species are the less similar are their intestinal protozoa.

Nutrition investigators at Cornell University announced that milk contains a vitamin essential to growth. The discovery resulted from studies in the feeding of young chicks with rations low in calcium and phosphorus.

Dr. Frederick S. Hammett announced that a compound of one atom of sulphur and one of hydrogen is responsible for the cell division which produces growth in plants and animals.

Sir A. D. Hall reported that the late William Bateson had found a method of preventing sugar beets and other root crops from going to seed too early. Prospective seed beets were exposed to ideal conditions for setting seed. Those that yielded to the temptation were rejected. Those that resisted were selected. When the latter finally bore seeds a dependable strain was ultimately developed from them.

Drs. T. H. Goodspeed and A. R. Olson, University of California, demonstrated that X-ray treatments of plants to produce new varieties and to hasten evolutionary processes can be given to the seeds, growing points, pollen grains, and egg cells, as well as to the germ cells themselves.

Scientists at the Boyce Thompson Institute have discovered that aster yellows, a destructive plant disease, is insect borne just as is malaria, yellow fever, and other human diseases. The virus is carried by leafhoppers.

A 1½% solution of ethyl-mercury-chloride was found efficient in treating seeds for smuts and other diseases.

Dr. Edward C. Jeffrey, Harvard University, announced that the Boston fern is a hybrid rather than a mutation or a "sport" of a non-hardy tropical fern.

E. F. Davis, Virginia Agricultural Experiment Station, announced the discovery of the plant poison in the walnut tree which prevents other vegetation from growing on the ground beneath it.

CHEMISTRY.

University of Illinois chemists produced from ordinary sewage and cornstalks large quantities of methane gas, useful in heating and as a substitute for gasoline. Household wastes were placed in a tank and three weeks later shredded cornstalks, boiled and soaked in water and lime, were added. In another week, this mixture began to produce gas in quantities sufficient for farm purposes.

Dr. George M. Rommel published a book, "Farm Products in Industry," printed on paper made entirely from cornstalk pulp, with the binding fabricated from cotton-seed hulls. He forecasts the day when the utilization of farm wastes may develop as remarkably as has the chemical processing of coal tar. A 100-page issue of the Danville, Illinois, Commercial News, and a 260,000 edition of the Prairie Farmer were published on cornstalk paper.

W. R. Brown, Berlin, New Hampshire, developed a method of staining woods by introducing diluted solutions of dyes into the sap flow. The coloring matter reacting with oxidizing ferments in the cell sap, stains the wood so that it resembles walnut, mahogany, or any other wood prized for the beauty of its grain, and renders the wood relatively immune to decay and insect damage.

Iowa State College chemists succeeded in producing a sugar 300 times as sweet as cane sugar from corncobs. They also developed many perfumes and food flavors from the same source, and extracted from cobs an anaesthetic approximately as effective as novocaine.

A process of ripening green fruits and vegetables in a few hours by passing ethylene gas over them was demonstrated.

Agnes Morgan and Anna Field, University of California, announced that dried fruits treated with sulphur dioxide retain their ability to prevent scurvy, while similar dried fruits not thus treated lose their vitamin value.

Adolph Hawerlander, German chemist, developed a process for converting cornstalks, excelsior, wood chips, and crushed sugar cane into a substitute for wood which is more fireproof and waterproof than lumber and its equal in tensile strength.

Dr. Horace Terhune Herrick and O. E. May, U. S. Department of Agriculture, searching for tartaric acid molds, discovered one that produces gluconic acid. With it they can make calcium gluconate, the only calcium salt which can be injected between the muscles in the treatment of tuberculosis and rickets without producing abscesses, at fifty cents a pound, as against $150.00 a pound under chemical methods.

New methods of making acetic acid and its compounds from alcohol, resulting in a lower cost for acetate photographic films, is expected to bring about their substitution for cellulose nitrate film.

Dr. J. F. Norris, Massachusetts Institute of Technology, described a new alcohol made under the name of isopropyl. In humans it produces none of the exhilarating effects of grain or ethyl alcohol.

A plant at Lehigh, N. D., employing the Lurgi process for briquetting low grades of bituminous coal, expects to solve the problem of the utilization of lignite, by low-temperature carbonization. The process yields by-products which largely offset the cost of preparing the fuel.

A process was developed for the conversion of shale oil into rubber more resistant to abrasion than natural rubber.

Dr. H. I. Jones developed a poison gas, cacodyl isocyanide, which is so deadly that small amounts of it will destroy whole armies. He also demonstrated a new metal called beryllium which has twice the tensile strength of steel, yet weighs only a little more than one-third as much as aluminum. It is so hard that it will cut glass and resists scratching with a sharp file.

Dr. A. O. Jaeger announced two new and cheap processes for the purification of anthracene. Despite the immense production of coke and coal tar in America our anthracene had to be imported, which made this country dependent upon Europe for alizarin, from which Turkey red, orange, violet, and other colors are made. The introduction of a new catalyst is the key to the two processes.

The du Pont Company fitted out a lake type steamer capable of extracting the bromine from 7,000 gallons of sea water in a minute.

A new alloy which cuts steel, glass, and porcelain was demonstrated at Bridgeport, Conn. It is a combination of tungsten, carbon, and cobalt.

Fluorine produced electrolytically at Cornell University by Profs. Bancroft and Jones was found to react explosively with benzine.

Leon McCulloch announced that aluminum boiled in milk of lime to which a little calcium sulphate is added acquires a dead-white finish.

Harvard University chemists demonstrated that even when stored in pyrex glass helium gas seeps through at the rate of about one per cent a year.

Lyman Chalkley, Jr., announced the development of luminous fly paper.

EARTHQUAKES AND VOLCANOES.

The Carnegie Institution of Washington announced a program of world research on the origin of earthquakes, headed by Dr. Bailey Willis and Dr. N. L. Bowen.

Harvard University installed two new seismographs. Its observatory will cooperate with the Canadian government stations at Ottawa, Toronto, and Halifax.

Dr. William Bowie, U. S. Coast and Geodetic Survey, announced that the growing number of seismological observatories encourage the hope that the forecasting of earthquakes may become possible.

Maxwell W. Allen, studying more than 1,200 earthquakes occurring in California since 1812, found that most of those which occur on a fault line running northwest take place when the moon is in the western sky, or in the same position on the opposite side of the earth. Shocks in the east-west faults cluster in the opposite quadrants.

Dr. Thomas A. Jaggar, Hawaiian Volcano Observatory, successfully predicted that either Kilauea or Mauna Loa, Hawaii's largest volcanoes, would become active in 1929, and that Hualalai, one of the quietest of all known volcanoes, would show eruptive activity. He announced also that the 485 known volcanoes discharged 100,000,000 tons of hydrochloric acid annually.

Stanford University built a massive shaking table upon which to demonstrate the factors of destructiveness in earthquakes.

Chronology—October, 1928: 3—The steamer Carisso reported large fields of volcanic ash and pumice 350 miles southwest of the Fiji Islands. 9—Mexico City was shaken by a strong shock whose epicenter was in the State of Oaxaca. 12—Corinth, Greece, was baldy shaken. 22—The region of Corinth was shaken again. At Thalero 42 houses were destroyed and 35 at Melissa. 31—El Paso, Texas, was visited by the first earthquake in five years. Houses collapsed at Santa Rosalia and Chihuahua.

November: 4—More than 100 explosions were recorded in submarine eruptions near the island of Krakatau. 20—Sebastopol, Crimea, was visited by a fairly severe earthquake. Antofagasta, Chile, reported a quake on the same date. 23—Buildings collapsed at Jassy, Rumania, during an earthquake.

December: 1—The S. S. *Magalda*, en route from Talcahuano to Tocopilla, Chile, felt three heavy bumps as if it had struck bottom, while passing over the center of an earthquake. The towns of Talca, Constitucion, and Chillan were badly shaken by this quake. Their toll was—dead, 218; seriously injured, 257; slightly injured, more than 2,000; homeless, 20,000. 19—Mindanao Island in the Philippines was visited by a violent earthquake. The estimated damage was $100,000. Cotabato, swept by a resulting tidal wave, was practically destroyed.

January, 1929: 2—In the province of Kyushu, Japan, a severe earthquake destroyed a number of houses and opened cracks in many roads Asosan Volcano had been showing signs of activity. 7—The volcano Calbuco, Chile, spouting torrents of burning lava, set fire to nearby forests. 12—An earthquake, centered in the Sea of Okhotsk, off northeastern Siberia and west of the Kamchatka peninsula, was one of the severest of recent years. 13—Two persons were killed, several injured, and a number of buildings were destroyed in the province of Shansi, China. 17—Lecce, Italy, felt a slight earthquake, the town of Cumana, Venezuela, was destroyed, and Puerto Barrios, Guatemala, was shaken. 19—Many buildings of Huaethuas, Peru, disappeared in an enormous crack in the earth. 20—Many people were killed in Shansi province, by an earthquake which caused buildings to collapse and destroyed railroads. 21—Fairbanks, Alaska, was visited by the longest and severest quake in its history.

February: 1—Several villages around Samarkand, Asia, were partially destroyed by an earthquake. 11—Many persons were killed and injured in the department of Junin, Peru, when an earthquake, accompanied by a torrential rainfall, caused a river to overflow. 15—The ocean floor west of Central America was shaken. An earthquake of slight intensity was felt over a zone 300 miles wide in Montana. 20—Kilauea Volcano was in active eruption. Fountains of lava spurted to the height of 200 feet. Three tremors were reported in Salvador and Guatemala.

March: 1—A series of shocks occurred around Prince Rupert and southern Alaska. Tidal waves deluged the coast of Choshi, Isle of Nippon, destroyed entire villages, caved in the coast line for many miles, and buried many villages to a depth of 12 feet. 10—A severe earthquake damaged railway tracks at Canterbury, New Zealand, and was felt at Christchurch. 13—The town of Chirpan, southern Bulgaria, was visited by an earthquake which caused a building to collapse and injured a number of people.

April: 28—Kalavryta, in the Peleponnesus, was shaken by a series of 11 earthquakes which damaged houses and caused panic.

May: 2—The Khorasan district of northeastern Persia was shaken by a series of earthquakes lasting 3 days. Several villages were destroyed and unofficial estimates reported 2,000 dead and many injured. In the cities of Shirwan and Bujnurd, 700 buildings were demolished. The same quakes reached to Ashkabad, in Russian Turkestand. 19—The region of Cuschak, Adana, Sivas, and Trebizond sustained earthquake shocks of severe intensity. Thirty-nine persons were killed and many injured at Soucherri, and 1,000 homes were destroyed or badly damaged. Northern Anatolia was also shaken, while 14 were killed and 6 injured in the region of Shebin-Karahissar. 23—Mendoza, Argentina, reported 8 persons injured and the walls of many buildings cracked as a result of a series of strong earthshocks. 26—The wreck of the S. S. *Aleutian* was attributed to bottom changes resulting from a submarine earthwuake in the floor of Uyak Bay, Kodiak Island, Alaska. Masset, Queen Charlotte Islands, B. C., reported a violent earth tremor. Its epicenter was believed to be about 100 miles southwest of Sitka. The disturbance continued on the 27th and 28th, at Lockport. The peak of a high mountain was shaken down near Sanspit. Some 500 feet of sandy beach slid into the sea. 29—An active volcano was discovered near Cruz De Piedra Canyon, department of Carlos, Argentina. 30—During an earthquake, whose center was about 600 miles west of Buenos Aires, 15 persons were killed and 60 injured at Villa Atuel, and 18 were killed and 40 injured at Las Malvinas. Both towns were badly damaged.

June: 4—The volcano Nevado, near Mendoza, Argentina, was in eruption and Vesuvius was renewing its activity. Violent earthquakes shook Russian Turkestan and the northern part of Afghanistan, centering between Tarnez and Shirabad. 13—An earthquake of unusual duration shook the central and southern Philippine Islands. The volcano Komagatake, Japan, became active after two years of quiescence. Earth tremors in the region followed. 17—New Zealand was visited by a series of earthquakes, which continued to the 20th. Fifteen persons were killed and much property damaged. A section of the ocean bed at the White Cliffs of Karamea rose 100 feet. 28—Ambrym Island, New Hebrides, sustained a severe quake. The volcano on the island later became very active, forcing some 400 natives to take refuge on Malekula Island.

July: 5—Six heavy earthquakes were reported in three days beginning July 5 Five occurred in the north Pacific, near the Aleutian Islands, and the sixth off the Azores, in the Atlantic. 8—Los Angeles, Calif., and its suburbs were shaken by a series of shocks. Property damage at East Whittier amounted to $50,000. Four persons were injured at Santa Fe Springs. 15—The Khorasan district in Persia was revisited by a severe tremblor. A number of villages were destroyed. 18—Florence and Bologna, Italy, reported damage from an earthquake. Melilla, Morocco, was also shaken. 19—Belgrade, Jugolavia, reported a somewhat severe earthquake. The volcano Komagatake, Japan, began a new eruption on the same date. 22—It was announced that earthquakes in Anatolia, with their resultant landslides, caused 1,000 deaths and made 10,000 people homeless. 26—Sixty persons were reported killed and much damage done in the towns of Moyurgo, Tambillo, Machachi, and Latacunga, by an earthquake which shook Ecuador.

August: 3—Curico, Chile, was visited by a heavy tremblor. Succeeding shocks on August 5 shook Santiago, Valparaiso, and other central Chile towns. 12—About 100 chimneys were shaken down in Attica, N. Y., by earth tremors which reached as far east as Springfield, Mass., as far west as Ashtabula, Ohio, as far south as Franklin, Penn., and as far north as Toronto, Can.

September: 17—The ocean bottom off Queen Charlotte Island was the center of an earthquake. Mont Pelee, Martinique, was active. 19—Krakatau erupted violently, the eruption being attended by a series of earthquakes. Earthquakes shook the volcano Hualalai, Hawaii, quiescent since 1801. 20—Anatolia was badly shaken by a severe tremblor centering in the Gumushane district. 21—The western section of Hawaii reported a succession of quakes September 21 and 22. The disturbances continued on September 24. On September 26 seventy shocks were reported.

ENGINEERING.

The Bell Telephone Laboratories announced a new supermagnetic alloy, perminvar. It is a heat-treated combination of cobalt, iron, and nickel. The Laboratories also developed a process for delaying speech on transoceanic radio circuits where certain contact-closing devices must operate ahead of the speech waves.

The General Electric Co. developed a toy engine which responds automatically to such orders as "Go ahead, Casey," "Back up," and "Stop." A special selector determines the polarity of the rails in the track. More than two syllables cause it to provide forward movement. A two-syllable order reverses the polarity and the train, while one syllable breaks the circuit. The device may be used in elevator controls or in making furnace doors open or shut in response to a command spoken from a telephone.

The Bell Telephone Co. announced plans for a transoceanic telephone cable, made possible by the development of permalloy and special station devices which make unnecessary repeater stations such as are used on long land lines.

A new transatlantic Western Union cable was put into operation between the United States, Germany, and Italy.

Dr. Herbert Ives, Bell Laboratories, demonstrated television in color. Added to the mechanism used in ordinary television are a new type of photoelectric

cells at the sending end and neon and argon lamps at the receiving end.

Capt. Richard H. Ranger demonstrated a new photo-radio recording process in which the impression is made on a new heat-sensitive, wax-coated paper by fine jets of hot air controlled by the incoming radio signals. These jets burn away the wax in proportion to the intensity of the signals. An ink roller brushed over the sheet brings out the finished picture instantly and permanently.

Echo-sounding apparatus used for detecting submarines during the World War was successfully employed by trawlers to locate schools of herring.

The Canadian National Railway linked together a running train and the main office by radio. A conversation was continued for two hours.

Telephone engineers have named the unit of efficiency in telephone circuits "bel," just as "ohm" is the unit of resistance. The new unit name is a tribute to Dr. Alexander Graham Bell.

Dr. Georges Claude developed a mechanism for securing power from changes of temperature in ocean water. A vacuum boiler filled with distilled water, by its contact with the surface water, acquires the latter's temperature, at which, in the presence of a vacuum, the distilled water boils, generating steam. Another boiler, filled with cold water, acts as a condenser. Steam from the vacuum tank rushes towards this, driving a generator 6,000 revolutions a minute with a force equal to that of a 300-foot fall of water.

Sir Charles Parsons announced important improvements in reciprocating steam engines, and Alfred Buchi, a Swiss engineer, announced improvements in the Diesel engine which he says will increase its efficiency 50%.

A new 200-horsepower, oil-burning aircraft engine was demonstrated to members of the National Advisory Committee for Aeronautics at Langley Field. The engine consumed only $4.60 worth of fuel flying from Detroit.

Western owners of timber land used airplanes to sow grass seed over burned-over slashes left after lumbering operations.

Beryllium, which weighs only a little more than one-third as much as aluminum, and only a little more than one-tenth as much as steel, the while it is nearly as strong as steel, is being considered as a metal in future aircraft construction.

The National Advisory Committee for Aeronautics announced that rustproof steel is as easily welded by the acetylene-oxygen process as ordinary steel and is even more rustproof after welding than before.

President Thomas S. Baker, Carnegie Institute of Technology, predicted that the coal car is doomed to have its place taken by power and pipe lines, the one transporting electricity and the other liquefied coal to centers of industry.

The United States Navy Department began the building of a new dirigible airship with nearly twice the capacity of the Graf Zeppelin.

The General Electric Co. developed a traveling electrical machine with which it is hoped to discover methods of combating lightning, one of the worst enemies of high-tension transmission. The company also produced artificial lightning of 5,000,000 volts in its laboratories.

Dr. Paul E. Klopstog developed a new thermo-magnet consisting of a copper bar shaped somewhat like a capital "R." One part is placed in ice water and the other against a gas flame. The difference in temperature causes a flow of electricity sufficient to bring about a magnetism capable of supporting the weight of two men

A Russian rubber factory employed small amounts of radium to ionize air and thus prevent the accumulation of large friction-developed charges of static electricity.

U. S. Navy engineers utilized a new underwater, high-explosive tool, which drives a steel stud 3½ inches by ½ inch through a ½-inch steel plate at a single blow. With it emergency patches may be put over rents in the hulls of submarines or holes made in sunken craft for supplying the crew, through tubes, with water, liquid food, and air.

Contracts were let for a diversion dam and siphon spillway on Ware River for the development of Boston's water supply. The siphon spillway will automatically regulate the amount of water taken from the river.

The Great Northern Railway opened its new tunnel in the Cascade Range, which was built at a cost of $14,000,000. This tunnel is the longest in the New World and is exceeded in length in the Old only by the Simplon, St. Gothard, Loetschberg, and Mt. Cenis.

A new car ferry capable of carrying 92 freight cars was built for New Orleans-Havana service. The cars are lifted into position by cranes.

Dr. Herbert Ives demonstrated a new camera which makes photographs in which objects are seen in their three dimensions.

Prof. Arthur C. Hardy, Massachusetts Institute of Technology, demonstrated a new color-measuring instrument which analyzes colors many times more accurately than the human eye.

Dr. Frank M. Strong, Syracuse University, developed a blowpipe employing powdered aluminum instead of hydrogen or acetylene gases.

Dr. Percy W. Bridgman, Harvard University, produced pressures of 600,000 pounds to the square inch, under which paraffin became harder than machine steel and rubber was molded into a die for metal stamping.

GEOGRAPHY.

Asia—Dr. Joseph F. Rock continued his explorations in western China, particularly along the Chinese-Tibetan border, under the auspices of the National Geographic Society. Upon the return of the Roosevelt-Field Museum expedition from its quest of the giant panda, Kermit Roosevelt reported that the friendly contacts made by Dr. Rock with the officials of the region they traversed, during his years of research there, had been of great aid in penetrating the territories their expedition covered. The 317 volumes of Choni printed classics presented to the Library of Congress by Dr. Rock as a result of his previous expedition for the Society, are now among the priceless treasures of the Library, due to the fact that in the warfare in China, the great Buddhist monastery at Choni, which housed the engraved wooden blocks 500 years old from which the classics were printed, was destroyed by the Moslems, who massacred the inhabitants of Dangar. The Goden Gate Park at San Francisco reported that the Central Asian rhododendrons presented to it by the National Geographic Society and Dr. Rock had come into bloom and won wide admiration as an addition to the flowering flora of the West.

The Soviet Government dispatched eighty scientific expeditions during 1929. These included: economic surveys, such as searching for mica and vanadium in Turkestan and the Lake Baikal district, and exploration of the arid regions of Stalingrad and Astrakhan provinces with the possibilities of soil reclamation in view; archaeological studies in the Crimean peninsula and the North Caucasus district; ethnological investigations in the territory of the Ossetes and Ingushetes, in the Caucasus Mountains, of the Buriat Mongols, in the Far East and of the primitive tribes of the Altai Mountains in Siberia.

A Russo-German scientific expedition, exploring a hitherto unknown area of 1,000 square miles in the Pamir region near the frontier of Afghanistan, announced the discovery of 50 mountain peaks, ranging from 18,000 to more than 25,000 feet, and 30 big glaciers, including one more than 46 miles long—longer than Karakoram Glacier, heretofore believed to hold the world's record for length.

The Soviet Government dispatched a large commission to make an economic survey of Kamchatka, Sakhalin and Primorski.

Dr. Louis Ligeti, University of Budapest, began a three-year trip to Central Asia in the hope of tracing the fate of the tribes of Genghis Khan and of investigating the relationship between the Hungarian language and the tongue spoken by those tribes.

Col. Theodore and Kermit Roosevelt returned from an expedition to China and Indo-China, bringing back with them the only complete skeleton of the giant panda. Other rare species brought home included a group of golden monkeys, a blue sheep, a gaur, and a water buffalo.

Capt. John B. L. Noel and Walter Wood headed an expedition of the American Geographical Society to the Himalaya region of Asia to make a photographic and topographic survey of parts of the Kinchinjunga Mountains.

Philip C. Visser, Netherlands Foreign Service, headed an expedition into the Karakoram Mountains and the Central Asian range, to study the meteorology, botany, ornithology, and geology of the region, and also to map the territory.

The Soviet ice breaker, *Litke*, made a long cruise from the Black Sea to Vladivostok and Wrangel Island, carrying six students of oceanography.

Dr. Sven Hedin, Swedish explorer, returned to China to continue his researches in the fields of meteorology, biology, and geology.

A Russian expedition discovered a new mountain range more than six hundred miles long in the province of Kolyma. It covers an area as large as the Caucasus region, and was named "Cherski Range."

Africa—The Field Museum of Natural History's expedition under the leadership of Capt. Harold White, crossed Abyssinia and explored the districts of Arussi, Stefanie and Rudolf. In the Stefanie area, no water has fallen for eight years.

James L. Clark, American Museum of Natural History, and G. Lister Carlisle headed an expedition to Africa to obtain a representative group of lions for the Museum, and a collection of photographs showing African wild animals in their natural state. The

tions are to be mounted for the Akeley African Hall of the Museum and are said to constitute one of the finest groups ever brought to America.

The Frederick H. Rawson-Field Museum Ethnological expedition to West Africa collected much material in the Portuguese colony of Angola. It found great difficulty in making dictaphone records of the native language of the Ovimbundu people, to whom the dictaphone is "black magic."

Captain Owen Tweedy crossed the Sahara Desert in 5½ days in a narrow-tired motor lorry. His expedition left Rejaf on the upper Nile and reached Algiers, 5,500 miles away, in seven weeks. Its purpose was to test the possibility of a trans-African route for the ordinary traveler.

Dr. A. S. Barrett, Milwaukee Museum expedition leader, returned from a 10,000 mile trip through Kenya and Tanganyika, bringing much of museum material.

The Duke of the Abruzzi traced the sources of the Webi Shebeli river in Abyssinia and found the head springs in the region of Sidamo, near Lake Margherita.

North America—Rev. Bernard H Hubbard, S. J. climbed Mt. Katmai Volcano and visited the Valley of Ten Thousand Smokes in Alaska. He found a hidden lake in the crater of Mt. Katmai and reported that activity in the Valley of Ten Thousand Smokes is waning. The 1912 eruption of Mt. Katmai was studied by a series of expeditions of the National Geographic Society between 1912 and 1919, and the Valley of Ten Thousand Smokes was discovered and studied by these expeditions.

Henry B. Collins, Jr., Smithsonian Institution, excavating a mound on St. Lawrence Island, Alaska, found the bodies of six children, carefully dressed in fur and feather garments, frozen and encased in ice. Objects displaying the finest art in carving and design, from the oldest level in the mound, represent the golden age of Eskimo culture. The modern St. Lawrence Indian and the Siberian Eskimo speak the same dialect and both are believed to have their origins in the Stone Age people of northwestern Alaska.

The Canadian Government's aviators mapped 53,000 square miles of territory during the 1929 season.

The U. S. Hydrographic Office made an aerial photographic survey of the entire northern coast of Cuba from Nuevitas Bay to Cape Maisi. Following the completion of that survey the unit which did the work undertook an aerial reconnaisance of the Gulf Coast from New Orleans to Brownsville, Texas.

South America—Gen. Candido Rondon, engaged in marking Brazil's northern boundaries, announced the discovery of a new peak 1,640 feet high, on the frontier between Brazil and Dutch Guiana.

Dr. Herbert S. Dickey announced the discovery of a hitherto unrecorded Indian tribe in a region between the Tomo and the Meta Rivers, Colombian tributaries of the Orinoco. The only food they raise is manioc. They fashion their huts, gourds, and hammocks, and make their liquor, from the moriche palm.

Wilhelm Plichta and Wilhelm Kaap, German explorers, reported the discovery of connecting tributaries of the Amazon and La Plata, in the Brazilian province of Matto Grosso. The similarity of the fish life of the two streams long has been accepted by geographers as evidence of such a connection.

Jose Mario Barone, former Italian aviator, drove an automobile from Rio de Janeiro to New York. It took him two years to make the trip.

Europe—The National Geographic Society issued a new map of Europe, giving all place names in the language of the countries in which they are found. It is printed in six colors, on a scale of 1 to 6,000,000, and contains more than 8,000 place names. The data for the correct spelling of every name appearing on the map was furnished by the embassy and legation officials of every European country accredited to Washington. The work of preparing, editing, and printing this map covered a period of three years. A cross index has been prepared by which the reader can follow all the name changes that have resulted from the changes of sovereignty and language incident to the World War and the Treaty of Versailles.

Oceanographic—Dr. F. A. Vening-Meinesz, Dutch geodesist in charge of an expedition aboard the Navy submarine S-21, making studies of gravity pulls at sea, announced that the studies made in the Gulf of Mexico and the Caribbean Sea practically quash the theory that the earth crust of North America is floating westward on the subcrustal viscous substance which forms the interior of the earth. He had proposed that theory through studies made off the Pacific coast where he had found a distinct pressure against the earth crust beneath the Pacific. In the Atlantic he had found a similar condition. Dr. Vening-Meinesz also stated that it was ascertained that the heavy deposits of silt brought down by the Mississippi River are not creating a heavy gravity load, but that these deposits are being kept in equilibrium through compensating sediments.

Dr. William Beebe continued the work of his Bermuda oceanographic expedition. When he last reported he had collected 3,600 individual fishes, representing 90 species, drawn from depths varying from 400 to 1,400 fathoms.

The Carnegie Institution of Washington announced that the *Carnegie* had discovered two submarine ranges of mountains off the coast of South America. One, off the coast of Ecuador, extends 10,000 feet above the ocean floor; the other lies off the Chilean coast.

The Swedish Geographical and Anthropological Society sent out an expedition to investigate the Gulf Stream and to map the edge of the polar ice at the Bering Sea, Spitsbergen, and the east of Greenland.

A British expedition under Dr. C. M. Yonge, engaged in studying the animal life of the Great Barrier Reef, reported that trochus shells and sea-slugs, the former used in the manufacture of pearl buttons, and the latter as an article of diet in China, offer an excellent opportunity for commercial exploitation.

Capt. J. P. Ault, Carnegie Institution of Washington, announced that on the *Carnegie's* present three-year cruise, evidence has been found that the north magnetic pole is "wabbling" slightly.

Harry L. Shapiro, American Museum of Natural History, headed an expedition to Polynesia to make a racial survey.

A bottle thrown overboard off Lower California, September 27, 1927, was picked up in Philippine waters February 12, 1929, having drifted 8,300 statute miles. The longest drift on record was made by a bottle thrown overboard in the southern Indian Ocean May 31, 1909, and picked up off the tip of Cape Horn, May 19, 1912, having drifted 11,820 statute miles, air line measurement.

Alain Gerbault, former French tennis champion, ended a six-year, single-handed cruise around the world in his twenty-five foot sloop, *Fire Crest*.

Four Cornell University men, Carl L. Weagant, skipper, crossed the Atlantic in a forty-six foot ketch, making the Azores in twelve days.

Edward Miles, Newark, New Jersey, in a two-masted, twelve-ton sailing boat, crossed the Atlantic Ocean from New York single-handed, making the voyage from New York to Gibraltar in 44½ days.

Arctic—Commander Donald B. MacMillan gathered evidence in the Arctic that the present ice-cap of the northern regions is receding rather than advancing. He found that it is a surviving remnant of the great Pleistocene ice-cap which extended as far as Pennsylvania and Ohio, and covered more than 4,000,000 square miles of the earth area to a depth of 5,000 feet. For 35,000 years it has been shrinking until today it consists of two small areas, one of which covers about 400 square miles, and the other about 300 square miles. Photographs were made of the southern border of the remaining ice areas and Commander MacMillan expects from these to be able next year to measure the rate of recession. Other scientists attached to the expedition gathered many specimens of the flora and fauna of the region visited.

A large ice-free area was discovered adjacent to the Northwest Fjord at the bottom of Scoresby Sound, on the eastern shore of Greenland. Foxes, musk oxen, and bears occupied the area in large numbers, and the region contains the ruins of numerous Eskimo habitations.

GEOLOGY.

Several acres of petrified trees of the coal-forming ages, some 10 feet in diameter and more than 100 feet long, were discovered on Indian Coulee, near Savage, Mont. All lie in the same direction, apparently having been uprooted by a violent southeast wind.

The U. S. Department of Agriculture announced that each year more than 513,000,000 tons of soil reach the sea from the farms of the United States, of which the Mississippi River system alone contributes 428,000,000 tons. The phosphorus, potassium, and nitrogen contained therein is worth more than $2,000,000,000 at current market prices.

University of California geologists found near Redding, Calif., ten real pearls dating from the days of the dinosaurs, which conformed in structure to the modern variety, and were produced by molluscs related to the present pearl oyster.

Sir Ernest Rutherford, after a study of the lead content of broggerite, a rare Norwegian mineral, as revealed by Dr. F. W. Aston's analysis, declared that the earth is approximately 3,400,000,000 years old.

MEDICINE.

Dr. William J. Mayo announced that susceptibility is an important factor in cancer. He believes that in chronic irritation the tissues involved try to heal the breach of continuity by normal cells, but that if the irritation is long-continued, cells that are more and more immature are rushed to the rescue, until in susceptible persons the cells continue an unlimited functionless division.

Dr. J. A. Murray, Imperial Cancer Research Fund, announced that experiments with rats indicate that diet is not an important factor in the causation of cancer.

The Graf Zeppelin brought from Germany cultures of cancer cells of a special rat sarcoma type that could not have survived a long steamship voyage across the Atlantic.

It was announced that the declining death rate from tuberculosis since 1900 has resulted in the saving of 140,000 lives annually.

Dr. M. McConkey, New York State Hospital for Incipient Tuberculosis, announced that a chilled beverage of cod liver oil floating on tomato juice, served as an after-meal liqueur to persons suffering from tuberculosis, often completely relieves the intestinal symptoms of the disease.

Dr. Florence R. Sabin, Rockefeller Institute for Medical Research, announced that a germ-free fat obtained from tuberculosis germs and similar in composition to food fats, caused the characteristic tubercles of the disease.

Dr. William C. White, U. S. Public Health Service, announced that a new sugar isolated from tuberculosis germs injected into a tuberculous animal causes death in four or five hours. A well animal similarly treated shivers, runs a temperature, and loses white blood cells.

Dr. Leroy U. Gardner, Saranac Lake Laboratories, reported that silica particles aggravate tuberculosis of the lungs more than any other known dust. Coal dust, on the other hand, fails to produce any such aggravation.

Drs. Cyrus C. Sturgis and Raphael Isaacs, University of Michigan, found that an ounce of extract of dried, ground hog's stomachs is as effective in the treatment of pernicious anemia as a pound of raw liver or three ounces of the most concentrated liver extract.

Dr. P. D. McMaster and Dr. D. R. Drury, Rockefeller Institute for Medical Research, proved that the liver is the chief source of fibrinogen, the main factor in the coagulation of the blood.

In tests of the aqueous extract of liver in pernicious anemia, 84% of the patients were brought back to health, according to Health Commissioner Wynne of New York.

Dr. Wendell H. Griffith, St. Louis, announced that whole dried yeast has a marked effect on the utilization of food, while a watery extract of liver increases the appetite. White rats with yeast added to their diet consumed only 9% more food but increased 47% in weight.

Dr. L. Mirvish, University of Cape Town, announced that experiments with cereals indicated that rickets is not purely a result of too little vitamin D, but is primarily due to a lowering of the amount of lime in the blood.

Dr. Alfred F. Hess and his associates announced that the antirachitic potency of cod liver oils is in inverse ratio to the quantity of oil in livers. Young rats showed that oil from "poor" livers was 200 times more potent than high-grade oil.

Dr. David H. Thompson, Illinois Natural History Survey, announced that "knothead" is a rachitic disease of the carp due apparently to the fact that when its food is produced under polluted water conditions there is a dearth of those plants which contain vitamin D.

The U. S. Public Health Service continued researches for vitamin P-P, the pellagra-preventing substance first discovered by the late Dr. Joseph Goldberger.

Dr. Oscar Riddle, Carnegie Institution of Washington, summarized experiments in feeding salamanders with the anterior pituitary gland of other animals by which they were, at will, maintained as water animals, transformed into land animals, or developed to double normal size. He believes that with the pure hormone of this gland, the stature of human beings may be regulated.

Drs. John J. Abel and H. Jensen, Johns Hopkins University, announced the isolation of the hormone that controls sugar in the human body. It is found in insulin and represents the fourth of the hormones definitely isolated, the other three being those of adrenalin, thyroxin, and pituitrin. A research is now going forward for the identification of the substances constituting the hormone with the hope that it may be synthetically and therefore cheaply produced.

Dr. R. G. Harris, Long Island Biological Laboratory, announced the isolation of a hormone which plays an important role in feminine health, from an internal gland secretion which forms an essential principle of small bodies called *Corpora lutea*.

Prof. Hans Fischer, Munich, Germany, announced the isolation of the ferment of respiration, a hemin compound, the synthesis of which makes possible the artificial production of hemoglobin, the red coloring matter of the blood.

Dr. Ruth Tunnicliff, Chicago, announced a simple new test for detecting carriers of scarlet fever, by which the organism can be identified in one or two days.

A new smallpox immunity test announced by Dr. Sanford B. Hooker, consists of an injection into the skin tissue of heat-killed, diluted virus.

Dr. Wardner D. Ayer treated 129 cases of infantile paralysis with a newly developed serum. Ninety-six made complete recoveries, twenty-five developed paralysis and eight died. Of the twenty-five who developed paralysis, only eleven failed to make complete recoveries. Of the eight who died, three received the serum too late and three did not receive enough.

Scientists at the University of Wisconsin isolated the organism that causes septic sore throat and traced several epidemics to milk from cows that have a condition known as mastitis.

Undulant fever has spread to all of the States excepting West Virginia and Wyoming. The disease is acquired from the milk of infected cows or goats, or from other infected animals.

Dr. R. G. Green and E. M. Wade, University of Minnesota announced that rabbit tularemia also attacks cats, muskrats, grouse, quail, and ring-necked pheasants.

Dr. James A. Doull, Johns Hopkins University, announced preliminary results in the study of the common cold.

Studies in the Philippines by the U. S. Army Medical Department Research Board indicate that leprosy is an insect-transmitted disease. The Board hopes to ascertain whether it can be transmitted by contact.

Dr. David I. Macht, Johns Hopkins University, reported a toxin in the blood of leprous individuals which serves to differentiate leprosy from the blood serum of tuberculosis which it resembles.

Bacteriologists of the Rockefeller Institute of Medical Research isolated the germ of Oroya fever or *Verruga peruviana*, a disease that afflicted the Incas of Peru and has continued down to the present time in some of the clefts of the Andes. It is transmitted by a blood-sucking gnat of the genus *Phlebotomus*.

Dr. Warren K. Stratman-Thomas headed an expedition to Africa to test six new drugs with which he hopes to be able to arrest the ravages of sleeping sickness.

Dr. Paul O'Leary, Mayo Clinic, announced that thirty-eight out of one hundred paresis victims were restored to health by the new malaria treatment.

Dr. Andrew Sellards, Harvard University, succeeded in taking the virus of yellow fever from Senegal to London, carrying it in the frozen liver of an infected monkey. Prof. Edward Hindle, Belt Fellow in Tropical Medicine, developed a yellow fever vaccine therefrom.

Drs. D. M. Hetler and Jacques Bronfenbrenner, Washington University, measured the bacteriophage, which is only one-sixth as large as the germ of typhoid fever.

Dr. N. W. Larkum, Michigan Department of Health, announced that the bacteriophage has proved a better preventive of typhoid fever than typhoid vaccine.

Nine cities with a population of more than 100,000 each reported a year free from deaths of typhoid fever. Forty-five other such cities had typhoid death rates below 2.0 per 100,000.

Drs. Yandell Henderson, H. W. Haggard, and E. M. Radloff, Yale University, announced that in pneumonia the deep breathing of air containing from 5 to 7 per cent carbon dioxide reinvigorates diseased areas of the lungs, and prevents the consolidation of the tissues which so often results fatally.

Dr. Chauncey D. Leake, Pharmacologist, San Francisco, announced the restoration of patients suffering from catatonia dementia praecox, to sanity for several minutes by the inhalation of carbon-dioxide gas.

Dr. J. S. Oldham, Liverpool, combining artificial respiration and adrenalin injections, kept a patient's heart beating for 12½ hours after all other signs of life had passed.

Dr. J. S. Lundy, Mayo Clinic, and Dr. R. M. Isenberger, University of Kansas, announced a new anesthetic, iso-amylethyl barbituric acid. Given by mouth before the administration of local anesthesia, it lessened the apprehension of patients before operations; injected into a vein, it produced all or part of the anesthesia in 273 major operations.

Dr. G. H. W. Lucas, Philadelphia, and Dr. V. E. Henderson, Toronto, announced a new anesthetic gas, cyclopropane. It is taken with little or no sensation by the patient and avoids the bad after effects of most anesthetics.

Nutritionists at the Iowa State College announced that carbonated beverages fed to rats causes them to drink more milk, grow more rapidly, and rear larger litters of young.

A group of Louisville, Kentucky, physiologists demonstrated that the physical and mental misery of morphine addicts, when deprived of their dope, arises from the disturbed water distribution condition. Animals under dosage comparable to that of a human addict have a shortage of water in the liver, kidneys, and brain, while the stomach, skin, intestines, and blood carry an increased water content. In sudden deprivation, the blood, spleen, and surface tissues undergo a loss of water, while the liver kidneys, and brain become gorged therewith.

Prof. E. N. Harvey, Princeton University, announced that dead hearts removed from turtles and frogs had been set to beating rhythmically by high-frequency sound waves, produced by passing an electric current through a quartz crystal.

The Mayo Clinic announced that if 65 per cent of the liver be removed, in eight weeks or less the remaining portions will almost entirely replace the lost parts.

Dr. H. H. Roaf, London, described globules in the retinas of hen's eyes which seem to act as color filters. He suggested that man's color vision may be conditioned by two different kinds of color screens in the eye, with perhaps an additional group of unscreened color receptors.

Harvard University and the Carnegie Institution of Washington, sent a joint expedition of doctors and health experts to Mexico in an effort to determine whether disease, famine or war primarily caused the downfall of the ancient Mayan empire.

Dr. Fred C. Tonney, Chicago Health Department, announced that a large percentage of the ultra-violet rays coming through the atmosphere above Chicago, even at clear points, are lost.

A device for measuring the intensity of ultra-violet rays makes use of uranium, which is sensitive only to the ionic action of the antirachitic ultra-violet rays of the spectrum.

Drs. Joseph Erlanger and H. H. Gasser, St. Louis, developed a device which amplifies current 100,000 times and permits the observation of the flow of nerve impulses. It also permits the photographing of lightning striking wires and measures how far the electrical current travels in a millionth of a second.

Dr. Robert H. Gault, Northwestern University, demonstrated an instrument consisting of a microphone, amplifier, batteries, and a receiver, by which a lip reader can feel vibrations of the voice with his fingers.

Prof. Clair E. Turner, Massachusetts Institute of Technology, exhibited motion pictures showing microscopic digestive glands in the stomach and intestines, the process of swallowing, food churning in the stomach, and the circulation of the blood as revealed in the embryo of a chicken.

Dr. W. Cramer, London, treating adrenal glands with the vapor of osmic acid and thereby darkening the grains of adrenalin, was able to study under the microscope the activity of the outer portions of the glands and to watch the grains of adrenalin entering the blood stream.

PALEONTOLOGY.

C. P. Singleton, Harvard University, announced the discovery of a stone arrow or spear point lying directly beneath the bones of a mastodon at Melbourne, Florida. Dr. J. W. Gidley, Smithsonian Institution, found a large stone tool, known as a turtle-back flaker, in the same site, four feet below the surface and two feet beneath the upper layer of the ancient formation in which the fossil bones lie buried.

Two human skulls were found in the lower slope of Bishop's Cap Peak in southwestern New Mexico, in association with the bones of an almost complete skeleton of an extinct ground sloth.

Two petrified human brains were found in association with the teeth of a woolly mammoth near Moscow, Russia.

E. K. Tratman, University of Bristol, reported the discovery, in the deep earth of the floor of Kilgreany Cave in southern Ireland, of a human skeleton in association with the bones of the wild boar, giant deer, and other animals inhabiting northern Europe at the end of the Ice Age.

The discovery of a human skull with apelike jaw near Peking, China, was reported by Dr. Davidson Black, Peking Union Medical College. It belonged to a man of the Old Stone Age and was found in an old limestone bed, in association with the bones of many prehistoric animals.

A Beloit College expedition discovered a 90% complete skeleton of a man of the late Aurignacian Age, at El Oubira, North Africa. Parts of four other skeletons were found. They appeared to be the remains of humans of a period contemporary with the reign of the Cro-Magnon race in western Europe.

Professor A. N. Burkitt, Sydney University, announced the discovery of human remains in the South Sea island of New Caledonia, in which the jaw bones were massive, resembling in many details the structure of the jaw bone of the ancient Heidelberg Man.

In a tunnel beneath Sugar Loaf mountains, near New Haven, Conn., more than fifty footprints of prehistoric animals were found. They ranged from an inch and a half long to two feet. Most of them were of carnivorous dinosaurs. Fossil ancestors of the sturgeons, gar pikes, and bowfins of today, as well as fossil branches of trees, mostly conifers, were found in the same bed.

Dr. Alexander Wetmore, Smithsonian Institution, discovered many bird bones in association with those of extinct mammals, such as mammoths, tapirs, ancient horses, and glyptodonts, in the vicinity of Vero, Fla. He has identified 48 species, many of which still exist in Florida. Other still existing species including the California condor, have not been seen in the State in modern times.

Dr. Harold Cook announced the discovery of the modern cattle disease of lumpy jaw in the jaw bones of an extinct species of the rhinoceros excavated in the Agate Springs Fossil Quarry, Neb.

A fossil skeleton of a giant prehistoric hog dug up in Sioux, Neb., was mounted at the University of Nebraska. The animal was as high and long as the largest modern passenger automobile and lived in late Oligocene or early Miocene times.

Remains of what may prove to be the missing link between the elephant and the mastodon were unearthed near Arkansas City, Kan., by H. T. Martin, University of Kansas.

Representatives of the Smithsonian Institution and Yale University, investigated deposits of fossil bones of many extinct ground sloths and other beasts found in an extinct volcanic furmarole in Dona Ana County, N. M.

Dr. Charles W. Gilmore, U. S. National Museum, found many skeletons of extinct species of turtles in the San Juan Basin of northwestern New Mexico. In a single plot thirty feet in diameter nine specimens were secured.

Professors C. L. Camp and V. B. Vanderhoof, University of California, discovered a fossil field in northwestern New Mexico. The great uplift that formed the Continental Divide brought to the surface the fossil remains of all of the ages between and including the Permian and Miocene periods. Its Triassic deposits yielded early reptiles; its Cretaceous rock showed crocodiles and dinosaurs; its Palaeocene beds contained primitive mammals; its Miocene strata yielded primitive horses, rhinoceroses, and other more recent species.

The molar teeth and fragments of tusk, ribs, and other bones of a mastodon were found twenty-two feet beneath the ground level, twenty-eight miles southeast of San Francisco.

The Agassiz Museum, Cambridge, Mass., received a collection of fossil fishes of Silurian times from New Brunswick. They are about ten inches in length, wore their skeletons on the outside, and had neither lateral fins, gill arches nor jaws. Fossils of these species hitherto have been known only in Europe.

The skull and tusks of a prehistoric hippopotamus were discovered near Barkly West, South Africa, five feet below the bed of the Vaal River. It is believed that the beast to which they belonged weighed from six to eight tons.

A skeleton of the earliest known rhinoceros, *Indricotherium Astaticum*, was set up in the Geological Institute at Leningrad. It stands nearly 15 feet high.

Through studies of the skeleton of a prehistoric woolly-haired marsupial rhinoceros found in the Mowbray Swamp, northwest Tasmania, its probable appearance in life was described.

Prof. A. N. Kristovitsch, of Russia, announced the discovery of fossil plants that grew while dinosaurs still lived, in the Sutschansk mines, near Vladivostok. They belong to a surviving genus of which the well known Hercules-club and wild-sarsaparilla are members.

PHYSICS.

Dr. Frederick G. Keyes, Massachusetts Institute of Technology, announced the perfection of apparatus for observing and measuring the activities of single molecules of gas. It consists of diaphragms containing small holes, and chambers connected to pumps producing high vacuums. Molecules, passing into the chambers through the diaphragm holes, are successively sorted, and in the final chamber, move

in a beam made to impinge upon a target especially prepared for measuring specific effects.

Dr. Irving Langmuir announced that surface tension of liquids is due to the fact that the films are only one molecule thick and arrange themselves "heads" upward and "tails" downward, which indicates that they have two sides whose properties are different. In some films the molecules attach themselves so firmly as to constitute true solid surfaces, in others they arrange themselves somewhat like sand, and in still others like gases.

Dr. Arthur S. King, Mt. Wilson Observatory, and Dr. Raymond T. Birge, University of California, discovered that carbon exists in two forms. Ordinary carbon is of mass 12 and its isotope of mass 13. Heating carbon in a vacuum in an electric furnace to a temperature of about 5,000° F. and analyzing with a spectroscope the light emitted they found not only the usual bright bands but also another very faint and previously unknown band. The latter proved to be the signature of the isotopic form. Last year physicists at the University of California found that the oxygen atom has three forms.

Dr. K. F. Bonnhoeffer demonstrated the splitting of hydrogen gas, hitherto supposed to be an indivisible element, into two substances. The experiment opens the way to finding an entirely new species of molecule; is the first proof of hitherto mathematically forecasted wave mechanics; may have an important bearing in the future of synthetic chemistry; and is one of the first proofs of the theory that atoms somewhat resemble small solar systems.

Dr. A. S. Eddington, Cambridge University, basing his study on the theory of relativity and the quantum theory of light, announced a formula by which the charge of electricity carried by an electron can be calculated.

Prof. Royal W. Sorenson, California Institute of Technology, announced the development of a cold cathode ray oscillograph through which pictures of electrons and atoms may be made.

Professors Keeson, Leyden, Holland, using helium gas, succeeded in producing a temperature within 1° C. of absolute zero.

DEATHS IN THE UNITED STATES FROM AUTOMOBILE ACCIDENTS.

Area.	Total.		Total.			Rate per 100,000 estimated population.				
	1928.	1927.	1926.	1925.	1924.	1928.	1927.	1926.	1925.	1924.
Registration area	23,765	21,160	18,871	17,571	15,528	20.8	19.5	17.9	17.0	15.7
Alabama	375	361	319	252	....	14.6	14.2	12.6	10.1	....
Arizona	123	140	116	.....	.....	25.9	30.5	26.1	....	....
Arkansas	211	170	.....	.....	.....	10.9	8.8	.....	.....	.....
California	1,755	1,628	1,464	1,327	1,254	38.5	36.7	33.9	31.7	32.0
Colorado	221	234	175	146	158	20.3	21.8	16.5	14.0	15.7
Connecticut	407	327	307	340	277	24.4	20.0	19.1	21.6	18.4
Delaware	75	62	50	37	46	30.7	25.5	20.8	15.5	19.8
Florida	404	425	515	449	242	28.6	31.2	39.1	35.5	19.7
Georgia	438	.....	.....	.....	307	14.6	.....	.....	.....	10.1
Idaho	90	76	77	56	54	16.5	14.2	14.8	11.0	11.2
Illinois	1,743	1,512	1,338	1,268	1,065	23.6	20.7	18.6	17.9	15.5
Indiana	784	665	547	509	480	24.7	21.1	17.5	16.4	15.8
Iowa	329	284	264	271	211	13.6	11.7	10.9	11.2	8.7
Kansas	304	253	241	240	169	16.6	13.8	13.2	13.2	9.4
Kentucky	342	299	277	237	197	13.4	11.8	11.0	9.4	8.0
Louisiana	348	295	271	241	210	17.8	15.3	14.1	12.7	11.3
Maine	115	112	100	98	91	13.5	14.1	12.7	12.5	11.7
Maryland	343	330	312	271	246	21.2	20.7	19.7	17.4	16.2
Massachusetts	724	696	682	729	685	16.9	16.4	16.2	17.6	16.7
Michigan	1,247	1,266	1,112	955	863	27.2	28.2	25.3	22.3	21.2
Minnesota	435	369	326	361	366	16.0	13.7	12.3	13.8	14.5
Mississippi	253	243	215	170	125	14.1	13.6	12.0	9.5	7.0
Missouri	625	517	493	509	449	17.7	14.7	14.1	14.6	13.0
Montana	118	73	93	84	69	....	10.2	13.4	12.5	11.0
Nebraska	217	198	154	125	113	15.4	14.2	11.1	9.1	8.4
New Hampshire	76	71	68	67	61	16.7	15.6	15.0	19.2	13.6
New Jersey	1,015	973	792	771	746	26.6	26.0	21.5	21.4	21.7
New York	2,554	2,348	2,178	2,111	1,985	22.1	20.9	19.3	18.9	18.0
North Carolina	577	503	455	376	328	19.6	17.4	15.9	13.4	12.0
North Dakota	79	72	70	59	45	12.3	11.2	10.9	9.2	7.0
Ohio	1,708	1,494	1,317	1,285	1,024	25.0	22.3	20.0	19.9	16.5
Oklahoma	330	.....	.....	.....	.....	13.6	.....	.....	.....	.....
Oregon	249	194	187	144	144	27.6	21.8	21.3	16.7	17.3
Pennsylvania	1,882	1,860	1,734	1,576	1,535	19.1	19.1	18.0	16.6	16.7
Rhode Island	154	131	127	133	113	21.5	18.6	18.3	19.6	16.9
South Carolina	251	279	192	179	167	13.5	15.1	10.5	9.9	9.5
Tennessee	382	345	312	278	232	15.3	13.9	12.6	11.4	9.6
Utah	123	79	80	89	81	23.2	15.1	15.6	17.7	16.7
Vermont	69	60	45	56	48	19.6	17.0	12.8	15.9	13.6
Virginia	412	376	303	271	240	16.0	14.8	12.0	10.9	9.9
Washington	424	365	342	299	265	26.7	23.4	22.2	19.8	18.2
West Virginia	283	298	231	208	.....	16.4	17.6	13.8	12.7	.....
Wisconsin	620	511	384	397	363	21.0	17.5	13.3	13.9	13.1
Wyoming	59	66	56	67	59	23.9	27.4	23.7	29.3	27.2

The totals do not include deaths from collisions with trains and street cars, in 1928 numbered 2,583. Auto liabilities in Great Beitain (1926) 4,346; (1927) 4,719; (1927) 5,479.

CIGAR, CIGARETTE, TOBACCO MANUFACTURES IN THE UNITED STATES.

Year. Cal. except as to Tax.)	Cigars.		Cigarettes.		Tobacco and Snuff.	Total Leaf Tobacco Used.	Revenue Tax.	
	Ordinary Sizes.	Very Small.	Very Large.	Ordinary Sizes.			Total.	Per Cap.
	Number.	*Number.*	*Number.*	*Number.*	*Pounds.*	*Pounds.*	*Dollars.*	*Dollars.*
1914	7,174,191,944	1,074,699,103	13,894,359	16,855,626,104	440,935,721	554,850,499	.....	.....
1915	6,599,188,078	965,135,187	15,816,210	17,964,348,272	442,359,219	551,687,780	79,764,071	0.795
1916	7,042,127,401	890,482,790	22,192,700	25,290,293,911	466,165,728	601,604,839	88,063,947	.863
1917	7,559,890,349	967,228,920	24,596,110	35,331,264,067	482,976,984	658,066,105	103,201,592	.995
1918	7,053,549,402	847,466,421	23,413,857	46,656,903,224	497,079,920	708,736,684	156,188,659	1.483
1919	7,072,357,021	713,235,870	31,888,910	53,119,784,232	424,068,785	670,921,110	206,003,091	1.928
1920	8,096,758,663	633,222,232	28,038,552	47,430,105,055	412,629,566	668,835,861	295,809,355	2.779
1921	6,726,095,483	670,482,748	14,518,266	52,085,011,560	386,951,026	633,731,981	255,219,385	2.367
1922	6,722,354,177	632,906,635	17,450,456	55,763,022,618	419,506,105	619,517,231	270,769,394	2.478
1923	6,950,247,389	505,305,490	18,065,858	66,715,830,430	412,776,875	662,063,717	309,015,492	2.792
1924	6,597,676,535	530,714,332	16,054,285	72,708,989,025	414,178,378	669,103,292	325,638,931	2.863
1925	6,463,193,108	447,089,170	17,428,307	82,247,100,347	413,872,969	692,099,176	345,247,211	2.992
1926	6,498,641,233	412,314,795	13,239,765	92,096,973,926	410,596,716	712,557,354	370,666,439	3.164
1927	6,576,710,857	469,159,880	12,079,875	92,973,506,907	399,849,790	744,288,207	376,170,205	3.171
1928	6,483,079,639	401,135,960	10,512,743	100,581,773,100	390,149,892	754,624,812	396,450,041	3.293

PRINTING AND PUBLISHING IN THE UNITED STATES.

(Data for establishments with products under $5,000 in value included for 1919 and 1914.)

Year (Cal.)	Establishments.	Wage Earners.	Wages.	Value of Products.
The Ind'try as a Whole	*No.*	*No.*	*Dollars.*	*Dollars.*
1927	22,542	261,671	473,221,233	2,507,425,913
1925	21,056	251,272	438,832,974	2,269,638,230
1923	20,452	246,455	399,387,583	2,021,355,739
1921	20,318	229,489	356,670,960	1,827,809,475
1919	30,611	244,285	286,751,404	1,536,408,283
1914	31,612	228,369	167,547,933	810,508,075
Book & Job				
1927	11,450	141,278	240,392,870	906,468,767
1925	10,322	133,316	219,830,346	806,887,417
1923	10,075	129,390	201,216,502	738,227,363
1921	9,758	121,055	181,065,572	690,074,975
1919	13,089	123,005	141,476,243	597,663,228
1914	12,115	113,121	78,413,700	307,330,861
Music.				
1927	119	994	1,677,680	15,881,634
Music (cont'd)				
1925	109	955	1,461,661	15,089,636
1923	110	919	1,366,756	14,626,810
1921	107	900	1,246,863	14,024,672
1919	160	899	926,988	14,592,177
1914	180	873	572,985	7,271,266
Newspapers and Periodicals				
1927	10,973	119,399	231,150,683	1,585,075,512
1925	10,625	117,001	217,540,967	1,447,661,177
1923	10,267	115,646	196,804,325	1,268,501,566
1921	10,453	107,534	174,358,525	1,123,709,328
1919	17,362	120,381	144,348,173	924,152,878
1914	19,317	114,375	88,561,248	495,905,948

In 1927, newspapers received $252,811,104 from sales and subscriptions, and $724,837,083 from advertising.

Periodicals other than newspapers, received, in that year, $176,656,040 from subscriptions and sales, and $305,383,936 from advertising.

In 1927, books published in the United States numbered 227,495,544, classified as follows—text books, 83,849,664; juvenile, 31,047,094; agriculture, 282,861; biography, 3,075,121; fiction, 36,553,507; fine arts, 943,952; history, 1,462,193; law, 2,493,510; medicine, 1,168,755; poetry and drama, 6,281,165; religion and philosophy, 22,220,536; science and technology, 2,392,044; sociology and economics, 875,191; travel, 1,190,569; miscellaneous, 33,659,382.

PUBLIC, SOCIETY, AND SCHOOL LIBRARIES IN THE U. S.

Libraries reporting 3,000 volumes or more in 1926 to the U. S. Bureau of Education.

States.	Libs.	Volumes.	Est. pop. July 1, '26.	Pop. per lib.	Bks. 100 p.
U. S.	5,469	140,402,069	117,136,000	21,414	119
Ala.	49	948,080	2,526,000	51,551	37
Ariz.	21	379,788	445,000	21,190	85
Ark.	29	536,415	1,903,000	65,620	28
Cal.	327	11,497,927	4,316,000	13,198	277
Col.	72	1,484,736	1,059,000	14,737	140
Conn.	143	4,911,197	1,606,000	11,230	305
Del.	10	316,262	240,000	24,000	131
D. of C.	100	8,143,379	528,000	5,280	1,542
Fla.	25	412,326	1,317,000	52,680	31
Ga.	71	1,052,744	3,139,000	44,211	33
Idaho	27	369,704	522,000	19,333	70
Ill.	284	8,742,944	7,203,000	25,362	121
Ind.	206	4,124,445	3,124,000	15,165	132
Iowa	174	3,199,731	2,423,000	13,925	132
Kan.	107	1,845,003	1,821,000	17,019	101
Ky.	67	1,223,400	2,524,000	37,671	48
La.	27	771,064	1,919,000	71,074	40
Me.	136	1,846,072	790,000	5,808	233
Md.	59	2,047,615	1,580,000	2,679	129
Mass.	435	15,052,803	4,197,000	9,648	358
Mich.	181	4,392,863	4,396,000	24,287	99
Minn.	130	3,131,001	2,651,000	2,039	118
Miss.	38	459,347	1,790,618	47,121	25
Mo.	135	3,836,253	3,498,000	25,911	109
Mont.	40	654,306	695,000	17,375	94
Neb.	100	1,360,727	1,385,000	13,850	98
Nev.	6	181,100	77,407	12,901	233
N. H.	125	1,659,350	454,000	3,627	365
N. J.	185	4,571,459	3,680,000	19,837	124
N. M.	23	250,833	388,000	16,869	64
N. Y.	498	14,715,257	11,304,000	22,696	130
N. C.	74	961,481	2,858,000	38,620	33
N. D.	30	401,326	641,192	21,373	62
Ohio	245	8,809,012	6,600,000	26,938	133
Okla.	63	798,084	2,342,000	37,174	34
Ore.	74	1,567,953	877,000	11,851	178
Pa.	331	8,289,785	9,614,000	29,045	86
R. I.	72	1,842,292	693,000	9,625	265
S. C.	52	693,806	1,826,000	35,113	37
S. D.	45	552,618	689,000	15,311	80
Tenn.	48	1,240,325	2,468,000	51,416	50
Tex.	99	1,873,725	5,313,000	53,666	35
Utah	51	614,892	514,000	10,078	119
Vt.	87	1,047,099	352,428	4,050	297
Va.	62	1,348,255	2,519,000	40,629	53
Wash.	78	1,613,852	1,538,000	19,717	104
W. Va.	35	671,915	1,669,000	47,685	104
Wis.	177	3,621,594	2,885,000	16,299	125
Wy.	16	335,924	236,000	14,750	142

ROOSEVELT MEDAL WINNERS.

The Roosevelt Memorial Association, in 1929, awarded gold medals to: Owen D. Young, for his work in helping solve the problem of German reparations; Herbert Putnam, Librarian of Congress, for distinguished service in developing that institution into national scope and international renown; Owen Wister, author, for having "recorded for all time" the character and atmosphere of the "Wild West" in the last quarter of the 19th Century.

The Association, in 1928, awarded gold medals to: Former Secretary of the State Charles Evans Hughes for distinguished service in the administration of public office; to Dr. Frank M. Chapman, for the promotion of the study of natural history; and to Colonel Charles A. Lindbergh, for the leadership of youth and the development of American character.

The Association, in 1927, awarded gold medals to: Gen. John J. Pershing, for promotion of national defense; Secretary of Commerce Herbert C. Hoover, for distinguished service in the administration of public office; Prof. John Bassett Moore, for his work on the Permanent Court of Arbitration at The Hague and on the Permanent Court of International Justice of the League of Nations.

The Association's medal winners in 1926 were: Rear Admiral William S. Sims, U. S. N., retired, for service in behalf of national defense; Former U. S. Senator Albert J. Beveridge of Indiana, for an eminent contribution to literature in the field of biography; Daniel Carter Beard of New York, National Boy Scout Commissioner, for leadership of youth and development of American character.

The Association, in 1925, awarded gold medals to: Gov. Gifford Pinchot of Pennsylvania, for services in behalf of conservation of the Nation's natural resources; George Bird Grinnell, author and naturalist, for his work in promoting outdoor life; Miss Martha Berry, director of the Berry School in Georgia, for the promotion of the welfare of women and children.

The Association, in 1924, awarded gold medals to: Elihu Root, Secretary of State in President Roosevelt's Cabinet, for distinguished service in public office; Associate Justice Oliver Wendell Holmes, for his service in the development of public law; Charles W. Eliot, President Emeritus of Harvard, for service in the leadership of youth and development of American character.

The Association, in 1923, awarded gold medals to: Major General Leonard Wood, Governor General of the Philippines, for distinguished service in the promotion of the national defense; Henry Fairfield Osborn, President of the American Museum of Natural History, New York City, for the promotion of the study of natural history; Miss Louisa Lee Schuyler, founder and a leader of the New York State Charities Aid Association, for promotion of the welfare of women and children.

The ten fields in which the medals may be awarded are: Administration of public office; development of public and international law; promotion of industrial peace; conservation of natural resources; promotion of social justice; the study of natural history; the promotion of outdoor life; the promotion of the national defense; the leadership of youth and the development of American character, an eminent contribution to literature in the field of biography, history or the science of government.

NEAR EAST RELIEF, 1915-1929.

(Official Statement Prepared for The World Almanac, by Allen McMahon, in charge of Information Service, Near East Relief.)

On June 30, 1929, Near East Relief, organized in 1915 and chartered by special act of the United States Congress in 1919, terminated fourteen years of public campaigning for funds for emergency relief, on the ground that the era of drives for war relief and post-war reconstruction had reached a logical end. It is estimated that two or three years more will be necessary to complete present responsibilities toward 20,043 children still inadequately provided for. Congress did not restrict the activities of Near East Relief to any period of time by the terms of its charter, but, although a total of $475,000 was lacking to complete the work, the executive committee determined to adhere to the terms laid down at the beginning of the recent campaign for $6,000,000, even though it was estimated that this amount was necessary to complete creditably the vast emergency and child welfare undertaking.

The figures of June 30, 1929, show that in the fourteen years of operation, receipts amounted to $91,173,074, and expenditures of $89,748,044 were made. Full disbursements also include an item of $12,800,000 worth of American Relief Association supplies transferred to Near East Relief for distribution, and another item of $5,000,000 representing property contributed for their use by overseas governments brings the total overseas investment up to $107,548,044, according to audited figures at the end of the fiscal year. The principles of finance and accounting from the beginning were those used by Herbert Hoover in the administration of Belgian relief.

It is estimated that the administration of the funds saved the lives of 1,500,000 people, 132,522 of whom were orphan children; that 12,500,000 persons were fed during famine periods; and that 6,000,000 received medical aid. Thirty hospitals were established and equipped at the chief centers of distress. In the orphanages and schools the children were registered, fed, clothed and given a practical education. More than thirty trades have been taught. Nurses' training schools, the first schools of their kind for women, were established in Greece and Armenia; the first schools for deaf mutes were also established; 263 teachers have been prepared for government schools in the Caucasus. In this work the organization has had the constant cooperation of the officials of each government, without which the results obtained would have been impossible. Service to communities has been included in the post-orphanage program, in the forms of clinics and health wagons and short term courses in agriculture and social welfare work, all available not only to outplaced children, but to all residents of the village communities.

Past areas of operation have included the Soviet Republics of Transcaucasia, Greece, Syria, Turkey, Persia, Mesopotamia, Egypt, Japan, Switzerland and France. The present centers of administration are Athens, controlling Greece and her islands, Constantinople, Bulgaria and Egypt; Leninakan (formerly Alexandropol), directing the work in Russian Armenia and Georgia; Beirut, supervising the areas of Syria, Palestine and Mesopotamia.

The headquarters of Near East Relief are at No. 151 Fifth Avenue, New York. The field administration is concentrated in five regional offices in different parts of the country, this skeleton organization succeeding the former campaign organization which had representatives in every state in the Union and Hawaii with whom 100,000 committeemen and other volunteer workers cooperated.

The officers of Near East Relief are: Chairman, James L. Barton; vice-chairman, John H. Finley; treasurer, Cleveland E. Dodge; general counsel, Frank L. Polk; members of executive council, Barclay Acheson, Laird W. Archer, William E. Doughty, H. C. Jaquith, and E. C. Miller. The executive committee consists of Edwin M. Buckley, chairman; James L. Barton, Cleveland E. Dodge, John H. Finley, Harold A. Hatch, William B. Millar, Henry Morgenthau, George A. Plimpton, Albert Shaw and Charles V. Vickrey.

Governments in several areas of operation have requested a continuation of certain departments of the work with government cooperation; chiefly in agriculture, medicine and social welfare. This will be the task of the future. For this purpose the executive committee of Near East Relief has created a sub-committee called the Conservation Committee, which will assume the responsibility, of seeing all those children who are still in orphanages or outplaced under subsidy and supervision securely rooted into the social structure of the countries in which they live; and it will take under advisement the projects suggested by the requests of the overseas governments.

The Conservation Committee will operate from headquarters in New York, under the chairmanship of Cleveland E. Dodge. Its other members are: James L. Barton, Edwin M. Bulkley, Thomas Jesse, Jones, Paul Monroe, O. S. Morgan, Otis W. Caldwell, Albert W. Staub, Barclay Acheson, secretary.

SUPPLY OF PHYSICIANS IN THE UNITED STATES.

(From data gathered by Journal of the American Medical Association.)

State and Rank.	No. Physicians.	No. per 10,000 pop.	No. per 100 sq. m.	State and Rank.	No. Physicians.	No. per 10,000 pop.	No. per 100 sq. m.	State and Rank.	No. Physicians.	No. per 10,000 pop.	No. per 100 sq. m.
1. Dis. of Col..	1,848	34.22	2,980.64	18. Kan...	2,296	12.56	2.80	36. Utah..	516	9.88	.63
2. Calif..	8,854	19.97	5.69	19. Ohio..	8,287	12.35	20.34	37. Wyo..	238	9.87	.24
3. Colo...	1,805	16.81	1.74	20. Tenn..	3,016	12.14	7.24	38. Va....	2,506	9.84	6.22
4. Neva..	129	16.66	.12	21. Conn..	1,966	12.02	40.79	39. Miss..	1,680	9.38	3.62
5. N. Y..	18,634	16.31	39.10	22. Penn..	11,405	11.72	25.44	40. Ga....	2,935	9.26	5.00
6. Mo....	5,713	16.28	8.31	23. Ken...	2,971	11.71	7.39	41. N. M..	357	9.11	.29
7. Vt....	529	15.01	5.80	24. Wash..	1,807	11.57	4.49	42. Ala...	2,254	8.85	4.40
8. Md....	2,387	14.95	24.01	25. Mich..	5,145	11.46	8.95	43. S. Dak	603	8.66	.78
9. Illinois	10,893	14.93	19.44	26. Texas	6,123	11.35	2.33	44. Ariz..	393	8.56	.35
10. Mass..	6,242	14.72	77.65	27. Minn..	2,982	11.01	3.69	45. N. C..	2,328	8.04	4.89
11. Oregon	1,225	13.77	1.28	28. R. I...	779	11.07	73.01	46. N. D..	497	7.75	.71
12. Iowa..	3,302	13.62	5.94	30. La....	2,039	10.55	4.49	47. Idaho.	401	7.39	.48
13. Nebr..	1,846	13.22	2.40	31. Del...	251	10.33	12.77	48. Mont..	507	7.10	.34
14. Fla....	1,787	13.11	3.26	32. Okla..	2,458	10.31	3.54	49. S. Car.	1,309	7.09	4.29
15. Ind...	4,164	13.09	11.55	33. W. V..	1,747	10.30	7.27				
16. Maine.	1,029	12.98	3.44	34. N. J...	3,755	10.02	49.98	To. U. S..	149,521	12.65	4.94
17. N. H..	584	12.83	6.47	35. Wis...	2,896	9.92	5.24				

The number of graduates of medical schools has been —(1919) 2,656; (1920) 3,047; (1921) 3,192; (1922) 2,529; (1923) 3,120; (1924) 3,562; (1925) 3,974; (1926) 3,962; (1927) 4,035; (1928) 4,262.

In 1926-1927 school year 63 of the leading medical schools in this country took in $11,983,873 (of which $4,057,304 were students' fees); and paid out $11,308,800, of which $5,469,214 went to the teachers.

WORLD'S AVERAGE ANNUAL TOBACCO PRODUCTION.

Country.	Produc.	Country.	Produc.	Country.	Produc.	Country.	Produc.
	1,000 lbs.		*1,000 lbs.*		*1,000 lbs.*		*1,000 lbs.*
Algeria	37,468	Dutch E. Ind.	95,583	Jugoslavia	36,825	Russia	20,230
Argentina	26,451	France	55,849	Korea	27,973	Santo Domingo	19,498
Brazil	158,850	Germany	43,512	Mexico	21,683	Syria	2,414
Belgium	10,514	Greece	99,658	Philippines	86,565	Turkey	88,245
Bulgaria	58,489	Hungary	35,597	Porto Rico	23,172	Un. of S. Africa	10,828
Canada	19,801	Italy	63,435	Paraguay	23,557	United States	1,268,566
Cuba	46,880	Japan	138,206	Roumania	29,632		

MARRIAGES AND DIVORCES IN THE UNITED STATES.

(All of the Marriage and Divorce data that follow are from the United States Census Bureau.)

Year.	Marriages		Divorces.			Year.	Marriages		Divorces.		
	No.	Per 1,000 Pop.	No.	Per 1,000 Pop.	Per 100 Mr'g's		No.	Per 1,000 Pop.	No.	Per 1,000 Pop.	Per 100 Mr'g's
1887.....	482,680	8.67	27,919	0.47	5.5	1908.....	857,461	9.63	76,852	0.86	9.0
1888.....	504,373	8.85	28,669	0.48	5.4	1909.....	897,345	9.89	79,671	0.88	8.9
1889.....	530,937	9.11	31,735	0.52	5.7	1910.....	948,166	10.28	83,045	0.90	8.8
1890.....	542,307	9.05	33,461	0.53	5.9	1911.....	955,287	10.20	89,219	0.95	9.3
1891.....	562,004	9.19	35,540	0.55	6.0	1912.....	1,004,602	10.56	94,318	0.99	9.4
1892.....	577,335	9.15	36,579	0.56	6.1	1913.....	1,021,398	10.58	91,307	0.95	8.9
1893.....	578,457	8.97	37,468	0.56	6.2	1914.....	1,025,092	10.47	100,584	1.03	9.8
1894.....	565,798	8.60	37,568	0.55	6.4	1915.....	1,007,595	10.14	104,298	1.05	10.4
1895.....	598,633	8.92	40,387	0.58	6.5	1916.....	1,075,775	10.68	114,000	1.13	10.6
1896.....	613,719	8.96	42,937	0.61	6.8	1917.....	1,144,200	11.20	121,564	1.20	10.6
1897.....	622,112	8.92	44,699	0.62	7.0	1918.....	1,000,109	9.65	116,254	1.12	11.6
1898.....	625,253	8.81	47,849	0.65	7.4	1919.....	1,150,186	10.95	141,527	1.35	12.3
1899.....	650,585	9.00	51,437	0.69	7.7	1920.....	1,274,476	11.98	170,505	1.60	13.4
1900.....	685,101	9.32	55,751	0.73	7.9	1921.....	1,163,863	10.73	159,580	1.47	13.7
1901.....	716,287	9.57	60,984	0.79	8.2	1922.....	1,134,151	10.32	148,815	1.35	13.1
1902.....	746,364	9.80	61,480	0.78	8.0	1923.....	1,229,784	11.01	165,096	1.48	13.4
1903.....	785,926	10.15	64,925	0.81	8.0	1924.....	1,184,574	10.42	170,952	1.50	14.4
1904.....	780,856	9.92	66,199	0.81	8.2	1925.....	1,188,334	10.30	175,449	1.52	14.8
1905.....	804,016	10.04	67,976	0.82	8.2	1926.....	1,202,574	10.27	180,853	1.54	15.0
1906.....	853,079	10.47	72,062	0.86	8.2	1927.....	1,201,053	10.12	192,037	1.62	16.0
1907.....	936,936	10.71	76,571	0.88	8.2	1928.....	1,182,497	9.85	195,939	1.63	16.5

Children of parents divorced numbered—(1922) 92,643; (1923) 106,060; (1924) 109,105; (1925) 112,350; (1926) 116,378; (1927) 122,240.
Annulments—(1926)3,825; (1927)4,255; (1928)4, 226

MARRIAGES AND DIVORCES IN 1928.

State.	Marriages.			Divorces.		Annul-m'ts.	State.	Marriages.			Divorces.		Annul-m'ts.
	No.	*Per 1,000 pop.*	*Per Di-vor.*	*No.*	*(Per 1,000 pop.*	*No.*		*No.*	*Per 1,000 pop.*	*Per Di-vor.*	*No.*	*(Per 1,000 pop.*	*No.*
Alabama...	28,853	11.2	7.6	3,817	1.48	.....	Nevada....	4,168	53.8	1.6	2,595	33.52	43
Arizona....	6,400	13.5	6.0	1,062	2.24	19	N. Hamp..	4,796	10.5	6.8	706	1.55	9
Arkansas..	27,485	14.1	6.1	4,498	2.31	8	New Jersey	29,120	7.62	9.2	3,170	0.83	82
California..	46,945	10.3	3.3	14,431	3.17	1,441	New Mex..	4,892	12.4	6.8	715	1.81	12
Colorado..	12,065	11.07	5.1	2,362	2.17	61	New York.	114,348	9.9	21.6	5,293	0.46	990
Connecticut	11,650	7.0	9.1	1,276	0.77	21	No. Car....	21,373	7.3	13.3	1,609	0.55	29
Delaware..	1,153	4.73	6.2	185	0.76	4	No. Dakota	4,269	6.7	9.3	461	0.72	7
Dist. of Col.	5,298	9.6	52.5	101	0.18	21	Ohio.....	59,339	8.7	4.1	14,643	2.15	64
Florida....	18,032	12.8	5.1	3,516	2.49	19	Oklahoma..	28,472	11.7	3.7	7,762	3.20	172
Georgia....	30,400	9.5	14.0	2,174	0.68	31	Oregon....	7,625	8.5	2.5	3,053	3.38	29
Idaho.....	4,636	8.49	4.5	1,032	1.89	25	Penn'vania.	67,640	6.9	8.5	7,957	0.81	57
Illinois....	79,725	10.8	5.1	15,703	2.12	172	Rhode Is...	5,111	7.1	7.2	707	0.99	.....
Indiana....	40,960	12.9	5.2	7,885	2.48	93	So. Car....	25,026	13.4	.....	.....	.....	.....
Iowa.....	20,529	8.5	5.0	4,076	1.68	26	So. Dakota.	6,738	9.6	9.0	750	1.07	5
Kansas....	19,679	10.7	4.8	4,081	2.22	28	Tennessee..	33,672	13.46	6.8	4,985	1.99	10
Kentucky..	29,065	11.4	6.3	4,610	1.81	13	Texas.....	76,340	13.9	4.2	18,073	3.29	155
Louisiana..	18,427	9.4	9.6	1,913	0.98	13	Utah.....	5,844	11.01	5.7	1,022	1.92	31
Maine.....	6,178	7.8	4.7	1,315	1.654	8	Vermont...	2,997	8.5	7.6	396	1.12	.....
Maryland..	24,226	15.0	12.3	1,976	1.22	26	Virginia....	21,406	8.3	7.3	2,952	1.15	22
Mass'etts..	29,082	6.8	8.0	3,646	0.85	63	Washington	18,833	11.9	4.1	4.554	2.87	58
Michigan..	37,300	8.12	3.5	10,531	2.29	82	West Vir...	18,361	10.7	8.9	2,071	1.20	41
Minnesota.	23,249	8.5	8.2	2,844	1.04	29	Wisconsin.	15,937	5.4	6.0	2,673	0.91	67
Mississippi.	30,263	16.9	10.1	3,007	1.68	3	Wyoming..	1,808	7.3	2.4	748	3.03	8
Missouri...	37,056	10.5	3.7	10,089	2.86	40							
Montana...	5,794	10.6	4.2	1,376	2.51	27	U. S.....	1,182,497	9.85	6.0	195,939	1.63	4,226
Nebraska...	9,932	7.05	6.5	1,538	1.09	54							

MODERN FICTION, WHAT IS IT?

(From an Article headed "Blah" in the Princeton University Press Almanac for April, 1929.)

The Princeton University Press does not publish novels, but members of its organization are able to read and sometimes their reading is modern fiction.

And some of them, at least, are coming more and more to the opinion that most modern fiction is scarcely worth reading, not because it is badly written (as some of it is), but because it deals with such uninteresting and unimportant subjects.

Dull people wander through the pages of these books, doing dull things; many of them find life a harsh and bitter experience, but they seldom stir themselves to the point of doing anything about it.

What comes to them they take—as the current phrase puts it—lying down, and when the tale of their harrowing, tragic lives is brought to a close the reader feels that they have deserved all they got.

But have they deserved to have books written about them.

It is much easier to write of sordid than of beautiful things.

Almost anyone can write a pretty good description of the reek of a garbage dump; the only essential qualification is a normal nostril.

Very few can do justice to the perfume of a rose, for that requires not merely a sense of smell but an understanding heart.

We are not, by the way, here pleading for a return to the piping times of sweetness and light; but by the same token we are decidedly against the prevalent fad of dullness and futility.

So many modern writers take the position that because there are more uninteresting than interesting people in the world, they are depicting "life" when they write of the commonplace persons amongst us.

Possibly true, but scarcely important. They think there is more hardship in the world than pleasure, and more ugliness than beauty.

That is as may be.

We, on our part, suspect that most writers are as commonplace as the people and scenes they portray, and that they cannot do justice to the more difficult characters who, though they may be in the minority, exercise a far greater influence on "life" than all the other 99.44% of humanity put together.

Why waste time on something which when all is said and done amounts to nothing, anyway?

The same line of thought can be extended to "scholarly" books.

There are about 25,000 scholarly journals published throughout the world, 2,500 of them in the United States.

RELIGIOUS CENSUS IN NEW YORK STATE.

The Roman Catholic population of New York State is reported by the U. S. Census Bureau as 3,115,424, and the Jewish as 1,889,597.

The census was begun in 1926. It is the third decennial count of religious bodies, previous censuses having been taken in 1916 and 1906.

The Roman Catholic population represents a growth of 369,872 since 1916, when it was reported as 2,745,552. It was 2,689,139 in 1906. The number of churches is 1,783, as compared with 1,496 in 1916.

The Roman Catholic population is 92 per cent. urban. The value of the edifices is $177,022,018 and parsonages, $24,342,114. The total amount raised by the Roman Catholic churches of the state during the year was $40,362,298, of which $36,158,770 was for current expenses and improvements.

The total Jewish population was not reported in 1916 and 1906, only the heads of families having been enumerated. The number of congregations in the state is 1,228, as compared with 798 in 1916 and 378 in 1906. The Jewish population is almost entirely urban, less than one-half of one per cent. being rural. Valuation of synagogues is $41,798,309.

The total amount raised in the year by 381 Jewish congregations was $8,890,824.

The reported membership of the Protestant denominations in New York State is 1,725,000.

The largest Protestant denomination in New York State is the Methodist Episcopal, with 1,930 churches and 345,307 communicant members, of whom 94.6 are more than twelve years old.

The number of Methodist Episcopal churches has dropped from 2,126 in 1916 and 2,193 in 1906. The membership in 1916 was 328,250 and in 1906, 291,919. The membership is 62 per cent. urban. The proportions by sex are 64.3 males to every 100 females.

The value of the edifices is given as $48,590,055, and of the parsonages, $1,117,061. The total amount raised in the census year was $10,532,331, of which $7,898,546 was for current expenses and improvements, and $2,631,813 for benevolences.

The Protestant Episcopal churches in the state number 882. The number in 1916 was 876 and in 1906 it was 829. The membership, on the basis of all baptized persons, including infants, is 354,700, of whom 74.1 per cent. are thirteen or older. The communicant membership in 1916 was 227,685 and in 1906 it was 193,890. The membership is 85 per cent. urban and the proportion of males to females is 76.4 to 100.

The value of the edifices is $102,341,631 and of parsonages, $6,904,465. The total amount raised in the year was $9,778,781, of which $7,912,692 was for current expenses and improvements, and $1,865,770 for missions and other benevolences.

The New York State churches of the Presbyterian Church in U. S. A. number 813, as compared with 858 in 1916 and 850 in 1906. The communicant membership is reported as 243,845, of whom 97.8 per cent. are thirteen or older. The membership in 1916 was 224,843 and in 1906, 188,115. The membership is 76 per cent. urban, and the proportion of males to females is 64.9 to 100.

The value of the edifices is $63,938,684, and of the parsonages, $5,300,100. Total amount raised in the year was $10,426,583, of which $7,563,537 was for current expenses and improvements, and $2,859,312 was for missions and other benevolences.

The Northern Baptist Convention has 857 churches in the state, as compared with 942 in 1916, and 1,028 in 1906. The communicant membership, as reported at the last census, of whom 97.1 per cent. are thirteen or older, is 161,142; in 1916 the membership was 183,330, and in 1906 it was 171,857. The membership is 69 per cent. urban and the proportion of males and females is 63.7 to 100.

The value of the edifices is $35,060,962 and of the parsonages, $3,089,776. The total amount raised in the year was $5'329-896 of which $4,284,849 was for current expenses and improvements, and $1,045,047 for missions and other benevolences.

The United Lutheran Church has 297 churches in the state. The three bodies which merged to form the United Church in 1918 had, in 1916, 279 churches in New York State. The membership of 147,508 reported at the last census includes all baptized persons, children and adults connected with the congregations. Those who are thirteen years of age and older comprise 72.2 per cent. The communicant membership of the original bodies in 1916 was 90,917. The membership is 88 per cent. urban, and the proportion of males to females is 76.5 to 100.

The value of the edifices is $17,057,281, and of that the parsonages is $2,036,500. The total raised in the year was $3,115,347, of which $2,667,071 was for current expense and improvements, and $448,276 was for missions and other benevolences.

The churches in New York State belonging to the Lutheran Synodical Conference number 170, as compared with 131 in 1916, and 130 in 1906. The membership of all baptized persons, adults and children, reported this last census was 61,248, of whom 67.1 per cent. were thirteen years old or over. The communicant membership in 1916 was 36,819, and in 1906 it was 32,723. The membership is 82 per cent urban and the proportion of males to females is 81.7 to 100.

The value of the edifices is $7,011,038, and of the parsonages, $960,650. The total raised in the census year was $1,291,222, of which $1,108,440 was for current expenses and improvements, and $182,618 for missions and other benevolences

There are 230 Congregational churches in the state, as compared with 306 in 1916, and 302 in 1906. The communicant membership is 69,787, of whom 98.3 per cent. are thirteen or older. The membership in 1916 was 65,021, and in 1906 it was 57,351. The membership is 75 per cent. urban, and the proportion of males to females is 60.3 to 100.

The value of the edifices is $26,571,080, and of the parsonages $1,248,965. The total amount raised in the census year was $2,074,395, of which $1,705,483 was for current expenses and improvements, and $358,057 for missions and other benevolences.

The Reformed Church in America has 294 churches in the state, as compared with 300 in 1916, and 297 in 1906. The communicant membership is 62,855, of whom 98.5 per cent. are thirteen or older. The membership in 1916 was 66,773, and in 1906 it was 63,350. The membership is 67 per cent. urban and the proportion of males to females is 69 to 100.

The value of the edifices is $22,729,482, and of the parsonages $2,038,850. The amount raised in the census year was $2,372,394, of which $1,941,060 was for current expenses and improvements, and $423,605 for missions and other benevolences.

Among the other denominations and sects included in the census are:

	Churches.	Members.
American Ethical Union	2	1,893
American Theosop. Society	18	662
Baha'is	5	245
Christian Church, Gen. Conv.	62	4,577
Church of Christ, Scientist	141	11,530
Disciples of Christ	59	12,479
Evangelical Church	62	7,762
Evangelical Synod of No. America	66	23,592
Latter-Day Saints (Mormons)	9	1,457
Negro Churches, Baptist	111	46,823
Negro Churches, A. M. E.	58	10,516
Polish Natl. Catholic Church of Amer.	10	9,706
Reformed Church in U. S.	25	7,105
Salvation Army	95	8,258
Society of Friends, Orthodox (Quakers)	25	3,085
Spiritualists	83	6,244
Seventh Day Adventists	81	5,271
Unitarians	26	5,144
Universalists	68	8,099
Volunteers of America	14	1,900

MILITARY ORDER OF THE LOYAL LEGION OF THE UNITED STATES.

Commander in Chief—Master Robert M. Thompson, U. S. N., 16 E. 43rd St., N. Y. City; *Senior Vice Commander in Chief*—Brig. Gen. Samuel W. Fountain, U. S. A., Lincoln Court, Overbrook, Philadelphia, Pa., *Junior Vice Commander in Chief*—Brevet Maj. George Mason, U. S. V., 133 W. Washington St., Chicago, Ill.

Recorder in Chief—Brevet Captain John O. Foering, U. S. V., 1805 Pine St., Philadelphia, Pa.; *Registrar in Chief*—Mr. Graname H. Powell, (Hereditary), 1701 H St., N. W. Washington, D. C.; *Treasurer in Chief*—Capt. William P. Wright, U. S. V., 122 East 31st St., Chicago, Ill.

Chancellor in Chief—Brevet Captain John O. Foering, U. S. V., 1805 Pine St., Philadelphia, Pa.; *Chaplain in Chief*—Rev. Alexander Leo (Hereditary), 4581 Torresdale Ave., Philadelphia, Pa.

Council-in-Chief—Brig. Gen. Edward S. Godfrey, U. S. A., Cookstown, N. J.; Act. Asst. Paymaster, Henry M. Rogers, U. S. N., 11 Beacon St., Boston, Mass.; Brevet Lieut. Col. William S. Cogswell, U. S. V., 140 Nassau St., N. Y. City; Capt Harry S. Howard (Hereditary), Van Ness House, Burlington, Vt.; Col. Robert L. Messimer (Hereditary), 32 Lakeview Road, Grosse Pointe Farms, Mich.

The Military Order of the Loyal Legion of the United States was organized by officers and ex-officers of the Army, Navy and Marine Corps of the United States who took part in the war of 1861-65.

There were 3,651 members of the Legion on April 30,1929, of whom 3,243 held heridetary memberships.

On the date named, 408 of the original members survived.

HOLDERS OF INSURANCE POLICIES EXCEEDING $1,000,000.

Policy holders and beneficiaries received $2,057,000,000 from life insurance companies in the United States and Canada, an increase of $311,000,000 over 1927. Payments of the life insurance companies in New York State aggregated $327,500,000, while in New York City payments totaled $68,046,000, according to the *National Underwriter*. Only a small proportion of the total life insurance payments in 1928 was represented by large policies.

The largest payment was on the life of Rodman Wanamaker, whose insurance amounted to $5,823,450. Mr. Wanamaker for many years was noted as the most heavily insured man in the world, although with the adaptation of life insurance to protect business enterprises, a number of individuals are reputed to carry more than was paid on Mr. Wanamaker's death. In addition, Mr. Wanamaker, during his lifetime matured some large endowment policies, his early insurance being on the endowment plan.

Benjamin Dansard of Detroit and Monroe, Mich., left $4,510,000 in life insurance. Next with $1,125,000 was William J. Burke of Portsmouth, Ohio, president of the Vulcan Last Company; Thomas A. DeVilbiss of Toledo, Ohio, left $1,032,000, John M. Coward of New York and Glen Ridge, N. J.

Holders of policies aggregating $1,000,000 and over are listed to the number of 323 by the *Spectator* in its issue of Sept. 19, 1929. The names and the amount of insurance carried by each of the 180 whose individual policies exceed $1,000,000 are given as follows:

$7,000,000—Pierre S. Du Pont, Wilmington, Del.
$6,540,000—John C. Martin. (*a*) Philadelphia, Pa.
$6,500,000—William Fox, (*a*) New York.
$5,250,000—Joseph M. Schenk, (*a*) New York.
$5,000,000—Frank P. Book, (*a*); Herbert V. Book, (*a*); and J. Burgess Book, (*a*) all of Detroit, Mich.; Jesse Lasky, (*a*) New York, James H. Rank, Jr., (*a*) Buffalo, N. Y.; Adolph Zukor, (*a*) New York
$4,500,000—William Ziegler, (*a*) New York
$4,096,500—Charles Stewart Mott Foundation, Detroit, Mich.
$4,000,000—Marshall Field III, (*c*) Chicago, Ill.; C. F. Kettering, (*a*) Dayton, Ohio.
$3,890,000—Ralph Jonas, Brooklyn, N. Y.
$3,850,000—A. H. Landwehr, Holland, Mich.
$3,810,000—F. B. Patterson, (*a*) Dayton, Ohio.
$3,500,000—Snellenburg & Co., Philadelphia, Pa.
$3,250,000—Mrs. Henry E. Yeiser, Cincinnati, O.
$3,175,000—James M. Hoyt, New York City.
$3,050,000—Joseph P. Day, New York City.
$3,000,000—Herbert J. Yates, (*c*) New York; Edward M. Harris, Philadelphia, Pa.; Rogers Caldwell, New York and Nashville, Tenn.; Floyd L. Carlisle, (*c*) New York; Dr. Nicholas C. Partos, New York; Charles Webb's Sons, Philadelphia, Pa.; Julius Fleischmann, Jr., Cincinnati, O.; Percy Rockefeller, New York; Mrs. Mollie Newbury, (*b*) Chicago, Ill.; Mrs. E. G. Burkham, St. Louis, Mo.; Motty Eltingon, (*a*) New York
$2,830,000—James C. Penney, (*a*) New York.
$2,804,000—Joshua Cosden, Baltimore, Md. and New York.
$2,600,000—Duttee Wilcox Flint, (*a*) Providence, R. I.
$2,500,000—Jacob Welkel, (*d*) Atlantic City, N. J.; E. E. Bensinger, (*b*) Chicago, Ill.; O. Y. Schnering, (*a*) Chicago, Ill. Alex M. Scales, Greensboro, No. Car.; Jay C. Hills, (*a*) Chicago, Ill. and Los Angeles, Calif.; Walter W. Head, (*a*) Omaha, Neb.; Harry M. Warner, (*a*) New York; Mrs. Marshall Field III, Chicago, Ill.
$2,485,000—Charles F. Noyes, (*a*) New York.
$2,425,000—Samuel L. Rothafel, (*a*) New York.
$2,303,000—John McE. Bowman, (*a*) New York.
$2,300,000—George K. O'Donnell, (*b*) New York.
$2,250,000—Charles R. Blyth*es*, San Francisco, Calif.; H. L. Gary, Kansas City, Mo.
$2,150,000—John A. Carroll, Chicago, Ill.
$2,100,000—Henry Mandel, (*a*) New York City; C. F. Williams, Cincinnati, Ohio; Donald Woodward, Le Roy, N. Y.
$2,025,000—Fred Fisher, Detroit, Mich.
$2,018,500—George E. Merrick, (*a*) Miami, Fla.
$2,000,000—Seymour Knox, Buffalo, N. Y.; Irving L. Isaacs, (*c*) New York City; A. F. Adams, (*c*) Kansas City, Mo.; Albert M. Greenfield, (*a, c*) Philadelphia, Pa.; Clarence Saunders, (*a*) Memphis, Tenn.; John W. Blodgett, (*a*) Grand Rapids, Mich.; W. Irving Moss, New Orleans, La.; Arthur J. Morris, Albany, N. Y.; David Stern (*a*), Philadelphia, Pa.; Lewis, S. Carpenter, San Francisco, Cal.; Sydney Shoenburg, St. Louis, Mo.; E. W. Marland, Ponca City, Okla.; Morris White, New York; John Barrymore, New York City; Walter Schroeder, (*a*) Milwaukee, Wis.; Walter Strong, (*b*) Chicago, Ill.; R. A. Long, (*b*) Kansas City, Mo.; Clarence H. Mackay, New York; William R. Coe, New York; Julius Rosenwald, Chicago, Ill.; Hanover Shoe Factory, (*b*) Hanover, Pa.
$1,900,000—W. M. Burgess, Omaha, Neb.
$1,840,000—George Brandeis, (*a*) Omaha, Neb.
$1,800,000—Edwin S. Jordan, Cleveland, Ohio; Harry Duñn, New York; Richard H. Webber, Detroit, Mich.; Louis F. Swift, Chicago, Ill.; John N. Willys, (*a*) Toledo, Ohio.
$1,750,000—Cecil B. DeMille, (*a*) Los Angeles, Cal.; C. Wilbur Miller, Baltimore, Md.; T. E. Hambleton, Baltimore, Md.; Arthur Reis, New York City; Victor H. Hanson. (*a*) Birmingham, Ala.
$1,600,000—Edwin F. Greene, Boston, Mass.; Norman A. Perry, Indianapolis, Ind.; Jack Kaplan, New York City.
$1,500,000—Gov. Frank G. Allen, (*c*) Boston, Mass.; J. K. Lilly, Jr., Indianapolis, Ind.; Harold C. Keith, Brockton, Mass.; George E. Nicholson, Kansas City, Mo.; Jay R. Monroe, (*a*) Orange, N. J.; Doherty Silk Mills, (*b*) Paterson, N. J.; Nathan S. Jonas, Brooklyn, N. Y.; Christian R. Lindback, (*a*) Philadelphia, Pa.; Martin M. Pearlman, Philadelphia, Pa.; Morris L. Clothier, (*a*) Philadelphia, Pa.; Alfred Decker & Cohen, (*a*) Chicago, Ill.; Charles E. Mitchell, New York; Collins & Aikman, (*b*) Philadelphia, Pa.; Irvin S. Chanin, (*a*) New York; Henry I. Chanin, New York; Harry Busick, (*b*) Baltimore, Md.; B. B. Sheffield, (*a*) Minneapolis, Minn.; Lit Brothers, (*b*) Philadelphia, Pa.; James C. Colgate, New York; Gimbel Brothers, (*b*) Philadelphia, Pa.; William Wrigley, Jr., Chicago, Ill. and Los Angeles, Cal.; H. H. Rogers, Jr., New York; Edgar L. Marston, New York; Fred F. Brewster, New Haven, Conn.; Chimney Rock Motors, Inc., (*b*) Lake Lune, No. Car.; J. W. Bettendorf, Bettendorf, Iowa; Mortimer Davis, New York; George E. Nicholson, Kansas City, Mo.; Paul Schoelkopf, Buffalo, N. Y.; Albert Warner, (*a*) New York City; Jack L. Warner, (*a*) New York City.
$1,453,500—J. M. West, Houston, Texas.
$1,450,000—Alfred C. Fuller, Hartford, Conn..
$1,400,000—P. E. Bowans, Montreal, Canada; Seth Marshall, (*a*) Duluth, Minn.
$1,385,000—William Candler, Atlanta, Ga.
$1,370,000—Percival E. Foerderer, Philadelphia, Pa.
$1,350,000—C. J. Jones, Dallas, Texas.
$1,336,000—Clarence E. Lintz, Dallas, Texas.
$1,300,000—Roy E Tilles, New York; Edward G. Lewis, Los Angeles, Cal.; Joseph Paterno, (*a*) New York.
$1,265,000—Edward J. Young, (*a*) Madison, Wis.
$1,250,000—John H. Jones, Mobile, Ala.; Axel H. Lonquist, Chicago, Ill.; Otis Skinner, New York; Joseph Keaton, (*a*) Los Angeles, Cal.; Joseph Himes, (*a*) Washington, D. C.
$1,225,000—Harold L. Arnold, (*a*) Los Angeles, Cal.
$1,200,000—Edward Landreth, Breckenridge, Tex.; C. Jackson Booth, Ottawa, Canada; Stuart Gammill, Jackson, Miss.; Chas. E. Virden, (*a*) San Francisco, Cal.; Chas. E. Walsey, New York; Robert Ducas, New York; A. D. Annis, Council Bluffs, Iowa; Dr. Benjamin J. Palmer, (*a*) Davenport, Iowa; S. B. Hatch, (*a*) Toronto, Canada; J. P . Abney, Greenwood, So. Car.; Edmund I. Kaufman, Washington, D. C.; E. Lansing Ray, St. Louis, Mo.; Jose L. Reyes, Havana, Cuba.
$1,152,500—J. Rogers Flannery, (*b*) Pittsburgh, Pa.
$1,148,000—Col. E. O. Thompson, Amarillo, Tex.
$1,141,500—William J. Cox, (*a*) New York.
$1,130,000—F. Harold Johnston, Bradford, Pa.; Frank A. Vanderlip, New York.
$1,250,000—Arthur Stebbins, (*a*) New York.
$1,113,000—Marie S. Smith, Kansas City, Mo.
$1,105,000—Adam Vogt, Louisville, Ky.
$1,100,000—Alba B. Johnson, Philadelphia, Pa.; Eric G. Gunstrom, Chicago, Ill.; R. (Le Roy) W. Wilson, Chicago, Ill.; Nels Shoan, Chicago, Ill.
$1,064,000—Carl Weeks, (*a*) Des Moines, Iowa.
$1,050,000—M. M. Travis, Tulsa, Okla.; Martin L. Davey, (*a*) Kent, Ohio.
$1,036,000—Charles E. Linz, Dallas, Texas.
$1,025,000—Jesse H. Jones, Houston, Texas.
$1,024,000—James Rolph, San Francisco, Cal.
$1,019,000—Harry L. Hussmann, Dallas, Texas.
$1,015,000—J. H. Barringer, Dayton, Ohio.

The list of the 143 carrying an even $1,000,000 life insurance as given by the *Spectator* follows:

(All *a. c.*) Hubbard F. Alexander, Seattle, Wash., Col. Luke Lea, Nashville, Tenn.; Gilbert Roland, New York City; Norbert A. Hoffman, Detroit, Mich.; J. Arthur Hoffman, Detroit, Mich.; Benjamin Titman, New York City; Hugo F. Arnold, Chicago, Ill.; Charles H. Holland, Philadelphia, Pa.; Adolph F. Linden, Seattle, Wash.; A. E. Lefcourt, New York City; and Abe White, New York City.

(*b. c.*) Anheuser-Busch, Inc., St. Louis, Mo.

(All *c*) Jules S. Bache, New York City; Asa G.

BIG HOLDERS OF LIFE POLICIES (Continued.)

Candler, Atlanta, Ga.; A. A Schlesinger, Milwaukee, Wis.; Col. Leroy Springs, Lancaster, So. Car.; Frederick Booth, Ottawa, Canada; and W. R. Bawlf, Winnipeg, Canada.

(All *a*) Will Rogers, Beverly Hills, Cal.; Richard R. Florian, Los Angeles, Cal.; Morris T. Baker, Minneapolis, Minn.; L. O. Crosby, Picayune, Miss.; Joseph R. Tucker, Camden, N. J.; Mary Pickford, Los Angeles, Cal.; Douglas Fairbanks, Los Angeles, Cal.; Constance Talmadge, Los Angeles, Cal.; H. D. Thomas, Los Angeles, Cal.; Richard W. Thomas, Los Angeles, Cal.; Eric Von Stroheim, Los Angeles, Cal.; Irving Fain, Brooklyn, N. Y.; Herbert Beesemeyer, Los Angeles, Cal.; Frederick A. Geier, Cincinnati, Ohio; Lorence Marx, New York City; C. B. Hays, Jackson, Mich.; and Eddie Rickenbacker, Detroit, Mich.

(All *b*) Howard Coonley, Boston, Mass.; Clarence Y. Palitz, New York City; Thomas E. Mitten, Philadelphia, Pa.; Jacques Vinmont, Los Angeles, Cal.; Charles H. McCormick, Los Angeles, Cal.; Michael Schwartz, Meriden, Conn.; Douglas Shoe Company, Boston, Mass.; Fred F. French, New York City; George K. Culp, New York City; William N. Greve, New York City; Watzek Brothers, Portland, Ore.; Louis Horowitz, New York City; Allis S. Fried, New York City; Bernard Bavis, Pittsburgh, Pa.; and Edward Weisel, Sr., San Antonio, Tex.

Others are, Meyer Davis, Washington, D. C.; Solon E. Summerfield, New York City; Harry Wardman, Washington, D. C.; Warren H. Snow, Grand Rapids, Mich.; Burton A. Howe, Grand Rapids, Mich.; Peter E. Martin, Detroit, Mich.; Elmer H. Maytag, Newton, Iowa; Maurice Pollak, Avondale and Cincinnati, Ohio; H. E. Pence, Minneapolis, Minn.; Alfred Schoellkopf, Buffalo, N. Y.; George W. Vanderbilt, New York City; John McCormack, New York City; William M. Armstrong, Los Angeles, Cal.; Edmund I. Kaufman, Washington, D. C.; Morris T. Baker, Minneapolis, Minn.; John J McGuirk, New York City; Ray E. Adams, Indianapolis, Ind.; James A. Buchanan, Texarkana, Ark.; W. W. Watson, Salina, Kan.; Ralph L. Pope, Boston, Mass.; Alfred H. Chapin, Boston, Mass.; Henry J. Simonson, Jr., Boston, Mass.; Robert L. Studley, Boston, Mass.; Sidney J. Weinberg, Brooklyn, N. Y.

Also, William H. Crocker, San Francisco, Cal.; Walter S. Dickey, Kansas City, Mo.; Harvey S. Firestone, Akron, Ohio; Fred Geier, Cincinnati, Ohio; Alfred Krippendorf, Cincinnati, Ohio; Charles F. Williams, Cincinnati, Ohio; Jonathan Warner, Warren, Ohio; Frank D. Fuller, Springfield, Mass.; William A. Morgan, Buffalo, N. Y.; Bernard M. Baruch, New York City; S. M. Vauclain, Philadelphia, Pa.; W. E. Lee, Tampa, Fla.; F. W. Johnstone, Charleston, W. Va.; Waite Phillips, Cimarron, New Mex.; L. H. Meeker, New York City; J. Ballantine, New York City; Fred O. Bezner, Detroit, Mich.; Nicholas F. Brady, New York City; Frank E. Campbell, Jr., New York City; Chas. E. Havener, New York City; Ery Kehaya, New York City; R. E. Hilles, New York City; H. P. Hollins, New York City; Herbert Kaufman, New York City; Lamont Du Pont, Wilmington, Del.; Fred P. Morrill, New Orleans, La.; A. G. Geohegan, New Orleans, La.; Sigmund Sonneborn, Baltimore, Md.; John W. Gilliland, Tulsa, Okla.; Sidney J. Bauman, New York City; Frank E. Gannett, Rochester, N. Y.; Thomas A. Gillespie, Pittsburgh, Pa.; E. R. Perry, Tulsa, Okla.; Harry H. Rogers, San Antonio, Tex.; Mrs. Ida Pabst, Milwaukee, Wis.; Frederick Pabst, Milwaukee, Wis.; Isadore J. Kressel, New York City; Randall Morgan, Philadelphia, Pa.; Hergert T. Gossard, Chicago, Ill.

Also, Samuel Insull, Chicago, Ill.; Eddy Weisl, New York City; Jack L. Warner, New York City,; Ben Sculberg, New York City; Walter S. Wanger, New York City; A. J. Drexel, Philadelphia, Pa.; A. J. Drexel-Biddle, Philadelphia, Pa.; Mrs. J. McCune, Pittsburgh, Pa.; Irenee Du Pont, Wilmington, Del.; T. E. Wilsn, Chicago, Ill.; Arthur S. Ford, Chicago, Ill.; T. F. H. Peavey, Minneapolis, Minn.; H. C. Kahl, Davenport, Iowa; James E. Davidson, Bay City, Mich.; John H. Castle, Detroit, Mich.; Louise Lathrop, Detroit, Mich.; Allen F. Moore, Monticello, Ill.; G. G. G. Peckham, Cleveand Ohio; Johnfritz Achelis, New York City; Raymond Bill, New York City; F. Donaldson Brown, New York City; Clifford Hemphill, New York City; Irving E. Raymond, New York City; Thomas S. Vietor, New York City; F. W. Leistikow, Winnipeg, Canada; Robert C. Winmill, New York City; X. M. Audebert, New York City; Herman Gardner, Milwaukee, Wis.; Eugene W. Fry, Philadelphia, Pa.; Norma Talmadge, Los Angeles, Cal.

Note—(*a*) includes business insurance; (*b*) business insurance; (*c*) amount of insurance exceeds sum given.

THE CARNEGIE FOUNDATION.

The Report of the Carnegie Foundation for the Advancement of Teaching shows that on June 30, 1928, the resources of the Foundation were $31,594,000, an increase of some $656,000 over the previous fiscal year.

Of this total, $16,301,800 are held as general endowment, $1,301,000 as resources of the Division of Educational Enquiry, $12,538,900 as a reserve for liquidating pension liabilities accruing after 19281 $854,000 to assist colleges and universities to adopt the contributory plan of retiring allowances, and $598,000 as an emergency reserve. All of the investments are in bonds.

During the year 1927-28 the Foundation began the payment of 82 new allowances and pensions of an annual value of $146,500 50 to former teachers and 32 widows.

The fifty professors retired at an average age of 67.46 years after an average service of 36 years. To them an annual total of $111,990 will be paid in allowances.

The average retiring allowance has risen from $2,126 in 1920 to $2,287 at present, and the annual expenditure of the Foundation for teachers and their widows in associated institutions alone to $1,314,000. Estimates indicate that this sum will increase to approximately $2,241,000 in about 1944, and then begin to decrease until about 1985, when all of the approximately 3,700 teachers who have expectations from the original free pension plan of the Foundation, and their widows, will have received their allowances and pensions.

To take care of such increases the Foundation has accumulated a reserve fund which now contains over $12,000,000 to be spent, principal and interest, leaving the original endowment intact.

The Carnegie Foundation during the 23 years has paid out in retiring allowances to professors and pensions to their widows over $17,371,900.

Up to June 30, 1928, former teachers at Harvard had received from the Foundation allowances totaling $1,411,000, at Yale $1,207,000, at Columbia $1,130,000, at Cornell $822,000, and at the University of California $491,000, at Tulane University of Louisiana $371,000, and the University of Toronto $350,000.

The total expenditure, which in 1906-07 was only $158,890 among 35 institutions, had risen to $17,371,900 among 90 institutions in 1928.

More of the recipients of retiring allowances have lived in New York State than in any other, a total of 229. Massachusetts is second with 188, and Connecticut third with 116.

All told, 1,485 allowances and pensions have been granted to teachers in forty different states, five Canadian provinces, and Newfoundland.

FARM MORTGAGE DEBT—$9,468,526,000.

The United States Department of Agriculture estimates the total farm-mortgage in this country, on Jan. 1, 1928, at $9,468,526,000, as compared with $9,360,000,000 on Jan. 1, 1925.

States.	*Dollars.*	States.	*Dollars.*	States.	*Dollars.*	States.	*Dollars.*
Alabama	61,403,000	Iowa	1,401,846,00	Nevada	18,798,000	So. Dakota.	370,150,000
Arizona	61,403,000	Kansas	446,701,000	New Hamp.	8,064,000	Tennessee.	108,414,000
Arkansas	27,715,000	Kentucky	125,679,000	New Jersey	41,419,000	Texas	512,505,000
California	461,246,000	Louisiana	74,412,000	New Mex.	131,846,000	Utah	51,459,000
Colorado	461,246,000	Maine	26,614,000	New York	220,492,000	Vermont	27,290,000
Connecticut	26,912,000	Maryland	55,614,000	No. Car.	90,752,000	Virginia	109,910,000
Delaware	7,967,000	Mass.	31,789,000	No. Dakota	230,016,000	Wash'ing	118,307,000
Dist. of Col.	147,000	Michigan	31,339,000	Ohio	221,647,000	W. Virginia	27,128,000
Florida	35,561,000	Minnesota	560,968,000	Oklahoma	200,806,000	Wisconsin	539,194,000
Georgia	100,683,000	Mississippi	86,001,000	Oregon	112,356,000	Wyoming	35,770,000
Idaho	110,570,000	Missouri	447,480,000	Penn'vania.	114,703,000	U. S.	9,468,526,000
Illinois	678,037,000	Montana	94,577,000	Rhode Is.	2,275,000		
Indiana	276,414,000	Nebraska	599,026,000	So. Car.	63,959000		

NATIONAL ACADEMY OF DESIGN.

(Founded 1825. Headquarters, 109th Street and Amsterdam Avenue, New York.)

The National Academy of Design and the Society of American Artists (founded 1877) were united April 7, 1906. All members of the latter organization then became members of the former.

Council (elected April 24, 1929)—Cass Gilbert, *President*; Harry W. Watrous, *1st Vice-Pres.*; Robert Aitken, *2d Vice-Pres.*; other members: Charles S. Chapman, Ernest L. Ipsen, Carl Rungius, Chauncey F. Ryder, Eugene Savage, and James Earle Fraser.

Charles C. Curran, *Corresponding Secretary*; Albert P. Lucas, *Ass't Corresponding Sec'y*; Hobart Nichols, *Recording Secretary*; Henry Prellwitz, *Treasurer*; John Russell Pope, *Ass't Treasurer*; Mrs. G. W. Maynard, *Clerk of the Academy*.

ACADEMICIANS.

(The year named is that of election.)

Painters—Wayman Adams, 1926; Karl Anderson, George R. Barse jr., 1900; Gifford Beal, 1914; Celia Beaux, 1902; Frank W. Benson, 1905; Louis Betts, 1915; Edwin H. Blashfield, 1888; Ernest L. Blumenschein, 1927; Roy Brown, 1926; Geo. Elmer Browne, 1928; George DeForest Brush, 1908; Howard Russell Butler, 1899.

Emil Carlsen, 1906; John F. Carlson, Charles S. Chapman, 1926; John E. Costigan, B. West Clinedinst, 1898; Colin Campbell Cooper, 1912; E. Irving Couse, 1911; Bruce Crane, 1901; Charles C. Curran, 1904.

Elliott Daingerfield, 1906; Charles H. Davis, 1906; Lockwood DeForest, 1898; Franklin DeHaven, 1920; Louis Paul Dessar, 1906; Charles Melville Dewey, 1907; Thomas W. Dewing, 1888; Sidney E. Dickinson, 1927; Frederick Dielman, 1883; Paul Dougherty, 1907; Edward Dufner, 1929; Frank Vincent DuMond, 1906.

Lydia Field Emmet, 1912; John Folinsbee, 1928; Ben Foster, 1904; August Franzen, 1920; Frederick Karl Frieseke, 1914.

Daniel Garber, 1913; Howard Giles, 1929; W. Granville-Smith, 1915; Walter Griffin, 1922; Albert L. Groll, 1910.

Alexander Harrison, 1901; Childe Hassam, 1906; Charles Hawthorne, 1911; Eugene Higgins, 1928; Charles Hopkinson, 1929; William H. Howe, 1897.

Ernest L. Ipsen, 1924; John C. Johansen, 1915; Francis C. Jones, 1894.

William Sargent Kendall, 1905; W. L. Lathrop, 1907; Leon Kroll, 1927; Ernest Lawson, Jonas Lie, 1917; DeWitt Lockman, 1921; Will H. Low, 1908; Albert P. Lucas, 1927.

Jean MacLean, 1926; Carl Melchers, 1906; Richard E. Miller, 1915; Louis Moeller, 1894; F. Luis Mora, 1906; Jerome Myers, 1929.

Hobart Nichols, 1920; Robert Nisbet, 1928; Violet Oakley, 1929; Leonard Ochtman, 1904; John Noble, 1927; Ivan G. Olinsky, 1919.

Walter Palmer, 1897; Maxfield Parrish, 1906; DeWitt Parshall, 1917; Henry Parton, 1929; Henry Prellwitz, 1912.

DeWitt Parshall, 1917; Henry Prellwitz, 1912.

Robert Reid, 1906; William Ritschel, 1914; Henry R. Rittenberg, 1927; William S. Robinson, 1914; Charles Rosen, 1917; Edward F. Rook, 1924; Carl Rungius, 1920; Chauncey F. Ryder, 1920.

Eugene F. Savage, 1926; W. Elmer Schofield, Leopold Seyffert, 1907; Henry B. Snell, 1906; Robert Spencer, 1920; Eugene Speicher, Gardner Symons, 1911.

Henry O. Tanner, 1927; Edmund C. Tarbell, 1906; William Thorne, 1913; Louis C. Tiffany, 1880; Helen M. Turner, 1921.

Walter Ufer, 1926.

Robt. W. Van Boskerck, 1907; Douglas Volk, 1899; Robert W. Vonnoh, 1906.

Henry O. Walker, 1902; Horatio Walker, 1891; Harry W. Watrous, 1895; Frederick J. Waugh, 1911; C. D. Weldon, 1897; Carleton Wiggins, 1906; Irving R. Wiles, 1897; Frederick Ballard Williams, 1909; Charles H. Woodbury, 1907.

Cullen Yates, 1919.

Sculptors—Herbert Adams, 1899; Robert I. Aitken, 1914; Chester Beach, 1924; A. Stirling Calder, 1913; Rudolph Evans, 1929; John Flanagan, 1928; James Earle Fraser, 1917; Daniel Chester French, 1901; Harriet Frishmuth, 1929; Anna Vaughan Hyatt, 1922; Isador Konti; 1909; Evelyn Beatrice Longman, 1919.

Frederick W. MacMonnies, 1906; Hermon A. MacNeil, 1906; Paul H. Manship, 1916; Edward McCartan, Charles H. Niehaus, 1906; A. Phimister Proctor, 1904; Frederick G. R. Roth, 1906; Lorado Taft, 1911, Bessie Potter Vonnoh, 1921, Adolph A. Weinman, 1911, Mahonri Young, 1923.

Architects—Welles Bosworth, 1928; Cass Gilbert, 1908, Thomas Hastings, 1909, Frederick Law Olmstead, 1929; Charles A. Platt, 1911; Charles Russell Pope.

Engravers and Etchers—Timothy Cole, 1908, Ernest D. Roth, 1928.

ASSOCIATES.

Painters—Ernest Albert William Auerbach-Levy, William J. Baer, Hugo Ballin, Reynolds Beal, Hilda Belcher, E. A. Bell, Oscar E. Berninghaus, Frank A. Bicknell, Charles Bittinger, Mary Green Blumenschein, George H. Bogert, Adolphe Borie, Joseph H. Boston, Hugh H. Breckenridge, R. Sloan Bredin, Belmore Browne, George M. Bruestle, K. A. Buehr, Bryson Burroughs.

Dines Carlsen, Adelaide Cole Chase, Eliot Clark Ralph Clarkson, C. C. Coleman, William Cotton, Arthur S. Covey, Louise Cox, Arthur Crisp.

Francis Day, W. R. Derrick, W. H. Drake, John Ward Dunsmore.

Walter Farndon, Barry Faulkner, William B. Faxon, Anna Fisher, Gertrude Fiske, Will Howe Foote, Will Foster, Kenneth Frazier, Maurice Fromkes' Henry Brown Fuller.

I. M. Gaugengigl, Robert David Gauley, Lillian M. Genth, William J. Glackens, Mary Gray, Abbott Graves, Edmund Greacen, Frank Russell Green, Oliver Dennett Grover, Jules Guerin.

Ben Ali Haggin, Lillian W. Hale, Phillip L. Hale, Armin Hansen, William J. Hays, Albert Herter, Aldro T. Hibbard, Victor Higgins, Howard L. Hildebrandt, Laura C. Hills, James R. Hopkins, Felicie Waldo Howell, Henry S. Hubbell, Eric Hudson, Frederick W. Hutchinson, William H. Hyde, Frank Tenney Johnson, Alphonse Jongers.

Wilson Irvine.

Dora Wheeler Keith, Paul King, William Fair Kline, Hayley Lever, Harry Leith-Ross.

Mary Fairchild Low, Marie D. Page.

Fred Dana Marsh, Paul Moschcowitz, Fred'k J. Mulhaupt, Raymond P. R. Neilson, George Laurence Nelson.

Walter Nettleton, G. Glenn Newell, Spencer Nichols, John H. Niemeyer, Dorothy Ochtman.

Lawton Parker, Douglass Parshall, William M. Paxton, Joseph T. Pearson, jr., Ernest Peixotto, Van Dearing Perrine, Henry R. Poore, W. Merritt Post, Arthur J. E. Powell, Edith Mitchell Prellwitz.

Ellen E. Rand, Jullus Rolshoven.

Rosina Emmet Sherwood, William H. Singer, Howard E. Smith, Arthur P. Spear, Albert Sterner.

Leslie P. Thompson, Harry A. Vincent, Edward C. Volkert.

H. M. Walcott, Harry F. Waltman, Everett L. Warner, J. Louis Webb, William Wendt, E. K. K. Wetherill, William J. Whittemore, Guy Wiggins, Charles Morris Young, Ezra Winter, Arthur W. Woelfle.

Sculptors—Cyrus E. Dallin, Abastenia St. L. Eberle, Laura Gardin Fraser, John Gregory Sherry, E. Fry, Henry Hering, Charles Louis Hinton, Malvina Hoffman, C. Paul Jennewein, Charles Keck, H. Augustus Lukeman, Albert Laessle, Lee Lawrie, Arthur Lee, Leo Lentelli.

Philip Martiny, Allen G. Newman, Andrew O'Connor, Willard D. Paddock, Attilio Piccirilli, Furio Piccirilli, Allen Polasek, Janet Scudder.

Architects—Chester Aldrich, Grosvenor Atterbury, William A. Boring, Glenn Brown, Harvey W. Corbett, J. H. Freedlander, J. Monroe Hewlett, John Galen Howard, James L. Greenleaf, H. Van Buren Magonigle, Benjamin W. Morris.

C. Grant La Farge, C. Howard Walker, Egerton, Swartmout.

Engravers and Etchers—Frank French, Charles Dana Gibson, Allen Lewis, Howard McCormick.

The National Academy of Design has created a new **international award**, a medal for "distinguished service to the fine arts," and presented it, in 1929, to Elihu Root in recognition of his long patronage of the arts and especially for his part in the planning of the parks and memorial buildings of Washington in 1902.

THE HASKELL ORIENTAL MUSEUM OF THE UNIVERSITY OF CHICAGO.

The Haskell Oriental Museum was erected through the generosity of Mrs. Caroline E. Haskell. Its collections, now exceeding 20,000 original objects, are intended to exhibit as systematically as possible the early civilizations of the Near East. Egypt is most largely represented. Both the Egyptian and the Assyro-Babylonian sections have been augmented in part by expeditions of the university's Oriental Exploration Fund in 1903-7 and by its Oriental Institute since 1919.

AMERICAN ACADEMY OF ARTS AND LETTERS.

The first seven members of the American Academy of Arts and Letters were selected by the National Institute of Arts and Letters from its own body in 1904 by ballot. The seven were William Dean Howells, Augustus Saint-Gaudens, Edmund Clarence Stedman, John La Farge, Samuel L. Clemens, John Hay and Edward MacDowell. In order to become eligible to the American Academy one must first be a member of the National Institute of Arts and Letters. This society was organized at a meeting of the American Social Science Association in 1898. The qualification for membership is stated in the constitution, "It shall be notable achievement in art, music or literature." The number in the institute is limited to 250, and the election is by ballot.

The American Academy of Arts and Letters numbers fifty members and among the officers are: Nicholas Murray Butler, Chancellor; Robert Underwood Johnson, Secretary.

The following are the living members of the academy, as of Oct. 28, 1929:

Herbert Adams, N. Y.
Edwin A. Alderman, Univ. of Va.
George Pierce Baker, New Haven.
Edwin Howland Blashfield, N. Y.
Geo. deForest Brush, Dublin, N. H.
Nicholas Murray Butler, N. Y.
George W. Chadwick, Boston.
Edw. Channing, Cambridge, Mass.
Timothy Cole, Poughkeepsie, N. Y.
Royal Cortissoz, N. Y.
Wilbur L. Cross, New Haven, Conn.
John H. Finley, N. Y.
James E. Fraser, N. Y.
Daniel Chester French, N. Y.
Hamlin Garland, N. Y.
Charles Dana Gibson, N. Y.
Cass Gilbert, N. Y.
William Gillette, Hadlyme, Conn.
Robert Grant, Boston.
Arthur T. Hadley, New Haven.
Henry Hadley, N. Y.
Childe Hassam, N. Y.
Charles Downer Hazen, N. Y.
David Jayne H'll, Washington, D. C.
Archer Milton Huntington, N. Y.
Robert Underwood Johnson, N. Y.
William Mitchell Kendall, N. Y.
Abbott L. Lowell, Cambridge.
Edwin Markham, Staten Is., N.Y.
Frederick MacMonnies, N. Y.
Hermon A. MacNeil, N. Y.
Garl Melchers, N. Y.
Paul Elmer More, Princeton, N. J.
Bliss Perry, Cambridge, Mass.
Charles Adams Platt, N. Y.
John R. Pope, N. Y.
Edwin A. Robinson, N. Y.
Elihu Root, N. Y.
Paul Shorey, Chicago.
Lorado Taft, Chicago.
Booth Tarkington, Indianapolis.
Augustus Thomas, N. Y.
Henry van Dyke, Princeton, N. J.
John C. van Dyke, New Brunswick.
Brand Whitlock, Toledo, Ohio.
Owen Wister, Philadelphia.
Geo. E. Woodberry, Beverly, Mass

The directors of the academy are: N. M. Butler, Hamlin Garland, Cass Gilbert, A. M. Huntington, R. U. Johnson, W. L. Cross, Herbert Adams, and Augustus Thomas.

THE NATIONAL INSTITUTE OF ARTS AND LETTERS.

(Headquarters, 633 West 155th Street, New York City.)

President—Prof. William L. Phelps, New Haven, Conn.; *Vice-Presidents*—John H. Finley, William J. Henderson, William Mitchell Kendall, John Erskine, Sidney C. Howard, Ashley H. Thorndike; *Secretary*—Burton J. Hendrick, N. Y.; *Treasurer*—Harrison S. Morris, Oak Lane, Philadelphia.

MEMBERS. (AS OF NOV. 15, 1929.)

DEPARTMENT OF LITERATURE.

Jas. T. Adams, Bridgehampton, N. Y.
George Ade, Brook, Ind.
Edwin A. Alderman, Charlottesville, Va.
Richard Aldrich, N. Y.
Irving Babbitt, Cambridge, Mass.
Irving Bacheller, Winter Park, Fla.
G. P. Baker, New Haven, Conn.
Ray S. Baker, Amherst, Mass.
Stephan V. Benet, N. Y.
Bernard Berenson, Florence, Italy.
Gamaliel Bradford, Wellesley Hills.
Robert Bridges, N. Y.
Louis Bromfield.
Van Wyck Brooks, Westport, Conn.
Maxwell S. Burt, N. J.
Richard Burton, N. J.
Nicholas Murray Butler, N. Y.
Willa Cather, N. Y.
Robert W. Chambers, N. Y.
E. Channing, Cambridge, Mass.
H. C. Chatfield-Taylor, Chicago.
J. B. Connolly, Dorchester, Mass.
Royal Cortissoz, N. Y.
Herbert Croly, N. Y.
Wilbur L. Cross, New Haven, Conn.
Owen Davis, N. Y.
Charles de Kay, N. Y.
Margaretta W. Deland, Cambridge.
Finley Peter Dunne, N. Y.
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Harry Stillwell Edwards, Macon, Ga.
John Erskine, N. Y.
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John H. Finley, N. Y.
O. W. Firkins, Minneapolis, Minn.
Jefferson Butler Fletcher, N. Y.
James Forbes, N. Y.
Worthington C. Ford, Boston.
Mary E. Wilkins Freeman, Metuchen, N. J.
Robert Frost, South Shaftsbury, Vt.
H. H. Furness Jr., Philadelphia.
Hamlin Garland, N. Y.
F. H. Giddings, Scarsdale, N. Y.
William Gillette, Hadlyme, Conn.
Lawrence Gilman, N. Y.
Arthur Gordrich, N. Y.
Robert Grant, Boston, Mass.
Ferris Greenslet, Boston, Mass.
A. T. Hadley, New Haven, Conn.
Herman Hagedorn, N. Y.
Clayton Hamilton, N. Y.
A. S. Hardy, Woodstock, Conn.
G. McL. Harper, Princeton, N. J.
Henry Sydnor Harrison, N. Y.
Charles Downer Hazen, N. Y.
William J. Henderson, N. Y.
Burton J. Hendrick, N. Y. City.
Oliver Herford, N. Y.
Jos. Hergesheimer, West Chester, Pa.
John Grier Hibben, Princeton, N. J.
David Jayne Hill, Washington, D. C.
Brian Hooker, N. Y.
Sidney C. Howard, N. Y.
M. A. DeWolfe Howe, Boston.
Hatcher Hughes, N. Y. City.
Archer M. Huntington, N. Y.
Owen Johnson, Stockbridge, Mass.
Robert Underwood Johnson, N. Y.
Edwin Lefevre, Vt.
William E. Leonard, Madison, Wis.
Vachel Lindsay, Springfield, Ill.
Nelson Lloyd.
Robert Morss Lovett, Chicago, Ill.
A. Lawrence Lowell, Cambridge.
John L. Lowes, Cambridge, Mass.
Percy MacKaye, Cornish, N. H.
Edwin Markham, Staten Is., N. Y.
Don Marquis, N. Y.
Edward S. Martin, N. Y.
Edgar Lee Masters, Chicago, Ill.
F. J. Mather, Jr., Princeton, N. J.
John Bach McMaster, Philadelphia.
Edna St. V. Millay, N. Y.
Langdon E. Mitchell, N. Y.
Charles Moore, Washington, D. C.
Paul Elmer More, Princeton, N. J.
Harrison S. Morris, Philadelphia.
Meredith Nicholson, Indianapolis Ind.
Rollo Ogden, N. Y. City.
E. G. O'Neill, Paris.
Albert Bigelow Paine, Bronxville.
Will Payne, Mt. Vernon, N. Y.
Bliss Perry, Cambridge, Mass.
William Lyon Phelps, New Haven.
Arthur S. Pier, Hyde Park, Mass.
Ernest Poole, N. Y.
Herbert Putnam, Washington, D.C.
Agnes Repplier, Philadelphia.
C. G. D. Roberts, Toronto.
Edwin A. Robinson, N. Y.
Elihu Root, N. Y.
Felix E. Schelling, Philadelphia.
Clinton Scollard, Kent, Conn.
Ellery Sedgwick, Boston, Mass.
H. D. Sedgwick, Cambridge, Mass.
E. Thompson Seton, Greenwich, Conn.
Edward Brewster Sheldon, N. Y.
Paul Shorey, Chicago, Ill.
Burton E. Stevenson.
F. J. Stimson, Dedham, Mass.
Julian Street, New York.
Austin Strong, New York.
Booth Tarkington, Indianapolis, Ind.
Henry Osborn Taylor, N. Y.
Augustus Thomas, N. Y.
A. E. Thomas, N. Y. City.
Ashley H. Thorndike, N. Y.
Ridgely Torrence, N. Y.
E. W. Townsend, Montclair, N. J.
Arthur Train, N. Y. City.
William P. Trent, N. Y.
Henry van Dyke, Princeton, N. J.
John C. Van Dyke, New Brunswick, N. J.
Paul van Dyke, Princeton, N. J.
Stewart E. White, Burlingame, Cal.
Charles Warren, Washington, D.C.
Edith Wharton, Paris.
William Allen White, Emporia, Kan.
Brand Whitlock, Toledo, Ohio.
Thornton Wilder, N. J.
Jesse Lynch Williams, Cal.
Harry Leon Wilson, Monterey, Cal.
Owen Wister, Philadelphia.
G. E. Woodberry, Beverly, Mass

DEPARTMENT OF ART.

Herbert Adams, N. Y.
Wayman Adams, N. Y.
Robert I. Aitken, N. Y.
Hugo Ballin, Hollywood, Calif.
George Grey Barnard, N. Y.
Frederic Clay Bartlett, Chicago.
Chester Beach, N. Y.
Gifford Beal, N. Y.
Frank Weston Benson, Salem, Mass.
Louis Betts, N. Y.
Edwin Howland Blashfield, N. Y.
Glenn Brown, Washington, D. C.
George E. Browne, N. Y.
George de F. Brush, Dublin, N. H.
H. R. Butler, Princeton, N. J.
Alexander Stirling Calder, N. Y.
Emil Carlsen, N. Y.
Ralph Clarkson, Chicago, Ill.
Timothy Cole, Poughkeepsie, N. Y.
Ralph Adams Cram, Boston.
C. E. Dallin, Arlington H'ghts, Mass.
Charles Melville Dewey, N. Y.
Frederick Dielman, N. Y.
John M. Donaldson, Detroit, Mich.
Paul Dougherty, N. Y.
Frank Vincent Du Mond, N. Y.
G. W. Edwards, Greenwich, Conn.
Rudulph Evans, N. Y.
Barry Faulkner, N. Y.
John Flanagan, N. Y.
James Earle Fraser, N. Y.
Daniel Chester French, N. Y.
Walter Gay, Paris, France.
Charles Dana Gibson, N. Y.
Cass Gilbert, N. Y.
Walter Griffin, Portland, Me.
Jules Guerin, N. Y.
Alexander Harrison, N. Y.
Childe Hassam, N. Y.
Charles Webster Hawthorne, N. Y.
John Galen Howard, San Francisco.
John Mead Howells, N. Y.
Anna H. Huntington, N. Y.
Francis C. Jones, N. Y.
W. Mitchell Kendall, N. Y.
W. S. Kendall, Hot Springs, Va.
Bancel La Farge, Mt. Carmel, Conn.
Ernest Lawson, N. Y.
Jonas Lie, New York.
Will H. Low, Bronxville, N. Y.
Frederick MacMonnies, N. Y.
H. A. MacNeil, College Point, N. Y.
Paul Manship, N. Y.
Carl Marr, Munich, Germany.
Walter MacEwen, Paris, France.
Edward McCartan, N. Y.
Gari Melchers, N. Y.
C. H. Niehaus, Grantwood, N. J.
Leonard Ochtman, Cos Cob, Conn.
Frederick L. Olmstead, Brookline.
Haig Patigian, San Francisco.
Charles A. Platt, N. Y.
Irving Kane Pond, Chicago, Ill.
John Russell Pope, N. Y.
A. Phimister Proctor, N. Y.
E. W. Redfield, Center Bridge, Pa.
Robert Reid, Brooklyn, N. Y.
F. G. R. Roth, Englewood, N. J.
F. W. Ruckstull, N. Y. City.
W. E. Schofield, Mt. Airy, Pa.
John Sloan, New York.
Albert Sterner, N. Y.
Gardner Symons, N. Y.
Lorado Taft, Chicago, Ill.
E. C. Tarbell, New Castle, N. H.
Douglas Volk, N. Y.
Lionel Walden, Honolulu, Hawaii
Charles Howard Walker.
Horatio Walker, N. Y.
Whitney Warren, N. Y.
Adolph Alexander Weinman, N. Y.
Irving R. Wiles, N. Y.

DEPARTMENT OF MUSIC.

Howard Brockway, N. Y.
John Alden Carpenter, Chicago, Ill.
G. W. Chadwick, Boston, Mass.
Frederick S. Converse, Boston.
Walter Damrosch, N. Y.
Arthur Foote, Brookline, Mass.
Henry Hadley, N. Y.
E. B. Hill, Cambridge, Mass.
Edgar Stillman Kelley, Oxford, O.
Ernest R. Kroeger, St. Louis, Mo.
C. M. Loeffler, Medfield, Mass.
Arne Oldberg, Evanston, Ill.
John Powell, Va.
Ernest Schelling, N. Y.
Harry Rowe Shelley, N. Y.
David S. Smith, New Haven, Conn.
Albert Spalding, N. Y.
Frederick A. Stock, Chicago, Ill.
Deems Taylor, N. Y. C.
Arthur Whiting, N. Y.

GOLD MEDAL OF THE INSTITUTE.

The Gold Medal of the Institute is annually awarded to any citizen of the United States for distinguished services to arts or letters in the creation of original work.

1st—for sculpture—to Augustus Saint-Gaudens. The medal was presented to Mrs. Saint-Gaudens at the meeting held in memory of her husband, Nov. 20, 1909.

2d—for history—to James Ford Rhodes, 1910.

3d—for poetry—to James Whitcomb Riley, 1911.

4th—for architecture—to William Rutherford Mead, 1912.

5th—for drama—to Augustus Thomas, 1913.

6th—for painting—to John Singer Sargent, 1914.

7th—for fiction—to William Dean Howells, 1915.

8th—for essays and belles-lettres—to John Burroughs, 1916.

9th—for sculpture—to Daniel Chester French, 1917.

10th—for history or biography—to William Roscoe Thayer, 1918.

11th—for music—to Charles Martin Loeffler, 1919.

No award of the medal—for poetry—was made in 1920.

12th—for architecture—to Cass Gilbert, 1921.

13th—for drama—to Eugene Gladstone O'Neill, 1922.

14th—for painting—to Edwin Howland Blashfield, 1923.

15th—for fiction—to Mrs. Edith Wharton, 1924

16th—for essays and belles-lettres, to William Crary Brownell, 1925.

17th—for sculpture—to Herbert Adams, 1926.

18th—for history and biography—to William Milligan Sloane, 1927.

19th—for music—to George Whitefield Chadwick, 1928.

20th—for poetry—to Edwin A. Robinson, 1929.

AMERICAN INSTITUTE OF ARCHITECTS' MEDALS.

Gold Medal—Established in 1906; conferred on Sir Aston Webb, Charles Follen McKim, George B. Post, Jean Louis Pascal, Victor Laloux, Henry Bacon, Sir Edwin L. Lutyens, Bertram G. Goodhue, Howard Van Doren Shaw, and Milton B. Medary.

Craftsmanship Medal—Established in 1915; conferred on Henry Mercer in ceramics, on Samuel Yellin in iron work, on Frederick W. Goudy in typography, on Charles J. Connick in design and production of stained glass; on V. F. Von Lossberg in metal work; on Frank Holmes in ceramics; on William D. Gates in terra cotta, and on the Cheney Brothers in textiles.

Fine Arts Medal—Established in 1919; awarded to Paul Manship in sculpture, to Arthur F. Mathews in painting, to John S. Sargent in mural painting, to Dr. Leopold Stokowski in Music; to Lee Lawrie in sculpture, to H. Siddons Mowbray (posthumously) in mural painting, and to Diego Rivera in painting

Exhibition Medal—Established in 1921; awarded to Bertram Goodhue and Lee Lawrie in ecclesiastical building, to Reginald Johnson in domestic building, to Charles Z. Klauder in institutional building, to Howard D. Smith in public building, to George C. Nimmons in industrial building, to Charles D. Maginnis and Timothy Walsh in ecclesiastical building, to Edward L. Tilton and Alfred Morton Githens in public building, to Sproatt and Rolph of Toronto, Canada, in institutional building, to A. Stewart and Leon N. Gillette in domestic building, and to Arthur Loomis Harmon in commercial building.

FEDERAL BOARD FOR VOCATIONAL EDUCATION.

(Headquarters, 200 New Jersey Avenue, Northwest, Washington, D. C.)

James J. Davis, Secretary of Labor, Chairman. Other members: Arthur M. Hyde, Secretary of Agriculture; Robert P. Lamont, Secretary of Commerce; the Commissioner of Education, William John Cooper, Vice-Chairman; Perry W. Reeves, representing Labor; Claude M. Henry, representing Agriculture; Edward T. Franks, representing Manufacture and Commerce, Vice-Chairman.

Executive Staff—J. C. Wright, Director; C. H. Lane, Chief, Agricultural Education; Frank Cushman, Chief, Trade and Industrial Education; Adelaide S. Baylor, Chief Home Economics Education; E. W. Barnhart, Chief, Commercial Education; J. A. Kratz, Chief, Vocational Rehabilitation; C. R. Allen, Editor and Educational Consultant, John S. Shaw, Secretary and Chief Clerk.

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Commercial Education Service—E. W. Barnhart, Chief.

Vocational Rehibilitation Service—J. A. Kratz, Chief; Frank Clayton, Tracy Copp, H. A. Cummings, I. M. Ristine, Regional Agents; H. C. Corpening, Supervisor, District of Columbia.

THE CIVIL SERVICE OF THE UNITED STATES.

Year (F'cal.)	No. Compt. Posit.	Exam-ined.	Passed.	P. C. That Pas'd	Ap-pointed	P. C. Ap. of Pas'd	Year (F'cal.)	No. Compt. Posit.	Exam-ined.	Passed.	P. C. That Pas'd	Ap-pointed	P. C. Ap. of Pas'd
1904...	154,093	127,846	100,078	78.3	48,909	48.8	1917...	326,899	212,114	152,553	71.9	86,312	56.5
1905...	171,807	143,053	111,741	78.1	38,996	35.0	1918...	642,432	551,391	387,963	70.4	213,530	55.0
1906...	184,178	117,277	91,345	77.9	39,050	42.7	1919...	592,961	438,259	299,826	68.4	179,533	59.9
1907...	194,323	129,317	93,920	72.6	43,003	45.8	1920...	497,603	293,327	193,915	66.1	116,309	60.0
1908...	206,637	161,793	120,760	74.6	42,153	34.9	1921...	445,112	303,309	203,206	67.0	101,711	50.1
1909...	234,940	158,484	123,449	77.9	40,943	33.2	1922...	420,688	206,007	128,952	62.6	63,867	49.5
1910...	222,278	115,644	87,769	75.9	43,585	49.7	1923...	411,398	204,200	122,918	60.2	57,694	46.9
1911...	227,657	105,024	70,159	66.8	23,256	33.2	1924...	415,593	222,915	133,506	59.9	68,287	51.1
1912...	217,392	106,078	59,251	55.9	20,969	35.4	1925...	423,538	201,415	122,495	60.8	59,164	49.9
1913...	282,597	141,905	94,350	66.5	35,154	37.3	1926...	422,300	202,846	105,964	52.2	36,992	34.9
1914...	292,460	215,587	147,526	68.4	41,935	28.4	1927...	422,998	257,401	126,118	49.0	38,777	30.7
1915...	292,291	167,795	114,632	68.3	36,398	31.8	1928...	431,763	236,997	123,830	52.2	37,796	30.5
1916...	296,926	154,722	113,792	73.5	42,057	37.0	1929...	445,957	243,510	125,726	51.6	44,817	35.6

CIVIL SERVICE EMPLOYEES AT CERTAIN DATES.

Date	In Dist. Columbia	Outside Dist Col.	Total	Date.	In Dist. Columbia	Outside Dist. Col.	Total
June 30, 1916	39,442	398,615	438,057	June 30, 1925	63,756	500,962	564,718
November 11, 1918	117,760	*b*800,000	*b*917,760	December 31, 1925	61,509	486,568	548,077
July 31, 1920	90,559	*b*600,557	*b*691,116	June 30, 1926	60,811	499,894	560,705
July 31, 1921	78,865	518,617	597,482	December 31, 1926	59,569	486,772	546,341
June 30, 1922	69,980	490,883	560,863	June 30, 1927	59,800	499,338	559,138
June 30, 1925	66,290	482,241	548,531	Dec. 31, 1927	60,660	493,515	554,175
December 31, 1923	65,025	479,646	544,671	June 30, 1928	61,388	507,327	568,715
June 30, 1924	64,120	490,866	554,986	Dec. 31, 1928	62,140	510,967	573,107
December 31, 1924	66,079	489,540	555,619	June 30, 1929	63,904	523,761	587,665

EMPLOYEES IN THE FEDERAL EXECUTIVE CIVIL SERVICE, JUNE 30, 1929.. (*a*)

Department or Office.	In District of Columbia.			Outside District of Columbia.			Total.
	Men.	Women.	Total.	Men.	Women.	Total.	
The White House	38	5	43				43
State	323	338	661	2,888	1,068	3,956	4,617
Treasury	5,918	8,380	14,298	31,915	6,881	38,796	53,094
War	2,424	1,746	4,170	39,084	4,013	43,097	47,267
Justice	581	251	832	2,375	977	3,352	4,184
Post Office	3,203	879	4,082	283,681 *b*	27,032	310,713	*c*314,795
Navy	6,043	1,170	7,213	40,988	2,374	43,362	50,575
Interior	2,284	1,278	3,562	10,694	2,316	13,010	16,572
Agriculture	2,962	2,097	5,059	16,261	2,675	18,936	23,995
Commerce	3,151	1,913	5,064	10,809	871	11,680	16,744
Labor	357	361	718	3,132	700	3,832	4,550
Government Printing Office	3,310	877	4,187				4,187
Smithsonian Institution	416	148	564				564
Interstate Commerce Commission	1,071	339	1,410	616	16	632	2,042
Civil Service Commission	137	238	375	135	73	208	583
Bureau of Efficiency	43	16	59				59
Federal Trade Commission	262	118	380				380
Shipping Board	435	313	748	508	152	660	1,408
Alien Property Custodian	95	89	184				184
Tariff Commission	132	86	218	9	2	11	229
Employees Compensation Commission	38	78	116	22	39	61	177
Federal Board for Vocational Education	33	37	70				70
Panama Canal	62	14	76	11,453	568	12,021	12,097
Pub. Bldgs. & Pub. Parks of the Nat'l Cap.	1,897	528	2,425				2,425
General Accounting Office	1,202	759	1,961				1,961
Veterans Bureau	1,564	3,307	4,871	12,115	7,079	19,194	24,065
Railroad Administration *e*	15	6	21				21
Commission of Fine Arts	2		2				2
War Finance Corporation *e*	11	3	14	2	2	4	18
Nat'l Advisory Committee for Aeronautics	17	18	35	175	9	184	219
Federal Reserve Board *e*	88	88	176	19		19	195
Board of Tax Appeals	65	85	150				150
Board of Mediation	21	10	31				31
Federal Power Commission	18	11	29	1		1	30
Federal Radio Commission	34	58	92				92
American Battle Monuments Com	6	2	8	24	8	32	40
Total	38,258	25,646	63,904	466,906	56,855	523,761	587,665

(*a*) Does not include legislative or judicial services, nor the commissioned, warranted, or enlisted personnel of the military, naval, marine corps, or coast guard services, nor the government of the District of Columbia.

(*b*) Approximated.

(*c*) Includes 13,200 clerks at third-class offices, 203 screen-wagon contractors, 239 carriers for offices having special supply, 5,824 clerks in charge of contract stations, 11,695 star-route contractors, and 280 steamboat contractors.

Does not include 33,855 clerks at fourth-class offices who are employed and paid by the postmaster, and 22,338 mail messengers not included in previous computations.

(*d*) Includes administrative offices of Emergency Fleet Corporation, but not workmen at shipyards or in warehouses or employees on vessels.

(*e*) Positions not subject to the Civil Service Act.

PERKIN MEDAL WINNERS.

Following are the winners of the Perkin Medal, awarded annually at the Chemists Club, New York City, for the most important contribution to industrial chemistry:

1907, Sir. W. H. Perkin; 1908, J. B. F. Herreshoff; 1909, Arno Behr; 1910, E. G. Acheson; 1911, Charles M. Hall; 1912, Herman Frasch.

1913, James Gayley; 1914, John W. Hyatt; 1915, Edward Weston; 1916, L. H. Baekeland; 1917, Ernest Twitchell; 1918, Auguste J. Rossi.

1919, Frederick G. Cottrell; 1920, Charles F. Chandler; 1921, Willis R. Whitney; 1922, William M. Burton; 1923, Milton C. Whitaker; 1924, Frederick M. Becket; 1925, Hugh K. Moore; 1926, R. B. Moore; 1927, John E. Teeple; 1928, Irving Langmuir; 1929, Eugene C. Sullivan.

STATISTICS OF THE CHIEF CITIES IN THE UNITED STATES.

	Year Inc.	Population July, 1928.	Area.	Net Debt.	Realty Ass'd Valuation.	Tax Levy.	Budget.
			Acres.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
Akron, Ohio	1836	225,000	16,004	32,821,195	401,339,460	$2.46 per C	.....
Alameda, Calif.	1854	32,400	6,797	934,825	30,208,000	604,160	890,480
Albany, N. Y.	1686	120,400	12,378	16,920,618	227,983,110	7,427,641	6,037,541
Allentown, Pa.	1867	99,400	7,500	3,077,700	94,000,000	1,165,000	1,500,000
Altoona, Pa.	1868	69,100	2,654	2,350,000	87,292,885	$8.50 per M	.....
Amsterdam, N. Y.	1885	36,200	3,484	1,798,301	30,950,162	1,420,160	1,430,257
Anderson, Ind.	.....	34,600	.....	600,000	41,000,000	$0.75 per C	287,000
Asheville, N. C.	.....	32,000	11,500	8,600,000	115,000,000	1,840,000	2,685,559
Atlanta, Ga.	1847	255,100	23,040	17,389,000	392,750,000	6,294,000	19,196,625
Atlantic City, N. J.	1854	54,700	10,528	27,716,215	318,932,959	8,493,674	10,388,093
Auburn, N. Y.	1848	35,700	5,440	1,189,065	50,774,125	853,467	1,276,886
Augusta, Ga.	1798	56,700	6,080	2,474,412	37,103,053	944,568	1,570,510
Aurora, Ill.	1857	47,100	5,050	907,500	38,834,121	$1.40 per C	.....
Austin, Tex.	1839	45,135	10,240	4,501,500	48,500,000	1,020,000	1,414,430
Baltimore, Md.	1796	830,400	58,880	117,838,035	1,159,254,936	29,802,448	69,111,578
Battle Creek, Mich.	1859	47,200	3,678	1,145,500	51,629,350	$3.06 per C	.....
Bay City, Mich.	1865	49,600	7,680	3,575,193	47,761,432	1,939,126	2,474,695
Bayonne, N. J.	1869	95,300	2,544	10,454,681	129,834,576	6,606,068	4,746,207
Beaumont, Tex.	1881	56,300	7,360	7,115,746	68,000,000	$2.50 per C	2,071,121
Berkeley, Calif.	1878	*84,000	6,080	1,300,000	90,000,000	$1.59 per C	1,270,000
Bethlehem, Pa.	1918	67,600	7,680	3,829,500	66,291,000	895,296	1,459,193
Binghamton, N. Y.	1867	74,800	6,386	6,685,000	121,940,619	3,950,876	5,224,436
Birmingham, Ala.	1871	222,400	32,160	17,107,385	232,130,915	4,178,356	7,583,495
Bloomington, Ill.	1855	30,700	.....	305,250	29,064,221	$3.28 per C	.....
Boston, Mass.	1822	799,200	30,598	99,392,226	1,953,231,000	54,864,308	66,961,759
Bridgeport, Conn.	1836	160,000	11,466	14,781,000	215,263,571	7,556,364	8,493,887
Brockton, Mass.	1881	65,300	13,440	3,308,003	68,078,325	2,624,828	3,533,018
Brookline, Mass. (town)	1705	45,700	4,240	1,342,950	141,556,100	$2.00 per C	.....
Buffalo, N. Y.	1832	555,800	26,880	85,290,943	1,079,722,230	31,920,233	42,805,141
Butte, Mont.	1879	43,600	3,319	1,322,000	82,000,000	532,333	494,160
Cambridge, Mass.	1846	125,800	4,160	6,859,554	188,456,300	8,079,190	7,122,935
Camden, N. J.	1828	135,400	6,119	10,581,151	180,245,445	6,327,890	7,629,359
Canton, Ohio	1854	116,800	8,758	8,058,900	229,982,820	1,778,357	1,703,357
Cedar Rapids, Iowa	1850	58,200	17,990	2,111,000	60,616,640	752,917	1,191,000
Charleston, S. C.	1783	75,900	3,744	9,824,000	16,995,162	1,337,217	1,384,959
Charleston, W. Va.	1818	55,200	2,964	668,500	79,967,690	$6.50 per M	.....
Charlotte, N. C.	1816	82,100	8,167	7,806,799	128,138,507	1,512,034	2,251,689
Chattanooga, Tenn.	1851	73,500	17,056	10,989,807	136,813,500	3,250,000	3,250,000
Chelsea, Mass.	1857	49,800	1,490	2,436,839	49,624,600	2,138,266	2,870,142
Chester, Pa.	1866	74,200	3,020	3,790,390	73,783,787	848,513	1,671,458
Chicago, Ill.	1837	3,157,400	134,726	101,518,000	3,247,000,000	177,021,000	229,001,998
Chicopee, Mass.	1890	45,400	14,661	1,136,200	41,923,550	$2.95 per C	.....
Cincinnati, Ohio	1819	413,700	46,080	44,176,445	782,425,980	$8.855	16,001,730
Cleveland, Ohio	1836	1,010,300	45,824	134,272,500	2,092,159,170	20,844,600	56,343,359
Clifton, N. J.	1917	36,200	7,200	2,529,843	41,941,270	872,351	1,177,830
Colorado Springs, Colo.	1878	36,000	3,895	766,000	41,244,200	577,418	1,860,131
Columbia, S. C.	1805	50,600	5,760	2,635,654	19,586,070	651,750	1,103,376
Columbus, Ga.	1828	46,600	3,840	2,020,000	33,088,225	$1.80 per C	900,565
Columbus, Ohio	1816	299,000	24,583	32,423,478	599,723,840	5,085,658	7,969,666
Council Bluffs, Iowa	1853	42,300	9,600	1,419,000	28,758,572	560,141	910,086
Covington, Ky.	1834	59,000	3,814	2,582,400	41,678,258	1,041,956	1,803,684
Cranston, R. I.	1754	37,500	21,120	2,277,599	47,192,780	1,202,976	1,456,089
Cumberland, Md.	1816	34,400	1,909	3,206,654	43,000,000	487,873	487,873
Dallas, Tex.	1856	217,800	18,108	20,824,261	254,288,075	6,142,155	7,868,305
Danville, Ill.	1867	38,800	6,290	988,455	31,288,311	380,409	867,675
Davenport, Iowa	1851	52,470	11,353	1,382,300	59,454,300	891,710	856,500
Dayton, Ohio	1841	184,500	10,240	7,760,151	264,312,160	$2.44 per C	2,589,816
Decatur, Ill.	1856	57,100	5,917	798,000	20,231,473	$2.38 per C	.....
Denver, Colo.	1859	294,200	37,920	45,193,787	447,822,540	14,422,061	19,499,467
Des Moines, Iowa	1857	151,900	34,560	10,773,033	186,892,420	2,793,493	3,392,790
Detroit, Mich.	1824	1,378,900	89,088	238,463,175	3,681,781,130	76,045,502	152,842,588
Dubuque, Iowa	1840	42,300	6,080	1,910,813	47,491,696	733,875	793,875
Duluth, Minn.	1870	116,800	43,097	8,234,106	80,839,171	2,247,975	4,145,512
Durham, N. C.	1869	47,600	8,192	11,237,236	81,000,000	1,158,300	2,591,986
East Chicago, Ind.	1893	50,800	3,840	842,550	84,713,015	926,262	1,100,047
East Orange, N. J.	1899	65,000	2,502	6,547,162	126,108,964	3,167,772	3,754,472
East St. Louis, Ill.	1865	74,000	8,972	1,098,000	33,632,090	541,000	.....
Easton, Pa.	1887	38,400	2,234	2,056,978	45,705,440	636,616	883,282
Elgin, Ill.	1854	36,000	4,331	476,800	29,455,661	$42.96p'rM	.....
Elizabeth, N. J.	1855	115,400	5,760	7,446,299	163,300,568	5,356,258	2,958,275
Elmira, N. Y.	1864	50,000	4,693	3,672,606	47,210,005	816,320	816,320
El Paso, Tex.	1873	117,800	8,640	6,365,357	83,573,880	2,076,948	1,215,236
Erie, Pa.	1851	130,000	12,800	4,107,669	148,147,877	1,850,000	1,907,653
Evanston, Ill.	1892	47,600	5,203	944,000	53,314,522	$1.31 per C	2,177,037
Evansville, Ind.	1847	98,100	5,577	1,881,108	139,444,640	$3.18	1,593,654
Everett, Mass.	1892	43,300	1,677	2,289,316	71,000,000	1,740,760	2,458,330
Fall River, Mass.	1854	124,300	26,240	9,059,703	156,347,000	5,753,569	7,347,694
Fitchburg, Mass.	1872	45,200	17,920	2,690,000	58,621,975	1,758,659	2,300,163
Flint, Mich.	1855	148,800	18,140	11,796,381	160,459,200	7,773,300	3,188,723
Fort Smith, Ark.	.....	32,100	8,534	160,000	14,828,177	$41.23p'rM	.....
Fort Wayne, Ind.	1839	105,300	11,040	827,000	226,238,000	$2.27 per C	1,312,380
Fort Worth, Tex.	1872	170,600	36,986	20,757,977	172,473,111	1,724,731	5,082,531
Fresno, Calif.	1885	64,000	5,472	620,500	21,761,665	999,831	1,225,423
Galveston, Tex.	1839	50,600	4,992	8,597,563	57,855,837	1,382,754	1,097,464
Gary, Ind.	1909	89,100	25,571	2,505,000	168,784,045	$9.80 per M	1,812,421
Grand Rapids, Mich.	1850	164,200	14,985	16,901,593	205,889,375	7,349,526	3,920,125
Great Falls, Mont.	.....	30,900	4,958	609,819	52,220,577	329,000	453,699
Green Bay, Wisc.	1854	36,100	8,169	3,000,500	57,252,072	1,404,247	1,383,776
Greensboro, N. C.	1808	51,900	10,600	9,107,585	102,249,901	832,726	1,965,807
Hamilton, Ohio	1854	44,200	3,101	2,067,697	96,363,950	837,402	930,608
Hammond, Ind.	1884	56,000	17,280	1,350,670	89,779,770	987,577	987,577
Hamtramck, Mich.	1901	99,800	1,229	2,974,472	82,858,350	1,390,867	1,597,727
Harrisburg, Pa.	1860	86,900	2,492	5,251,312	88,125,560	1,401,008	1,838,554
Hartford, Conn.	1784	172,300	10,163	10,369,371	643,135,640	$22.75p'rM	.....

	Year Inc.	Population July, 1928.	Area.	Net Debt.	Realty Ass'd Valuation.	Tax Levy.	Budget.
			Acres.	*Dollars.*	*Dollars.*	*Dollars*	*Dollars.*
Haverhill, Mass.	1870	49,230	21,986	1,298,000	56,243,125	2,618,701	2,388,423
Hazleton, Pa.	1892	38,300	3,827	1,582,370	27,513,825	357,680	1,079,789
Highland Park, Mich.	1918	86,400	1,895	2,210,458	135,591,200	1,410,148	1,864,358
Hoboken, N. J.	1855	71,000	666	8,156,081	106,135,823	4,801,835	5,196,173
Holyoke, Mass.	1873	60,400	9,432	3,972,000	93,062,430	2,528,615	3,644,755
Houston, Tex.	1839	171,000	25,924	35,744,411	279,504,515	5,231,168	8,443,569
Huntington, W. Va.	1872	68,600	10,474	1,629,844	76,588,389	$0.69 per C	868,903
Indianapolis, Ind.	1831	382,100	32,275	7,615,215	672,689,970	7,399,589	7,434,188
Irvington, N. J.	1898	34,600	2,000	2,936,584	67,937,257	$3.60 per C	2,615,434
Jackson, Mich.	1843	63,700	6,500	3,095,604	73,812,235	838,464	1,418,741
Jacksonville, Fla.	1822	140,700	9,824	14,938,775	99,004,820	6,213,938	6,131,606
Jamestown, N. Y.	1886	46,000	5,410	3,026,013	64,601,049	829,354	1,207,584
Jersey City, N. J.	1827	324,700	8,320	37,818,470	567,448,779	23,005,166	24,572,268
Johnstown, Pa.	1889	73,700	3,689	4,773,500	79,735,170	1,216,500	826,299
Joliet, Ill.	1852	41,900	2,499	1,604,885	26,857,579	1,413,952	1,384,831
Kalamazoo, Mich.	1884	56,400	5,285	*76,500*	*79,400,000*	*875,400*	*1,148,873*
Kansas City, Kan.	1886	118,300	13,760	11,778,545	139,340,079	5,080,294	5,455,756
Kansas City, Mo.	1853	391,000	37,395	16,841,938	353,971,480	$1.30	6,500,000
Kearny, N. J.	1899	32,100	5,677	5,486,417	62,984,000	2,707,774	1,755,255
Kenosha, Wisc.	1850	56,500	4,710	3,157,000	59,489,810	2,426,084	3,073,740
Knoxville, Tenn.	1850	105,400	16,320	15,409,936	123,530,030	3,250,000	4,786,405
Kokomo, Ind.	1865	40,400	3,367	174,200	38,258,078	$1.00 per C	342,979
La Crosse, Wisc.	1856	30,400	7,200	1,532,360	46,406,688	1,392,200	1,695,025
Lakewood, Ohio	1911	65,600	3,474	3,519,134	130,311,970	964,050	722,618
Lancaster, Pa.	1918	58,300	2,530	1,795,000	197,743,900	538,719	942,603
Lansing, Mich.	1858	79,600	7,548	5,836,985	116,511,345	1,847,627	1,847,627
Lawrence, Mass.	1853	93,500	4,577	4,655,023	125,210,825	3,305,565	4,555,914
Lewiston, Me.	1863	36,600	22,100	615,000	34,293,758	1,063,106	947,129
Lexington, Ky.	1832	48,700	3,524	1,733,861	45,737,861	1,314,012	1,223,558
Lima, Ohio	1871	49,700	4,627	803,700	62,146,600	1,017,830	1,841,492
Lincoln, Nebr.	1871	71,100	12,700	962,000	96,159,740	768,010	2,060,365
Little Rock, Ark.	1831	79,200	11,360	1,788,000	60,447,825	$42.62	780,000
Long Beach, Calif.	1897	108,000	17,837	13,594,042	200,361,575	2,905,246	10,131,472
Lorain, Ohio	1894	44,900	6,400	818,489	55,664,330	712,585	712,585
Los Angeles, Calif.	1851	*1,395,574	282,424	144,379,046	1,876,277,195	30,583,318	30,583,318
Louisville, Ky.	1824	329,400	25,600	none	448,000,000	8,832,132	8,832,132
Lowell, Mass.	1836	111,000	9,024	5,016,440	111,955,550	3,909,189	4,948,699
Lynchburg, Va.	1805	38,600	8,915	4,234,989	43,679,246	1,026,462	1,516,414
Lynn, Mass.	1850	105,500	7,040	6,626,290	121,031,920	3,881,073	5,642,710
Macon, Ga.	1832	61,200	7,040	160,000	52,000,000	$13.75p'rM	1,091,028
Madison, Wisc.	1853	50,500	6,000	883,000	148,757,460	3,495,800	6,298,523
Malden, Mass.	1882	53,400	3,252	2,720,308	70,127,250	2,117,024	2,504,428
Manchester, N. H.	1846	85,700	21,700	4,845,139	113,819,151	2,885,719	3,582,443
McKeesport, Pa.	1891	50,400	2,240	1,420,000	50,623,375	$1.15 per C	
Medford, Mass.	1892	52,900	5,253	3,809,048	75,518,500	2,049,304	
Memphis, Tenn.	1849	190,200	16,000	19,663,661	264,382,134	5,498,599	4,374,274
Meriden, Conn.	1806	37,100	2,290	1,450,000	53,043,750	2,318,141	1,572,556
Miami, Fla.	1896	156,700	39,680	21,956,466	296,011,940	3,426,690	3,426,690
Middletown, Ohio	1837	31,900	3,500	1,630,597	56,000,000	1,160,400	799,593
Milwaukee, Wisc.	1846	544,200	20,714	41,616,050	944,151,658	33,130,201	36,773,194
Minneapolis, Minn.	1867	455,900	37,626	44,454,882	272,990,916	23,934,600	23,048,005
Mobile, Ala.	1814	69,600	9,155	7,705,700	52,384,879	$1.15 per C	
Moline, Ill.	1872	35,600	4,183	1,216,600	22,709,750	486,188	664,785
Montclair, N. J.	1868	33,700	4,096	9,747,495	98,425,491	3,665,517	3,657,642
Montgomery, Ala.	1837	63,100	4,371	6,650,000	28,290,146	$1.55 per C	
Mt. Vernon, N. Y.	1892	54,700	2,644	12,616,050	150,781,803	4,221,890	5,095,485
Muncie, Ind.	1865	46,800	4,749	none	62,684,865	$2.60 per C	450,000
Muskegon, Mich.	1870	46,600	4,260	1,128,506	47,636,700	999,082	999,082
Muskogee, Okla.	1898	33,200	5,120	1,991,917	29,333,582	1,243,157	1,142,356
Nashville, Tenn.	1806	139,600	16,853	10,360,000	174,612,000	3,841,464	2,439,755
Newark, N. J.	1836	473,600	15,084	76,661,986	705,657,743	34,052,085	20,907,675
Newark, Ohio	1860	30,500	3,951	1,434,852	55,000,000	$1.99 per C	529,544
New Bedford, Mass.	1847	119,040	12,153	11,445,551	201,581,800	$2.92 per C	
New Britain, Conn.	1871	72,800	8,810	7,021,531	116,232,248	3,231,256	3,472,256
New Brunswick, N.	1863	40,800	3,623	4,597,040	39,721,950	2,089,217	1,192,280
Newburgh, N. Y.	1865	30,400	2,387	2,726,439	40,000,000	$2.46 per C	
New Castle, Pa.	1869	52,500	5,000	959,180	57,136,640	$13.00p'rM	600,000
New Haven, Conn.	1784	187,900	14,340	11,228,228	321,209,507	7,161,136	8,983,959
New Orleans, La.	1805	429,400	113,920	60,909,480	422,019,126	$2.75 per C	
Newport, R. I.	1784	*30,000	4,445	1,691,652	48,511,000	1,493,577	1,468,131
Newport News, Va.	1896	53,300	3,328	2,908,500	28,084,617	944,555	1,087,434
New Rochelle, N. Y.	1899	48,800	4,104	9,290,473	178,184,165	4,856,237	6,023,664
Newton, Mass.	1873	57,300	10,240	5,039,862	152,533,200	4,500,000	4,500,000
New York, N. Y.	1653	6,017,500	191,360	1,506,707,624	18,362,061,510	$2.68 per C	
Niagara Falls, N. Y.	1892	68,300	8,720	13,230,359	141,190,717	3,223,717	4,152,083
Norfolk, Va.	1845	184,200	24,320	32,173,050	161,171,358	5,132,149	7,430,504
Norristown, Pa.	1812	36,200	2,265	233,000	25,564,160	$1.20 per C	316,391
Norwalk, Conn.	1913	30,100	15,777	2,606,403	52,827,210	$24.70p'rM	1,337,890
Norwood, Ohio	1902	30,800	2,031	1,700,000	76,000,000	$1.99 per C	582,000
Oakland, Calif.	1854	274,100	33,280	11,618,695	270,000,000	5,670,800	7,511,801
Oak Park, Ill. (Village)	1902	57,700	2,880	527,500	38,438,625	$6.37 per C	1,297,353
Ogden, Utah	1861	39,100	10,681	3,068,500	41,221,224	385,000	571,392
Oklahoma City, Okla.	1891	148,000	12,160	14,735,504	132,000,000	$19.64p'rM	2,410,041
Omaha, Nebr.	1857	222,800	24,179	14,217,000	243,725,000	8,215,000	6,947,000
Orange, N. J.	1872	36,500	1,414	3,545,572	43,524,494	1,445,884	1,716,825
Oshkosh, Wisc.	1853	33,200	5,134	1,227,198	59,916,285	$2.60	1,557,823
Pasadena, Calif.	1886	62,100	11,575	6,349,369	182,619,440	2,261,997	2,454,623
Passaic, N. J.	1873	71,800	5,760	9,590,209	84,701,233	4,453,605	2,619,728
Paterson, N. J.	1851	144,900	5,600	6,928,855	207,309,977	8,840,530	3,913,636
Pawtucket, R. I.	1886	73,100	5,440	10,919,948	88,947,580	2,863,052	2,987,571
Pensacola, Fla.	1822	*35,000	6,240	2,112,710	24,000,000	600,000	774,084
Peoria, Ill.	1845	84,500	72,704	1,235,000	93,000,000	1,291,000	2,601,270
Perth Amboy, N. J.	1871	50,100	2,958	4,604,667	52,183,959	$4.80 per C	1,787,415
Petersburg, Va.	1854	37,800	2,240	3,183,917	26,770,120	754,521	995,239
Philadelphia, Pa.	1683	2,064,200	83,017	382,994,200	3,406,574,017	70,036,479	93,120,412
Pittsburgh, Pa.	1816	673,800	32,881	61,094,349	1,136,606,150	21,389,970	25,594,618
Pittsfield, Mass.	1891	50,000	27,520	2,165,400	51,432,355	$3.20 per C	1,828,657

	Year Inc.	Population July, 1928.	Area.	Net Debt.	Realty Ass'd Valuation.	Tax Levy.	Budget.
			Acres.	*Dollars.*	*Dollars.*		
Plainfield, N. J.	1869	32,500	4,000	5,487,420	52,808,950	2,397,524	1,336,725
Pontiac, Mich.	1861	61,500	12,810	5,284,119	80,297,075	3,483,330	1,623,290
Port Arthur, Tex.	1898	33,000	1,447	2,574,622	24,724,700	544,973	735,311
Portland, Me.	1832	78,600	13,808	5,049,457	88,076,750	4,044,553	4,407,605
Portland, Ore.	1851	340,000	42,618	33,895,365	342,201,708	6,290,018	6,380,941
Portsmouth, Ohio	1815	41,200	7,680	2,730,768	53,649,120	712,334	1,128,900
Portsmouth, Va.	1858	61,600	3,840	7,887,500	33,819,998	985,719	1,698,241
Poughkeepsie, N. Y.	1854	42,500	1,782	4,950,591	48,238,426	$39.52p'rM	
Providence, R. I.	1832	286,300	11,738	34,819,938	684,575,806	12,877,545	14,231,614
Pueblo, Colo.	1873	44,200	7,188	3,069,300	37,234,415	$2.45 per C	
Quincy, Ill.	1839	39,800	1,600	none	28,800,500	424,426	510,817
Quincy, Mass.	1889	67,600	10,567	5,313,500	135,942,850	$2.68 per C	
Racine, Wisc.	1848	74,400	5,632	3,530,000	108,327,955	2,358,299	2,358,299
Raleigh, N. C.	1792	31,000	4,640	2,231,155	51,815,748	$1.15 per C	1,168,000
Reading, Pa.	1847	115,400	6,000	5,215,577	170,000,000	1,700,000	2,648,000
Revere, Mass.	1915	36,000	3,133	1,975,000	41,372,750	1,588,713	1,822,770
Richmond, Ind.	1840	31,000	3,500	216,500	42,235,831	895,396	496,340
Richmond, Va.	1782	194,400	15,341	29,084,172	247,293,567	6,435,500	9,950,000
Roanoke, Va.	1884	64,600	6,900	6,572,254	55,526,511	1,388,165	2,054,022
Rochester, N. Y.	1834	328,200	21,627	59,210,376	637,290,606	16,380,688	23,119,803
Rockford, Ill.	1852	82,800	7,570	1,696,400	55,160,890	2,568,828	3,514,384
Rock Island, Ill.	1899	42,700	5,760	575,000	25,000,000	329,021	1,216,601
Rome, N. Y.	1870	31,100	2,870	1,696,820	27,739,859	756,623	756,623
Sacramento, Calif.	1863	75,700	8,909	8,183,580	104,303,000	2,135,000	2,135,000
Saginaw, Mich.	1889	75,600	10,240	3,834,783	96,771,444	1,779,442	2,640,709
St. Joseph, Mo.	1853	78,500	8,870	4,127,507	81,000,000	1,012,500	979,400
St. Louis, Mo.	1822	848,100	39,276	45,275,483	1,289,653,830	34,691,689	26,477,195
St. Paul, Minn.	1854	260,000	35,481	19,489,771	149,264,861	9,135,479	11,502,058
St. Petersburg, Fla.	1903	53,300	37,440	5,687,031	143,617,020	$12.00p'rM	*4,387,226*
Salem, Mass.	1836	43,000	5,120	2,091,500	47,414,160	1,763,972	2,066,987
Salt Lake City, Utah	1851	138,000	33,514	5,792,200	140,064,106	2,071,247	2,842,435
San Antonio, Tex.	1837	218,100	8,320	16,908,760	174,972,750	4,537,740	2,781,700
San Diego, Calif.	1850	119,700	58,502	13,791,724	165,358,972	3,595,188	5,411,156
San Francosco, Calif.	1854	585,300	29,760	91,669,500	1,585,326,621	32,510,110	36,801,766
San Jose, Calif.	1850	45,500	7,360	1,137,125	37,999,225	707,015	700,000
Savannah, Ga.	1789	99,900	5,000	4,673,000	77,578,575	$2.30 per C	2,225,000
Schenectady, N. Y.	1798	93,300	6,498	7,890,150	191,400,942	$26.71p'rM	
Scranton, Pa.	1866	144,700	12,008	2,188,029	126,754,730	$17.98p'rM	2,360,369
Seattle, Wash.	1869	*450,000	43,552	15,888,252	297,355,154	11,162,283	27,584,729
Sheboygan, Wisc.	1853	35,100	3,286	626,000	50,118,342	1,572,675	1,572,656
Shreveport, La.	1839	81,300	17,280	6,243,550	122,030,750	$11.00p'rM	1,142,900
Sioux City, Iowa	1857	80,000	28,500	1,597,400	87,039,165	1,200,800	1,666,500
Sioux Falls, S. D.	1883	31,200	10,240	1,056,815	44,489,963	$35.27p'rM	799,500
Somerville, Mass.	1871	102,700	2,700	2,169,000	112,471,300	3,339,429	4,155,376
South Bend, Ind.	1865	86,100	12,659	1,970,000	135,506,800	1,211,573	1,164,158
Spokane, Wash.	1883	109,100	26,547	2,844,478	86,622,459	1,884,038	3,289,497
Springfield, Ill.	1840	67,200	5,662	798,000	47,101,030	922,900	2,497,943
Springfield, Mass.	1852	149,800	21,171	14,105,999	282,799,910	8,514,036	11,048,687
Springfield, Mo.	1855	51,700	8,709	2,779,623	31,963,695	$2.43 per C	
Springfield, Ohio	1850	73,000	7,297	857,294	118,709,320	656,020	656,020
Stamford, Conn.	1893	43,800	4,465	2,145,786	96,813,246	1,584,222	1,708,481
Steubenville, Ohio	1805	32,600	4,480	523,893	80,000,000	360,000	650,000
Stockton, Cal.	1850	51,000	5,856	3,132,675	75,920,152	1,532,875	1,747,047
Superior, Wis.	1889	39,670	26,880	2,021,000	49,067,309	2,166,372	1,511,462
Syracuse, N. Y.	1848	199,300	16,179	23,426,768	354,075,006	9,428,880	13,456,142
Tacoma, Wash.	1875	110,500	31,571	11,172,17	51,595,794	1,676,736	2,350,601
Tampa, Fla.	1887	113,400	16,640	13,690,427	135,933,514	2,187,185	3,618,104
Taunton, Mass.	1864	40,600	30,266	3,290,500	33,709,130	$3.56 perM	
Terre Haute, Ind.	1833	73,500	5,759	1,314,000	78,955,650	$1.28 perM	
Toledo, Ohio.	1837	313,200	23,040	27,612,675	423,560,540	6,586,650	6,586,650
Topeka, Kan.	1857	62,800	13,000	4,250,000	89,000,000	1,360,000	1,360,000
Trenton, N. J.	1792	139,000	5,420	14,780,052	184,299,221	8,287,950	8,287,954
Troy, N. Y.	1816	72,300	5,964	6,045,270	71,280,839		2,358,506
Tulsa, Okla.	1903	170,500	13,151	12,836,066	136,936,678	$20.50perM	2,938,055
Union City, N. J.	1925	64,400	830	4,665,265	62,734,300	$5.00 perM	
Utica, N. Y.	1832	104,200	10,240	9,709,327	136,515,768	4,008,885	5,608,644
Waco, Tex.	1856	46,600	7,040	5,225,552	44,819,040	$2.33 perM	672,372
Waltham, Mass.	1884	37,100	7,940	2,284,000	57,387,900	$3.40 per C	
Warren, Ohio	1869	36,100	5,493	3,911,150	77,746,050	$2.44 per C	562,587
Washington, D. C.	1802	552,000	44,480	none	1,152,463,345	20,101,876	42,032,795
Waterbury, Conn.	1853	100,000	17,981	7,071,376	189,753,656	$3.30 per C	
Waterloo, Iowa	1868	37,100	8,704	937,326	25,379,968	520,914	810,322
Watertown, N. Y.	1869	33,700	5,568	3,426,730	45,975,571	1,652,973	2,329,659
Wheeling, W. Va.	1836	68,660	7,040	3,239,000	118,525,783	$25.10p'rM	1,456,065
Wichita, Kan.	1871	99,300	13,280	7,088,117	96,002,000	$3.35 per C	1,451,767
Wichita Falls, Tex.	1899	58,025	6,886	3,781,412	42,816,830	$1.50 per C	1,056,415
Wilkes-Barre, Pa.	1871	91,900	4,640	3,312,700	108,000,000	$1.50 per C	1,599,344
Williamsport, Pa.	1866	44,000	6,099	642,150	38,204,105	592,163	570,568
Wilmington, Del.	1832	128,500	7,290	11,231,000	144,835,950	2,569,245	3,193,686
Wilmington, N. C.	1866	39,100	3,534	2,380,812	43,613,437	1,090,336	1,110,841
Winston-Salem, N. C.	1913	80,000	9,554	10,527,805	146,670,372	1,915,000	4,237,157
Woonsocket, R. I.	1888	53,400	5,632	7,461,730	64,154,300	2,080,000	2,745,053
Worcester, Mass.	1848	197,600	24,634	8,181,202	304,763,900	11,319,271	11,728,689
Yonkers, N. Y.	1872	121,300	13,440	25,335,363	328,828,530	9,749,502	13,497,028
York, Pa.	1887	49,900	2,220	1,107,746	54,126,115	$9.50 perM	515,066
Youngstown, Ohio	1868	174,200	21,971	7,936,794	281,110,960	2,143,538	4,076,745

* Local estimate.

EGGS 100 YEARS OLD—TASTE EM!

Fresh eggs are pickled by immersion for three months or longer in a thick mixture of lime, salt, lye and tea-leaves. Then they are drained and coated with a mixture of clay and rice husks.

While the egg is still comparatively fresh, say a year or so old, the yolk is a brownish green and of a soft, almost pasty consistency. The white is a stiff jelly of a deep, translucent amber. Both have a fishy, ammoniacal odor.

The Chinese eat these eggs raw, accompanying each mouthful with a piece of pickled ginger. As a rule the eggs are eaten when two or three years old.

At ten years or more the entire content of the shell is a deep brown, and these eggs, the best of all, are costly, and reserved for great occasions by the fortunate person who happens to own them.

Such eggs will keep up to a hundred years, and there are legends of eggs which have been eaten after two hundred.

FINANCIAL STATISTICS OF 250 CITY GOVERNMENTS IN 1927.

The United States Department of Commerce announced, Feb. 18, 1929, a summary of the financial transactions of the 250 cities having a population of over 30,000 for the fiscal year 1927.

The total payments for operation, maintenance, interest, and outlays for permanent improvements for these cities were 92.5% greater than similar payments of the government of the 48 states, and 0.1% greater than those of the Federal government for the fiscal year 1927.

EXPENDITURES.

The payments for operation and maintenance of the general departments of these city governments amounted to $1,750,707,093 or $40.98 per capita. In 1926, the comparative per capita was $39.18, and in 1917, $19.07. Payments for the operation of public service enterprises, as water works, electric light plants, and similar enterprises, amounted to $162,470,940; interest on debt, $319,248,702; and outlays for permanent improvements, including those for public service enterprises, $1,091,959,616. The total payments in 1927, therefore, were $3,324,386,351; in 1926, $3,052,645,496; and in 1917, $1,103,021,565.

The per capita net government-cost payments for operation, maintenance, and interest for 146 cities covered by census reports since 1903 were $52.64 in 1927, $50.30 in 1926, $24.58 in 1917, and $16.41 in 1903.

The totals include all payments for the year, whether made from current revenues or from the proceeds of bond issues. Proceeds from the issuance of debt obligations are not considered revenue receipts.

Of the 250 cities only two were lacking in revenues sufficient to meet all operating expenses and interest, while 70 realized enough revenues to meet all their payments for expenses, interest, and outlays and to have a balance available for paying debt.

Of the total municipal payments in 1927, 52.7% was for operation and maintenance of general departments; 4.9%, operation and maintenance of public service enterprises; 9.6%, interest on debt; and 32.8% outlays for permanent improvements.

Of the payments for operation and maintenance of general departments, 38.2% was for education; 20%, protection to person and property; 8.9%, highways; 8.5%, general government; 7.7%, sanitation or promotion of cleanliness; 6.1%, charities, hospitals, and corrections; 4.7%, miscellaneous; 3.4%, recreation; and 2.4%, conservation of health.

The percentages for 1927 show but little change from those for 1926.

Of the total payments for outlays for permanent improvements, the principal items were $394,963,016, or 36.1%, for highways; $198,560,613, or 18.2%, for education; and $196,317,702, or 17.9%, for public service enterprises.

REVENUES.

The total revenue receipts of the 250 cities for 1927 were, $2,945,511,729, or $68.96 per capita. This was $713,084,994 more than the total payments of the year exclusive of the payments for permanent improvements, but $378,874,622 less than the total payments including those for permanent improvements. The revenue receipts included $1,888,704,574 from general property taxes; $64,457,627 from special taxes; $88,941,226 from licenses; $233,292,693 from special assessments; $144,292,408 from subventions, donations, and pension assessments; $136,454,248 from interest, rents, and highway privileges; $290,941,918 from earnings of public service enterprises; and $98,427,035, the remainder, from poll taxes, fines, forfeits, and escheats, and earnings of general departments.

The per capita net revenue receipts of 146 cities covered by census reports since 1903 were $69.77 in 1927, $66.14 in 1926, $31.97 in 1917, and $21.14 in 1903.

INDEBTEDNESS.

The net indebtedness (funded or fixed debt less sinking fund assets) of the 250 cities amounted to $5,479,284,872, or $128.27 per capita, in 1927, this being an increase of 7% over that for 1926. The per capita net debt of 146 cities covered by reports since 1903 was $134.27 in 1927, $128.13 in 1926, $80.75 in 1917, and $44.71 in 1903.

While in 1927 as compared with 1926 there was an increase of $361,112,478 in net debt for the 250 cities as a whole, there were 84 individual cities which showed a decrease in their net indebtedness.

Of the permanent improvements for 1927, 33.1% was financed from proceeds of bond issues.

ASSESSED VALUATIONS AND TAX LEVIES.

For 1927, the assessed valuation of property subject to ad valoram taxation for city purposes was $74,731,205,845 for the 250 cities and the amount of taxes levied for the city government was $2,009,515,436, or $47.04 per capita.

These statistics cover the government of the city corporation proper, and also independent school districts, sanitary districts, park districts, and other independent districts practically coextensive with the cities. They also include a percentage of the financial transactions, debt, and tax levies of the county governments for cities having over 300,000 population, in order that the statistics for such cities may be comparable with those for other cities in this class in which the ordinary county functions are performed by the city government.

ZONED MUNICIPALITIES IN THE UNITED STATES.

More than 37,000,000 people, residing in 754 cities, towns, and villages, comprising three-fifths of the urban population of the United States in all parts of the country, now have the protection afforded by zoning regulations, according to the results of a survey just completed by the Division of Building and Housing of the Department of Commerce as compiled by Normal L. Knauss.

From the standpoint of ordinances adopted, the eight zoned cities by the end of 1916 were augmented to 38 in 1920 and to 76 in 1921. In 1922 New Jersey, New York, Illinois and Massachusetts showed considerable activity, the additions amounting to 101, which increased the total number to 177. During 1923, cities in California and Illinois were more active and many other states adopted zoning for the first time, so the year netted 106 and brought the total to 283 in 1924.

In grouping the zoned municipalities according to population it was found that 56 of the 68 cities having over 100,000 population (1920 census) were zoned; 79 cities with between 40,000 and 100,000; 86 cities with between 20,000 and 40,000; 96 municipalities with between 10,000 and 20,000; and 437 municipalities, towns and villages having less than 10,000.

New York leads the list of states at the end of 1928 with 131 zoned municipalities. New Jersey is second with 84; California, third, with 73; Illinois fourth, with 71; Massachusetts fifth, with 62; Pennsylvania sixth, with 43; Ohio seventh, with 41; Michigan eighth, with 31; Wisconsin ninth, with 30; and Kansas tenth, with 23. Then follow Connecticut and Indiana, 17 each. The other 131 are in 31 states and include also the City of Washington, D. C.

An examination of the zoning ordinances of the 754 municipalities shows that 475 were comprehensive in scope, regulating the use, height and area of buildings. Of the 279 other zoning ordinances most controlled the use to which buildings and premises could be put, although 45 of the number also controlled the area of buildings; and 10 others controlled the use and height of buildings.

Most municipalities reported that their early zoning ordinances were still in effect. A few cities stated that minor changes had been made in zoning ordinances, chiefly in extending boundaries wherein the use of buildings and grounds were controlled and in further regulating the use, height and area of buildings.

The Division of Building and Housing of the Department of Commerce has prepared for those interested a "Zoning Primer," "A Standard State Zoning Enabling Act," "A City Planning Primer," and "A Standard City Planning Enabling Act."

UNITED STATES VOLUNTEER LIFE SAVINGS CORPS.

The United States Volunteer Life Saving Corps, formed in 1870, instructs in rescue work from drowning, resuscitation and first aid, places life saving equipment, surf boats, life buoys, etc., at the most dangerous places throughout the United States, and grants medals and certificates.

Its work has been adopted by the Boy Scouts, Girl Scouts, Y. M. C. A., Y. W. C. A., Red Cross, and practically all municipal life guards in the country, as well as Army, Navy, and other branches of the Government, each organization modifying the work.

The Corps has over 100,000 rescues to its credit and countless first aid cases since its inception. Its membership approximates 75,000 and is active in many states throughout the Union. The headquarters are at 91 Sabin St., Providence, R. I.

President, Dr. Mancel W. Talcott, Providence, R. I.; *Vice President*, William F. Schultz, Hoboken, N. J.; *Second Vice President*, William J. Davids, Seattle, Wash.; *Treasurer*, Henry M. Beling, New York City.; *Secretary*, Benjamin H. Schlomberg, Springfield, L. I., New York.

Labor Review for 1929.

By John J. Leary, Jr.

There were two outstanding developments in labor's world during 1929—the uprising in the cotton textile centers of the south and the substantial spread of the five-day work week now enjoyed by more than 500,000 organized workers.

Less spectacular, but in the long range view possibly as important, was the setting up of machinery to stabilize the cloak and suit industry of New York by the substitution of cooperation for the law of the jungle, and the knitting of the small, highly prosperous business and professional Negro group with the mass of the race in a movement calculated to secure economic equality for the 97% of the race who must live by manual labor.

During the year wages were fairly steady with a slight upward trend, with employment in most industries above normal until the closing months of the year when building, influenced by the high rates for money, slackened and high production in the earlier months led to slowing down of the automobile industry. The two exceptions to the general rule were the coal and textile trades. In the former conditions were slightly worse than in 1928. In the latter, thanks to a change in style trends, there was substantial improvement.

During the year there was, save in the textile mills of the South, no strike of more than local importance, last minute efforts heading off a lockout of all the building trades in New York over a dispute between employing electricians and the local electrical workers union.

The abandonment of generation old policies by employers and employed in the cloak trade came as an aftermath of the collapse of Communist control of the local unions that had brought disaster to both sides. Taking advantage of the chastened spirit of employers and employees, Gov. Franklin D. Roosevelt, working through Lieut. Gov. Herbert H. Lehman and Raymond V. Ingersoll set up a commission with broad powers to govern the industry.

Under the system set up, Mr. Ingersoll as chairman of the commission, has more power than any of the so-called czars in business and sports. The system has been in operation too short a period—something less than six months—to warrant any hard and fast opinion as to its ultimate success. Suffice it to say, therefore, that it has thus far worked well; that the experiment is being closely watched by sociologists, economist and industrialists, and that the consensus of opinions of those best qualified to judge is that at least it insures a reasonable degree of peace and stability to a long troubled industry for a period of years.

The spread of the five-day week, thus far in the main confined to the building and graphic trades, comes after years of agitation and discussion, the determining factor being the increasing use of power-driven machinery and the developments of new processes through the application of discoveries in the laboratories to practical manufacturing, mining and building.

The largest gains were made in New York City, where in one move 140,000 building tradesmen secured the two-day rest period without loss of wages and in Chicago where the compositors secured a contract making five days the rule in the union book and job shops of that center.

Prophecy is always dangerous, but judging the future by the experiences of the past, the best opinion is that the five-day week is here to stay and that in the not far distant future it will be as general as the eight hour day now is, for the trend is toward shorter hours. In this connection it is worthy of note that the railroad brotherhoods are now working for a six hour day.

The southern textile situation burst in the early spring with a series of unrelated strikes in Tennessee and the Carolinas. Chief of these was the general strike of rayon workers in German owned mills in Elizabethton, Tenn., where unorganized workers struck against wages and working conditions. The strike was taken over by the American Federation of Labor which with the aid of the United States Department of Labor worked out a settlement.

The peace was of short duration, being followed by another strike in which union organizers were kidnapped, and troops used as in the earlier strike. The strikers after a brief period returned to work on promises of reforms, leaving the situation still tense. It may work out without further serious disturbance, but the best that can be said of the existing agreement is that it is a truce rather than a settlement.

About the same time organizers of the National Textile Workers Union, one of several "paper" organizations of Communist origin and under Communist control, who had been working in the south for more than two years, called a strike in the Loray Mills, of the Manville-Jenckes Co. in Gastonia, N. C. Clearly a political rather than an economic movement, the strike was soon broken.

The leaders, however, persisted in the pretence that a strike was still on and in various ways tried to revive it. On June 7 a march on the mills which was broken up by police under Chief O. F. Aderholt, was followed by a fracas on grounds maintained by the Communists as strike headquarters in which Aderholt was shot and killed. For the killing 16 were indicted for murder in the first degree.

Judge Maurice V. Barnhill, assigned to try the indictments, granted a change of venue to Mecklenburgh County. The first trial, which attracted world-wide attention, ended abruptly when one of the jurors became a raving maniac. On a second trial seven of the defendants, chief of whom was Fred Erwin Beal, of Lawrence, Mass., were convicted of murder in the second degree and given sentences ranging from 5 to 7 years in State Prison to from 17 to 20 years. As this is written (Dec. 17), the case is on appeal on questions of law.

Gastonia again blazed forth on Sept. 14 when, following an attempt to hold a meeting, Mrs. Ella May Wiggin was shot and killed in a clash between a mob largely made up of mill employes and members of the union. After several inquiries, several members of the mob were held for the grand jury on murder charges.

Five weeks later there was additional bloodshed in Marion, some 70 miles from Gastonia, where earlier in the year the employees of two mills struck under American Federation of Labor leadership. Several union men lost their lives in a battle between pickets and a sheriff's force. In this case, as in the Wiggin case, several members of the posse were held for the grand jury.

Previously, Alfred Hoffman, leader of the strike, and 50 others were arrested on charges of rioting and inciting to rebellion against the state growing out of the refusal of strikers to permit Sheriff Adkins to place the furniture of a strike breaker in a cottage from which a striker had been evicted.

On the trial, the court dismissed the charge of rebellion, but permitted the case to go to the jury on charges of rioting. Alfred Hoffman, organizer of the United Textile Workers of America, was convicted and fined $1,000, and sentenced to one month in jail; and three strikers were sentenced to six months each in the chain gang. Judge Cowper said the sentence was "in no conflict with the right of labor to organize."

Discussion of the southern situation featured the annual convention of the American Federation of Labor in Toronto, which body instructed the executive officers of the federation to initiate a general organizing campaign in the south, with emphasis laid on work in the textile centers.

In the closing month of the year the International Ladies' Garment Workers Union, meeting in Cleveland, celebrated the elimination of the Communist element from the organization and its rebirth, through the culmination of a brief strike, which ended with the formation of the governing commission above referred to and approved plans for a general strike of 50,000 dress and waist makers in January.

Unemployment at the close of the year was on the increase, though it was clear that the abnormal volume of enforced idleness it was feared would follow the debacle in Wall Street had in large measure been headed off through the efforts of President Hoover to restore confidence in basic conditions.

It is worthy of note that for the first time in the history of American industry, a threat of depression was not followed by attempts at wage cutting, perhaps the most tangible evidence yet adduced that organized labor had finally convinced the employing group that the road to prosperity is not paved with low wage scales.

AMERICAN FEDERATION OF LABOR.

The American Federation of Labor has its headquarters in the A. F. of L. Building, Washington, D. C. The national officers, re-elected, Oct. 17, 1929. at Toronto, Can., are:

Executive Council—President William Green, A. F. of L. Bldg., Washington, D.C., Secretary, Frank Morrison, A. F. of L. Bldg., Washington, D. C., Treasurer, Martin F. Ryan, Carmen's Bldg., Kansas City, Mo.; First Vice-President, Frank Duffy, Carpenters' Building, Indianapolis, Ind.; Second Vice-President, T. A. Rickert, Room 506, 175 W. Washington St., Chicago, Ill.; Third Vice-President, Matthew Woll,

Room 701, 166 W. Washington St., Chicago, Ill.; Fourth Vice-President, James Wilson, Second Nat. Bk. Bldg., Cincinnati, Ohio; Fifth Vice-President, ——— I. A. of M. Bldg., Washington, D. C.; Sixth Vice-President, John Cofield, 1138 North Dearborn St., Chicago, Ill.; Seventh Vice-President, Arthur O. Wharton, Machinist Bldg., Washington, D. C.; Eighth Vice-President, Joseph N. Weber, 1440 Broadway, New York, N. Y.

In the Federation there are 105 national and international unions representing 28,865 local unions, 4 departments, 49 State branches, 803 city centrals with a total of 2,933,545 members.

The receipts for the last fiscal year were $609,633.01; expenditures, $575,181.87. The balance on hand was $334,560.57.

Departments—Building Trades, Wm. J. Spencer, Sec.-Treas., Rms. 500-505 A. F. of L. Bldg., Wash., D. C.; Metal Trades, John P. Frey, Sec.-Treas. Rms. 400-403 A. F. of L. Bldg.; Railroad Employees, J. M. Burns, Sec.-Treas., Rm. 402, 844 Rush St., Chicago, Ill.; Union Label Trades, John J. Manning, Sec.-Treas., Rm. 202, A. F. of L. Bldg., Wash., D. C.

The national and international unions affiliated with the American Federation of Labor, with the names of the several Presidents, (or Secretary-Treasurers) and the addresses of the headquarters as of Sept. 1, 1923, are as follows:

Actors and Artists. Paul D. Dullzell, 45 W. 47th St., N. Y. C.

Asbestos Workers. Thomas J. McNamara, Sec.-Treas., 918 Holland Bldg., St. Louis, Mo.

Bakery and Confectionery Workers. Charles F. Hohmann, 2719 Best Ave., Chicago, Ill.

Barbers' International. J. C. Shanessy, Sec.-Treas., 222 E. Michigan St., Indianapolis, Ind.

Bill Posters. William McCarthy, Rm. 821, Longacre Bldg., 42d St. and Broadway, New York.

Blacksmiths. William F. Kramer, Sec.-Treas., 2922 Washington Blvd., Chicago, Ill.

Boilermakers. Charles F. Scott, Sec.-Treas., Suite 504, Brotherhood Block, Kansas City, Kan.

Bookbinders. Felix J. Belair, Sec.-Treas., Rm. 308, A. F. of L. Bldg., Washington, D. C.

Boot and Shoe Workers. L. C. Baine, Sec.-Treas., 246 Summer St., Boston, Mass.

Brewery. Joseph Obergfell, 2347-51 Vine St., Cincinnati, Ohio.

Bricklayers, Masons and Plasterers. John J. Gleeson, 1417 K St., N.W., Washington, D. C.

Brick and Clay Workers. William Tracy, Sec.-Treas., Rm. 440, 323-331 So. La Salle St., Chicago, Ill.

Bridge and Structural Iron Workers. W. J. McCain, 1615-20 Syndicate Trust Bldg., St. Louis, Mo.

Broom and Whisk Makers. Will R. Boyer, Sec.-Treas., 853 King Place, Chicago, Ill.

Building Service Employees. Paul David, Sec.-Treas., 130 N. Wells St., Chicago, Ill.

Carmen. J. M. Ellis, Sec.-Treas., 408 Carmen's Bldg., W. Linwood Blvd., Kansas City, Mo.

Carpenters and Joiners. Frank Duffy, Carpenters' Bldg., Indianapolis, Ind.

Carvers. Frank Detlef, 8605 85th St., Woodhaven, L. I., N. Y.

Cigarmakers. I. M. Ornburn, Rm. 604, Carpenters' Building, 10th and K Sts., Washington, D. C.

Clerks, Post Office. Thomas F. Flaherty, 300 A. F. of L. Bldg., Washington, D. C.

Clerks, Railway. George S. Levi, Sec.-Treas., Seventh Floor, Brotherhood of Railway Clerks Bldg., Court and Vine Sts., Cincinnati, Ohio.

Clerks, Retail. C. C. Coulter, Sec.-Treas., Lock Drawer 248, Lafayette, Ind.

Cloth Hat Workers. Jacobs Roberts, Sec.-Treas., 621 Broadway, New York, N. Y.

Conductors, Sleeping Car. W. O. Murphy, Sec.-Treas., 107 W. Linwood Blvd., Kansas City, Mo.

Coopers. Forrest M. Krepps, Sec.-Treas., Meriweather Bldg., Kansas City, Kan.

Diamond Workers. Andries Meyer, 132 Joralemon St., Brooklyn, N. Y.

Draftsmen. C. L. Rosemund, 200 A. F. of L. Bldg., Washington, D. C.

Electrical Workers. G. M. Bugniazet, 1200 Fifteenth St. N W., Washington, D. C.

Elevator Constructor7. Joseph F. Murphy, Sec.-Treas., 1210 Central Bldg., 191 Joralemon St., Brooklyn, N. Y.

Engineers. Dave Evans, Sec.-Treas., 1003 K St. N. W., Washington, D. C.

Engravers, Metal. John Joos, Sec.-Treas., 118 Middlesex Road, Rochester, N. Y.

Engravers, Photo. Henry F. Schmal, Sec.-Treas., 3136 So. Grand Blvd., St. Louis, Mo.

Federal Employees. Gertrude McNally, Sec.-Treas., 10 B St., S.W., Washington D. C.

Fire Fighters. George J. Richardson, Sec.-Treas., 105 A. F. of L. Bldg., Washington, D. C.

Firemen and Oilers. Joseph W. Morton, 2929 W. Washington Blvd., Chicago, Ill.

Foundry Employees. Leonard Holtschult, Sec.-Treas., 218½, North Tremont St., Kewanee, Ill.

Fur Workers. Harry Begoon, Sec.-Treas., 9 Jackson Ave., Long Island City, N. Y.

Garment Workers, United. J. L. Wines, Sec.-Treas., 619 Bible House, New York, N. Y.

Garment Workers, Ladies. Abe Baroff, Sec.-Treas., 3 W. 16th St., N. Y. C.

Glass Bottle Blowers. Harry Jenkins, Rm. 1007, Colonial Trust Bldg., 13th and Market Sts., Philadelphia, Pa.

Glass Cutters and Flatteners. Joseph L. Fortune, Sec.-Treas., 215 House Bldg., Smithfield and Water Sts., Pittsburgh, Pa.

Glass Cutters, Window. Harry D. Nixon, 414 Clinton Bldg., 8 E. Chestnut St., Columbus, O.

Glass Workers, Flint. Charles J. Shipman, Sec.-Treas., Rms. 200-10 Amer. Bank Bldg., Huron St. and Jefferson Ave., Toledo, Ohio.

Glove Workers. Elizabeth Christman, Sec.-Treas., 311 So. Ashland Blvd., Chicago, Ill.

Granite Cutters. Sam Squibb, 25 School St., Quincy, 69, Mass.

Hatters, United. Martin Lawlor, Sec.-Treas., Rm. 418, Bible House, New York City.

Hod Carriers. A. Persion, Sec.-Treas., 25 School St., Quincy, 69, Mass.

Horse Shoers. Hubert S. Marshall, Sec.-Treas., Rm. 605, Second National Bank Bldg., Cincinnati, Ohio.

Hotel and Restaurant Employees. Robert B. Hesketh, Sec.-Treas., 530 Walnut St., Cincinnati, Ohio.

Hotel and Restaurant Employees. Jere L. Sullivan, Sec.-Treas., 530 Walnut St., Cincinnati, Ohio.

Iron, Steel and Tin Workers. David J. Davis, 500 S. Main St., W.E., Pittsburgh, Pa.

Jewelry Workers. Saml. E. Beardsley, Sec.-Treas., Room 607, 112-18 W. 44th St., New York City.

Lathers. A. D. Yoder, Sec.-Treas., Lathers' Bldg. Detroit Ave. and West 26th St., Cleveland, Ohio.

Laundry Workers. Harry L. Morrison, Sec.-Treas., 799 2d Ave., Troy, N. Y.

Leather Workers. J. J. Pfeiffer, Sec.-Treas., Rms. 608-610 Walsix Bldg., 6th and Walnut Sts., Kansas City, Mo.

Letter Carriers. M. T. Finnan, 405 A. F. of L. Bldg., Washington, D. C.

Letter Carriers, Rural. George F. Klinker, Lafayette, Ind.

Lithographers. James M. O'Connor, Sec.-Treas., 205 W. 14th St., New York City.

Longshoremen. John J. Joyce, Sec.-Treas., 1020 Gerrans Bldg., Buffalo, N. Y.

Machinists. E. C. Davison, Sec.-Treas., I. A. of M. Bldg., 9th and Mt. Vernon Place, Wash., D. C.*

Maintenance of Way Employees. E. E. Milliman, Sec.-Treas., 61 Putnam Ave., Detroit, Mich.*

Marble Polishers, Sawyers, Tile and Marble Setters' Helpers. Stephen C. Hogan, 406 E. 149th St., New York City.

Masters, Mates and Pilots. J. J. Scully, 24 Moore St., New York, N. Y.

Meat Cutters and Butcher Workmen. Dennis Lane, Sec.-Treas., Rm. 604, 160 No. La Salle St., Chicago, Ill.

Metal Workers. W. M. O'Brien, Sec.-Treas., Rms. 635-642 Transportation Bldg., Wash., D. C.*

Mine, Mill and Smelter Workers. Edward E. Sweeney, Rm. 531, Judge Bldg., Salt Lake, Utah.

Mine Workers of America, United. Thomas Kennedy, Sec.-Treas, 1101 Merchants Bank Bldg., Indianapolis, Ind.

Moulders. N. D. Smith, Edwards Bldg., 530 Walnut St., Cincinnati, Ohio.

Musicians. William Kerngood, 37-39 William St., Newark, N. J.

Oil Field and Refinery Workers. J. L. Coulter, Sec.-Treas., Box 1779, Ft. Worth, Tex.

Painters, Decorators and Paperhangers. Clarence E. Swick, Painters and Decorators' Bldg., Lafayette, Ind.

Paper Makers. Arthur Huggins, 25 So. Hawk St., Albany, N. Y.

Pattern Makers. James Wilson, Rms. 1008-9 Second National Bank Bldg., 9th and Main Sts., Cincinnati, Ohio.

Pavers. Edward I. Hannah. 819 Third Ave., New Moore St., New York, N. Y.

Paving Cutters. Albert M. Anderson, Box 130, Rockport, Mass.

Piano and Organ Workers. Jacob Fischer, 260 E. 138th St., New York, N. Y.

Plasterers. T. A. Scully, Sec.-Treas., 301 Castell Bldg., Middletown, Ohio.

Plumbers and Steamfitters. Thomas E. Burke, Sec.-Treas., Machinist Bldg., Ninth and Mt. Vernon Pl., N. W., Washington, D. C.

Polishers, Metal. W. W. Britton, 601 Second Natl. Bank Bldg., Cincinnati, Ohio.

Potters. John McGillivray, Sec.-Treas., Box 6, East Liverpool, Ohio.

Powder and High Explosive Workers. Geo. W. Hawkins, Sec.-Treas., Columbus, Kan.
Printers and Die Stampers. James E. Goodyear, 3974 Amundson Ave., New York, N. Y.
Printing Pressmen and Assistants. Joseph C. Orr, Sec.-Treas., Pressmen's Home, Tennessee.
Pulp and Paper Mill Workers. John P. Burke, Drawer V, Fort Edward, N. Y.
Quarry Workers. Fred W. Suitor, Sec.-Treas., Scampini Bldg., Barre, Vt.
Railway Employees. W. D. Mahon, 260 Vernor Highway E, Detroit, Mich.
Railway Mail. H. W. Strickland, Rms. 506-8 A. F. of L. Bldg., Washington, D. C.
Roofers. Joseph M. Gavlak, Sec.-Treas., 3091 Coleridge Rd., Cleveland, Ohio.
Seamen's. Victor A. Olander, Sec.-Treas., 623 South Wabash Ave., Chicago, Ill.
Siderographers. Daniel W. McCallum, 513 Crittenden St., N. W., Washington, D. C.
Stage Employees. Richard J. Green, Sec.-Treas., Suite 1352, 1440 Broadway, New York, N. Y.
Stereotypers and Electrotypers. Charles A. Sumner, Sec.-Treas., 3110 Olive St., Kansas City, Mo.
Stonecutters. Joseph Blasey, Sec.-Treas., Box 767, Indianapolis, Ind.
Stove Mounters. Frank Grimshaw, Sec.-Treas., 6466 Jefferson Ave. East, Detroit, Mich.
Switchmen. Wm. J. Trost, Acting Sec.-Treas., 3 Linwood Ave., Buffalo, N. Y.
Tailors. Gust Soderberg, 6753 Stony Island Ave., Chicago, Ill.
Teachers. Florence C. Hanson, Sec.-Treas., Rm. 526, 506 South Wabash Ave, Chicago, Ill.
Teamsters. Thomas L. Hughes, Sec.-Treas., 222 East Michigan St., Indianapolis, Ind.
Telegraphers, Commercial. W. L. Allen, Sec.-Treas., 113 So. Ashland Blvd., Chicago, Ill.
Telegraphers, Railroad, Leonard Jackson Ross, Sec.-Treas.; 3673 West Pine St., St. Louis, Mo.
Textile Workers. James Starr, Sec.-Treas; Rms 603-609 Bible House, New York, N. Y.
Tobacco Workers. E. Lewis Evans, Rms. 50-53, Our Home Life Insurance Bldg., Louisville, Ky.
Typographical. Woodruff Randolph, Sec.-Treas., Meridian and 28th Sts., Indianapolis, Ind.
Upholsterers. William Kohn, 230 E. 58th St., N. Y. C.
Wall Paper Crafts. Edwin Gentzler, 935 West King St., York, Pa.
Weavers' Protective. Charles C. Bradley, Sec.-Treas., 9122 89th St., Woodhaven, New York.

*Railway shop craft unions, which with "Big Four" brotherhoods make up so-called "standard railroad unions."

UNAFFILIATED LABOR ORGANIZATIONS.

The Railway Brotherhoods.

Brotherhood of Locomotive Engineers, President, A. Johnston, B. of L. E. Building, Cleveland, Ohio. 80,000 members.

Brotherhood of Locomotive Firemen and Enginemen. President, D. B. Robertson. 901 Guardian Building, Cleveland, Ohio. 120,000 members.

Brotherhood of Railroad Trainmen, President A. W. Whitney, Trainmens Bldg., American Trust Building, Cleveland, Ohio. 150,000 members.

Order of Railway Conductors of America, President, L. E. Sheppard, O. R. C. Building, Cedar Rapids, Iowa. 60,000 members.

Amalgamated Clothing Workers.

Amalgamated Clothing Workers, 15 Union Square, New York, N. Y. Sidney Hillman, Pres.; Joseph Schlossberg, Sec.-Treas.; about 125,000 members.

Industrial Workers of the World.

The Industrial Workers of the World (1915) with headquarters at 555 West Lake St., Chicago, Ill., have a membership of about 20,000. Ch. Gen. Exec. Bd., W. H. Westman; Gen. Sec.-Treas., L. Tulin.

POSITION OF LABOR BANKS IN 1929.

Labor banking continued to mark time during 1929, due to the check given the movement by the troubles of the Brotherhood of Locomotive Engineers, the pioneer in the movement that came to a head in 1926. No new banks, entitled to the descriptive term "labor" were set up in the year.

The Federation Bank & Trust Co., of New York, continued to lead in this group of financial institutions, with the Engineers Bank, of Cleveland, in second place.

A summary follows of the statements of conditions of the labor banks as of June 29, 1929, compiled from reports to the Industrial Relations Section of Princeton University, of which Prof. J. Douglas Brown is director, and printed in The Almanac by his courtesy:

Location and Name of Bank.	Capital.	Surplus and Undivided Profits.	Deposits.	Resources	An. Div.
Boston, Mass.—Engineers Nat'l. Bank of Boston	$500,000	$77,362	$2,736,393	$3,787,714	..
Chicago, Ill.—Amalgamated Trust and Savings Bank	200,000	160,844	3,329,833	3,756,301	6
Cincinnati, O.—Brotherhood of Rwy. Clerks Nat. Bank	400,000	150,333	4,307,998	5,445,275	4
Cleveland, O.—Engineers Nat'l. Bank of Cleveland	1,000,000	357,810	16,923,800	20,081,540	5
Gary, Ind.—Gary Labor Bank	50,000	13,233	663,174	817,778	6
Great Falls, Mont.—Labor Nat'l. Bank of Great Falls	100,000	24,131	696,154	823,255	8
Hammond, Ind.—Peoples Co-operative State Bank	100,000	42,577	1,837,379	2,157,494	4
Indianapolis, Ind.—United Labor Bank and Trust Co.	112,500	27,822	966,615	1,118,764	..
Jackson, Mich.—Farmers' and Workingmen's Sav. Bank	100,000	13,295	939,193	1,069,329	..
Jersey City, N. J.—Labor Nat'l. Bank of Jersey City	400,000	231,186	2,032,177	2,965,130	..
Minneapolis, Minn.—Transport. Brotherh'ds Nat. Bank	200,000	66,246	2,284,296	2,632,974	..
Newark, N. J.—Labor National Bank of Newark	250,000	160,208	3,565,601	4,017,884	5
New York, N. Y.—Amalgamated Bank of New York	650,000	487,172	11,673,794	13,315,804	10
Federation Bank and Trust Company	750,000	1,131,586	16,958,881	19,356,249	12
Paterson, N. J.—Labor National Bank of Paterson	300,000	203,467	5,670,323	6,349,836	6
Portland, Ore.—Brotherh'd Nat'l. Bank of Portland	200,000	64,078	2,240,458	2,705,865	..
Rogersville, Tenn.—Hawkins County Bank	50,000	53,065	593,813	721,878	20
St. Louis, Mo.—Telegraphers National Bank	500,000	238,439	6,341,251	7,563,956	6
Tacoma, Wash.—Brotherh'd Co-operative Nat. Bank	200,000	48,770	2,629,372	3,075,199	..
Three Forks, Mont.—Labor Nat'l. Bank of Montana	25,000	10,168	220,167	255,336	5
Toledo, Ohio—American Bank	200,000	70,466	1,604,600	2,087,707	..
Washington, D. C.—Mt. Vernon Savings Bank	400,000	175,323	3,861,826	4,434,596	6

EFFECT OF MONOTONY IN WORK.

The British Industrial Fatigue Research Board has found, by experiments involving simple muscular activities, such as repeatedly raising and lowering a weight by the flexion and extension of the finger, that continuance of the movements until further movement becomes impossible does not result from muscle exhaustion but that the inhibitory impulse arises in the central nervous system.

From this fact the inhibitory theory of boredom has been evolved and this view of the condition is considered to be particularly applicable to repetitive processes in industry which hold little inherent interest for the worker, for in these processes, unless perfect mechanization of an operation is achieved, any wandering of attention may be harmful either to the worker or to the machine.

Therefore the natural tendency on the part of the worker to allow his attention to stray is constantly being restrained in order that production may be continued, with the result that a state of boredom is induced.

The data secured as a result of the study show that boredom is frequently present among the workers in continuous manual operations of a repetitive type and that it may be the result of the weakening of the stimulus to work produced by the repeated performance of the same task; by the repression of intruding thoughts and desires; by the enforced effort involved in the performance of the work and in the maintenance of the work attitude; or by an active dislike for the task.

It has been shown that boredom is more likely to arise in such processes than in automatic processes.

THE INTERNATIONAL LABOR ORGANIZATION.

(Prepared for The World Almanac by Leifur Magnusson, Director of The Washington Branch.)

As a result of pleas from organized labor in the various billigerent nations there was included in the treaty of peace with Germany, signed at Versailles, June 28, 1919, a separate section, quite apart from the Covenant of the League of Nations, establishing the International Labor Organization. The purpose of the organization is to improve and harmonize labor legislation so far as differences of race and climate make that possible. Equally important are its endeavors to maintain good industrial relations, prevent strikes and promote efficient management. Stated negatively its aim is to abolish bad working conditions, holding that these are illegitimate costs of production.

At the peace conference of Versailles in 1919 a commission composed of representatives of employers, of workers and of the public of the belligerent countries met and drew up the constitution of the organization. Similar constitutional articles were included in the treaties with Austria, Bulgaria and Hungary.

According to the treaty, all members of the League of Nations automatically became members of the International Labor Organization. A special clause was included giving Germany and Austria full membership in the organization until they could become members of the League. The annual labor conference itself admitted Finland to temporary and limited membership prior to its becoming a member of the League. Brazil has continued membership after resigning as League member.

Fifty-five nations now constitute the membership; among the non-members are the United States, Russia, Ecuador, Egypt and Mexico. The population of member countries is 1,490,320,988; that of the others is 315,405,444.

The permanent organization consists of an annual conference of representatives of the member nations and an international labor office controlled by a governing body.

The organization is financed by contributions from the member states, made through the Assembly of the League of Nations. The budget for the organization for 1930 amounts to 8,456,828 gold francs.

The annual conferences are composed of four representatives of each member state, one representing employers, one the workers, and two the government. These conferences discuss an agenda prepared by the governing body, and draw up draft conventions and recommendations affecting industrial conditions, which are presented to the competent authorities in each member nation for ratification or adoption.

The conference is the legislative body of the organization and represents what may be termed the legislative method as against the diplomatic procedure of formulating treaties.

Part XIII. of the treaty imposes no obligation on the members to adopt legislation in accordance with draft conventions or recommendations, but merely the obligation to present them for consideration by the appropriate and competent authority.

When a convention has been ratified by two or more members it becomes an international treaty between the members so ratifying and remains in force for ten years.

The following conventions have been adopted at the thirteen sessions of the conference held annually since 1919; two sessions having been held in 1926 and 1929.

Conventions Concerning: Limiting the hours of work in industrial undertakings to eight in the day and forty-eight in the week; unemployment; maternity leave; employment of women and children at night; the minimum age for admission to industrial and agricultural employment and at sea; unemployment indemnity in case of loss or foundering of the ship; seaman's exchanges; the rights of association and combination of agricultural workers; workmen's compensation in agriculture; the use of white lead in painting; the application of the weekly rest in industrial undertakings; the compulsory medical examination of children and young persons employed at sea; equality of treatment for national and foreign workers as regards workmen's compensation for accidents; night work in bakeries; workmen's compensation for accidents; compensation for occupational diseases; simplification of inspection of emigrants on board ship; seamen's articles of agreement; rights of repatriation of seamen; creation of minimum wage-fixing machinery; prevention of accidents to dockworkers; weight of packages transported at sea.

The recommendations frequently supplement by detail the draft conventions, as in the case of workmen's compensation and social insurance conventions. Among other more important recommendations are those relating to emigrants, factory inspection, white phosphorus, codification of seamen's laws, conditions of work in agriculture, communication of statistics of migration, workers' spare time; and accident prevention.

An examination of the list of conventions and recommendations shows how extremely broad is the competence of the International Labor Organization, dealing as it does with questions affecting practically all classes of workers, industrial, agricultural, maritime, professional, and emigrants. The competency has, of course, been questioned but has been upheld both by the conference and, in some instances, by reference to the Permanent Court of International Justice. A decision of the Court handed down in June, 1926, established the competency of the organization to include self-employers (home work, etc.), in the restrictions and limitations established by the draft conventions.

The governing body consists of twenty-four persons, twelve of whom represent the governments, six the workers, and six the employers. Of the twelve government representatives, eight are nominated by the members of chief industrial importance, namely, Belgium, Canada, France, Germany, Great Britain, India, Italy and Japan. The other four elected by the conference in 1928 are Argentina, Poland, Spain and Sweden.

Employers' representatives were elected from Great Britain, France, Italy, Germany, Czecho-Slovakia and South Africa; workers' representatives from France, Great Britain, Belgium, Canada, Germany and Sweden.

The members of the governing body are elected for three years. The governing body meets at least four times each year. It directs the work of the International Labor Office and prepares for the annual conferences.

The International Labor Office is established at Geneva and is independent of the League Secretariat as respects policy and administration.

The office acts as a secretariat for the annual conference, preparing material for the use of the conference and following up the work of the conference, endeavoring to secure the early consideration by member states of the conventions and recommendations adopted at the conferences.

The office reported on Oct. 5, 1929, that there had been 362 ratifications of draft conventions registered; 29 instances of approval by proper authorities but ratification not yet registered; and 127 cases of ratification having been recommended.

The office acts as a center for the collection and dissemination of information bearing on the problems of labor and industry. It edits and publishes several periodicals and numerous reports and studies dealing with problems of industry and employment of international interest.

Among the chief inquiries which the I. L. O. now has under way are studies of the cost of living in 17 European centers in 12 countries requested by representatives of Mr. Ford's foreign interests; a survey of the textile and coal industries; working conditions in the Orient; and old-age pensions. Important recently completed studies dealt with forced labor, migration and employment conditions in the coal industry and in seafaring.

The International Labor Office has branches in London, Paris, Rome, Berlin, Tokio, Delhi, and Washington. The Washington branch is directed by Leifur Magnusson, with offices at 701 Lenox Building, Washington, D. C., from whom information and the publications of the Office may be secured. The World Peace Foundation, 40 Mount Vernon Street, Boston 9, Mass., is an agent in the United States for the distribution of publications of the office.

EDISON GOLD MEDAL WINNERS.

(Awarded by a committee of the American Institute of Electrical Engineers.)

(1909) Elihu Thomson; (1910) Frank J. Sprague; (1911) George Westinghouse; (1912) William Stamey; (1913) Charles F. Brush; (1914) Alexander Graham Bell; (1916) Nikola Tesla; (1917) John J. Carty; (1918) Benjamin G. Lamme; (1919) W. L. R. Emmet; (1920) Michael I. Pupin (1921) Cummings C. Chesney; (1922) Robert A. Millikan; (1923) John W. Lieb; (1924) John W. Howell; (1925) Harris J. Ryan; (1927) William D. Coolidge; (1928) Frank B. Jewett.

WORKMEN'S COMPENSATION AS OF JAN. 1, 1929.

The adoption of workmen's compensation for industrial injuries in lieu of the rule of the employer's liability for injuries due to his negligence stands out in its effect on the status of the worker as one of the most important legal-economic developments of modern times. A right to relief based on the fact of employment, practically automatic and certain, replaces the doubtful contest for a recovery based on proof of the employer's negligence and of the absence of the common-law defenses.

Abroad, Germany in 1884 and Great Britain in 1897 and 1906 were influential in turning attention to the system of benefits for injuries due to employment, not necessarily to a proved negligent act. Laws of Maryland (1902, 1910) and Montana (1909), were results of early efforts to enact State laws, but without adequate regard for either legal or economic principles. The first official recognition of the principle by the Congress of the United States was the Federal act of 1908, providing limited benefits for designated classes of employees of the United States; though acts of 1882 (Life Saving Service) and 1900 (Postal Service) had made some provision of this nature for the services indicated.

Concurrently with these dates the subject came to attract general attention from State legislatures.

The following table shows the progress of action, both in the appointment of commissions and in the enactment of laws, in the United States up to Jan. 1, 1929:

State.	Year Law Effective.	Death.		Permanent Total Disability.		Partial Disability.		Medical Service.	
		Weeks	Amount	Weeks.	Amount.	Weeks.	Amount.	Maximum Period.	Max. Amount.
Alabama	1919	300	$5,000	550	$5,000	300	.....	60 days.	$100
Alaska	1915	.....	9,000	.....	9,000	.....	$7,200	1 year	(a)
Arizona	1912	(b)	(b)	Life.	.....	(c)	(c)	90 days.	(a)
California	1911	.....	5,000	Life.	.....	240	5,000	(a)	(a)
Colorado	1915	312	3,750	Life.	.....	(c)	3,120	60 days.	200
Connecticut	1914	312	.....	520	.....	520	.....	(a)	(a)
Delaware	1918	285	.....	475	4,000	285	.....	30 days.	100
Dist. of Col.	1919	(b)	(d)	Life.	7,500	(c)	7,500	(a)	(a)
Georgia	1921	300	5,000	350	5,000	300	.....	30 days.	100
Hawaii	1915	312	5,000	312	5,000	312	5,000	(a)	(a)
Idaho	1918	400	.....	Life.	.....	150	.....	(a)	(a)
Illinois	1912	.....	4,550	Life.	.....	416	.....	8 weeks.	200
Indiana	1915	300	5,000	500	5,000	300	.....	30 days.	(a)
Iowa	1914	300	.....	400	.....	225	.....	4 weeks.	100
Kansas	1912	.....	4,000	416	.....	415	.....	60 days.	100
Kentucky	1916	335	4,000	416	6,000	335	4,000	90 days.	100
Louisiana	1915	300	.....	400	.....	300	.....	(a)	250
Maine	1916	300	4,000	500	6,000	300	.....	30 days.	100
Maryland	1914	416	5,000	Life.	5,000	.....	3,750	(a)	500
Massachusetts	1912	500	6,400	500	4,500	(c)	4,500	2 weeks.	(a)
Michigan	1912	300	.....	500	9,000	500	.....	90 days.	(a)
Minnesota	1913	(b)	(d)	Life.	10,000	300	.....	90 days.	(a)
Missouri	1926	300	.....	(e) 300	.....	100	.....	60 days.	250
Montana	1915	400	.....	500	.....	150	.....	6 months.	500
Nebraska	1913	350	.....	Life.	.....	300	.....	(a)	(a)
Nevada	1911	(b)	(b)	Life.	.....	260	.....	6 months.	(a)
New Hampshire	1912	.....	3,000	300	.....	300	.....	14 days	(a)
New Jersey	1911	(f) 300	.....	400	.....	500	.....	(a)	100
New Mexico	1917	300	.....	520	.....	150	.....	10 days.	150
New York	1914	(b)	(b)	Life.	.....	(c)	4,000	(a)	(a)
North Dakota	1919	(b)	(g)	Life.	15,000	(c)	4,680	(a)	(a)
Ohio	1912	416	6,500	Life.	.....	(c)	3,750	(a)	200
Oklahoma	1915	(h)	(h)	500	.....	300	.....	60 days.	100
Oregon	1914	(b)	(b)	Life.	.....	104	.....	(a)	250
Pennsylvania	1916	(f) 300	.....	500	6,500	300	.....	30 days.	100
Philippine Is.	1928	208	1,500	208	1,500	208	1,500	(a)	(a)
Porto Rico	1916	.....	3,000	.....	3,000	.....	2,000	(a)	(a)
Rhode Island	1912	300	.....	500	5,000	300	.....	8 weeks.	150
South Dakota	1917	.....	3,000	Life.	3,000	312	.....	12 weeks.	200
Tennessee	1919	400	.....	550	5,000	300	.....	30 days.	100
Texas	1913	360	.....	401	.....	300	.....	4 weeks.	(a)
Utah	1917	312	5,000	Life.	.....	312	5,000	(a)	500
Vermont	1915	260	3,500	260	4,000	260	.....	2 weeks.	(f) 50
Virginia	1919	300	4,500	500	4,500	300	.....	60 days.	(a)
Washington	1911	(b)	(b)	Life.	.....	.....	3,000	(a)	(a)
West Virginia	1913	(b)	(b)	Life.	.....	340	.....	(a)	(a)
Wisconsin	1911	.....	5,600	1,000	.....	(c)	.....	90 days.	(a)
Wyoming	1915	.....	5,600	.....	8,000	.....	1,500	(a)	300
United States—									
Civil employ.	1928	(b)	(b)	Life.	.....	(c)	.....	(a)	(a)
Longshoremen.	1927	(b)	(d)	Life.	7,500	(c)	7,500	(a)	(a)

Notes: (a) unlimited, (b), until death or remarriage; (c), during disability; (d), maximum, $7,500; (e), then 25% of annual earnings for life; (f), to minor dependents under 16; (g), maximum, $15,000; (h), not covered; (f), also hospital first 30 days, maximum, $150.

WORKING HOURS OF THE HOUSEWIFE.

With the help of the extension and research staffs of several colleges, the Bureau of Home Economics of the United States Department of Agriculture induced more than 2,000 housewives to keep careful daily records of how they spent their time for seven days of a typical week. Most of the records came from farm and village women in middle-class homes, although club women in towns and cities were also represented.

Five-sixths of the women included in the survey spent over 42 hours a week in their home making, more than half spent over 48 hours, and one-third over 56 hours, the combined average being slightly over 51 hours a week. The average time spent in all work by 950 farm women was over 62 hours a week, their duties including care of poultry and milk, gardening, and other farm work in addition to the actual housekeeping.

The average time spent in home making by the women in cities of from 2,500 to 50,000 population was 51 hours a week and in cities of 50,000 and upward, a little over 48 hours, in spite of the fact that the average city household (4.1 persons) was smaller than the rural (4.4 persons), and that the city housewife had more help. Only 10 per cent of the women in large cities spent less than 35 hours a week in their home making.

The figures for the other routine tasks were almost identical, averaging about 7½ hours per week for cleaning, 5¼ for laundering, 1½ for mending, and 4½ for sewing.

For all women covered in the survey the time devoted to purchasing, planning, and other management averaged only 2½ hours per week, and only 4½ hours were given to caring for members of the family—dressing and bathing the children, teaching, supervising, and other direct care.

THE AMERICAN RED CROSS.

The American Red Cross operates under its charter by Act of Congress of January 5, 1905, "to furnish volunteer aid to the sick and wounded of armies in time of war in accordance with the convention of Geneva; to act in matters of voluntary relief and in accord with the military and naval authorities as a medium of communication between the American people and their army and navy; to continue and carry on a system of national and international relief in time of peace and to apply the same in mitigating the suffering caused by pestilence, famine, fire, floods and other great national calamities and to devise and carry on measures for preventing the same."

Herbert Hoover, as president of the United States, is president of the American Red Cross and John Barton Payne is chairman of the Central Committee, the governing body composed of eighteen persons, six of whom represent the Federal Government. National headquarters is located at Washington, D. C., with branch offices in St. Louis and San Francisco, and from these centers the activities of 3,553 chapters are directed.

All accounts of the American Red Cross are audited by the War Department, through which also the annual report of the organization is submitted to Congress.

The society is a member of the League of Red Cross Societies, made up of Red Cross organizations in 54 nations; and of the International Red Cross Committee of Geneva, Switzerland, composed of Red Cross societies of 58 nations, who are signers of the Treaty of Geneva.

On June 30, 1929, there were 3,553 chapters of the American Red Cross. Service work for disabled veterans and their dependent families was carried on by 2,821 chapters, which spent $1,963,000 while the national organization spent an additional $737,871.19 for the same purpose. Service to ex-service men and their families included assistance in filing death and disability claims for Federal and State benefits, such as compensation, bonus, etc., and social or financial aid while adjustment of claims was pending. Recreation and other service was conducted in 65 government hospitals, including those of the Veterans' Bureau, Army, Navy, and Department of the Interior, and also in two contract hospitals.

The year brought many opportunities to the Red Cross for rendering service, as there were 131 disasters, 120 of which were in the United States and its insular possessions. Contributions of funds were made to 11 foreign Red Cross societies for the relief of victims of major disasters. This was the greatest number of disasters in any one year in the organization's history. Communities in 38 states were affected, several states being forced twice to request relief. In all, disaster struck 364 counties and in 28 of them disaster were felt twice. Cyclones, hurricanes, floods and tornadoes wrought the heaviest damage, causing the greatest loss in lives and property. The largest relief operations were in the West Indies hurricane, which affected parts of Florida, Porto Rico and the Virgin Islands and in which more than 2,000 lives were lost. In the second largest disaster, the Southeastern floods in Georgia, Alabama, Florida and Mississippi, the loss of life was negligible, but great damage was done to the farming communities.

For domestic disaster relief the national organization spent $4,863,570.15 and the chapters spent $463,000, making a total of $5,326,570.15. For insular and foreign operations in disaster relief $3,343,057.09 was expended. The only nation-wide appeal for a relief fund was for the sufferers of the West Indies hurricane, and the public contributed $5,883,726.

Enrollment of Red Cross nurses, acting as a reserve for the Army and Navy and other governmental nursing services, and for call during emergency, totals 49,153. The Red Cross employs 766 nurses in public health work. Home hygiene and care of the sick certificates were issued to 42,234 graduates of this course; 4,793 classes of children and adults were taught nutrition; first aid certificates issued numbered 52,596, a total of 350,491 to date; life-saving members enrolled were 46,898, with 220,404 enrolled to date. Garments for disaster victims, etc., produced, 210,088; surgical dressings, 2,959,304; volumes transcribed into braille for the blind, 1,849.

Welfare service was provided for an average of 10,742 families each month in communities where no other agency existed for such work.

Expenditures for fiscal year, 1928-1929 were:

Domestic Operations.	*National Organization.*	*Chapters.*	*Total.*
Disaster relief ...	$4,863,570	$463,000	$5,326,570
Health activities:			
Enrolled nurses' reserve.....	44,387	.....	44,387
First aid and life saving.....	301,316	167,000	468,316
Home hygiene and care of sick	87,767	119,000	206,767
Nutrition.....	71,159	138,000	209,159
Public health nursing.....	154,477	593,000	747,477
Junior Red Cross	238,039	320,000	558,039
War service:			
To disabled veterans.....	737,871		
To men now serving in the regular Army & Navy.....	307,828	1,963,000	3,008,699
All other chapter activities.....		1,137,000	1,137,000
Other domestic work.....	293,124	.....	293,124
Insular and Foreign Operations.			
Disaster relief...	3,343,057	.....	3,343,057
Health activities.	66,133	.....	66,133
Junior Red Cross —Foreign.....	29,460	.....	29,460
Other work.....	39,877	.....	39,877
League of Red Cross Societies	208,000	.....	208,000
Supervision and gen'l managem't:	277,614	.....	277,614
Total.....	$11,063,680	$4,900,000	$15,963,680

Revenues for the national organization during the fiscal year ending June 30, 1929 were $10,700,000. The unobligated funds remaining in the treasury on June 30, 1929, $4,100,000, after $4,410,000 had been budgeted and $7,974,977 set aside for specified activities.

The membership in the American Red Cross at the end of the last fiscal year was 4,127,946 adults and 6,878,423 juniors in the American Junior Red Cross.

AMERICAN RED CROSS MEDALS.

1915—*First Aid*—Willis F. Ream, Windber, Pa.; *Life Saving*—Mr. Charles T. Snedeker, Tampa, Fla.

1916—No awards.

1917—*First Aid*—Miss Lulu Andrews, Faribault, Minn.; *Life Saving*—Wm. J. McIntosh, Galveston, Texas.

1918—*First Aid*—Joseph W. Hodges, Baltimore, Md.; *Life Saving*—Floyd C. Harper and Ernest Porter, Jacksonville, Fla.

1919—*First Aid*—W. H. Twohig, West Grove, Pa.

1920—*Life Saving*—Charles D. Mangels, San Francisco, Calif.

1921—*First Aid*—Leo F. Mooney, Pittston, Pa.; *Life Saving*—Wray Farmin, Sandpoint, Idaho, and William Johnson, Spokane, Wash.

1922—*First Aid*—Vernon Enos, Connellsville, Pa.; *Life Saving*—Mary Buhner, St. Petersburg, Fla.

1923—*First Aid*—Myron Q. Raidline, Bethlehem, Pa.; *Life Saving*—Miss Swanhild Bryhhildsen, Brooklyn, N. Y.

1924—*First Aid*—Clarence K. Hicks, Wiley G. Warner and Roy B. Garlin, Carlisle, Pa.; *Life Saving*—J. P. Miller, St. Louis, Mo.

1925—*First Aid*—James G. White, employee Western Electric Co., Vancouver, Wash.; *Life Saving*—Mr. George B. Dimitroff, 35 St. John St., Jamaica Plain, Mass.

1926—*First Aid*—Joel Towler, Sandy Level, Virginia. Line foreman, Long Lines Department, American Tel. & Tel. Co.; *Life Saving*—Giles Caldwell, 1911 Fruitvale Ave., Oakland, Calif.

1927—*First Aid*—Hugh G. Sherlock, Missoula, Montana. Sub-foreman Mountain States Telephone and Telegraph Company; *Life Saving*—Edward Riemer, 512 West 43rd St., New York City.

The plan of awards was changed for 1928, so that, instead of issuing prizes for the outstanding cases in First Aid and Life Saving reported, there were issued Certificates of Merit to persons who performed a First Aid or Life Saving act adjudged meritorious, and where personal risk may or may not be involved. The Red Cross awarded fifty-eight such certificates for the outstanding cases reported during 1928.

THE AMERICAN FLAG, ITS ORIGIN.

As to the origin of the flag of the United States, Dr. A. C. Flick, New York State Historian, in a Bulletin to the schools, says:

"In 1775 the Philadelphia Troop of Light Horse carried a standard with thirteen alternate blue and silver stripes in the upper left-hand corner.

At Cambridge on January 2, 1776, Washington, without authorization of the Continental Congress, raised a flag consisting of thirteen alternate white and red stripes with the crosses of St. George and St. Andrew in a blue field in the upper left-hand corner.

"It was called the 'Union Flag,' the 'Grand Union Flag' and the 'Continental Flag' and was employed until displaced by the Stars and Stripes adopted by the Continental Congress.

"The beautiful tradition that Betsy Ross, as early as June 1776, made a Stars and Stripes flag from a pencil sketch supplied by Washington but changed the points of the stars from six to five, has become a classic notwithstanding the fact that historians doubt its accuracy.

"Half a dozen different localities claim to have been the place where the Stars and Stripes was first used.

"Within New York State alone such contention has been set forth for Fort Ann on July 8, Fort Stanwix on August 3, Bennington on August 16, and Saratoga on September 19, 1777.

"The flag with thirteen stripes and thirteen stars, authorized on June 14, 1777, continued to be used as the national emblem until Congress passed the following act, which President Washington signed:

> "That from and after May 1, 1795, the flag of the United States be fifteen stripes, alternate red and white; and that the union be fifteen stars, white in a blue field.

"This action was necessitated by the admission of the states of Vermont and Kentucky to the Union.

"The flag of 1795 had the stars arranged in three rows of five each instead of in a circle, and served for 23 years.

"With the admission of more new states, however, it became apparent that the 1795 flag would have to be further modified; hence in 1818 a law was passed by Congress providing:

> "That from and after the fourth day of July next, the flag of the United States be thirteen horizontal stripes, alternate red and white; that the union have twenty stars, white in a blue field.
>
> "That on the admission of every new state into the Union, one star be added to the union of the flag; and that such addition shall take effect on the fourth of July next succeeding such admission.

"Since 1818 additional stars have been added until today there are 48 on the flag. No law has been passed to designate how the stars shall be arranged. At one time they formed a design of a larger star. Now by common practice they form six rows of eight stars each."

THE FORT SCHUYLER FLAG.

Victor H. Paltsits, Chief of the American History Division and Keeper of Manuscripts, Public Library, New York City, has said, in a published statement:

"The flag improvised at Fort Schuyler (N. Y.), and flung in the face of the enemy on Aug. 3, 1777, was a Continental flag and not the Stars and Stripes.

"We know what the Continental flag looked like, and that it was used as a naval and as a military flag before the flag resolution of June 14, 1777 was considered. The Continental flag was continued in use as a military flag.

"The Stars and Stripes was a naval flag and was not used as a military flag during the revolution. Nobody has ever found a sure record of the use of the Stars and Stripes as a military flag during the period of that war."

Gherardi Davis, in 1927, in connection with Mr. Paltsits' statement, answered, saying:

"The Fort Schuyler event was in August, 1777. But if Lieutenant Digby, of the 51st British Foot, is right in his famous diary, the 2d New Hampshire had already lost a stars and stripes to the 9th Foot at Fort Anne early in July, 1777.

"The New Hampshire regiment lost two colors, but neither is an American flag. They are now at Concord, N. H. I discovered them in England in 1906, and some years later, hearing from their owner, Colonel Rogers, that they could be purchased, wrote to Concord about them and presented them to the state.

"This, then, eliminates Digby's flag. I will add that neither he nor his regiment was at the Fort Anne fight.

"There is no proof whatever of the flag's being carried at the Brandywine.

"Furthermore, in 1779, Washington and the War Board distinctly say in their correspondence on the subject of colors that the army flag is to be different from the marine flag, which was the stars and stripes, and that its pattern had not been determined.

"No captured stars and stripes of those days is known to exist in England or Germany."

NATIONAL FLAG CODE.

(Rules, as adopted by the National Flag Conference.)

1. The flag should be displayed only from sunrise to sunset, or between such hours as may be designated by proper authority. It should be displayed on national and state holidays and on historic and special occasions.

2. When carried in a procession with another flag or flags, the flag of the United States should be either on the marching right, i. e., the flag's own right, or when there is a line of other flags the flag of the United States may be in front of the center.

3. When displayed with another flag against a wall from crossed staffs, the flag of the United States should be on the right, the flag's own right, and its staff should be in front of the other flag.

4. When a number of flags are grouped and displayed from staffs, the flag of the United States should be in the center or at the highest point.

5. When flags of states or cities or pennants of societies are flown on the same halyard with the flag of the United States, the national flag should always be at the peak. When flown from adjacent staffs the flag of the United States should be hoisted first. No flag or pennant should be placed above or to the right.

6. When flags of two or more nations are displayed they should be flown from separate staffs of the same height and the flags should be of approximately equal size.

7. When the flag is displayed from a staff projecting horizontally or at an angle from the window sill, balcony, or front of building, the union of the flag should go clear to the head of the staff unless the flag is at half mast.

8. When the flag of the United States is displayed in a manner other than by being flown from a staff it should be displayed flat, whether indoors or out. When displayed either horizontally or vertically against a wall, the union should be uppermost and to the flag's own right, i. e., to the observer's left. When displayed in a window it should be displayed the same way, that is, with the union or blue field to the left of the observer in the street.

9. When displayed over the middle of the street, as between buildings, the flag of the United States should be suspended vertically with the union to the north in an east-and-west street or to the east in a north-and-south street.

10. When used on a speaker's platform, the flag should be displayed above and behind the speaker. It should never be used to cover the speaker's desk nor to drape over the front of the platform. If flown from a staff it should be on the speaker's right.

11. When used in unveiling a statue or monument, the flag should not be allowed to fall to the ground but should be carried aloft to wave out, forming a distinctive feature.

12. When flown at half staff, the flag is hoisted to the peak for an instant, and then lowered to the half staff position, but before lowering the flag for the day it is raised again to the peak. By "half staff" is meant hauling the flag down to one-half the distance between the top and bottom of the staff. If local conditions require, divergence from this position is permissible. On Memorial Day, May 30th, the flag is displayed at half staff from sunrise until noon and at full staff from noon until sunset.

13. Flags flown from fixed staffs are placed at half staff to indicate mourning. When the flag is displayed on a small staff, as when carried in parade, mourning is indicated by attaching two streamers of black crepe to the spear head, allowing the streamers to fall naturally.

14. When used to cover a casket the flag should be placed so that the union is at the head and over the left shoulder. The flag should not be lowered into the grave nor allowed to touch the ground.

15. When the flag is displayed in the body of the church it should be from a staff placed on the congregation's right as they face the clergyman. The service flag, the state flag, or other flag should be at the left of the congregation. If in the chancel, or on the platform, the flag of the United States should be placed on the clergyman's right as he faces the congregation and other flags on his left.

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Tennessee—R. A. McMillan, Knoxville, Tenn

Texas—Ernest C. Cox, Austin, Tex.; Utah—Cecil D. Pope, Helper, Utah; Vermont—Marcell Conway, Barre, Vt.; Virginia—B. M. Roszel, Winchester, Va.; Washington—W. D. Welsh, Port Angeles, Wash.; West Virginia—Dr James A. Duff, Martinsburg, W. Va.; Wisconsin—Marshall Graff, Appleton, Wis.; Wyoming—E. T. Storey, Cheyenne, Wyo.

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James A. Drain, Old Nat'l Bank Bldg., Spokane, Washington.

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Edward E. Spafford, Room 1519, 111 Broadway, New York City.

Paul V. McNutt, Bloomington, Indiana.

MILITARY ORDER OF THE WORLD WAR.

National Headquarters—1518 K Street, N. W., Washington, D. C.

Commander-in-Chief—Admiral T. J. Cowie, Washington, D. C.; *Honorary Commanders-in-Chief*—Maj. Gen. Geo. H. Harries, Chicago; Maj. Gen. Mark L. Hersey, Washington.

Vice-Commanders-in-Chief—Col. H. Harrison Smith, Philadelphia; Maj. Gen. John A. Lejeune, Lexington, Va.

Junior Vice-Commanders-in-Chief—Maj. Edward W. Moore, El Cajon, Calif.; Lt. Col. Walter M. Pratt, Boston; Lt. Col. Sydney L. Smith, Brooklyn; Lt. Col. F. E. Drake, Paris.

Treasurer-General—Lt. Col. David T. Abercrombie, Ossining, N. Y. *Judge Advocate-General*—Maj. William L. Symons, Washington, D. C.. *Surgeon-General*—Col. George F. Keenan, Boston. *Chaplain-General*—Maj. Charles B. DuBell, Philadelphia. *Historian-General*—Maj. Gist Blair, Washington, D. C.

General Staff—Col. T. T. P. Luquer, New York City; Maj. Ennalls Waggaman, Washington, D. C.; Lt. Comdr. Roger Kemper Rogan, Cincinnati; Capt. John Parker Hill, Philadelphia; Col. Edward N. Wentworth, Chicago; Col. Frederick N. Hatch, St. Louis; Maj. William Guy Carleton, Buffalo; Capt. Wiley H. Marble, Worcester, Mass.

Executive Officer—Adjutant-General, Colonel C. Nixon, Washington.

THE PRESIDENT'S FLAG.

The President's flag consists of the President's seal in bronze, upon a blue background, with a large white star in each corner. The design of this seal may be seen in the floor of the entrance corridor of the White House.

When the President visits a vessel of the United States, the President's flag is broken at the main the moment he reaches the deck and is kept flying as long as he is on board.

When the President is embarked on a boat he usually directs that his flag be displayed from the staff in the bow of his barge. When he passes in a boat flying his flag, vessels of the navy parade the full guard, four ruffles are given on the drum, four flourishes are sounded on the bugle, the National Anthem is played by the band, and officers and men salute.

Four different names for the flag of the United States are in use in the military service, viz.: flag color, standard, and ensign.

In general, the term "flag" is applicable regardless of size, relative proportions, or manner of display, but the other three terms have certain well-defined usages of long standing, as follows:

(1) A *color* is a flag carried by unmounted units.

(2) A *standard* is a flag carried by mounted or motorized units.

(3) An *ensign* is a flag flown on ships and small boats.

The canton or union now contains 48 stars arranged in 6 horizontal and 8 vertical rows, each star with one point upward.

Military and Naval Affairs.

HIGHEST RANKING OFFICERS IN THE UNITED STATES ARMY.

(The list is as of Nov. 1, 1929, and includes both staff and line. Retirement age is sixty-four years.)

CHIEF OF STAFF.

General Charles P. Summerall, 1867, 1888, 1929.

MAJOR GENERALS.

	Born	Appt.	R'k.
John L. Hines	1868,	1887,	1921
William Lassiter	1867,	1885,	1922
Hanson E. Ely	1867,	1887,	1923
Fred W. Sladen	1867,	1885,	1924
Wm. R. Smith	1868,	1888,	1924
Doug. MacArthur	1880,	1899,	1925
Dennis E. Nolan	1872,	1892,	1925
Johnson Hagood	1873,	1892,	1925
Wm. D. Connor	1874,	1893,	1925
Fox Conner	1874,	1894,	1925
Preston Brown	1872,	1894,	1925
Malin Craig	1875,	1894,	1926
B. F. Cheatham	1867,	1901,	1926
M. W. Ireland	1867,	1891,	1918
Clar. C. Williams	1869,	1890,	1918
Herbert B. Crosby	1871,	1889,	1926
Andrew Hero jr.	1868,	1887,	1926
Wm. C. Rivers	1866,	1887,	1927
Richm. P. Davis	1866,	1883,	1927
Edw. B. Winans	1869,	1887,	1927
Fred T. Austin	1866,	1901,	1927
H. D. Todd, Jr.	1866,	1890,	1927
George S. Gibbs	1875,	1901,	1928
George L. Irwin	1868,	1889,	1928
Briant H. Wells	1871,	1894,	1928
R. L. Carmichael	1872,	1897,	1928
Paul B. Malone	1872,	1894,	1928
Ed. A. Kreger	1868,	1901,	1928
Charles H. Bridges	1873,	1897,	1928
Frank Parker	1872,	1890,	1929
Harry L. Gilchrist	1870,	1900,	1929
Stephen O. Fuqua	1874,	1901,	1929
Lytle Brown	1872,	1898,	1929
Grank R. McCoy	1874,	1893,	1929

PAY IN THE ARMY.

Base pay of enlisted men ranges from $21 to $126 a month.

Base pay of warrant officers varies from $109 to $185 a month, according to grade and service.

Base pay of commissioned officers below the grade of Brigadier General ranges from $1,500 to $4,000

BRIGADIER GENERALS.

	Born	Appt.	R'k.
DwightE.Aultman	1872,	1890,	1921
Albert J. Bowley	1875,	1893,	1921
Robert E. Callan	1874,	1892,	1921
Jos. C. Castner	1869,	1891,	1921
G. V. H. Moseley	1874,	1895,	1921
Edward L. King	1873,	1892,	1922
Harold B. Fiske	1871,	1893,	1922
Halstead Dorey	1874,	1893,	1922
Hugh A. Drum	1879,	1898,	1922
S. Heintzelman	1876,	1895,	1922
C. J. Symmonds	1866,	1886,	1923
S. D. Rockenbach	1869,	1891,	1924
La Roy Eltinge	1872,	1891,	1924
Ewing E. Booth	1870,	1901,	1924
Campbell King	1871	1898,	1924
William W. Harts	1867,	1885,	1924
Edgar T. Collins	1863,	1893,	1924
Geo. S. Simonds	1874,	1895,	1924
F. M. Caldwell	1866,	1886,	1925
Paul A. Wolf	1868,	1886,	1925
W.M.Cruikshank	1870,	1889,	1925
L. R. Holbrook	1875,	1892,	1925
H. G. Learnard	1867,	1886,	1926
Wm. P. Jackson	1868,	1887,	1926
H. O. Williams	1866,	1887,	1926
Harry F. Rethers	1870,	1896,	1926
Jas. M. Kennedy	1865,	1893,	1926
Herbert Deakyne	1867,	1886,	1926
C. L. H. Ruggles	1869,	1886,	1923
Wm. E. Gillmore	1876,	1901,	1926
Frank P. Lahm	1877,	1897,	1926
Alston Hamilton	1871,	1894,	1927
Francis H. Pope	1876,	1897,	1927
Geo.C. Barnhardt	1868,	1892,	1927
Meriw. Walker	1869,	1893,	1927
Samuel Hof.	1870,	1894,	1927
G. H. Jamerson	1869,	1893,	1927
Henry J. Hatch	1869,	1891,	1927
Jas. H. Reeves	1870,	1892,	1927
Walter C. Short	1870,	1891,	1927
Frank S. Cocheu	1871,	1894,	1927
O. B. Rosenbaum	1871,	1894,	1927
Abraham G. Lott	1871,	1896,	1927
Benj. D. Foulois	1879,	1901,	1927
Ch. R. Howland	1871,	1895,	1927
Frank C. Bolles	1872,	1896,	1928
Ch. E. Kilbourne	1872,	1899,	1928
H. S. Hawkins	1872,	1894,	1928
C. H. Conrad, Jr.	1872,	1895,	1928
Geo H. Estes	1873,	1894,	1929
FrancisLeJ.Parker	1873,	1894,	1929
Charles D.Roberts	1873,	1897,	1929
James B.Gowen	1872,	1898,	1929
George C. Shaw	1866,	1901,	1929
JamesF.McKinley	1880,	1899,	1929
Louis H.Bash	1872,	1895,	1929
Andrew Moses	874,	1897,	1929
Henry C. Fisher	1867,	1891,	1929

REAR ADMIRALS IN THE UNITED STATES NAVY.

(In the order of seniority, as of Nov. 1, 1929. First year is that of birth, second, that of appointment to the navy. The retirement age is sixty-four years.)

Philip Andrews, 1866-1882; Newton A. McCully, 1867-1883; Andrew T. Long, 1866-1883; Guy H. Burrage, 1867-1883; Ashley H. Robertson, 1867-1884; Samuel S. Robison, 1867-1884; Charles F. Hughes, 1866-1884; Mark L. Bristol, 1868-1883; Richard H. Jackson, 1866-1890; Thomas P. Magruder, 1867-1885; Sumner E. W. Kittelle, 1867-1885; William V. Pratt, 1869-1885; Louis M. Nulton, 1869-1885; Louis R. de Steiguer, 1867-1885; William W. Phelps, 1869-1885; William C. Cole, 1868-1885; Jehu V. Chase, 1869-1886; George R. Marvell, 1869-1885; Henry J. Zeigemeier, 1869-1886; Montgomery M. Taylor, 1869-1886; Charles B. McVay, Jr., 1868-1886; John H. Dayton, 1869-1886; William D. MacDougall, 1868-1885; Lucius A. Bostwick, 1869-1886; William A. Moffett, 1869-1886; Julian L. Latimer, 1868-1886; Frank H. Schofield, 1869-1886; Arthur L. Willard, 1870-1887; Herny H. Hough, 1871-1887; Harley H. Christy, 1870-1887; Noble E. Irwin, 1869-1887; Thomas J. Senn, 1871-1887; Richard H. Leigh, 1870-1887; George W. Laws, 1870-1887; George C. Day, 1871-1888; Luke McNamee, 1871-1888; John R. Y. Blakely, 1872-1888; Yates Stirling, Jr., 1872-1888; Joel R. P. Pringle, 1873-1888; Frank H. Clark, 1871-1889; Edward H. Campbell, 1872-1889; Walter S. Crosley, 1871-1889; Frank B. Upham 1872-1889; David F. Sellers, 1874-1890; Ridley McLean, 1872-1890; Joseph M. Reeves, 1872-1890; Frank H. Brumby, 1874-1891; Harris Laning, 1873-1891; Henry V. Butler, 1874-1891; James J. Raby, 1874-1891; William H. Standley, 1872-1891; Thomas T. Craven, 1873-1892; Wat T. Cluverius, 1874-1892; Albert W. Marshall, 1874-1892; Harry E. Yarnell, 1875-1893; Arthur J. Hepburn, 1877-1893; Thomas C. Hart, 1877-1893.

REAR ADMIRALS (Staff).

Medical Corps.

Edward R. Stitt, 1867-1889; Albert M. D. McCormick, 1866, 1888; Robert M. Kennedy, 1867-1890; Norman J. Blackwood, 1866-1890.

Supply Corps.

Christian J. Peoples, 1876-1900; Thomas S. Jewett, 1866-1892; Thomas H. Hicks, 1869-1892.

Construction Corps.

George H. Rock, 1868-1885.

Civil Engineer Corps.

Harry H. Rousseau, 1870-1898; Frank T. Chambers, 1870-1897.

PAY IN THE NAVY.

Pay of enlisted men ranges from $21 to $157.50 a month, according to grade and length of service.

Pay of warrant officers varies from $153 to $189 a month, according to length in service.

Pay of commissioned officers below the grade of Rear Admiral ranges from $1,500 to $6,000 per annum according to length of service.

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THE AERONAUTICAL BOARD OF THE ARMY AND NAVY.

Members of the Board (all ex-officio).

Chief of the Air Corps, Army, Maj. Gen. James E. Fechet. *Chief of the Training and War Plans Division, O. C. A. C., Army,* Brig. Gen. W. E. Gillmore. *Representative of War Plans Division, General Staff, Army,* Major John N. Greely. *Chief of the Bureau of Aeronautics, Navy,* Rear Admiral William A. Moffett. *Chief of the Planning Division, Bureau Aeronautics, Navy,* Comm. R. K. Turner. *Representative of the War Plans Division, Office of Naval Operations, Navy,* Capt. L. Coxe.

Secretary, Mr. Jarvis Butler.

THE REGULAR ARMY OF THE UNITED STATES.

The Army of the United States consists of the Regular Army, the National Guard while in the service of the United States, and the Organized Reserves, including the Officers' Reserve Corps and the Enlisted Reserve Corps.

The Regular Army consists of the Infantry, the Cavalry, the Field Artillery, the Coast Artillery Corps, the Air Corps, the Corps of Engineers, the Signal Corps, which are designated the combatant arms or the line of the army, the General Staff Corps, the Adjutant General's Department, the Inspector General's Department, the Judge Advocate General's Department, the Quartermaster Corps, the Finance Department, the Medical Department, the Ordnance Department, the Chemical Warfare Service, the officers of the Bureau of Insular Affairs, the officers and enlisted men under the jurisdiction of the Militia Bureau, the chaplains, the professors and cadets of the United States Military Academy, detached officers, detached enlisted men, unassigned recruits, the officers and enlisted men of the retired list, and such other officers and enlisted men as are now or may hereafter be provided for.

The Act of Congress making appropriations for the year ending June 30, 1929, contemplates an average enlisted strength of approximately 118,750 men in the Regular Army, and 6,445 Philippine Scouts.

The Organized Reserves constitute a war force to meet any major emergency requiring the use of troops in excess of those of the Regular Army and the National Guard.

The National Guard consists of the regularly enlisted men who upon original enlistment are not less than 18 nor more than 45 years of age or who in subsequent enlistments shall not be more than 64 years of age, and of commissioned officers and warrant officers between the ages of 21 and 64 years.

Only citizens or those who have declared their intention of becoming citizens are eligible for enlistment in the National Guard. Under War Department regulations officers and warrant officers must be citizens. The organization of the National Guard in general is the same as that prescribed for the Regular Army. The National Guard is primarily a state force but may be called as such by the President into the service of the United States, and when so called is subject to the laws and r gulations governing the Regular Army as far as applicable. When Congress has authorized the use of troops in excess of those of the Regular Army. the members of the National Guard may be drafted into the federal service to serve therein for the period of the war or emergency, unless sooner discharged. The strength of the National Guard on June 30, 1929, was 176,988

MILITARY DEPARTMENTS AND CORPS AREAS, U. S. ARMY.

Department or Corps Areas.	Headquarters.	Jurisdiction.
First Corps Area	Boston	Me., N. H., Vt., Mass., R. I., Conn., part of Long Island.
Second Corps Area	N. Y. (Gov. Island)	N. Y., N. J., Del., Porto Rico.
Third Corps Area	Baltimore, Md.	Pa., Md., Va., D. C.
Fourth Corps Area	Ft. McPherson, Ga.	N. C., S. C., Ga., Fla., Ala., Tenn., Miss., La.
Fifth Corps Area	Ft. Hayes, Ohio	Ohio, W. Va., Ind., Ky.
Sixth Corps Area	Chicago, Ill.	Ill., Mich., Wis., The post of Jefferson Bks., Mo., and Arcadia Target Range, near Arcadia, Mo.
Seventh Corps Area	Omaha, Neb.	Ark., Mo., except the post of Jefferson Bks., Mo., and Arcadia Target Range, near Arcadia, Mo.; Kan., Iowa, Neb., Minn., N. Dak., S. Dak.
Eighth Corps Area	Ft. Sam Houston, Tex.	Tex., Okla., Col., N. Mex., Ft. D. A. Russell, Wyo., inc. targ. and manoeuv. reserv. and Ariz. (except Yuma).
Ninth Corps Area	Presidio of San Francisco, Cal.	Wash., Ore., Idaho, Mont., Wyo. (except that part of Fort D. A. Russell in the Eighth Corps Area), Utah., Nev., Cal., Alaska, and Yuma, Ariz.
Hawaiian Dept.	Fort Shafter, T. H.	Hawaiian Islands and dependencies.
Philippine Dept.	Manila	Philippine Islands.
Pan. Canal Dept.	Quarry Heights	Canal Zone.
U. S. Army Troops in China	Amer. Bks., Tientsin	U. S. Army troops in China.

COAST ARTILLERY DISTRICTS.

First	Boston	Harbor defenses of Boston, L. I. Sound, Narragansett Bay, New Bedford, Portland and Portsmouth.
Second	Ft. Totten, N. Y.	Harbor defenses of the Delaware, Eastern N. Y., Sandy Hook, and Southern N. Y.
Third	Ft. Monroe, Va.	Harbor defenses of Chesapeake Bay, and the Potomac.
Fourth	Ft. McPherson, Ga.	Harbor defenses of Charleston, Key West and Pensacola.
Ninth	Presidio of San Francisco, Cal.	Harbor defenses of the Columbia, Los Angeles, Puget Sound, San Diego, and San Francisco.
Panama	Ft. Amador, Canal Zone	Harbor defenses of Balboa and Cristobal.
Hawaiian	Fort Shafter, T. H.	Harbor defenses of Honolulu and Pearl Harbor.
Philippines	Fort Mills, P. I.	Harbor defenses of Manila and Subic Bays.

The territorial limits of the coast artillery districts within the continental limits of the United States are those of the corps areas bearing the same numerical designations.

The active tactical divisions, with their headquarters, are as follows: *First*, Ft. Hamilton, N. Y.; *Second*, Ft. Sam Houston, Tex.; *Third*, Fort Lewis, Wash.; *Hawaiian Division*, Schofield Barracks, H. T.; *Panama Canal Division*, Ft. Amador, C. Z.; *Philippine Division*, Ft. Wm. McKinley, P. I.; *First Cavalry Division*, Ft. Bliss, Tex.

The General Hospitals of the army are located at Hot Springs, Ark. (also navy); Denver; Presidio of San Francisco; Manila; Honolulu; Army Medical Center at Washington, D. C., and El Paso, Tex.

ENLISTED STRENGTH OF THE REGULAR ARMY—BY ARM OR SERVICE

Arm or Service.	Strength, June 30, 1929. Excl. Scouts.	Scouts.	Total.	Arm or Service.	Strength, June 30, 1929. Excl. Scouts.	Scouts.	Total.
Infantry	41,368	2,355	43,723	Ordance Department	2,349	49	2,398
Cavalry	8,348	591	9,939	Finance Department	401	7	408
Field Artillery	14,971	990	15,961	Chem. War. Service	425	.....	425
Coast Artillery Corps	12,168	1,295	13,463	Medical Department	6,715	327	7,042
Corps of Engineers	4,579	320	4,899	Det. Enl. Men's List	5,514	.....	5,514
Air Corps	10,890	.....	10,890	Retired on act. duty	24	.....	24
Signal Corps	2,430	125	2,555				
Quartermaster Corps	7,543	432	7,975	Total	117,725	6,491	124,216

By Scouts is meant Philippine Scouts.

Of the 137,529 commissioned officers, warrant officers and enlisted men in the military service on June 30, 1929, a total of 98,943 were serving in the Continental United States, 14,228 in Hawaii, 8,784 in the Canal Zone, 288 in Alaska, 1,196 in Porto Rico, 11,337 in the Philippine Islands, including 6,567 officers and enlisted men in the Philippine Scouts, 1,012 in China, 6 in Europe, which were attached to the Graves Registration Service, and 1,735 were en route from one country to another, on leave of absence, or were serving as military attaches in various foreign countries.

ARMY TRAINING ACTIVITIES.

Regular Army—Throughout the year all units of the Regular Army receive peace-time training at their home stations or in summer training camps. In addition to its self-training one of the principal missions of the Regular Army now consists in training civilian adjuncts of the Army of the United States.

National Guard—The National Guard is trained throughout the year. This training is directed toward providing in time of peace, an adequate, organized, and effective force, sufficiently trained and developed so that it will be available in minor emergencies for employment within the limits of the United States by the States or by the United States, and so that it will be immediately available in major emergencies for employment in the execution of limited missions. The law requires that each organization assemble for drill and instruction not less than forty-eight times each year and shall in addition participate in encampments and maneuvers, or other exercises at least fifteen days each year.

The assemblies for drill and instruction (technically known as armory drills) are carried on at the home station of the organization where an armory or other suitable building is available.

The fifteen days' field training is carried on during the summer months at camps or localities especially selected for this purpose.

During the summer of 1929 a total of 163,124 officers, warrant officers and enlisted men participated in field training.

Organized Reserves—Active duty training for officers of the Organized Reserves is usually conducted at Regular Army garrisons, the officers of a regiment, or other appropriate unit, being trained together for a period of fifteen days.

Of the 112,722 officers in the Reserve Corps, 19,608 received active duty training in 1929 for fifteen days and 944 received training at schools and other institutions for longer periods than fifteen days. Altogether 21,901 reserve officers were enrolled in the Army correspondence courses.

Reserve Officers' Training Corps—Young men attending certain schools and colleges receive military training during a considerable portion of their academic courses. At least once during his course in college each young man who is a member of the R. O. T. C. is given six weeks' training at a summer training camp. During the last year 127,453 were trained in schools and colleges and 6,612 received their six weeks' training at summer training camps.

Citizens' Military Training Camps—During the summer of 1929 there were established throughout the United States 53 camps for the training of the youth of the Nation. Young men between the ages of seventeen and thirty-one attended these camps and there received the rudiments of military training, a course of physical development and instruction in citizenship.

The complete course in these camps extends over a period of four years, occupying one month per year. Graduation from four of these camps is a material step toward a commission in the Officers' Reserve Corps. In the summer of 1929, 37,979 young men were enrolled in camps.

THE AIR SERVICE.

AIR CORPS FLYING FIELDS.

Barksdale Field, Shreveport, La.
Biggs Field, Ft. Bliss, Texas.
Bolling Field, Anacostia, D. C.
Boston Airport, Boston, Mass.
Bowman Field, Jeffersontown, Ky.
Brooks Field, San Antonio, Texas.
Burgess Field, Uniontown, Pa.
Chanute Field, Rantoul, Ill.
Clark Field, Camp Stotsenburg, P. I.
Clark, Ft., Brackettville, Texas.
Crissy Field, Presidio of San Francisco, Cal.
Crockett, Ft., Galveston, Texas.
Crook, Ft., Ft. Crook, Nebraska.
Cumberland Landing Field, Cumberland, Md.
Dodd Field, Ft. Sam Houston, Texas.
Douglas, Arizona, Douglas, Arizona.
Dryden, Texas, Dryden, Texas.
Duncan Field, San Antonio, Texas.
Edgewood Arsenal, Edgewood, Md.
Fairfield Air Depot, Fairfield, Ohio.
France Field, France Field, Canal Zone.
Hatbox Field, Muskogee, Oklahoma.
Kelly Field, Kelly Field, Texas.
Kindley Field, Ft. Mills, Corregidor, P. I.
Langley Field, Hampton, Va.
Laredo Airdrome, Laredo, Texas.
Leavenworth, Ft., Ft. Leavenworth, Kansas.
Little Rock Air Depot, Little Rock, Ark.
Logan Field, Dundalk, Md.
Lordsburg, Lordsburg, N. M.
Love Field, Dallas, Texas.
Luke Field, Honolulu, Hawaii.
Lunken Airport, Cincinnati, Ohio.
McIntosh, Ft., Ft. McIntosh, Texas.
March Field, Riverside, Cal.
Marfa, Camp, Marfa, Texas.
Marshall Field, Ft. Riley, Kansas.
Maxwell Field, Montgomery, Ala.
Middleton Air Depot, Middleton, Pa.
Mitchel Field, Mitchel Field, L. I., N. Y.
New York, 39 Whitehall St., New York, N. Y.
Nichols, Camp, Maricaban, Rizal, P. I.
Norton Field, Columbus, Ohio.
Offutt Field, Ft. Crook, Nebraska.
Pearson Field, Vancouver, Wash.
Phillips Field, Aberdeen Proving Ground, Md.
Pittsburgh Airport, Pittsburgh, Pa.
Pope Field, Ft. Bragg, N. C.
Post Field, Ft. Sill, Oklahoma.
Richards Field, Kansas City, Mo.
Rockwell Field, Rockwell Field, Coronado, Cal.
Ross Field, Arcadia, Cal.
San Antonio Air Depot, Duncan Field, San Antonio, T.
Sand Point, Seattle, Wash.
Schoen Field, Ft. Benjamin Harrison, Ind.
Scott Field, Scott Field, Belleville, Ill.
Selfridge Field, Mt. Clemens, Mich.
Sheridan, Ft., Ft. Sheridan, Ill.
Tucson, Tucson, Ariz.
Wheeler Field, Schofield Barracks, Honolulu, Hawaii.
Wright Field, Dayton, Ohio.

Army Air Corps Appropriations for 12 months ending June 30 of year named—(1921), $35,124,300; (1922), $25,648,333; (1923), $13,060,000; (1924), $12,626,200; (1925), $13,476,619; (1926), $18,061,191; (1927), $17,106,694; (1928), $21,597,594; (1929), $27,681,331; (1930), 32,660,059.

NAVAL AIR STATIONS.

The U. S. Naval Air Stations are at Pensacola, Fla.; Hampton Roads, Va.; Anacostia, Washington, D. C.; San Diego, Cal.; Lakehurst, N. J.; Coco Solo, Panama Canal Zone; Pearl Harbor, Honolulu, Hawaii; Seattle, Wash.

The Marine Corps Flying Fields are at Quantico, Va.; Port-au-Prince, Haiti; Sumay, Guam; Managua, Nicaragua; San Diego, Calif.

Navy and Marine Corps Reserve Aviation Training Stations—Squamtum, Mass.; Rockaway Beach, Long Island, N. Y.; Great Lakes, Ill.

Naval Reserve Aviation Bases—Minneapolis, Minn.; Long Beach, Cal.; Oakland, Cal.; Grosse Ile, Detroit.

NAVAL AVIATION APPROPRIATIONS.

The amounts of the Naval Aviation appropriations for the fiscal years since 1916 are: (1917) $3,500,000; (1918) $61,133,000; (1919) $220,383,119; (1920) $25,000,000; (1921) $20,000,000; (1922) $13,413,431; (1923) $14,683,950; (1924) $14,647,174; (1925) $15,150,000; (1926) $14,790,000 for aviation navy, and $3,000,000 for aircraft for carriers; (1927) $19,065,288 for aviation; $3,300,000 for aircraft carriers; (1928) $19,755,000 for aviation, and $345,000 for airplanes for the Naval Reserve; (1929), $32,189,000; (1930), $31,430,000.

THE AMERICAN'S CREED.

Written by William Tyler Page, Clerk of the U. S. House of Representatives, in 1917, and adopted and promulgated by the Government's Committee on Publication. Accepted by the House of Representatives, on behalf of the American People, April 3, 1918.

I believe in the United States of America as a Government of the people, by the people, for the people; whose just powers are derived from the consent of the governed; a democracy in a republic; a sovereign Nation of many sovereign States; a perfect union, one and inseparable; established upon those principles of freedom, equality, justice and humanity for which American patriots sacrificed their lives and fortunes.

I therefore believe it is my duty to my country to love it; to support its Constitution; to obey its laws; to respect its flag, and to defend it against all enemies.

NATIONAL GUARD STRENGTH.

(Revised by the Militia Bureau of U. S. War Dept., 30, 1929.)

States.	Total	States.	Total.	States.	Total.	States.	Total.
Alabama	2,622	Iowa	3,443	New Hampshire	1,012	South Dakota	1,239
Arizona	1,053	Kansas	3,154	New Jersey	4,522	Tennessee	2,395
Arkansas	2,148	Kentucky	2,714	New Mexico	907	Texas	7,599
California	5,584	Louisiana	1,890	New York	20,354	Utah	1,328
Colorado	1,725	Maine	2,207	North Carolina	3,269	Vermont	1,186
Connecticut	4,093	Maryland	3,199	North Dakota	1,150	Virginia	3,756
Delaware	796	Massachusetts	9,339	Ohio	8,039	Washington	2,649
Dist. of Columbia	940	Michigan	4,578	Oklahoma	4,875	West Virginia	1,844
Florida	2,360	Minnesota	4,862	Oregon	2,977	Wisconsin	4,627
Georgia	3,421	Mississippi	1,653	Pennsylvania	11,614	Wyoming	608
Hawaii	1,637	Missouri	4,373	Porto Rico	1,508		
Idaho	1,133	Montana	1,155	Rhode Island	1,709	Total	176,988
Illinois	9,279	Nebraska	1,692	South Carolina	1,999		
Indiana	4,590	Nevada	122				

The national guard strength is thus classified—Infanty Divisions, 124,991; Cavalry Divisions, 10,718; Army troops (less Cavalry Divisions) 5,041; Corps troops, 11,125.

State Staff Corps, 1,186; Special Allotment (Infantry), 14,447; Coast Defense, 7,407; General Headquarters Reserve, 2,073.

NEW YORK NATIONAL GUARD.

(Officially revised as of Oct. 15, 1929)

Commander in Chief, the Governor of the State.

Adjutant General, Brig. Gen. Franklin W. Ward; office at No. 100 State Street, Albany. The *State Arsenal* is at 62nd St. and 2nd Ave., Brooklyn. *Commander of the New York National Guard*, Major Gen. William N. Haskell, office Municipal Building, New York City.

BRIGADE AND OTHER COMMANDERS.

Coast Artillery Brigade, 125 W. 14th St., N. Y. City. Brig. Gen. John J. Byrne.

53d Infantry Brigade, 276 State St., Albany. Brig. Gen. Ranson H. Gillett.

54th Infantry Brigade, 451 Main St., Buffalo. Brig. Gen. Edgar S. Jennings.

87th Infantry Brigade, 104 East 34th Street, New York City. Brig. Gen. George R. Dyer.

93d Infantry Brigade, 68 Lexington Ave., N. Y. City. Brig. Gen. John J. Phelan.

52d Field Artillery Brigade, 171 Clermont Ave., Brooklyn. Brig. Gen. W. F. Schohl.

51st Cavalry Brigade, 1579 Bedford Ave., Brooklyn. Brig. Gen. Mortimer D. Bryant.

51st Brigade Headquarters Troop, Staten Island.

27th Division Special Troops, 216 Ft. Washington Ave., N. Y. City. Major John C. Mansfield.

27th Division Headquarters Company, 216 Ft. Washington Ave., N. Y. City.

27th Signal Company, 801 Dean St., Brooklyn.

102d Ordnance Company, 216 Ft. Washington Ave., N. Y. City.

27th Tank Company, 29 West Kingsbridge Road, N. Y. City.

27th Military Police, Yonkers.

102d Cycle Company, Yonkers.

27th Division Train, Q. M. C., 355 Marcy Ave., Brooklyn. Major Walter E. Corwin.

27th Division, Aviation, Miller Field, S. I. Major George A. Vaughn jr.

101st Signal Battalion, 104 E. 34th St., N. Y. City. Major Andrew C. Otto.

102d Engineers, 216 Ft. Washington Ave., N. Y. City. Col. Fredk. E. Humphreys.

101st Cavalry, 1579 Bedford Ave., Brooklyn. Col. James R. Howlett; with one troop each at Syracuse, Rochester and Buffalo.

121st Cavalry, 145 Culver Road, Rochester. Col. K. C. Townson.

104th Field Artillery, 92-10-172nd St., Jamaica. Col. Chas. G. Blakeslee. Battery A, Syracuse; B. and C, Binghamton.

105th Field Artillery, 1122 Franklin Ave., N. Y. City. Col. John W. Kilbreth; 1st Battalion is at 171 Clermont Ave., Brooklyn.

106th Field Artillery, 29 Masten St., Buffalo. Col. Douglas P. Walker.

258th Field Artillery, 29 W. Kingsbridge Road N. Y. City. Col Paul Loeser.

244th Coast Artillery, 125 W. 14th St., N. Y. City. Col. Lewis M. Thlery.

245th Coast Artillery, 357 Summer Ave., Brooklyn. Col. Bryer H. Pendry.

212th Coast Artillery, 120 W. 62d St., N. Y. City. Col. Wm. Ottman.

102d Medial Regiment, 56 W. 66th St., N. Y. City Col. L. A. Salisbury. Ambulance Battalion Headquarters at Syracuse, Collecting Battalion Headquarters at Brooklyn, Hospital Battalion Headquarters at Albany, 1 Ambulance Company at Syracuse and 1 at Ticonderoga, 1 Collecting Company at Rochester, and 1 at White Plains, 1 Hospital Company at Brooklyn, 1 at Corning, and 1 at Albany.

10th Infantry, 195 Washington Ave., Albany. Col. C. E. Walsh. Companies also at Catskill, Hudson, Oneonta, Walton, Binghamton, Oneida, Utica, Mohawk and Rome.

14th Infantry, 1402 Eighth Ave., Brooklyn. Col. F. W. Baldwin. 1 Company at Flushing.

71st Infantry, 104 E. 34th St., N. Y. City. Col. W. A. De Lamater.

105th Infantry, Troy. Col. Walter G. Robinson. Companies also at Cohoes, Schenectady, Hoosick Falls, Whitehall, Saratoga Springs, Glen Falls, Saranac Lake, Malone, Amsterdam and Gloversville.

106th Infantry, 1322 Bedford Ave., Brooklyn, N. Y. Col. Thomas Fairservis.

107th Infantry, 643 Park Ave., N. Y. City. Col. W. H. Hayes.

108th Infantry, Syracuse. Col. J. S. Thompson. Companies also at Rochester, Geneva, Oswego, Mediana, Ogdensburg, Auburn, Hornell, Elmira and Watertown.

165th Infantry, 68 Lexington Ave., N. Y. City. Col. William S. Costigan.

174th Infantry, 172 Connecticut St., Buffalo. Col. W. R. Pooley. Companies also at Jamestown. Olean, Tonawanda and Niagara Falls.

369th Infantry, 30 W. 143rd St., N. Y. City. Col. William A Taylor.

156th Field Artillery, Newburgh. Col. R. A. Egan. Batteries also at Middletown, Peekskill, Kingston, Poughkeepsie and Mount Vernon.

The armories in the City of New York are under the control of the *Armory Board*, consisting of the Mayor, Comptroller, President Board of Aldermen, President Dept. of Taxes and Assessments, two commanding officers of the National Guard, and the Commander of the Naval Militia.

NEW YORK NAVAL MILITIA.

Rear Admiral, W. B. Franklin, Commanding N. Y. Naval Militia, Headquarters Room 2205 Municipal Building, New York, N. Y.

First Battalion, U. S. S. Illinois, foot of W. 97th St., New York, N. Y.; Captain Theodore Nelson, commanding.

Second Battalion, foot of 52d St., Brooklyn, N. Y.: Captain Frank R. Lackey, commanding.

Third Battalion, Headquarters 908 Main St. East, Rochester, N. Y.; Captain William J. Graham, commanding; with divisions in Buffalo, Dunkirk, Watertown, Oswego, Niagara Falls and Rochester.

Fourth Battalion, foot of 25th St., Whitestone Landing, N. Y.; Lieut.-Commander Malcolm Mackenzie, commanding.

V N-3RD3 Air Squadron, Air Station, Rockaway Beach, L. I.; Lieut. John W. Iseman (A), commanding.

V N-4RD3 Air Squadron, Air Station, Rockaway Beach, L. I.; Lieut. Cyril K. Wildman (A), commanding.

There are also the following separate divisions: which are attached to Headquarters, Naval Militia. 31st Fleet Division, New Rochelle, N. Y.; 32nd Fleet Division, Ossining, N. Y.; and 33rd Fleet Division, Tompkinsville, S. I., N. Y.

Total Strength, 1,905 officers and men.

UNITED STATES ARMY FORTS.

Adams, Newport, R. I.; Allen (Ethan), Vt.; Amador, Balboa, C. Z.; Andrews, Boston, Mass.; Armstrong, Honolulu, T. H.; Baker, Sansalito, Ca.; Banks, Winthrop, Mass.; Barrancas, Fla.; Barry, San Francisco, Cal.; Benning, Ga.

Bliss, Tex.; Brady, Sault Ste. Marie, Mich.; Bragg, N. C.; Brown, Brownsville, Tex.; Canby, Dwaco, Wash.; Casey, Wash.; Clark, Bracketville, Tex.; Clayton, C. Z.; Columbia, Ft. Columbia, Wash.; Constitution, New Castle, N. H.; Crockett, Galveston, Tex.; Crook, Neb.

Delaware, Delaware City, Del.; De Lesseps, Cristobal, C. Z.; De Russy, Honolulu, T. H.; Des Moines, Iowa; Douglas, Utah; Du Pont, Delaware City, Del.

Eustus, Leehall, Va.; Flagler, Port Townsend, Wash.; Frank, Manila, P. I.; Funston, San Francisco,, Cal.; Getty, Jamestown, R. I.; Greble, Newport, R. I.; Hamilton, Brooklyn, N. Y.; Hancock, Sandy Hook, N. J.; Harrison (Benj.), Lawrence, Ind.; Hayes, Columbus, Ohio; Heath, Winthrop, Mass.

Huston (Sam), San Antonio, Tex.; Howard, Baltimore, Md.; Hoyle, Edgewood, Md.; Huachuca, Ariz.; Hughes, Manila, P. I.; Humphreys, Alexandria, Va.; Hunt, Va.; Jay, Governor's Island, N. Y.; Kamehameha, Honolulu, T. H.; Kearny (Philip), Newport, R. I.; Lawton, Seattle, Wash.; Leavenworth, Leavenworth, Kan.

Levett, Portland, Me.; Lewis, Ft. Lewis, Wash.; Lincoln, Bismarc, N. Dak.; Logan, Col.; Lyon, Portland, Me.; MacArthur, San Pedro, Cal.; McDowell, Angel Island, Cal.; McIntosh, Laredo, Tex.; McKinley, Portland, Me.; McKinley (William), Guadelupe, P. I.; McPherson, Atlanta, Ga

McRee, Pensacola, Fla.; Mason, San Francisco, Cal.; Meade Sturgis, S. D.; Michle, New London, Conn.; Miley, San Francisco, Cal.; Mills, Cavite, P. I; Missoula, Mont.; Monmouth (old Camp Vail), N. J.; Monroe, Fortress Monroe, Va.; Mott, Salem, N. J.; Moultrie, Moultrieville, S. C.; Myer, Rosslyn, Va.; Niagara, Youngstown, N. Y.

Oglethorpe, Chattanooga, Tenn.; Omaha, Omaha, Neb.; Ontario, Oswego, N. Y.; Pickens, Pensacola, Fla.; Preble, Portland, Me.; Randolph, Cristobal, C. Z.; Reno, Darlington, Okla.; Revere, Hull, Mass.; Riley, Kan.; Robinson, Neb.

Ringgold, Rio Grande, Tex.; Rodman, New Bedford, Mass.; Rosecrans, Pt. Loma, Cal.; Ruckman, Boston, Mass.; Ruger, Honolulu, T. H.; Russell, Wyo.; San Jacinto, Galveston, Tex.; Saulsbury, Milford, Del.; Schuyler, Westchester, N. Y.; Scott (Winfield), San Francisco, Cal.; Screven, Ga.; Shafter, T. H.

Sheridan, Ill.; Sherman, C. Z.; Sill, Okla.; Slocum, New York, N. Y.; Snelling, Minn.; Standish, Boston, Mass.; Stevens, Ore.; Story, Cape Henry, Va.; Strong, Boston, Mass.; Sumter, Charleston, S. C.

Taylor, Key West, Fla.; Terry, New London, Conn.; Thomas, Newport, Ky.; Tilden, Rockaway Park, N. Y.; Totten, Whitestone, N. Y.; Travis, Galveston, Tex.; Wadsworth, Rosebank, N. Y.; Ward, Seattle, Wash.; Warren, Boston, Mass.; Washington, Md.; Wayne, Detroit, Mich.; Weaver, Honolulu, T. H.

Wetherill, Jamestown, R. I.; Whitman, La Conner, Wash.; Williams, Portland, Me.; Wint, Subic Bay, P. I.; Wood, New York, N. Y.; Wood (Leonard), Md.; Wool, Fortress Monroe, Va.; Worden, Port Townsend, Wash.; Wright (George), Spokane, Wash.; Wright (H. G.), Fisher's Island, N. Y.

UNITED STATES ARMY CAMPS.

Custer, Mich.; Devens, Mass.; Dix, Wrightstown, N. J.; Eagle Pass, Tex.; Eldridge, Los Banos, P. I.; Furlong, Columbus, N. M.; Grant, Ill.; Hay (John), Baguio Mt., P. I.; Hearn (Lawrence J.), Palm City, Cal.

Jesup, Ft. McPherson, Ga.; Jones (Harry J.), Douglas, Ariz.; Knox, Stithton, Ky.; Little (Stephen D), Nogales, Ariz.; McClellan, Anniston, Ala.; Marfa, Tex.; Nichols, Maricaben, P. I.; Stanley, San Antonio, Tex.; Stotsenburg, Angeles, P. I.; Tobyhanna, Pa.; Upton, N. Y.

MANUFACTURING ARSENALS.

Augusta, Augusta, Ga.; Benicia, Benicia, Cal.; Frankford, Frankford, Pa.; Picatinny, Dover, N. J.; Raritan, Metuchen, N. J.; Rock Island, Rock Island, Ill.; San Antonio, San Antonio, Tex.; Springfield Armory, Springfield, Mass.; U. S. Nitrate Plant No. 2; Nitrate Plant, Ala.; Watertown, Watertown, Mass.; Watervliet, Watervliet, N. Y.; Edgewood Arsenal, Edgewood, Md.

PROVING GROUNDS.

Aberdeen, Aberdeen, Md.

DISCIPLINARY BARRACKS.

U. S. Disciplinary Barracks: F. & S., Hq. Det., U. S. D. B., Fort Leavenworth, Kan. Troops: 1st, 2d and 3d Disciplinary Guard Companies.

Pacific Branch U. S. Disciplinary Barracks: Hq. Det. U. S. D. B., Alcatrez, Cal. Troops: Pacific Branch, U. S. D. Guard Co.

Atlantic Branch U. S. Disciplinary Barracks: Hq. Det., U. S. D. B., Governor's Island, N. Y. Troops: 9th Disciplinary Company.

THE RANK OF GENERAL AND LIEUTENANT GENERAL.

The list (date when Congress conferred rank in parentheses) is:

General of the Army—George Washington (June 15, 1775); Ulysses S. Grant (July 25, 1866); William T. Sherman (March 4, 1869; Philip H. Sheridan (June 1, 1888); John J. Pershing (Oct. 6, 1917); Tasker H. Bliss (Oct. 6, 1917); Peyton C. March (May 20, 1918); Charles P. Summerall (Feb. 23, 1929).

Lieutenant General of the Army—George Washington (July 3, 1798); Ulysses S. Grant (March 2, 1864); William T. Sherman (July 25, 1866); Philip H. Sheridan (March 4, 1869); John M. Schofield (Feb. 8, 1895); Nelson A. Miles (June 6, 1900); Samuel B. M. Young (Aug. 8, 1903); Adna R. Chaffee (Jan. 9, 1904); John C. Bates (Feb. 1, 1906); Henry C. Corbin (April 15, 1906; Arthur MacArthur (Sept. 15, 1906); Hunter Liggett (Oct. 16, 1918.; Robert L. Bullard (Oct. 16, 1918); Edgar Jadwin (retired Aug. 7, 1929, with rank of Lieutenant General, Act, March 3, 1915).

INTERMENTS IN NATIONAL CEMETERIES.

Alexandria (Pineville), La., 4681; Alexandria, Va., 3,579; Andersonville, Ga., 13,737; Andrew Jonhson, (Greenville), Tenn., 54; Annapolis, Md., 2,561; Antietam (Sharpsburg), Md., 4,823; Arlington (Ft. Myer), Va., 37,852; Balls Bluff (Leesburg), Va., 25; Barrancas, Fla., 2,991; Baton Rouge, La., 3,309; Battle Ground (Takoma Park Sts.), D. C., 44; Beaufort, S. C., 9,735; Beverly, N. J., 262; Camp Butler (Springfield), Ill., 1,621; Camp Nelson, Ky., 3,673; Cave Hill, (Louisville), Ky., 5,305; Chalmette (Arabi), La., 13,444; Chattanooga, Tenn., 14,402; City Point, Va., 5,211; Cold Harbor (Richmond), Va., 1,971; Corinth, Miss., 5,755; Crown Hill (Indianapolis), Ind., 1,070; Culpepper, Va., 1,378; Custer Battlefield (Crow Agency), Mont., 1,648; Cypress Hills (Brooklyn), N. Y., 12,159; Danville, Ky., 363; Danville, Va., 1,331; Fayetteville, Ark., 1,383; Finns Point (Salem), N. J., 2,652; Florence, S. C., 3,019; Fort Donelson, (Dover), Tenn., 682; Fort Gibson, Okla., 2,570; Fort Harrison (Richmond), Va., 819; Fort Leavenworth, Kan., 4,407; Fort McPherson, (Brady), Neb., 1,113; Fort Scott, Kan., 1,084; Fort Smith, Ark., 2,596; Fredricksburg, Va., 15,220; Gettysburg, Pa., 3,765; Glendale, Va., 1,202; Grafton, W. Va., 1,338; Hampton, Va., 13,571; Jefferson Barracks, Mo., 14,017; Jefferson City, Mo., 911; Keokuk, Iowa, 1,050; Knoxville, Tenn., 3,907; Lebanon, Ky., 880; Lexington, Ky., 1,227; Little Rock, Ark., 7,370; Loudon Park (Baltimore), Md., 4,937; Marietta, Ga., 10,584; Memphis, Tenn., 14,923; Mexico City, Mexico, 1,563; Mill Springs (Somerset), Ky., 746; Mobile, Ala., 2,458; Mound City, Ill., 5,554; Nashville (Madison), Tenn., 16,877; Natchez, Miss., 3,665; New Albany, Ind., 3,345; Newbern, N. C., 3,464; Philadelphia (Pittsville Sta.), Pa., 4,570; Poplar Grove (Petersburg), Va., 6,232; Port Hudson, La., 3,859; Quincy, Ill., 320; Raleigh, N. C., 1,249; Richmond, Va., 6,650; Rock Island, Ill., 578; Salisbury, N. C., 12,192; San Antonio, Tex., 3,646; San Francisco (Presidio Sta.), Cal., 11,390; Santa Fe., N. M., 1,382; Seven Pines (Richmond), Va., 1,406; Shiloh (Pittsburgh Landing), Tenn., 3,637; Soldiers Home, D. C., 8,892; Springfield, Mo., 2,727; St. Augustine, Fla., 1,874; Staunton, Va., 774; Stone River (Murfreesboro), Tenn., 6,164; Vicksburg, Miss., 17,365; Wilmington, N. C., 2,415; Winchester, Va., 4,561; Woodlawn (Elmira), N. Y., 5,323; Yorktown, Va., 2,204; Sitka, Alaska, 70; Zachary Taylor, 2. Total, 413,367.

Total area, 2,105 acres, of which 1,216 are inclosed.

Of the interments about 10,700 are those of Confederates, being mainly in the National Cemeteries at Arlington, Camp Butler, City Point, Cypress Hills, Finns Point, Fort Smith, Hampton, Jefferson Barracks, Little Rock, Philadelphia, Springfield and Woodlawn.

Number of overseas soldiers returned and interred in National Cemeteries, 6,577, not including 75 from Russia.

Approximately 5,600 World War dead buried in Arlington National Cemetery.

UNITED STATES MILITARY ACADEMY AT WEST POINT.

The United States Military Academy is situated on the Hudson River, at West Point, N. Y., a place rich in historical interest and made memorable by the treason of Benedict Arnold. The massive stone buildings rising grandly above the broad, winding river harmonize beautifully with the background of blue hills to form an ideal location for this, the greatest military school in the world. The buildings and grounds represent a money value of approximately $25,000,000.

The maximum authorized strength of the Corps of Cadets, excepting four Filipinos, is 1,374, appointed in number and from sources as follows: 4 from each State at large, 192; 2 from each congressional district, 870; 2 from each Territory, 4; 4 from the District of Columbia, 4; 2 from natives of Porto Rico, 2; 122 from the United States at large, 122; 180 from among the enlisted men of the Regular Army and of the National Guard, in number as nearly equal as practicable, 180. Total 1,374.

Of the 122 from the United States at large, 2 are appointed upon the recommendation of the Vice-President, 20 are selected from among the honor graduates of those educational institutions which have officers of the Regular Army detailed as professors of military science and tactics and which upon the determination of their relative standing at the last preceding annual inspection regularly made by the War Department were designated as "honor military schools," and 40 are chosen from among the sons of veterans who were killed in action or died prior to July 2, 1921, of wounds received or disease contracted in line of duty during the World War.

Candidates are eligible for admission from the day they are 17 (or 19 if from the Regular Army or from the National Guard) until the day they become 22 years of age, on which latter day they are not eligible. The age requirements for all candidates, as well as the service requirements for appointment from the Army and from the National Guard, are statutory and can not be waived.

Appointments to the Academy are made only to fill vacancies as they may occur, and candidates may be designated one year in advance of admission. For each vacancy from a State or Congressional district three candidates may be nominated, a principal, a first alternate, who is entitled to admission only in the event of the failure of the principal, and a second alternate, who is entitled to admission only in the event of the failure of both the principal and the first alternate. The selection of these candidates is left entirely with the Senator or Representative who has the vacancy at his disposal and may be either by competitive examination or direct choice at the option of the Congressman.

Each candidate must pass a rigid physical examination and none is accepted who has any defect or infirmity which renders him unfit for military service. In addition, each candidate must pass an examination in the subjects of Algebra, Geometry, English Grammar, Composition and Literature, and History. However, graduates of first class high schools and students at universities and colleges of ecognized standing may submit educational certificates which will be considered by the Academic Board, and if satisfactory may be accepted in lieu of the mental examination.

The course of study is four years, during which time the cadets are under strict military discipline. The summers are spent in camp. Academic work begins in September of each year and ends the following June. Cadets of the first, second and third classes not undergoing examinations are allowed short leaves of absence at Christmas, and those who have successfully completed the third class course are allowed leaves of absence from about the middle of June to August 28. The course is largely mathematical and professional. The principal subjects taught are Mathematics, English, French, Spanish, Drawing, Drill Regulations of all arms of the service, Natural and Experimental Philosophy, Chemistry, Mineralogy, Geology, Electricity, History, International, Constitutional and Military Law, Civil and Military Engineering, Art and Science of War, Economics and Government, and Ordnance and Gunnery.

The pay of a cadet is $780 per year and commutation of rations, at present fixed at 80 cents per day. The total is $1,072, which, with proper economy, is sufficient to meet his actual needs at the Academy.

Each cadet when admitted to the Academy signs an agreement to serve for a period of eight years, unless sooner discharged by competent authority. Upon graduation, cadets are commissioned second lieutenants in the United States Army, with the exception of the Filipino cadets, who are eligible for commission only in the Philippine Scouts.

The total number of graduates, including foreigners receiving instruction under special Acts of Congress, from 1802 to June 13, 1929, inclusive is 8,785. The number of cadets in the Corps on Aug. 31, 1929, was 1,278. The Superintendent is Maj. Gen. Edwin B. Winans, U. S. A., and there are 211 officers and instructors at the Academy.

Detailed information as to the appointment and admission of cadets is contained in an attractively illustrated pamphlet, a copy of which will be furnished, without cost, upon application to the Adjutant General of the Army, Washington, D. C.

PUBLIC BUILDINGS PLANNED FOR WASHINGTON.

The Public Buildings Commission —Senator Reed Smoot of Utah, Chairman, Senator Claude A. Swanson of Virginia, Congressmen Richard N. Elliott of Indiana and Fritz G. Lanham of Texas, David Lynn, Architect of the Capitol, James A. Wetmore, Acting supervising Architect of the Treasury, and Lt. Col. U. S. Grant 3d, U. S. A., executive officer—is the Supervising agency under the bill passed May 25, 1926, appropriating $50,000,000 to be expended ($10,000,000 a year for five years) to procure adequate housing for all government activities in Washington.

An expenditure of an additional $25,000,000 for the purchase of sites was authorized by the 70th Congress by an Act approved January 13, 1928 amending the original Public Building Bill approved May 25, 1926.

The Commission has approved the purchase of all land not now Government owned in the Triangle bounded by the Mall, Pennsylvania Avenue and 15th Street, and reservations C and D, N. W.

Congress specified buildings "combining high standards of architectural beauty and practical utility" and suitable approaches, and beautifying and embellishing their surroundings in harmony with the L'Enfant plan.

The Commission has approved in general a plan for the erection of buildings covering this entire Triangle and has specifically approved, both as to the location of and the amount to be expended on the following buildings:

The completion of the center wing of the Department of Agriculture Administration Building $2,000,000; the Internal Revenue Building, to be located between 10th and 12th, B and C Streets, N. W., $10 000,000; the Department of Commerce Building, to be located between 14th and 15th and B and D Streets, N. W., $17,500,000; the extension of the Government Printing Office Building, $1,250,000; the Archives Building, between Pennsylvania Avenue, B. 9th and 10th Streets, N. W., $6,900,000; the Agriculture Department Extensible Building, to be located between Linwood Place, 13th, B and C Streets, S. W., $5,750,000.

In addition to the above mentioned, the Commission has recommended that buildings for the Department of Justice, Department of Labor, General Accounting Office and the Independent Offices Building be located in the above mentioned Triangle.

New plans provide space and opportunity for a new Post Office Department Building when needed, and for the eventual inclusion of the existing District Building.

The site for the Supreme Court Building, as approved, is located between East Capitol Street and Maryland Avenue and First and Second Streets, N. E.

The annual rental paid for space occupied by Government Departments and independent establishments in private property in Washington was $814,217.12 in 1924; $913,770.24 in 1925; $857,141.68 in 1926; $997,120.41 in 1927; $1,210,335.83 in 1928. The figures for 1926 to 1928, inclusive, do not include rents paid for local Post Office stations.

It is expected that the center wing of the Department of Agriculture Administration Building will be completed in February, 1930, and will contain 322,000 square feet.

The Internal Revenue Building, which it is expected will be completed by June 30, 1930, will contain 750,000 square feet and house 4,500 employees.

The extension to the Government Printing Office Building is expected to be completed by July 21, 1930, and will contain 168,000 square feet.

The Department of Commerce Building will contain 1,092,000 square feet and house 5,000 employees, and it is expected that this building will be completed in February, 1932.

MILITARY MAN-POWER OF NATIONS OF THE WORLD.

(Revised by the United States War Department as of Oct. 1, 1929.)

Nation.	Population.	Organized Forces.					Addition'l Man-pow. (in. Naval and Ind. Air Forces	Total Man-power.	
		Active Forces.		Res. For.	Total Organ. For.			Number.	Per-cent of Pop.
		Number	Perc'nt of Pop.	Number.	Number.	Perc'nt of Pop.			
Albania	850,000	13,200	1.55	.....	13,200	1.55	122,800	136,000	16.00
Argentine	11,000,000	34,958	0.32	309,960	344,918	3.14	1,156,082	1,501,000	13.64
Austria	6,635,365	29,546	0.45	.....	29,546	0.45	710,454	740,000	11.32
Belgium	7,931,845	71,792	0.90	500,000	571,792	7.20	312,208	884,000	11.14
Bolivia	2,599,000	8,750	0.33	30,000	38,750	1.48	79,950	118,700	4.50
Brazil	39,103,856	47,050	0.12	195,821	242,871	0.62	899,029	1,141,900	2.92
British Emp.	391,913,948	394,519	0.10	572,829	967,348	0.25	10,985,652	11,953,000	3.05
Australia	6,262,720	1,686	0.03	48,301	49,987	0.80	550,013	600,000	9.58
Canada	9,658,000	3,586	0.04	48,679	52,265	0.54	947,735	1,000,000	10.00
Gr. Britain	45,441,322	212,404	0.47	281,881	494,285	1.09	5,641,115	6,135,400	13.50
India	318,542,480	166,495	0.05	155,733	322,228	0.10	2,677,772	3,000,000	0.94
Irish F. S.	2,971,992	8,655	0.29	7,971	16,626	0.56	353,374	370,000	12.44
N. Zealand	1,512,376	554	0.04	22,140	22,694	1.50	109,906	132,600	8.76
So. Africa	7,525,058	1,139	0.02	8,124	9,263	0.19	705,737	715,000	9.50
Bulgaria	5,600,000	33,000	0.59	.....	33,000	0.59	767,000	800,000	14.28
Chile	4,200,000	46,604	1.10	177,000	223,604	5.31	434,996	658,600	15.66
China	400,000,000	1,500,000	0.37	.....	1,500,000	0.37	14,000,000	15,500,000	3.87
Colombia	7,000,000	14,919	0.21	39,349	54,268	0.77	500,032	554,300	7.92
Costa Rica	480,326	1,452	0.30	4,000	5,452	1.13	34,948	40,400	8.43
Cuba	3,516,000	12,019	0.34	2,000	14,019	0.40	199,981	214,000	6.09
Czecho'vakia	13,613,172	158,103	1.16	1,489,000	1,647,103	12.10	457,897	2,125,000	15.61
Denmark	3,457,000	10,640	0.31	145,298	155,938	4.51	304,062	460,000	13.31
Dominican R.	1,022,485	2,100	0.20	25,000	27,100	2.64	80,000	107,100	10.48
Ecuador	2,000,000	5,814	0.29	25,000	30,814	1.54	99,986	130,800	6.54
Estonia	1,115,000	16,800	1.51	107,000	123,800	11.10	47,000	170,800	15.32
Finland	3,558,220	24,200	0.68	235,000	259,200	7.28	265,000	524,200	14.73
France	40,960,000	643,675	1.57	5,442,318	6,085,993	14.85	409,607	6,495,600	15.85
Germany	63,350,000	100,500	0.16	.....	100,500	0.16	8,599,500	8,700,000	13.73
Greece	6,200,000	57,350	0.93	440,000	497,350	8.06	402,650	900,000	14.51
Guatemala	2,004,000	8,084	0.40	.....	8,084	0.40	124,916	133,000	6.64
Haiti	2,550,000	3,144	0.12	20,000	23,144	0.90	199,850	223,000	8 75
Honduras	760,465	2,253	0.29	39,375	41,628	5.38	22,872	64,500	8.35
Hungary	8,364,653	71,236	0.84	.....	71,236	0.84	1,266,964	1,338,200	15.99
Italy	42,000,000	353,120	0.84	3,056,409	3,409,529	8.12	1,999,971	5,409,500	12.81
Japan	86,000,000	210,000	0.24	2,038,000	2,248,000	2.61	5,092,000	7,340,000	8.53
Latvia	1,883,189	19,600	1.04	200,000	219,600	11.66	23,000	242,600	12.88
Liberia	2,035,000	3,300	0.16	3,500	6,800	0 33	100,000	106,800	5.25
Lithuania	2,316,615	19,870	0.86	70,000	89,870	3.88	210,130	300,000	12.94
Luxemburg	268,865	250	0.09	.....	250	0.09	38,950	39,200	13.11
Mexico	14,334,780	72,881	0.51	15,032	87,913	0.61	1,112,087	1,200,000	8.38
Netherlands	7,416,204	62,263	0.84	341,465	403,728	5.44	811,972	1,215,700	16.35
Nicaragua	650,000	1,200	0.18	.....	1,200	0.18	64,600	65,800	10.29
Norway	2,762,964	30,000	0.19	315,000	345,000	12.49	60,000	405,000	16.30
Panama	446,100	.....	.....	.....	.....	.....	.....	35,000	7.85
Paraguay	828,970	2,915	0.35	10,000	12,915	1.56	44,985	57,900	7.00
Peru	5,500,000	14,222	0.26	20,000	34,222	0.62	79,978	114,200	2.08
Poland	29,589,000	229,900	0.78	500,000	729,900	2.40	2,000,000	2,729,900	9.23
Portgual	6,032,990	39,875	0.66	380,000	419,875	6.95	600,025	1,019,900	16.90
Rumania	17,694,189	325,500	1.89	750,000	1,075,500	6.09	600,000	1,675,500	9.47
Russia	150,000,000	715,000	0.48	5,600,000	6,315,000	4.21	8,185,000	14,500,000	9.66
Salvador	1,680,000	3,929	0.23	215,571	219,500	13.06	.....	219,500	13.06
Spain	22,444,100	243,511	1.08	2,018,616	2,262,127	10.07	737,873	3,000,000	13.36
Sweden	6,087,923	33,483	0.55	890,375	923,858	15.17	61,142	985,000	16.18
Switzerland	3,987,000	494	0.01	309,630	310,130	7.78	323,270	633,400	15.86
Turkey	13,753,000	119,500	0.87	250,000	369,500	2.69	375,000	744,500	5.41
Uruguay	1,762,450	9,300	0.53	7,000	16,300	0.93	149,000	165,300	9.38
Venezuela	3,026,878	7,500	0.24	.....	7,500	0.24	78,500	86,000	2.84
Yugoslavia	13,308,158	141,568	1.06	1,200,000	1,341,568	10.08	850,432	2,192,000	16.47
United States	120,013,000	136,217	0.11	284,074	420,291	0.35	18,077,709	18,500,000	15.42
Totals	1,587,407,710	6,107,106	0.38	28,273,628	34,380,734	2.16	84,159,066	118,539,800	7.48

THE PLEDGE TO THE FLAG.

(Taught in many of the schools and repeated by the pupils daily.)

"I pledge allegiance to the flag of the United States
And to the Republic for which it stands,
One Nation, indivisible,
With liberty and justice for all."

The Pledge to the Flag, it is asserted, was written in Aug., 1892, by Francis Bellamy a member of the staff of the *Youth's Companion*, of Boston, who had been active in getting Congress to authorize the President to proclaim Oct. 12 as Columbus Day, a national holiday for the schools. The idea of that holiday is claimed by James B. Upham, who was one of the junior proprietors of the paper mentioned.

The flag should be displayed only from sunrise to sunset, or between such hours as may be designated by proper authority. It should be displayed on national and State holidays and on historic and special occasions.

When carried in a procession the flag of the United States should be either on the marching right, i. e., the flag's own right, or when there is a line of other flags, the flag of the United States may be in front of the centre of that line.

When flags of two or more nations are displayed they should be flown from separate staffs of the same height and the flags should be of approximately equal size.

When displayed over the middle of the street, as between buildings, the flag of the United States should be suspended vertically with the union to the north in an east-and-west street or to the east in a north-and-south street.

When used on a speaker's platform, the flag should be displayed above and behind the speaker.

When flown at half staff, the flag is hoisted to the peak for an instant, and then lowered to the half staff position, but before lowering the flag for the day it is raised again to the peak. By "half staff" is meant hauling the flag down to one-half the distance between the top and bottom of the staff.

On Memorial Day, May 30, the flag is displayed at half staff from sunrise until noon and at full staff from noon until sunset.

TROOPS ENGAGED IN UNITED STATES WARS.

(Prepared by Adjutant-General's Office, U. S. Army.)

War.	Dates.			Troops Engaged.			
	From—	To—	Active Hostilities Ceased.	Regulars.	Volunteers.	Drafted.	Total Troops.
Revolutionary War..	April 19, 1775	Jan. 14, 1784	*a* April 19, 1783	.....	.....	.....	*b*
War of 1812.....	June 18, 1812	Feb. 17, 1815	Jan. 8, 1815	56,652	471,622	.....	*c* 528,274
War with Mexico...	*d* April 24, 1846	May 30, 1848	*e* Sept. 14, 1847	43,300	73,297	.....	116,597
Civil War (Union) ..	April 15, 1861	Aug. 20, 1866	*f* April 9, 1865	75,215	1,933,779	*g* 119,954	2,28,948
War with Spain....	April 21, 1898	April 11, 1899	Aug. 13, 1898	57,329	223.235	.....	280,564
World War.....	April 6, 1917	July 2, 1921	Nov. 11, 1918	545,773	617,275	2,894,053	*h* 4,057,101

a Proclamation of Congress read to Army at 12 o'clock noon on April 19, 1783.

b Estimates on total troops run from 250,000 to 395,858. Greatest strength of Continental Army was about 35,000, in November, 1778.

c Evidently represents *enlisments* and not individual soldiers, hence is considerably in excess of actual number of troops employed, as it is known that a large proportion of the men rendered more than one term of service and are counted that number of times.

d Hostilities began on this date. The Act of Congress approved May 13, 1846, declared the existence of a state of war

e Capture of the City of Mexico.

f Date of Gen. Lee's surrender.

g Of this number only 46,347 were actually drafted, the remaining 73,607 having served as substitutes.

h Army only, does not include Marines who served with the Army in France.

The Continental Army was organized by the Continental Congress June 15, 1775, under George Washington as Major-Gen. and Commander-in-Chief. The so-called Continentals in the Revolution totaled 231,771. The War Department was established Aug. 7, 1789. The standing army organized September, 1790.

UNION ARMY LOSSES IN THE CIVIL WAR.

(From "Regimental Losses in the American Civil War," by William F. Fox, Lieutenant-Colonel, U. S. V.)

Date.	Battle.	Killed.	Wounded.	Missing.	Aggregate.
July 1-3, 1863.....	Gettysburg.....	3,070	14,497	5,434	23,001
May 8-18, 1864.....	Spottsylvania.....	2,725	13,416	2,258	18,399
May 5-7, 1864.....	Wilderness.....	2,246	12,037	3,383	17,666
September 17, 1862....	Antietam.....	2,108	9,549	753	12,410
May 1-3, 1863.....	Chancellorsville.....	1,606	9,762	5,919	17,287
September 19-20, 1863..	Chickamauga.....	1,656	9,749	4,774	16,179
June 1-4, 1864.....	Cold Harbor.....	1,844	9,077	1,816	12,737
December 11-14, 1862..	Fredericksburg.....	1,284	9,600	1,769	12,653
August 28-30, 1862....	Manassas.....	1,747	8.452	4,263	14,462
April 6-7, 1862	Shiloh.....	1,754	8,408	2,855	13,047
December 31, 1862....	Stone River.....	1,730	7,802	3,717	13,249
June 15-19, 1864.....	Petersburg (assault)....	1,688	8,513	1,185	11,386
July 21, 1861.....	Bull Run (first Manassas)	470	1,071	1,793	3,334

Northern writers usually estimate the total number of Confederate troops in the Civil War at 1,400,000, based on a population of 5,000,000 whites. Southern historians estimate the total number of Confederate troops at 600,000. R. H. McKim puts the total at 621,800. On March 1, 1862, by Confederate records, the total was 340,250. Woodrow Wilson, in his "History of the American People," estimated the Confederate troops at 900,000

The Confederate losses in particular engagements were as follows: Bull Run (first Manassas), July 21, 1861, killed, 387; wounded, 1,582; captured and missing, 13; aggregate, 1,982. Fort Donelson, Tenn., February 14-16, 1862, killed, 466; wounded, 1,534; captured and missing, 13,829; aggregate, 15,829. Shiloh, Tenn., April 6-7, 1862, killed, 1,723; wounded, 8,012; captured and missing, 959; aggregate, 10,694. Seven Days' Battle, Virginia, June 25-July 1, 1862, killed, 3,478; wounded, 16,261; captured and missing, 875; aggregate, 20,614. Second Manassas, August 21-September 2, 1862, killed, 1,481; wounded and missing, 7,627; captured and missing, 89; aggregate, 9,197. Antietam campaign, September 12-20, 1862, killed, 1,886; wounded, 9,348; captured and missing, 1,367; aggregate, 12,601. Fredericksburg, December 13, 1862, killed, 596; wounded, 4,068; captured and missing, 651; aggregate, 5,315. Stone River, Tenn. December 31, 1862, killed, 1,294; wounded, 7,945; captured and missing, 1,027; aggregate, 10,266. Chancellorsville, May 1-4, 1863, killed, 1,665; wounded, 9,081; captured and missing, 2,018; aggregate, 12,764. Gettysburg, July 1-3, 1863, killed, 2,592; wounded 12,706; captured and missing, 5,150; aggregate, 20,448. Chickamauga, September 19-20, 1863, killed, 2,312; wounded, 14,674; captured and missing, 1,468; aggregate, 18,454 Franklin, Nov. 3, 1864, killed, 6,252

The number of casualties in the volunteer and regular, armies of the United States during the war of 1861-65, according to a statement prepared by the Adjutant-General's office, was as follows: Killed in battle, 67,058; died of wounds. 43,012: died of disease, 224,586; other causes, such as accidents, murder, etc., 24,872; total died, 359,528; total deserted (estimated), 117,247. Number of soldiers in the Confederate service who died of wounds or disease (partial statement), 133,821; deserted (partial statement), 104,428. Number of United States troops captured during the war, 211,411. Confederate troops captured, 462,634. Number of United States troops paroled on the field, 16,665; Confederate troops paroled on the field, 247,769. Number of United States troops who died while prisoners, 30,218; Confederate troops who died while prisoners, 25,976

NATIONAL HOME FOR DISABLED VOLUNTEER SOLDIERS.

There are branches of the National Home at Dayton, Ohio; Milwaukee, Wis.; Togus, Me.; Hampton Va.; Leavenworth, Kan.; Santa Monica, Cal.; Marion, Ind.; Danville, Ill.; Johnson City, Tenn, and Hot Springs, S. D. The aggregate number of members cared for is about 28,000.

STATE HOMES FOR DISABLED VOLUNTEER SOLDIERS.

States.	Location.	States.	Location.	States.	Location.
California.....	Yountville	Missouri.....	St. James	Ohio.....	Sandusky, Madison
Colorado.....	Homelake	Montana.....	Columbus Falls		
Connecticut....	Noroton Heights	Nebraska.....	Burkett, Milford	Oregon.....	Roseburg
Idaho.....	Boise			Pennsylvania...	Erie
Illinois.....	Quincy	New Hampshire.	Tilton	Rhode Island...	Bristol
Indiana.....	Lafayette	New Jersey.....	Kearny, Vineland	South Dakota...	Hot Springs
Iowa.....	Marshalltown			Vermont.....	Bennington
Kansas.....	Fort Dodge	New York.....	Bath, Oxford	Washington....	Orting, Retsil
Massachusetts..	Chelsea				
Michigan.....	Grand Rapids	North Dakota..	Lisbon	Wisconsin.....	Waupaca
Minnesota.....	Minneapolis	Oklahoma.....	Oklahoma City	Wyoming.....	Buffalo

The United States Soldiers' Home in the District of Columbia was established by Congress, March 3, 1851, for the relief and support of invalid and disabled soldiers of the regular army.

Blank applications for admission may be obtained from the Board of Commissioners, U. S. Soldiers' Home, Washington, D. C.

UNITED STATES TROOPS IN THE WORLD WAR, BY STATES.

(Figures, which are official, cover the Army, the Navy, and the Marine Corps.)

STATE.	Total	P. Cent. of Tot.	STATE.	Total	P. Cent. of Tot.	STATE.	Total	P. Cent. of Tot.
Alabama	84,109	1.78	Louisiana	76,581	1.61	Pennsylvania	359,817	7.63
Alaska	2,096	.05	Maine	33,032	.69	Philippine Isl.	26,265	.56
Arizona	12,470	.27	Maryland	62,034	1.32	Porto Rico	18,073	.39
Arkansas	70,314	1.49	Massachusetts	198,692	4.22	Rhode Island	27,809	.59
California	161,367	3.42	Michigan	164,075	3.48	Samoa	90	.002
Canal Zone	337	.007	Minnesota	118,410	2.55	South Carolina	63,109	1.34
Colorado	42,898	1.00	Mississippi	62,345	1.32	South Dakota	32,038	.68
Connecticut	67,709	1.44	Missouri	161,805	3.43	Tennessee	89,618	1 90
Delaware	9,191	.20	Montana	39,663	.84	Texas	191,656	4 05
Dist. of Col.	27,318	.61	Nebraska	57,094	1.21	Utah	21,275	45
Florida	42,217	.90	Nevada	5,412	.12	Vermont	13,910	30
Georgia	103,288	2.19	New Hampshire	18,918	.41	Virginia	91,623	1 94
Guam	248	.005	New Jersey	144,156	2.84	Virgin Islands	59	001
Hawaii	9,536	.21	New Mexico	14,304	.31	Washington	66,541	1 41
Idaho	22,071	.47	New York	489,608	10.16	West Virginia	57,856	1.23
Illinois	322,731	6.84	North Carolina	86,550	1.83	Wisconsin	120,483	2.55
Indiana	133,121	2.82	North Dakota	27,333	.58	Wyoming	12,258	.26
Iowa	113,719	2.41	Ohio	239,609	5.08	No residence	2,422	.055
Kansas	81,265	1.72	Oklahoma	90,378	1.92			
Kentucky	93,944	1.99	Oregon	43,138	.92	Total U. S.	4,727,988	100.00

BURIALS IN PERMANENT AMERICAN CEMETERIES IN EUROPE (AS OF OCT. 1, 1928).

Name.	Location.	Acres.	Interments	Known.	Unknown.
*Brookwood	Brookwood, near London, England	4½	437	395	42
*Flanders Field	Waereghem, Belgium	5	366	344	22
Meuse-Argonne	Romagne-sous-Montfaucon, Meuse, France	130	14,163	13,713	450
Oise-Aisne	Seringes-et-Nesles, Aisne, France	32	5,992	5,382	610
*St. Mihiel	Thiaucourt, Meurthe-et-Moselle, France	30	4,145	4,033	112
Somme	Bony, Aisne, France	13	1,827	1,697	130
*Suresnes	Suresnes, Seine, France (near Paris)	7½	1,507	1,505	2
*Aisne-Marne	Belleau, Aisne, France	34	2,266	2,016	250
	Total	256	30,703	29,085	1,618

*Erection of permanent markers completed.

DECLARATIONS OF WAR 1914-18, TO ARMISTICE NOV. 11, 1918.

ALLIES AND ASSOCIATES.	By Central Powers.	Against Central Powers.	Duration of War. Y.	M.	D.
Serbia	July 28, 1914	Aug. 6, 1914	4	3	4
Russia	Aug. 1, 1914	Nov. 3, 1914	3	7	3
France	Aug. 3, 1914	Aug. 3, 1914	4	3	8
Belgium	Aug. 4, 1914	April 7, 1917	4	3	7
Britain	Nov. 23, 1914	Aug. 4, 1914	4	3	7
Montenegro	Aug. 9, 1914	Aug. 6, 1914	4	3	5
Japan	Aug. 27, 1914	Aug. 23, 1914	4	2	19
Portugal	Mar. 9, 1916	Nov. 23, 1916	3	11	19
Italy		May 23, 1915	3	5	19
San Marino		June 6, 1915	3	5	4
Roumania	Aug. 29, 1916	Aug. 27, 1916	1	6	10
Greece		Nov. 23, 1916	1	11	18
United States		April 6, 1917	1	7	5
Panama		April 7, 1917	1	7	4
Cuba		April 7, 1917	1	7	4
Siam		July 22, 1917	1	3	20
Liberia		Aug. 4, 1917	1	3	8
China		Aug. 14, 1917	1	2	28
Brazil		Oct. 26, 1917	1	0	16
Guatemala		April 21, 1918	0	6	21
Nicaragua		May 6, 1918	0	6	5
Haiti		July 12, 1918	0	3	30
Honduras		July 19, 1918	0	3	23

The joint resolution of Congress, approved April 6, 1917, provides "That the state of war between the United States and the Imperial German Government which has been thrust upon the United States is hereby formally declared."

The existence of a state of war between the United States of America and the Imperial and Royal Austro-Hungarian Government was declared by joint resolution of Congress approved Dec. 7, 1917.

Russia surrendered to Central Powers Dec. 16, 1917; Roumania, May 6, 1918.

Bulgaria surrendered to the Allies Sept. 29, 1918; Turkey, Oct. 30, 1918; Austria-Hungary, Nov. 3, 1918; Germany, Nov. 11, 1918.

Peace treaties—(1918) March 3, at Brest-Litovsk, between Russia, Germany, Austria-Hungary, Bulgaria and Turkey; (1918) March 7, between Germany and Finland; (1919) June 28, at Versailles, between Germany and Allies; (1919) Sept. 10, at St. Germain, between Austria and Allies; (1919) Nov. 27, at Neuilly, between Bulgaria and Allies; (1920) June 4, at the Grand Trianon, between Hungary and Allies; (1920) Aug. 10, at Sevres, between Turkey and Allies

U. S. PEACE PACTS WITH CENTRAL POWERS.

(Memorandum by the Department of State.)

"Treaty between the U. S. and Germany Restoring Friendly Relations signed at Berlin, Aug. 25, 1921; ratification advised by Senate, Oct. 18, 1921; ratified by the President, Oct. 21, 1921; ratified by Germany, Nov. 2, 1921; ratifications exchanged at Berlin, Nov. 11, 1921; proclaimed, Nov. 14, 1921.

"Treaty between the U. S. and Austria Establishing Friendly Relations signed at Vienna, Aug. 24, 1921; ratification advised by Senate, Oct. 18, 1921; ratified by the President, Oct. 21, 1921; ratified by Austria, Oct. 8, 1921; ratifications exchanged at Vienna, Nov. 8, 1921; proclaimed, Nov. 17, 1921

"Treaty between the U. S. and Hungary Establishing Friendly Relations signed at Budapest, Aug. 29, 1921; ratification advised by Senate, Oct. 18, 1921; ratified by President, Oct. 21, 1921; ratified by Hungary, Dec. 12, 1921; ratifications exchanged at Budapest, Dec. 17, 1921; proclaimed Dec. 20, 1921.

"In proclaiming the treaties Restoring Friendly Relations with Germany and Austria, the President declared the state of war between the U. S. and the Governments of Germany and Austria to have terminated on July 2, 1921.

"February 21, 1923, is the date upon which Gen. Allen and his command ceased to occupy German territory. These were the last American troops to leave Germany with the exception of a small detachment of a few men which withdrew from Germany on July 11, 1923."

INSIGNIA FOR SHOULDER LOOPS.

Silver stars for general officers, 1 inch in diameter. *General*—Four silver stars; *Lieutenant General*—Three silver stars; *Major General*—Two silver stars; *Brigadier General*—One silver star.

Colonel—A silver spread eagle, ¾ inch in height and 1½ inches between tips of wings.

Lieutenant Colonel—A silver oak leaf, 1 inch in height and 1 inch across.

Major—A gold oak leaf, 1 inch in height and 1 inch across.

Captain—Two silver bars, each ¼ inch in width and 1 inch in length. Bars ¼ inch apart.

First Lieutenant—One silver bar, ¼ inch in width and 1 inch in length.

Second Lieutenant—One gilt bar, ¼ inch in width and 1 inch in length.

Chaplain. (1) *Christian*—A silver Latin cross, 1 inch in height. (2) *Jewish*—A double tablet bearing Roman numerals from 1 to 10, surmounted by two equilateral triangles interlaced, all silver, 1 inch in height.

CASUALTIES OF ALL BELLIGERENTS IN THE WORLD WAR.

(Compiled by U. S. War Department; checked up on Feb. 25, 1924; correct, June 30, 1928.)

	Total Mobilized Forces.	Killed and Died.	Wounded Casualties.	Prisoners and Missing.	Total Casualties.	Per Cent.
ALLIES.	*Number.*	*Number.*	*Number.*	*Number.*	*Number.*	
Russia	12,000,000	1,700,000	4,950,000	2,500,000	9,150,000	76.3
France	8,410,000	1,363,000	4,266,000	537,000	6,160,800	73.3
British Empire	8,904,467	908,371	2,090,212	191,652	3,190,235	35.8
Italy	5,615,000	650,000	947,000	600,000	2,197,000	39.1
United States	4,355,000	126,000	234,300	4,500	350,300	8.0
Japan	800,000	300	907	3	1,210	.2
Roumania	750,000	335,706	120,000	80,000	535,706	71.4
Serbia	707,343	45,000	133,148	152,958	331,106	46.8
Belgium	267,000	13,716	44,686	34,659	93,061	34.9
Greece	230,000	5,000	21,000	1,000	27,000	11.7
Portugal	100,000	7,222	13,751	12,318	33,291	33.3
Montenegro	50,000	3,000	10,000	7,000	20,000	40.0
Total	42,188,810	5,157,315	12,831,004	4,121,090	22,094,900	52.3
CENTRAL POWERS.						
Germany	11,000,000	1,773,700	4,216,058	1,152,800	7,142,558	64.9
Austro-Hungary	7,800,000	1,200,000	3,620,000	2,200,000	7,020,000	90.0
Turkey	2,850,000	325,000	400,000	250,000	975,000	34.2
Bulgaria	1,200,000	87,500	152,390	27,029	266,919	22.2
Total	22,850,000	3,386,200	8,388,448	3,629,829	15,404,477	67.4
Grand total	65,038,810	8,543,515	21,219,452	7,750,919	37,499,386	57.6

Killed and died includes deaths from all causes; German and French figures official.

Figures for the United States include marines serving with the army. Wounded casualties include, for the United States, those who died of wounds, numbering 14,500.

Excluding members of the United States Marine Corps who served with the Army in France, the United States Army casualties were as follows—

Total mobilized forces, 4,057,101; killed and died, 119,956; wounded casualties, 193,663 (representing 182,674 individuals, but not including 12,942, who died of wounds); prisoners and missing, 4,423 (representing prisoners only, all missing cases cleared up); total casualties, 318,042; per cent, 7.0.

AMERICAN ARMY BATTLE CASUALTIES IN WORLD WAR.

Nature of Casualty.	A. E. F.				A. E. F. (Sib.)			Grand Totals.			
	Officers.	Army Nurses	Enl. Men.	Total.	Officers.	Enl. Men.	Tot.	Officers.	Army Nurses	Enl. Men.	Aggregate.
Killed in action	1,655	.....	35,886	37,541	1	26	27	1,656	.....	35,912	37,568
Died of wounds received in action	559	.....	12,375	12,934	....	8	8	559	.....	12,383	12,942
Wounded, not mortally	6,471	3	176,147	182,622	4	48	52	6,475	3	176,195	182,674
Totals	8,685	3	224,408	233,097	5	82	87	8,690	3	224,490	233,184

Battle casualties of the U. S. Navy and the U. S. Marine Corps are not included in the figures.

Includes troops in Northern Russia and at sea.

Many individuals were wounded more than once, the total number of additional non-mortal wounds treated being 10,989, increasing the aggregate number of army battle casualties to 244,173.

The casualties not included in the above table were: Died of disease, 62,670; died of accident, 4,503; drowned, 727; suicide, 965; murder or homicide, 318; executed, 35; other causes, 228; total, 69,446.

Total deaths from all causes, 119,956.

Marine Corps casualties were—killed in action, 1,450; died of wounds, 1,007; died of disease, 304; accidentally killed, 28; died of other causes, 18; total, 2,807. Wounded numbered 7,714; total casualties, 10,521.

United States Navy Losses at Sea in World War—Killed in action, 30 officers and 326 men; died of wounds, 6 officers and 52 men; lost at sea, 41 officers and 416 men; total, 77 officers and 794 men.

NEW YORK STATE LOSSES IN THE WORLD WAR.

(Compiled by Franklin W. Ward, the Adjutant Generla of the State.)

County.	Killed in Action.	Total Deaths.	County.	Killed in Action.	Total Deaths.	County.	Killed in Action.	Total Deaths.
Albany	65	190	Jefferson	49	110	Schenectady	44	113
Alleghany	18	47	Lewis	8	25	Schoharie	2	12
Broome	53	128	Livingston	10	37	Schuyler	5	11
Cattaraugus	24	83	Madison	13	45	Seneca	6	32
Cayuga	27	70	Monroe	155	378	Steuben	32	80
Chautauqua	†59	141	Montgomery	28	71	Suffolk	44	131
Chemung	31	87	Nassau	65	183	Sullivan	14	44
Chenango	12	41	New York City	3,018	6,696	Tioga	7	24
Clinton	16	58	Niagara	76	192	Tompkins	13	33
Columbia	16	47	Oneida	96	211	Ulster	31	112
Cortland	12	31	Ontario	29	73	Warren	10	43
Delaware	21	55	Orange	62	156	Washington	8	55
Dutchess	37	109	Orleans	16	35	Wayne	21	50
Erie	303	736	Oswego	29	86	Westchester	163	416
Essex	8	44	Onondaga	121	286	Wyoming	12	32
Franklin	24	62	Otsego	26	70	Yates	6	24
Fulton	12	35	Putnam	5	14	Not shown	8	32
Genesee	22	45	Rensselaer	79	179			
Greene	8	41	Rockland	23	60	Total	5,194	12,456
Hamilton	3	6	St. Lawrence	31	102			
Herkimer	35	90	Saratoga	28	64			

Died of wounds, 1,854; died of disease, 4,626. Both are included in the total.

Deaths of New York men in the U. S. Navy and the Marine Corps totaled 1,616, of whom 820 were from New York City. Grand total of deaths, including 40 nurses, 14,114.

UNITED STATES PENSION STATISTICS.

(These statistics are official, and are furnished by the Commissioner at Washington.)

Year (Fisc'l)	Soldiers on Roll.	Widows on Roll.	Total on Pen. Roll.	TotalDisburs. for Pensions.	Year (Fisc'l)	Soldiers on Roll.	Widows on Roll.	Total on Pen. Roll.	TotalDisburs. for Pensions.
	No.	*No.*	*No.*	*Dollars.*		*No.*	*No.*	*No.*	*Dollars.*
1878...	131,649	92,349	223,998	26,786,009	1904...	720,921	273,841	994,762	141,093,571
1879...	138,615	104,140	242,755	33,664,428	1905...	717,761	280,680	998,441	141,142,861
1880...	145,410	105,392	250,802	56,689,229	1906...	701,483	284,488	985,971	139,000,288
1881...	164,110	104,720	268,830	50,583,405	1907...	679,937	287,434	967,371	138,155,412
1882...	182,633	103,064	285,697	54,313,172	1908...	658,071	293,616	951,687	153,093,086
1883...	206,042	97,616	303,658	60,427,573	1909...	632,557	313,637	946,194	161,973,703
1884...	225,470	97,286	322,756	57,912,387	1910...	602,180	318,903	921,083	159,974,056
1885...	247,146	97,979	345,125	65,171,937	1911...	570,050	322,048	892,098	157,325,160
1886...	270,346	95,437	365,783	64,091,142	1912...	538,000	322,294	860,294	152,986,433
1887...	306,298	99,709	406,007	73,752,997	1913...	503,633	316,567	820,272	174,171,660
1888...	343,701	108,856	452,557	78,950,501	1914...	470,331	314,908	785,239	172,417,546
1889...	373,699	116,026	489,725	88,842,720	1915...	437,448	310,699	748,147	165,518,266
1890...	415,654	122,200	537,914	106,093,850	1916...	403,120	306,452	709,572	159,155,089
1891...	536,821	139,339	676,160	117,312,690	1917...	369,936	303,175	673,111	160,895,053
1892...	703,242	172,826	876,068	139,394,147	1918...	340,313	306,582	646,895	179,835,329
1893...	759,706	206,306	966,012	156,906,637	1919...	313,130	303,111	624,427	222,159,292
1894...	754,382	215,162	969,544	139,986,726	1920...	285,110	299,363	592,190	213,295,314
1895...	751,456	219,068	970,524	139,812,294	1921...	267,731	290,955	566,053	258,715,842
1896...	748,514	222,164	970,678	138,220,704	1922...	256,828	282,965	547,016	253,807,583
1897...	747,492	228,522	976,014	139,949,717	1923...	253,605	278,700	539,756	263,012,500
1898...	758,511	235,203	993,714	144,651,879	1924...	248,049	270,194	525,539	229,994,777
1899...	754,104	237,415	991,519	138,555,052	1925...	244,657	260,382	512,537	217,150,612
1900...	752,510	241,019	993,529	138,462,130	1926...	245,879	248,302	501,723	207,844,348
1901...	748,649	249,086	997,735	138,531,483	1927...	245,866	236,317	489,942	230,152,712
1902...	739,443	260,003	999,446	137,504,267	1928...	258,620	224,714	491,194	228,965,672
1903...	729,356	267,189	996,545	137,759,653	1929...	259,127	210,724	477,915	229,890,189

PENSIONERS ON THE ROLL JUNE 30.

	1928	1929
	No.	*No.*
Civil War:		
Soldiers	74,929	59,945
Nurses	43	39
Widows	197,934	181,235
War with Spain:		
Soldiers	164,708	178,804
Nurses	367	414
Widows, etc.	26,195	28,643
Regular Establishment:		
Soldiers	13,665	14,758
Widows, etc.	3,555	3,699
World War:		
Soldiers	47	45
Widows, etc.	17	17
Indian Wars:		
Soldiers	5,267	5,574
Widows, etc.	3,604	4,000
War with Mexico:		
Soldiers	4	1
Widows, etc.	845	730
War of 1812:		
Widows	14	11
Total	491,194	477,915

	1928	1929
	No.	*No.*
By Classes:		
Soldiers	258,620	259,127
Nurses	410	453
Widows	224,714	210,724
Minors	2,346	2,304
Helpless children	893	884
Other dependents	4,211	4,423

War pensions paid by the United States 1791-1877 totaled $428,141,000. In the period 1791-1800 they averaged $97,000 a year.

PAID OUT FOR PENSIONS.

	Fiscal yr. 1928.	Fiscal yr. 1929.
	Dollars.	*Dollars.*
Civil War	149,668,976	143,594,292
War with Spain	70,674,419	76,845,704
Other classes	8,622,277	9,450,193
Total	228,965,672	229,890,189

The last survivor of the Mexican War, Owen Thomas Edgar, 98, died on Sept. 3, 1929, at Washington, D. C. He was born at Philadelphia, and in early life was a printer.

There were two survivors until June 16, 1929, when death took William F. T. Buckner, 101, at Paris, Mo. He was born in Virginia. In later life he was a banker. Four of his grandsons served in the A. E. F. in France, in the World War.

UNITED STATES VETERANS' BUREAU.

(Data are official, and are supplied by the Director of the Bureau.)

Director, Frank T. Hines; *Assistant to the Director*, Adelbert D. Hiller; *Assistant Directors*: Winthrop Adams, Acting (Medical); Harold W. Breining (Finance); William Wolff Smith (Legal); Omer W. Clark (Coordination); John D. Cutter (Supply). Chief, Construction Division, Louis H. Tripp.

The number of compensation claims received to June 30, 1929 is 1,130,870. All but 9,883 of these claims have been adjudicated. Of the number adjudicated, 560,919 were granted.

The number of veterans now receiving compensation is 266,498 and the number of deceased veterans whose beneficiaries are receiving compensation is 88,529. Monthly disbursements approximate $16,000,000.00

The total amount of disbursements for compensation is $1,438,751,961.50.

The total number of ex-service men admitted to hospitals to July 1, 1929, is 429,660. A total of 795,725 treatments were given to patients outside of hospitals during the past twelve months and 890,020 examinations were made during the same period.

The Bureau utilizes 96 Government owned or controlled hospitals, of which 49 are under the direct control of the Bureau.

The total number of patients remaining in all hospitals on July 1, 1929, was 27,784, of whom 6,547 were suffering from tuberculosis, 13,781 from neuropsychiatric diseases, and 7,456 from general and surgical diseases and conditions.

On July 1, 1929, 649,837 service and ex-service men and women were carrying Government Life Insurance aggregating $3,058,577,039.

Loans on Adjusted Service Certificates have been made by the Bureau to 1,429,946 veterans, the amount of money being $133,653,488.78.

On July 1, 1929, The Bureau was supervising the guardianship of 57,530 wards, of whom 21,774 were incompetent veterans and 34,787 were minor children of deceased veterans, and 969 were incompetent dependents.

The number of fiduciaries whose activities were under the supervision of the Bureau was 51,974.

The total disbursements made by the Bureau amount to $4,773,858,879.51, of which $883,991,424.99 was from insurance premiums and allotments deducted from service men's pay.

The largest items are: compensation, $1,438,751,961,50; term insurance, $1,133,311,544; vocational training, $644,993,467.71; and medical and hospital services, $351,076,919.84.

UNITED STATES NAVAL ACADEMY AT ANNAPOLIS.

The students of the Naval Academy are styled midshipmen. Four midshipmen are allowed for the Vice President and for each Senator, Representative and Delegate in Congress; one for Porto Rico, a native of the island, nominated by the Governor; one for the Resident Commissioner from Porto Rico, two for the District of Columbia, and fifteen appointed each year from the United States at large.

In addition, one Filipino is allowed for each class. The appointment from the District of Columbia and fifteen each year at large are made by the President.

The selection of candidates, by competitive examination or otherwise, for nomination for vacancies in the quota of Senators, Representatives and Delegates in Congress is entirely in the hands of each Senator, Representative and Delegate in Congress having a vacancy; and all applications for appointment or inquiries relative to competitive examinations should be addressed accordingly. Two examinations for admission are held each year, the first on the third Wednesday in February, the second on the third Wednesday in April.

The law authorizes the appointment of one hundred enlisted men each year, to be selected as a result of a competitive examination of enlisted men of the Regular Navy and Marine Corps, who must not be more than twenty years of age on April 1 of the year they enter, and who will have been in the service at least one year by July 1 of that year.

The law authorizes the appointment of twenty-five midshipmen each year, to be selected as a result of competitive examination of enlisted men of the Naval Reserve and the Marine Corps Reserve. Candidates must be citizens of the United States who are not more than twenty years of age on April 1 of the year in which appointed; who have been in the Naval Reserve at least one year by July 1 of the year in which appointed.

The competitive examination of these enlisted men is held on the third Wednesday in April of each year. Candidates may also be accepted on certificate.

An act of Congress approved June 8, 1926, authorizes that the number of midshipmen now allowed by law at the United States Naval Academy be increased by 40 from the United States at large, to be appointed by the President from among the sons of officers, soldiers, sailors, and marines of the Army, Navy, and Marine Corps of the United States who were killed in action or died prior to July 2, 1921, of wounds or injuries received or disease contracted in line of duty during the World War; *Provided*, That one-half shall be appointed from among the sons of officers and one-half from among the sons of warrant officers, soldiers, sailors, and marines of the Army, Navy, and Marine Corps.

All candidates, except 4 Filipinos, are required to be citizens of the United States and must not be less than 16 nor more than 20 years of age on April 1 of the calendar year in which they enter.

The course for midshipmen is four years. During the summer, midshipmen of the first, second and third classes go to sea for about three months. Midshipmen after graduation are commissioned as Ensigns in the navy, and occasionally to fill vacancies in the Marine Corps and in certain of the staff corps of the navy.

The height of candidates for admission shall not be less than five feet two inches, at the age of sixteen years, with an increase of one inch for each additional year or fraction of a year over one-half; and the minimum weight at sixteen years shall be one hundred and nine pounds, with an increase of not less than three pounds for each additional year or fraction of a year over one-half. Any marked deviation in the height and weight relative to the age of a candidate will add materially to the consideration for rejection. Candidates must be unmarried, and any midshipman who shall marry, or who shall be found to be married before his final graduation, shall be dismissed from the service. Each candidate who has passed the required examinations must, before being admitted as a midshipman, deposit the sum of $100 to cover part of the cost of his initial outfit.

After being admitted, he is credited with the sum of $250, which is needed in addition to the $100 cash deposit to complete paying for the uniforms, clothing, textbooks, etc. This amount ($250) is deducted from the midshipman's pay in monthly installments. Any midshipman may, however, immediately after entering the Academy repay this amount in full.

Each candidate before admission will be required to sign articles by which he binds himself to serve in the United States Navy during the pleasure of the President of the United States (including his time of probation at the Naval Academy) unless sooner discharged. The pay of a midshipman is $780 a year.

Naval Academy entrance literature may be obtained upon application to the Bureau of Navigation, Navy Department, Washington, D. C. Rear Admiral S. S. Robison was appointed superintendent at Annapolis and took charge on June 20, 1928.

NEW YORK STATE MERCHANT MARINE ACADEMY.

The New York State Merchant Marine Academy, the oldest nautical school in the United States, was established in 1874 and until July 1, 1929, was known as the New York State Nautical School. It is now under the control of the State Department of Education with a Board of Visitors composed of maritime men representing the different Boards of Trade and Chambers of Commerce. The Student body is divided into two branches, deck and engineers. The deck cadets are given practical and theoretical instruction in all branches of seamanship and of navigation in ship construction and stability, in cargo handling and ship's business. The engineer cadets besides shopwork and drawing are given practical and theoretical instruction in marine engines and boilers and in internal combustion engines. All cadets are trained in handling small boats under oars and sails. The course equips the graduate to perform the duties of junior officer on merchant ships.

Applicants for admission must at the time of their examination be between the ages of 17 and 20 years, of normal size and sound constitution, and free from all physical defects, must pass a strict physical examination, must produce testimonials of character, must have had two years high school education and pass a satisfactory mental examination, must be residents of New York State and have either a parent or guardian who is a resident of the State of New York to sign the necessary papers, and they must have an inclination for a sea-faring life and enter the school of their own free will. Examinations both mental and physical are conducted on board the Training Ship. Two years are required to complete the course and obtain a diploma and certificate of graduation. The school year begins about October 1st, and is divided into the Winter term from October 1st to May 1st, during which time the Training Ship "Newport" is moored alongside of a pier in New York City and the time is devoted to both theoretical and practical instruction. At the beginning of the Summer term from June 1st to September 30th the "Newport" makes a cruise usually to foreign waters when the entire time is devoted to practical work. There is no charge for tuition or board but the cadets are required to deposit $160 to provide for uniforms and working clothes. A registration fee of $2 is required with the application.

The office of the school is located at 17 Battery Place, Room 2730, New York City.

UNITED STATES COAST GUARD.

The United States Coast Guard was created by Act of Congress, approved Jan. 28, 1915, by combining therein the Revenue Cutter Service, organized Aug. 4, 1790, and the Life Saving Service, which latter was operated in connection with the Revenue Cutter Service, but on June 18, 1878, was erected into a separate organization under the Treasury Department. At the close of the fiscal year ended June 30, 1929, there were in commission in the Coast Guard 74 cutters and launches, 24 destroyers, 253 patrol boats, and 107 picket boats.

The Coast Guard stations in an active status at the close of the year numbered 252. Briefly stated, the principal duties of the Coast Guard are:

Rendering assistance to vessels in distress and saving life and property; destruction or removal of wrecks, derelicts, and other floating dangers to navigation; extending medical aid to American vessels engaged in deep-sea fisheries; protection of the customs revenue; operating as a part of the navy in time of war or when the President shall so direct; enforcement of law and regulation governing anchorage of vessels in navigable waters; enforcement of law relating to quarantine and neutrality; suppression of mutinies on merchant vessels; enforcement of navigation and other laws governing merchant vessels and motor boats; enforcement of law to provide for safety of life on navigable waters during regattas and marine parades; protection of game and the seal and other fisheries in Alaska, etc.; enforcement of sponge-fishing law; international ice patrol in the vicinity of the Grand Banks off Newfoundland.

NAVAL EDUCATION SYSTEM OF THE UNITED STATES.

(By the Bureau of Navigaton of the Navy Department.)

The Bureau of Navigation of the Navy Department is charged with the training and education of the line officers of the navy and all enlisted men, except those of the Hospital Corps. Each Staff Bureau is charged with the training and education of the staff officers, and the Bureau of Medicine and Surgery with the training and education of the members of the Hospital Corps.

TRAINING OF OFFICERS—REGULAR NAVY.

Midshipmen, when appointed, are given four years' instruction in general and technical subjects at the Naval Academy, Annapolis, Md. Upon graduation they are commissioned as ensigns, or assigned by the Secretary of the Navy to fill vacancies in the lowest commissioned grades of the Marine Corps or Staff Corps of the navy.

Schools are maintained to give special instruction in various lines or post-graduate work in particular subjects pertinent to the navy, to a certain number of officers who have the requisite qualifications, who show aptitude and who request the instruction. The following courses are in operation:

War College—Newport, R. I., one year; senior course for officers of command or flag rank; junior course for lieutenant-commanders and lieutenants with at least six years' service as commissioned officers; correspondence courses for any officer ashore or afloat. A few Marine Corps officers and army officers take this course every year for a study of problems affecting their service branches.

Army War College—Washington, D. C., one year. A few naval officers and Marine Corps officers who have completed the Naval War College course attend this course each year. Special attention is given to problems affecting the joint manoeuvres of the army, navy and Marine Corps.

Post-Graduate Work—Special post-graduate instruction is given in the following: Engineering (mechanical, electrical, communication, steam machinery, radio, internal combustion engines, aeronautical, acoustical); ordnance (design, torpedoes, ballistics, explosives, metallurgy, fire-control); civil engineering; naval construction and law; compass installation and navigational instrument design. The courses are of two or three years' duration. The first year of all courses is given at the Post-Graduate School at Annapolis, Md., and consists of preparation and technical ground work. The preliminary course merges into the specialization course and is continued at the civilian institution which offers the best facilities in the given work.

Special instruction is now given at the following universities: Columbia, Harvard, Yale, Massachusetts Institute of Technology, Chicago, Rensselaer Polytechnic Institute, and George Washington.

Officers taking the law course do so at George Washington University and are assigned to duty in the office of the Judge Advocate General of the navy during their three-year course.

Officers are selected for post-graduate work in engineering and ordnance five or six years after graduation, and in naval construction and civil engineering one or two years after graduation.

Officers successfully completing the latter courses are transferred to the Naval Construction Corps and Civil Engineering Corps respectively.

General Line Course—Post-Graduate School—Naval Academy, Annapolis, Md., one year. For Lieutenants and Lieutenant Commanders. The course is of a cultural and professional nature. Instruction is given in the latest practices in the following subjects: navigation, engineering, ordnance and gunnery, seamanship, communications, and electricity; instruction is also given in government, logic and economics.

Submarines—New London, Conn., six months; practical training in handling submarines and firing torpedoes from them. Officers must have had at least two years' sea duty to be eligible.

Torpedoes—Newport, R. I.; five months; theoretical and practical instruction in the assembly, firing, care and maintenance of the various types of torpedoes. Selection confined to junior officers when available for such detail.

Aviation—Pensacola, Fla., eight months; training ing in heavier-than-air craft; graduates of the Navy Academy eligible for this course after completing two years' sea duty; age limit thirty-one years, Lakehurst, N. J.; not to exceed twelve months; training in lighter-than-air craft; midshipmen given ground instruction and ten hours' flight training before being commissioned.

Optical Instruction—Navy Yards, Washington, D. C., and Mare Island, Cal.; course for range finder officers, four weeks; long course for officers, six months. Selection confined to junior officers available for this detail.

Gyro Compass—Navy Yards, New York, N. Y., and Mare Island, Cal., four to six months. Gunners (E) with gyro experience available for this detail.

Correspondence Courses—Correspondence courses are issued to officers requesting them, as follows: International Law and Strategy and Tactics; Duties of Supply Officers and Pay Clerks; Navigation.

TRAINING OF ENLISTED MEN:

The Bureau of Navigation maintains the following Naval Training Stations: Hampton Roads, Va.; Newport, R. I.; Great Lakes, Ill.; San Diego, Cal.

The course of training of all newly enlisted men covers a period of eight weeks. Special stress during training is placed on (*a*) training a recruit properly to care for his person and property; (*b*) infantry drill; (*c*) pulling an oar; (*d*) swimming. If the opportunity permits, additional instruction is given in knotting and splicing and small arms practice.

Upon completion of the eight weeks' course, a certain number of recruits, selected on a competitive basis, are transferred to service schools for training in specialist lines.

The others are sent to general service and their training continued for eight weeks, when they are advanced from the rating of apprentice seaman to seaman second class or fireman third class.

Service Schools—These schools are maintained to supplement the training carried out on board cruising vessels. Some schools are maintained for special training of petty officers in duties where facilities for training afloat are lacking or inadequate; other schools simply parallel the training activities afloat.

Schools are maintained for training men in the following subjects: Radio material, general electricity, gyro compasses, machine shop practice and operating engineering, coppersmithing, blacksmithing, boilermaking, music, hospital service, pharmacy, aviation mechanics, aerography, torpedoes, optics, fire control, sound, submarines, aviation piloting, cooking, baking, diving, radio operating, and stenography, and various minor specialities.

Naval Academy Preparatory Class—Hampton Roads, Va., and San Diego, Cal. This is a special cpurse five months in length, affording enlisted men an opportunity to prepare themselves for the entrance examinations to the Naval Academy.

Instruction is given under the supervision of officers specially selected for this work.

The law permits the appointment of 100 enlisted men annually to the Naval Academy, and through these classes the Bureau of Navigation is able to practically fill the quota allowed.

NAVAL TRAINING COURSES.

The courses are available to all men of the navy and are furnished free of charge to any ship or station upon official request. There are three kinds of courses: (*a*) Rating courses, to afford men means by which they may qualify themselves for a particular rating; (*b*) general technical courses, to increase the skill of the men in naval work; (*c*) academic courses, to further the general education of the individual. Total number of courses, 121.

Naval Reserve Officers' Training Corps units have been established in the following universities: Yale, Harvard, Georgia School of Technology, University of California, University of Washington, Northwestern University. The naval course at these universities is an elective one, and students enrolled in the course are given credit towards a degree for the successful completion of their naval work. Instruction is given in the following subjects: Navigation, seamanship, ordnance and gunnery, naval organization and operation, strategy and tactics, international law, communications and marine engineering. The course is divided into two parts: The basic course, which corresponds to the freshman and sophomore years; and the advanced course, which corresponds to the junior and senior years. Students enroll for each course, but the successful completion of the basic course is a requirement for enrollment in the advanced course. Members of the advanced course receive commuted rations amounting to approximately $110 per year. Uniforms, equipment, and books are furnished free of charge to the students. The uniform is similar to that worn by officers of the regular navy with special insignia for this corps. Such students as successfully complete the four-year naval course, and so desire, are given commissions as ensigns in the Volunteer Reserve upon graduation.

Instructions of Officers and Men—Study periods are assigned during each weekly drill and instruction is carried on in accordance with approved syllabus.

This syllabus covers primary courses for all enlisted men, secondary courses for non-rated men, advanced courses for petty officer ratings, and courses for junior officers and for senior officers in the subjects of navigation, seamanship, ordnance and gunnery, engineering and aviation.

Study courses issued to the regular navy are also provided for the reserve force.

THE UNITED STATES NAVY, AS OF AUGUST 31, 1929.

(Treaty allowance of capital ship tonnage to the United States, 525,000 tons.)

BATTLESHIPS.

Capital Ships, and Year Completed.	Displacement (Normal).	Length (Over All).		Breadth.		Mean Draft.		Speed.	Main Battery.			Secondary Battery.			Weight of One Main Broadside.	W'ght of One Secondary Broadside.
	Tons.	*Ft.*	*In.*	*Ft.*	*In.*	*Ft.*	*In.*	*Knots*	*No.*	*In.*	*Cal.*	*No.*	*In.*	*Cal.*	*Pounds.*	*Pounds.*
Arizona, 1916.....	31,400	608	0	97	0½	28	10	21.0	12	14	45	14	5	51	16,800	882
Arkansas, 1912....	26,000	562	0	93	2½	28	6	21.05	12	12	50	16	5	51	10,440	1,008
California, 1921...	32,300	624	0	97	3½	30	3	21.46	12	14	50	12	5	51	16,800	756
Colorado, 1923....	32,600	624	0	97	3½	30	6	20.65	8	16	45	12	5	51	16,800	756
Florida, 1911.....	21,825	521	6	88	2½	28	6	22.08	10	12	45	16	5	51	8,700	1,008
Idaho, 1919.....	32,000	624	0	97	4½	30	0	21.29	12	14	50	12	5	51	16,800	756
Maryland, 1921...	32,600	624	0	97	3½	30	6	21.07	8	16	45	12	5	51	16,800	756
Mississippi, 1917..	32,000	624	0	97	4½	30	0	21.0	12	14	50	12	5	51	16,800	756
Nevada, 1916.....	27,500	583	0	95	2½	28	6	20.53	10	14	45	12	5	51	14,000	756
New Mexico, 1918.	32,000	624	0	97	4½	30	0	21.0	12	14	50	12	5	51	16,800	756
New York, 1914...	27,000	573	0	95	2½	28	6	21.5	10	14	45	16	5	51	14,000	1,008
Oklahoma, 1916...	27,500	583	0	95	2½	28	6	20.6	10	14	45	12	5	51	14,000	756
Pennsylvania, 1916	31,400	608	0	97	0½	28	10	21.0	12	14	45	14	5	51	16,800	882
Tennessee, 1920...	32,300	624	0	97	3½	30	3	21.0	12	14	50	12	5	51	16,800	756
Texas, 1914.....	27,000	573	0	95	2½	28	6	21.0	10	14	45	16	5	51	14,000	1,008
Utah, 1911.....	21,825	521	6	88	2½	28	6	21.0	10	12	45	16	5	51	8,700	1,008
West Virginia, 1924	32,600	624	0	97	3½	30	6	21.0	8	16	45	12	5	51	16,800	756
Wyoming 1912....	26,000	562	0	93	2½	28	6	21.2	12	12	50	16	5	51	10,440	1,008

Besides the 18 capital ships of 525,840 tons total, listed above, the American Navy, on Sept. 14, 1929, consisted (tonnage in parenthesis) of 3 aircraft carriers (76,286); 10 cruisers (70,500); 284 vessels of the destroyer type (290,304); and 108 submarines (77,062).

There were under construction on that date 13 cruisers (130,000); and 2 submarines (5,520).

And in addition, there had been authorized by Congress, up to the date named, 1 aircraft carrier (13,800); 10 cruisers (100,000); 12 destroyers (by Act of Aug. 29, 1916, but no funds yet appropriated); and 3 submarines (4,650).

The Navy aircraft include the dirigible balloon, Los Angeles, 656 feet long; 2 non-rigid airships; 14 free balloons, 9 kite balloons; 197 fighting planes; 255 observation planes; 242 torpedo and bombing planes, 28 patrol planes, and 186 training planes—a total of 908 airplanes.

Among the craft other than battleships in the above table, in commission, were the cruisers, Pittsburgh (13,680); Seattle (14,500); and Rochester (9,700); the light cruisers, Cincinnati, Concord, Detroit, Marblehead, Memphis, Milwaukee, Omaha, Raleigh, Richmond, and Trenton, each of 7,050 tons, the light cruisers, Cleveland, Denver, and Galveston, each of 3,200 tons, and the aircraft carriers, Lexington, Saratoga, and Langley, (last named, 12,700 tons).

The V-4, put in commission in April, 1928, is the only mine laying submarine in the Navy.

Of the ships out of commission, the Navy has ordered sold or scrapped 15 ships, including the cruisers Huntington (ex-West Virginia); Frederick (ex-Maryland); the Pueblo (ex-Colorado); the Huron (ex-South Dakota); New Orleans, Albany, Charlotte, Salem, Birmingham, and St. Louis. The Salem and the Birmingham were built as scout cruisers, and had extra speed.

Navy Yards—Portsmouth, N. H.; Boston, Mass.; Brooklyn, N. Y.; Philadelphia, Pa.; Washington, D. C.; Norfolk, Va.; Charleston, S. C.; Mare Island, Cal.; Bremerton, Wash.; Pearl Harbor, T. H.

Stations—Newport, R. I.; New London, Conn.; Key West, Fla.; Pensacola, Fla.; New Orleans, La.; San Diego, Cal.; Guam, Samoa, Cavite, P. I.; St. Thomas, W. I.; Guantanamo, Cuba; Balboa, C. Z.

Training Stations—Hampton Roads, Va.; San Diego, Cal.; Great Lakes, Ill.; Newport, R. I.

The **Lexington** and **Saratoga**, originally intended to be battle cruisers, as provided for in the 1926 building program, were converted to aircraft carriers under the terms of the Washington Conference, and commissioned in the Navy late in 1927, the **Saratoga** on November 16, the **Lexington** on December 14. They are sister ships; dimensions and facts concerning them are as follows:

Length—850 feet on water line, 888 feet over all; beam—105 feet; mean draft—31 feet normal displacement, 33,000 tons; speed, 33 knots. Main battery, eight 8-inch guns in four turrets. Anti-aircraft battery, twelve 5-inch anti-aircraft guns. Carry 40 bombat planes and 32 bombing planes.

At Camden, N. J., on Jan. 23, 1929, the first cruiser built for the Navy under the terms of the Limitation of Armament Conference held in 1922 left the ways—the Salt Lake City.

The new light cruiser, Pensacola, was launched on April 25, 1929, at the Brooklyn Navy Yard. When completely fitted for sea she will have a displacement of 10,000 tons. Her turbines develop 107,000 horsepower and will drive her at forty miles an hour. Her 2,100 tons of crude oil fuel give her a cruising radius of 14,000 miles.

She carries ten 8-inch guns, four 5-inch anti-aircraft guns, two triple 21-inch torpedo tubes on deck and two scouting planes.

Secretary of the Navy C. F. Adams, on June 29, 1929, awarded contracts for the construction of the first two 10,000-ton cruisers authorized by Congress for the fifteen-cruiser program of 1929, 1930, and 1931. One will be built by the Puget Sound Navy Yard and the other by the Bethlehem Shipbuilding Corporation.

The Puget Sound Navy Yard bid was $8,838,000, with a construction period of forty months. The bid submitted by the Bethlehem Shipbuilding Corporation was for one vessel to be constructed at Quincy, Mass., and delivered at the Navy Yard at Boston within thirty-six months from the date of contract at a cost of $10,753,000.

The Secretary, on July 3, 1929, let the contracts for the three other cruisers authorized by Congress to be begun in that year, one contract went to the New York Navy Yard at an estimated cost of $10,508,100. The ship wil be completed within thirty-six months from the time construction is started.

Contracts for one new 10,000-ton cruiser each also were awarded to the New York Ship Building Company at Camden, N. J., and to the Philadelphia Navy Yard. The former is to build the ship for $10,903,000 within a time limit of thirty-six months and the latter for $10,285,906 within forty-two months.

The fifteen cruisers authorized by the Act of Feb. 13, 1929, to be begun in 1929, 1930, and 1931, are to cost not over $17,000,000 each, including armor and armament. A $19,000,000 aircraft carrier also is authorized.

The 15-cruiser Act also says:

Section 4. In the event of an international agreement, which the President is requested to encourage, for the further limitation of naval armament, to which the United States is signatory, the President is hereby authorized and empowered to suspend in whole or in part any of the naval construction authorized under this act.

Section 5. (a)—That the Congress favors a treaty, or treaties, with all the principal maritime nations regulating the conduct of belligerents and neutrals in war at sea, including the inviolability of private property thereon.

(b)—That such treaties be negotiated if practicably possible prior to the meeting of the conference on the limitation of armaments in 1931.

The French Navy launched at Brest on April 24, 1929, the 10,000-ton cruiser, Foch. One of the six cruisers authorized by the program of December, 1927, the Foch is the third to take the water. The other two, the Duquesne and Tourville, are in active service, the Tourville having conveyed the body of Ambassador Herrick to the United States.

Like her sister ships, the Foch is 582 feet long and 57 beam, with a speed of 32.8 knots. Her armament comprises eight 203-millimeter guns, eight 95 and eight 37-millimeter guns, six tubes for launching 550-millimeter torpedoes, twelve powerful anti-aircraft guns and provision for three hydroplanes. Three groups of turbines capable of an aggregate horsepower of 100,000 supply the motive power.

COST OF UNITED STATES BATTLESHIPS—DATE OF COMMISSION.

Ships.	Hull, Mach., Incl. Armor.	Equipage, Incl. Arm.	Total Cost.	First Commission.	Time Building.	
					Yrs.	*Mos.*
Battleships, first line—	*Dollars.*	*Dollars.*	*Dollars.*			
Florida	8,983,866	1,373,762	10,357,628	Sept. 15, 1911	2	6
Utah	7,002,295	1,951,781	8,954,076	Aug. 31, 1911	2	6
Wyoming	8,252,338	1,990,024	10,242,362	Sept. 25, 1912	2	7
Arkansas	8,376,927	1,830,163	10,207,090	Sept. 17, 1912	2	8
New York	9,692,582	1,673,226	11,365,808	April 15, 1914	2	7
Texas	9,373,440	1,805,755	11,179,195	Mar. 12, 1914	2	11
Nevada	9,924,556	1,630,854	11,555,410	Mar. 11, 1916	3	4
Oklahoma	10,131,607	1,639,339	11,770,946	May 2, 1916	3	6
Pennsylvania	11,736,236	2,056,773	13,793,009	June 12, 1916	2	7½
Arizona	11,079,917	1,913,662	12,993,579	Oct. 17, 1916	2	7
New Mexico	13,284,240	2,703,976	15,988,216	May 20, 1918	2	7
Mississippi	11,758,598	2,867,381	14,625,979	Dec. 18, 1917	2	8½
Idaho	11,798,355	2,645,602	14,443,957	Mar. 24, 1919	4	2
Tennessee	17,899,794	3,116,481	21,016,275	June 3, 1920	3	0½
California	19,817,672	3,480,596	23,298,268	Aug. 10, 1921	4	11
Maryland	21,668,125	3,378,232	24,990,357	July 21, 1921	4	3
Colorado	21,699,582	3,330,729	25,030,311	Aug. 30, 1923	4	3
West Virginia	19,231,601	3,666,203	22,897,804	Dec. 1, 1923	3	7½

TOTAL COST OF THE NEW UNITED STATES NAVY SINCE 1885.

Year (Fiscal).	New Construction.	Maintenance and Operation	Shore-Station Improvem'nts.	Ch'ges for Naval Estab. in Gen.	Marine Corps.	Total Expenditures.
1885	$1,591,500	$5,561,431	$301,000	$6,216,574	$565,143	$16,021,079
1890	4,842,140	6,296,735	1,646,106	6,801,091	611,423	22,006,206
1891	8,508,624	6,967,700	1,612,111	6,236,384	694,517	26,113,896
1892	10,841,890	7,117,634	2,149,141	6,017,892	848,603	29,174,138
1893	11,164,536	7,049,792	1,411,661	6,094,001	864,532	30,136,084
1894	12,549,924	7,225,148	1,435,902	6,104,540	747,095	31,701,293
1895	10,459,211	7,681,676	964,706	5,573,467	801,873	28,797,795
1896	7,745,957	8,317,891	1,395,404	5,158,234	732,416	27,147,732
1897	10,738,549	10,012,289	1,167,470	7,908,913	832,016	34,561,546
1898	22,182,326	14,952,649	1,129,008	14,690,280	980,170	58,823,984
1899	9,964,456	20,737,784	3,132,297	21,224,900	1,443,225	63,942,104
1900	10,659,155	15,880,268	5,252,054	14,730,040	1,589,992	55,953,077
1901	10,644,217	19,287,285	7,756,334	13,797,182	2,364,903	61,721,696
1902	14,392,921	20,204,704	8,221,092	15,532,626	2,393,830	68,438,301
1903	21,807,999	24,987,293	9,230,294	16,170,897	2,552,038	82,977,641
1904	31,403,948	27,870,477	11,461,733	20,442,308	2,996,679	104,126,192
1905	36,894,266	29,378,729	13,615,147	23,016,868	3,289,515	116,655,826
1906	31,764,556	29,206,259	9,589,183	24,418,281	3,635,697	109,725,059
1907	17,553,017	34,291,094	7,459,310	22,935,618	4,240,697	98,392,144
1908	20,159,911	36,989,952	9,741,199	33,022,640	4,637,929	117,353,474
1909	20,109,957	45,271,840	8,229,274	27,587,989	5,374,005	120,421,578
1910	24,736,599	46,490,042	8,614,768	23,989,293	5,920,027	122,247,364
1911	19,532,806	48,781,692	10,504,405	13,628,994	5,270,777	111,791,979
1912	24,930,490	49,242,628	9,862,719	28,921,971	6,663,814	133,559,071
1913	24,630,999	49,154,008	7,443,132	28,724,046	5,758,531	129,787,233
1914	26,135,389	53,416,710	7,918,746	27,964,714	6,811,465	136,858,301
1915	31,990,664	55,324,768	7,191,804	24,916,324	6,417,980	142,959,092
1916	28,677,332	56,533,425	6,117,922	35,118,974	6,699,327	152,821,540
1917	44,858,781	77,024,242	8,608,971	89,720,782	14,629,787	261,403,176
1918	259,904,940	242,619,389	136,292,028	410,005,777	46,325,393	1,214,995,767
1919	366,215,760	421,909,851	116,316,452	693,666,455	75,870,495	1,915,155,835
1920	171,210,758	242,282,188	87,310,649	395,405,023	37,863,408	1,078,099,384
1921	155,896,585	222,451,492	42,571,978	119,779,179	33,885,218	697,687,633
1922	88,420,185	201,925,028	35,701,369	191,143,004	27,406,148	443,980,577
1923	38,102,059	151,557,316	19,725,519	200,732,512	25,187,998	309,242,766
1924	40,384,841	148,957,769	16,546,726	209,998,069	24,598,909	328,211,868
1925	27,371,834	139,447,276	17,410,626	88,850,686	23,353,508	323,940,512
1926	16,852,119	146,370,977	9,012,324	131,674,150	23,630,488	317,495,316
1927	19,238,789	145,605,391	8,945,688	125,251,737	21,512,149	320,553,754
1928	24,737,522	194,799,215	6,577,269	83,152,184	27,275,124	336,441,214
1929	34,250,641	201,806,051	8,440,922	96,547,389	45,398,930	366,443,933

NAVAL APPROPRIATIONS OR EXPENDITURES BY PRINCIPAL POWERS.

Fiscal Year.	Great Britain. (Apr. to Mar.)	United States. (July to June.)	France. (Jan. to Dec.)	Italy. (July to June.)	Japan. (Apr. to Mar.)
1906-1907	$152,954,342	$98,392,144	$59,514,296	$25,865,668	$30,072,061
1907-1908	151,880,617	117,353,475	60,685,813	27,516,454	35,124,346
1908-1909	156,401,161	120,421,578	62,194,916	30,453,697	39,347,332
1909-1910	181,936,341	122,247,365	64,899,589	31,812,885	35,005,719
1910-1911	202,056,258	111,791,979	74,102,439	40,595,204	36,889,158
1911-1912	211,596,296	133,559,072	80,371,109	40,780,987	42,944,329
1912-1913	224,443,296	129,787,233	81,692,832	41,893,420	46,510,216
1913-1914	237,530,459	136,858,301	90,164,625	49,550,147	48,105,152
1914-1915	260,714,275	142,959,092	123,828,872	56,920,440	69,111,653
1915-1916	1,001,202,544	152,821,540	.....	135,736,207	63,000,000
1916-1917	1,020,003,279	261,403,176	.....	161,482,062	73,000,000
1917-1918	1,119,944,455	1,214,995,767	301,910,093	226,061,278	85,000,000
1918-1919	1,670,456,135	1,915,155,835	445,802,202	229,779,176	125,000,000
1919-1920	787,644,050	1,078,099,485	174,829,243	45,711,604	150,000,000
1920-1921	441,861,500	697,687,633	199,668,287	78,389,226	187,207,522
1921-1922	406,033,504	443,980,577	181,509,980	81,068,748	248,519,224
	Pounds Sterling.	*Dollars.*	*Francs.*	*Lire.*	*Yen.*
1922-1923	64,883,700	309,242,766	797,904,914	844,807,000	276,629,082
1923-1924	58,000,000	328,211,868	1,121,714,351	770,565,015	395,091,875
1924-1925	55,800,000	323,940,512	1,028,237,008	774,570,662	248,924,082
1925-1926	67,326,859	317,495,316	1,251,973,465	980,000,000	225,407,887
1926-1927	58,000,000	320,553,754	1,842,778,819	1,209,595,130	239,069,000
1927-1928	58,123,257	356,507,546	2,451,158,703	1,151,782,030	256,406,776
1928-1929	57,300,000	364,233,362	2,640,000,000	1,200,433,630	262,444,744
1929-1930	56,865,000	378,879,067	.....	.....	.....

WAR SHIPS OF THE FIVE GREAT POWERS.

(Data relates to ships affected by the Treaty; Compiled by U. S. Navy Department as of July 29, 1929.)

SHIPS WITHIN THE EFFECTIVE AGE OF 20 YEARS FOR CAPITAL SHIPS, AIRCRAFT CARRIERS AND CRUISERS; 16 YEARS FOR DESTROYERS; AND 13 YEARS FOR SUBMARINES.

Type.	United States.		British Empire.		Japan.		France.		Italy.	
	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.
Capital ships* (under effective age of 20 years°)										
Battleships built	18	525,850	16	433,650	6	191,320	9	194,556	4	89,976
Battle Cruisers built	..	.....	4	122,700	4	110,000	..	.....	..	.....
Total Capital Ships	18	525,850	20	556,350	10	301,320	9	194,556	4	89,976
Aircraft Carriers (under effective age of 20 years†)										
Built	3	§78,700	5	88,950	3	63,300	1	21,653	..	.....
Being converted or appropriated for	1	13,800	1	18,600	..	.....	..	.....	..	.....
Total Aircraft Carriers	4	92,500	6	107,550	3	63,300	1	21,653	..	.....

*There are no capital ships building, appropriated for or authorized.
°There are no capital ships over 20 years of age.
†There are no aircraft carriers over 20 years of age.
§Standard displacement for *Lexington* and *Saratoga* does not include weight allowance under Ch. 11, pt. 3, Sec. 1, art. (d) of Washington Treaty for providing means against air and submarine attack.

COMBATANT SHIPS WHOSE NUMBERS ARE NOT AFFECTED BY TREATY.

Type.	United States.		British Empire.		Japan.		France.		Italy.	
	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.
Cruisers.										
Built	10	75,000	52	308,700	28	163,955	11	89,369	11	63,419
Building	8	80,000	7°	66,000°	5	50,000	4	36,496	5	30,000
Appropriated for	10*	100 000*	3†	22,000†	..	.....	1	10,000	6	50,000
Authorized	5*	50,000*	..	.....	..	.....	..	.....	..	.....
Total	33	305,000	62	397,300	33	213,955	16	135,865	22	143,419

*The ten cruisers shown as appropriated for, plus the five shown as authorized, constitute the 15 cruisers authorized by the last Congress to be laid down, five in fiscal year 1929, five in fiscal year 1930 and five in fiscal year 1931. The first five were to be built, two by private contractors and three by Government yards. The President recently announced that the three to be built by Navy Yards, which would ordinarily have been laid down late in 1929, have been held up.

°Includes *Surrey* and *Northumberland*. Prime Minister recently announced that work on these two cruisers had been suspended.

†Tonnage of two of these is estimated.

NOTE: *U. S. Cruisers:* The 10 shown as built are of the 6" gun type. The twenty-three shown as building, appropriated for, and authorized are the 8" gun type.

British Cruisers: In the fifty-two shown as built there are thirty-eight of the 6" gun type, four of the 7.5" gun type and ten of the 8" gun type. The seven shown as building are of the 8" gun type. In the three appropriated for, two are of the 6" gun type and one of the 8" gun type.

Japanese Cruisers: In the twenty-eight shown as built, seventeen are of the 5.5" gun type, four of the 6" gun type and seven of the 8" gun type. The five shown as building are of the 8" gun type.

French Cruisers: In the eleven shown as built there is one 3.9" gun type, three 5.9" gun type, three 6.1" gun type, two 7.5" gun type, and two 8" gun type; of the four building, one is of the 6.1" gun type and three of the 8" gun type. The one appropriated for is of the 8" gun type.

Italian Cruisers: In the eleven shown as built, two are of the 3.9" gun type, three of the 4.7" gun type, three of the 5.9" gun type, one of the 8" gun type, and two of the 10" gun type. Of the five shown as building, four are of the 6" gun type and one of the 8" gun type. Of the six appropriated for, two are of the 6" gun type and four are of the 8" gun type.

CRUISER SUMMARY (BUILT, BUILDING, APPROPRIATED FOR AND AUTHORIZED.)
Subdivided according to calibre of gun mounted.

Type.	United States.		British Empire.		Japan.		France.		Italy.	
	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.
Cruisers.										
3.9" Gun Type	..	.....	..	.....	..	.....	1	3,396	2	6,890
4.7" Gun Type	..	.....	..	.....	..	.....	..	.....	3	11,302
5.5" Gun Type	..	.....	..	.....	17	86,605	..	.....	..	.....
5.9" Gun Type	..	.....	..	.....	..	.....	3	16,732	3	14,305
6" Gun Type	10	75,000	40	181,680	4	18,950	..	.....	6	30,000
6.1" Gun Type	..	.....	..	.....	..	.....	4	28,198	..	.....
7.5" Gun Type	..	.....	4	39,020	..	.....	2	27,657	..	.....
8" Gun Type	23	230,000	18	176,600	12	108,400	6	59,882	6	60,000
10" Gun Type*	..	.....	..	.....	..	.....	..	.....	2	20,922
Total	33	305,000	62	397,300	33	213,955	16	135,865	22	143,419

*Built before Washington Treaty which limited future cruiser building to 10,000 tons and 8" guns.

DESTROYERS AND SUBMARINES NOW BUILT (JULY 19, 1929).

Country.	Destroyers.		Submarines.	
	No.	Tons.	No.	Tons.
U. S.	284	337,996	108	81,807
Brit. Empire	153	189,165	50	45,472
Japan	99	108,260	61	61,357
France	58	69,291	45	35,631
Italy	71	76,995	40	20,696
Total	665	781,707	304	224,963

Britain is building 20 destroyers and 14 submarines; Japan, 8, and 6 respectively; France, 18, and 32; Italy, 11, and 13.

Constitution of the United States.

The Constitution originally consisted of a Preamble and seven Articles, and in that form was ratified by a convention of the States, Sept. 17, 1787. The Government under the Constitution was declared in effect on the first Wednesday in March, 1789. The signers of the original Constitution, by virtue of their membership in Congress, were:

GEO. WASHINGTON, *President and deputy from Virginia.* NEW HAMPSHIRE — John Langdon, Nicholas Gilman. MASSACHUSETTS—Nathaniel Gorham, Rufus King. CONNECTICUT—Wm. Saml. Johnson, Roger Sherman. NEW YORK—Alexander Hamilton. NEW JERSEY—Wil. Livingston, David Brearley, Wm. Patterson, Jona. Dayton. PENNSYLVANIA—B. Franklin, Robt. Morris, Thos. Fitzsimons, James Wilson, Thomas Mifflin, Geo. Clymer, Jared Ingersoll, Gouv. Morris. DELAWARE—Geo. Read, John Dickinson. Jaco. Broom, Gunning Bedford jun, Richard Basset. MARYLAND—James McHenry, Danl. Carroll, Dan. of St. Thos. Jenifer. VIRGINIA—John Blair, James Madison, Jr. NORTH CAROLINA—Wm. Blount, Hu. Williamson, Richd. Dobbs Spaight. SOUTH CAROLINA—J. Rutledge, Charles Pinckney, Charles Cotesworth Pinckney, Pierce Butler. GEORGIA—William Few, Abr. Baldwin. Attest: WILLIAM JACKSON, *Secretary.*

The Constitution was ratified by the thirteen original States in the following order:

Delaware, December 7, 1787 (yeas, 30), unanimous.

Pennsylvania, December 12, 1787, vote 43 to 23.

New Jersey, December 18, 1787 (yeas, 38), unanimous.

Georgia, January 2, 1788 (yeas, 26), unanimous.

Connecticut, January 9, 1788, vote 128 to 40.

Massachusetts, February 6, 1788, vote 187 to 168.

Maryland, April 28, 1788, vote 63 to 11.

South Carolina, May 23, 1788, vote 149 to 73.

New Hampshire, June 21, 1788, vote 57 to 46.

Virginia, June 26, 1788, vote 89 to 79.

New York, July 26, 1788, vote 30 to 27.

North Carolina, November 21, 1789, vote 194 to 77.

Rhode Island, May 29, 1790, vote 34 to 32.

(Vermont, by convention, ratified Jan. 10, 1791; and Congress, Feb. 18, 1791, admitted that State into the Union.)

THE CONSTITUTION.

PREAMBLE.

We, the people of the United States, in order to form a more perfect Union, establish justice, insure domestic tranquility, provide for the common defence, promote the general welfare, and secure the blessings of liberty to ourselves and our posterity, do ordain and establish this CONSTITUTION for the United States of America.

ARTICLE I.

Section 1—(Legislative powers: in whom vested:)

All legislative powers herein granted shall be vested in a Congress of the United States, which shall consist of a Senate and House of Representatives.

Section 2—(House of Representatives, how and by whom chosen. Qualifications of a Representative. Representatives and direct taxes, how apportioned. Enumeration. Vacancies to be filled. Power of choosing officers, and of impeachment.)

1. The House of Representatives shall be composed of members chosen every second year by the people of the several States, and the electors in each State shall have the qualifications requisite for electors of the most numerous branch of the State Legislature.

2. No person shall be a Representative who shall not have attained to the age of twenty-five years and been seven years a citizen of the United States, and who shall not, when elected, be an inhabitant of that State in which he shall be chosen.

3. Representatives and direct taxes shall be apportioned among the several States which may be included within this Union according to their respective numbers, which shall be determined by adding to the whole number of free persons, including those bound to service for a term of years, and excluding Indians not taxed, three-fifths of all other persons. The actual enumeration shall be made within three years after the first meeting of the Congress of the United States, and within every subsequent term of ten years, in such manner as they shall by law direct. The number of Representatives shall not exceed one for every thirty thousand, but each State shall have at least one Representative; and until such enumeration shall be made, the State of New Hampshire shall be entitled to choose 3; Massachusetts, 8; Rhode Island and Providence Plantations, 1; Connecticut, 5; New York, 6; New Jersey, 4; Pennsylvania, 8; Delaware, 1; Maryland, 6; Virginia, 10; North Carolina, 5; South Carolina, 5, and Georgia, 3.*

4. When vacancies happen in the representation from any State, the Executive Authority thereof shall issue writs of election to fill such vacancies.

5. The House of Representatives shall choose their Speaker and other officers, and shall have the sole power of impeachment.

Section 3—(Senators, how and by whom chosen. How classified. State Executive, when to make temporary appointments, in case, etc. Qualifications of a Senator. President of the Senate, his right to vote. President pro tem., and other officers of the Senate, how chosen. Power to try impeachments. When President is tried, Chief Justice to preside. Sentence.)

1. The Senate of the United States shall be composed of two Senators from each State, chosen by the Legislature thereof, for six years; and each Senator shall have one vote.

2. Immediately after they shall be assembled in consequence of the first election, they shall be divided as equally as may be into three classes. The seats of the Senators of the first class shall be vacated at the expiration of the second year, of the second class at the expiration of the fourth year, and of the third class at the expiration of the sixth year, so that one-third may be chosen every second year; and if vacancies happen by resignation, or otherwise, during the recess of the Legislature of any State, the Executive thereof may make temporary appointment until the next meeting of the Legislature, which shall then fill such vacancies.

3. No person shall be a Senator who shall not have attained to the age of thirty years, and been nine years a citizen of the United States, and who shall not, when elected, be an inhabitant of that State for which he shall be chosen.

4. The Vice President of the United States shall be President of the Senate, but shall have no vote unless they be equally divided.

5. The Senate shall choose their other officers, and also a President pro tempore, in the absence of the Vice President, or when he shall exercise the office of President of the United States.

6. The Senate shall have the sole power to try all impeachments. When sitting for that purpose, they shall be on oath or affirmation. When the President of the United States is tried, the Chief Justice shall preside; and no person shall be convicted without the concurrence of two-thirds of the members present.

7. Judgment of cases of impeachment shall not extend further than to removal from office, and disqualification to hold and enjoy any office of honor, trust, or profit under the United States; but the party convicted shall nevertheless be liable and subject to indictment, trial, judgment, and punishment, according to law.

Section 4—(Times, etc., of holding elections, how prescribed. One session in each year.)

1. The times, places, and manner of holding elections for Senators and Representatives shall be prescribed in each State by the Legislature thereof; but the Congress may at any time by law make or alter such regulations, except as to places of choosing Senators.

2. The Congress shall assemble at least once in every year, and such meeting shall be on the first Monday in December, unless they shall by law appoint a different day.

Section 5—(Membership, Quorum, Adjournments. Rules. Power to punish or expel. Journal. Time of adjournments, how limited, etc.)

1. Each House shall be the judge of the elections, returns, and qualifications of its own members, and a majority of each shall constitute a quorum to do business; but a smaller number may adjourn from day to day, and may be authorized to compel the attendance of absent members in such manner and under such penalties as each House may provide.

2. Each House may determine the rules of its proceedings, punish its members for disorderly behavior, and with the concurrence of two-thirds expel a member.

3. Each House shall keep a journal of its proceedings, and from time to time publish the same, excepting such parts as may in their judgment require secrecy; and the yeas and nays of the members of

* See Article XIV., Amendments.

either House on any question shall, at the desire of one-fifth of those present, be entered on the journal.

4. Neither House, during the session of Congress shall, without the consent of the other, adjourn for more than three days, nor to any other place than that in which the two Houses shall be sitting.

Section 6—(Compensation. Privileges. Disqualification in certain cases.)

1. The Senators and Representatives shall receive a compensation for their services to be ascertained by law, and paid out of the Treasury of the United States. They shall in all cases, except treason, felony, and breach of the peace, be privileged from arrest during their attendance at the session of their respective Houses, and in going to and returning from the same; and for any speech or debate in either House they shall not be questioned in any other place.

2. No Senator or Representative shall, during the time for which he was elected, be appointed to any civil office under the authority of the United States which shall have been created, or the emoluments whereof shall have been increased during such time; and no person holding any office under the United States shall be a member of either House during his continuance in office.

Section 7—(House to originate all revenue bills. Veto. Bill may be passed by two-thirds of each House, notwithstanding, etc. Bill, not returned in ten days, to become a law. Provisions as to orders, concurrent resolutions, etc.)

1. All bills for raising revenue shall originate in the House of Representatives, but the Senate may propose or concur with amendments, as on other bills.

2. Every bill which shall have passed the House of Representatives and the Senate shall, before it becomes a law, be presented to the President of the United States; if he approve, he shall sign it, but if not, he shall return it, with his objections, to that House in which it shall have originated, who shall enter the objections at large on their journal, and proceed to reconsider it. If after such reconsideration two-thirds of that House shall agree to pass the bill, it shall be sent, together with the objections, to the other House, by which it shall likewise be reconsidered; and if approved by two-thirds of that House it shall become a law. But in all such cases the votes of both Houses shall be determined by yeas and nays, and the names of the persons voting for and against the bill shall be entered on the journal of each House respectively. If any bill shall not be returned by the President within ten days (Sundays excepted) after it shall have been presented to him, the same shall be a law in like manner as if he had signed it, unless the Congress by their adjournment prevent its return; in which case it shall not be a law.

3. Every order, resolution, or vote to which the concurrence of the Senate and House of Representatives may be necessary (except on a question of adjournment) shall be presented to the President of the United States; and before the same shall take effect shall be approved by him, or being disapproved by him, shall be repassed by two-thirds of the Senate and the House of Representatives, according to the rules and limitations prescribed in the case of a bill.

Section 8—(Powers of Congress.)

1. The Congress shall have power:

To lay and collect taxes, duties, imposts, and excises, to pay the debts and provide for the common defence and general welfare of the United States; but all duties, imposts, and excises shall be uniform throughout the United States.

2. To borrow money on the credit of the United States.

3. To regulate commerce with foreign nations, and among the several States, and with the Indian tribes.

4. To establish an uniform rule of naturalization and uniform laws on the subject of bankruptcies throughout the United States.

5. To coin money, regulate the value thereof, and of foreign coin, and fix the standard of weights and measures.

6. To provide for the punishment of counterfeiting the securities and current coin of the United States.

7. To establish post-offices and post-roads.

8. To promote the progress of science and useful arts by securing for limited times to authors and inventors the exclusive rights to their respective writings and discoveries.

9. To constitute tribunals inferior to the Supreme Court.

10. To define and punish piracies and felonies committed on the high seas, and offences against the law of nations.

11. To declare war, grant letters of marque and reprisal, and make rules concerning captures on land and water.

12. To raise and support armies, but no appropriation of money to that use shall be for a longer term than two years.

13. To provide and maintain a navy.

14. To make rules for the government and regulation of the land and naval forces.

15. To provide for calling forth the militia to execute the laws of the Union, suppress insurrections, and repel invasions.

16. To provide for organizing, arming, and disciplining the militia, and for governing such part of them as may be employed in the service of the United States, reserving to the States respectively the appointment of the officers, and the authority of training the militia according to the discipline prescribed by Congress.

17. To exercise exclusive legislation in all cases whatsoever over such district (not exceeding ten miles square) as may, by cession of particular States and the acceptance of Congress, become the seat of Government of the United States, and to exercise like authority over all places purchased by the consent of the Legislature of the State in which the same shall be, for the erection of forts, magazines, arsenals, dry-docks, and other needful buildings.

18. To make all laws which shall be necessary and proper for carrying into execution the foregoing powers and all other powers vested by this Constitution in the Government of the United States, or in any department or officer thereof.

Section 9—(Provision as to migration or importation of certain persons. Habeas Corpus. Bills of attainder, etc. Taxes, how apportioned. No export duty. No commercial preference. Money, how drawn from Treasury, etc. No titular nobility. Officers not to receive presents, etc.)

1. The migration or importation of such persons as any of the States now existing shall think proper to admit shall not be prohibited by the Congress prior to the year one thousand eight hundred and eight, but a tax or duty may be imposed on such importation, not exceeding ten dollars for each person.

2. The privilege of the writ of habeas corpus shall not be suspended, unless when in cases of rebellion or invasion the public safety may require it.

3. No bill of attainder or ex post facto law shall be passed.

4. No capitation or other direct tax shall be laid, unless in proportion to the census or enumeration hereinbefore directed to be taken.

5. No tax or duty shall be laid on articles exported from any State.

6. No preference shall be given by any regulation of commerce or revenue to the ports of one State over those of another, nor shall vessels bound to or from one State be obliged to enter, clear, or pay duties in another.

7. No money shall be drawn from the Treasury but in consequence of appropriations made by law; and a regular statement and account of the receipts and expenditures of all public money shall be published from time to time.

8. No title of nobility shall be granted by the United States. And no person holding any office of profit or trust under them shall, without the consent of the Congress, accept of any present, emolument, office, or title of any kind whatever from any king, prince, or foreign state.

Section 10—(States prohibited from the exercise of certain powers.)

1. No State shall enter into any treaty, alliance, or confederation, grant letters of marque and reprisal, coin money, emit bills of credit, make anything but gold and silver coin a tender in payment of debts, pass any bill of attainder, ex post facto law, or law impairing the obligation of contracts, or grant any title of nobility.

2. No State shall, without the consent of the Congress, lay any impost or duties on imports or exports, except what may be absolutely necessary for executing its inspection laws, and the net produce of all duties and imposts, laid by any State on imports or exports, shall be for the use of the Treasury of the United States; and all such laws shall be subject to the revision and control of the Congress.

3. No State shall, without the consent of Congress, lay any duty of tonnage, keep troops or ships of war in time of peace, enter into agreement or compact with another State, or with a foreign power, or engage in war, unless actually invaded, or in such imminent danger as will not admit of delay.

ARTICLE II.

Section 1—(President; his term of office. Electors of President; number and how appointed. Electors to vote on same day. Qualification of President. On whom his duties devolve in case of his removal, death, etc. President's compensation. His oath of office.)

1. The Executive power shall be vested in a President of the United States of America. He shall hold his office during the term of four years, and, together with the Vice-President, chosen for the same term, be elected as follows:

2. Each State shall appoint, in such manner as the Legislature thereof may direct, a number of electors

equal to the whole number of Senators and Representatives to which the State may be entitled in the Congress; but no Senator or Representative or person holding an office of trust or profit under the United States shall be appointed an elector.

3. The electors shall meet in their respective States and vote by ballot for two persons, of whom one at least shall not be an inhabitant of the same State with themselves. And they shall make a list of all the persons voted for, and of the number of votes for each, which list they shall sign and certify and transmit, sealed, to the seat of the Government of the United States, directed to the President of the Senate. The President of the Senate shall, in the presence of the Senate and House of Representatives, open all the certificates, and the votes shall then be counted. The person having the greatest number of votes shall be the President, if such number be a majority of the whole number of electors appointed, and if there be more than one who have such a majority, and have an equal number of votes, then the House of Representatives shall immediately choose by ballot one of them for President; and if no person have a majority, then from the five highest on the list the said House shall in like manner choose the President. But in choosing the President, the vote shall be taken by States, the representation from each State having one vote. A quorum, for this purpose, shall consist of a member or members from two-thirds of the States, and a majority of all the States shall be necessary to a choice. In every case, after the choice of the President, the person having the greatest number of votes of the electors shall be the Vice President. But if there should remain two or more who have equal votes, the Senate shall choose from them by ballot the Vice President.*

4. The Congress may determine the time of choosing the electors and the day on which they shall give their votes, which day shall be the same throughout the United States.

5. No person except a natural born citizen, or a citizen of the United States, at the time of the adoption of this Constitution, shall be eligible to the office of President; neither shall any person be eligible to that office who shall not have attained to the age of thirty-five years and been fourteen years a resident within the United States.

6. In case of the removal of the President from office, or of his death, resignation, or inability to discharge the powers and duties of the said office, the same shall devolve on the Vice President, and the Congress may by law provide for the case of removal, death, resignation, or inability, both of the President and Vice President, declaring what officer shall then act as President, and such officer shall act accordingly until the disability be removed or a President shall be elected.

7. The President shall, at stated times, receive for his services a compensation which shall neither be increased nor diminished during the period for which he shall have been elected, and he shall not receive within that period any other emolument from the United States, or any of them.

8. Before he enter on the execution of his office he shall take the following oath or affirmation:

"I do solemnly swear (or affirm) that I will faithfully execute the office of President of the United States, and will, to the best of my ability, preserve, protect, and defend the Constitution of the United States."

Section 2—(President to be Commander-in-Chief. He may require opinions of Cabinet Officers, etc., may pardon. Treaty-making power. Nomination of certain officers. When President may fill vacancies.)

1. The President shall be Commander-in-Chief of the Army and Navy of the United States, and of the militia of the several States when called into the actual service of the United States; he may require the opinion, in writing, of the principal officer in each of the executive departments upon any subject relating to the duties of their respective offices, and he shall have power to grant reprieves and pardons for offences against the United States except in cases of impeachment.

2. He shall have power, by and with the advice and consent of the Senate to make treaties, provided two-thirds of the Senators present concur; and he shall nominate and by and with the advice and consent of the Senate shall appoint ambassadors, other public ministers and consuls, judges of the Supreme Court, and all other officers of the United States whose appointments are not herein otherwise provided for, and which shall be established by law: but the Congress may by law vest the appointment of such inferior officers as they think proper in the President alone, in the courts of law, or in the heads of departments.

3. The President shall have power to fill up all vacancies they may happen during the recess of the Senate by granting commissions, which shall expire at the end of their next session.

Section 3—(President shall communicate to Congress. He may convene and adjourn Congress, in case of disagreement, etc. Shall receive Ambassadors, execute laws, and commission officers.)

He shall from time to time give to the Congress information of the state of the Union, and recommend to their consideration such measures as he shall judge necessary and expedient; he may, on extraordinary occasions, convene both Houses, or either of them, and in case of disagreement between them with respect to the time of adjournment, he may adjourn them to such time as he shall think proper; he shall receive ambassadors and other public ministers; he shall take care that the laws be faithfully executed, and shall commission all the officers of the United States.

Section 4—(All civil offices forfeited for certain crimes.)

The President, Vice-President, and all civil officers of the United States shall be removed from office on impeachment for and conviction of treason, bribery or other high crimes and misdemeanors.

ARTICLE III.

Section 1—(Judicial powers. Tenure. Compensation.)

The judicial power of the United States shall be vested in one Supreme Court, and in such inferior courts as the Congress may from time to time ordain and establish. The judges, both of the Supreme and inferior courts, shall hold their offices during good behavior, and shall at stated times receive for their services a compensation which shall not be diminished during their continuance in office.

Section 2—(Judicial power; to what cases it extends. Original jurisdiction of Supreme Court. Appellate. Trial by jury, etc. Trial, where.)

1. The judicial power shall extend to all cases in law and equity arising under this Constitution, the laws of the United States, and treaties made, or which shall be made, under their authority; to all cases affecting ambassadors, other public ministers and consuls; to all cases of admiralty and maritime jurisdiction; to controversies to which the United States shall be a party; to controversies between two or more States, between a State and citizens of another State, between citizens of different States, between citizens of the same State claiming lands under grants of different States, and between a State, or the citizens thereof, and foreign states, citizens, or subjects.

2. In all cases affecting ambassadors, other public ministers, and consuls, and those in which a State shall be party, the Supreme Court shall have original jurisdiction. In all the other cases before mentioned the Supreme Court shall have appellate jurisdiction both as to law and fact, with such exceptions and under such regulations as the Congress shall make.

3. The trial of all crimes, except in cases of impeachment, shall be by jury, and such trial shall be held in the State where the said crimes shall have been committed; but when not committed within any State the trial shall be at such place or places as the Congress may by law have directed.

Section 3—(Treason defined. Proof of. Punishment of.)

1. Treason against the United States shall consist only in levying war against them, or in adhering to their enemies, giving them aid and comfort. No person shall be convicted of treason unless on the testimony of two witnesses to the same overt act, or on confession in open court.

2. The Congress shall have power to declare the punishment of treason, but no attainder of treason shall work corruption of blood or forfeiture except during the life of the person attained.

ARTICLE IV.

Section 1—(Each State to give credit to the public acts, etc., of every other State.)

Full faith and credit shall be given in each State to the public acts, records, and judicial proceedings of every other State. And the Congress may by general laws prescribe the manner in which such acts, records, and proceedings shall be proved, and the effect thereof.

Section 2—(Privileges of citizens of each State. Fugitives from justice to be delivered up. Persons held to service having escaped, to be delivered up.)

1. The citizens of each State shall be entitled to all privileges and immunities of citizens in the several States.

2. A person charged in any State with treason, felony, or other crime, who shall flee from justice, and be found in another State, shall, on demand of the

*This clause is superseded by Article XII., Amendments.

Executive authority of the State from which he fled, be delivered up, to be removed to the State having jurisdiction of the crime.

3. No person held to service or labor in one State, under the laws thereof, escaping into another shall in consequence of any law or regulation therein, be discharged from such service or labor, but shall be delivered up on claim of the party to whom such service or labor may be due.

Section 3—(Admission of new States. Power of Congress over territory and other property.)

1. New States may be admitted by the Congress into this Union; but no new State shall be formed or erected within the jurisdiction of any other State, nor any State be formed by the junction of two or more States, or parts of States, without the consent of the Legislatures of the States concerned, as well as of the Congress.

2. The Congress shall have power to dispose of and make all needful rules and regulations respecting the territory or other property belonging to the United States; and nothing in this Constitution shall be so construed as to prejudice any claims of the United States, or of any particular State.

Section 4—(Republican form of government guaranteed. Each State to be protected.)

The United States shall guarantee to every State in this Union a Republican form of government, and shall protect each of them against invasion, and, on application of the Legislature, or of the Executive (when the Legislature cannot be convened), against domestic violence.

ARTICLE V.

(Constitution; how amended. Proviso.)

The Congress, whenever two-thirds of both Houses shall deem it necessary, shall propose amendments to this Constitution, or, on the application of the Legislatures of two-thirds of the several States, shall call a convention for proposing amendments, which, in either case, shall be valid to all intents and purposes, as part of this Constitution, when ratified by the Legislatures of three-fourths of the several States, or by conventions in three-fourths thereof, as the one or the other mode of ratification may be proposed by the Congress; provided that no amendment which may be made prior to the year one thousand eight hundred and eight shall in any manner affect the first and fourth clauses in the Ninth Section of the First Article; and that no State, without its consent, shall be deprived of its equal suffrage in the Senate.

ARTICLE VI.

(Certain debts, etc., declared valid. Supremacy of Constitution, treaties, and laws of the United States. Oath to support Constitution, by whom taken. No religious test.)

1. All debts contracted and engagements entered into before the adoption of this Constitution shall be as valid against the United States under this Constitution as under the Confederation.

2. This Constitution and the laws of the United States which shall be made in pursuance thereof and all treaties made, or which shall be made, under the authority of the United States, shall be the supreme law of the land, and the judges in every State shall be bound thereby, anything in the Constitution or laws of any State to the contrary notwithstanding.

3. The Senators and Representatives before mentioned, and the members of the several State Legislatures, and all executive and judicial officers, both of the United States and of the several States, shall be bound by oath or affirmation to support this Constitution; but no religious test shall ever be required as a qualification to any office or public trust under the United States.

ARTICLE VII.

(What ratification shall establish Constitution.)

The ratification of the Conventions of nine States shall be sufficient for the establishment of this Constitution between the States so ratifying the same.

AMENDMENTS TO THE CONSTITUTION OF THE UNITED STATES.

Opposition in and out of Congress to the Constitution, in that it was not sufficiently explicit as to individual and State rights, led to an agreement to submit to the people immediately after the adoption of the Constitution a number of safeguarding amendments.

And so it was that the First Congress, at its first session, at the City of New York, Sept. 25, 1789, adopted and submitted to the States twelve proposed amendments—A Bill of Rights as it was then and ever since has been popularly called. Ten of these amendments (now commonly known as one to ten inclusive, but in reality three to twelve inclusive) were ratified by the States as follows—New Jersey, Nov. 20, 1789; Maryland, Dec. 19, 1789; North Carolina, Dec. 22, 1789; South Carolina, Jan. 19, 1790; New Hampshire, Jan. 25, 1790; Delaware, Jan. 28, 1790; Pennsylvania, March 10, 1790; New York, March 27, 1790; Rhode Island, June 15, 1790; Vermont, Nov. 3, 1791; Virginia, Dec. 15, 1791. No ratification by Connecticut, Georgia or Massachusetts is on record. These original ten ratified amendments appear in order below as Articles I. to X. inclusive.

The two of the original proposed amendments which were not ratified by the necessary number of States related, the first to apportionment of Representatives; the second, to compensation of members of Congress.

TITLES OF NOBILITY.

Congress, May 1, 1810, proposed to the States the following Amendment to the Constitution:

"If any citizen of the United States shall accept, claim, receive, or retain any title of nobility or honor, or shall, without the consent of Congress, accept and retain any present, pension, office, or emolument of any kind whatever, from any emperor, king, prince or foreign power, such person shall cease to be a citizen of the United States and shall be incapable of holding any office of trust or profit under them or either of them."

It was ratified by Maryland, Dec. 25, 1810; Kentucky, Jan. 31, 1811; Ohio, Jan. 31, 1811; Delaware, Feb. 2, 1811; Pennsylvania, Feb. 6, 1811; New Jersey, Feb. 13, 1811; Vermont, Oct. 24, 1811; Tennessee, Nov. 21, 1811; Georgia, Dec. 13, 1811; North Carolina, Dec. 23, 1811; Massachusetts, Feb. 27, 1812; New Hampshire, Dec. 10, 1812.

Rejected by New York (Senate), March 12, 1811; Connecticut, May session, 1813; South Carolina, approved by Senate Nov. 28, 1811, reported unfavorably in House and not further considered Dec. 7, 1813; Rhode Island, Sept. 15, 1814.

The amendment failed, not having sufficient ratifications.

AMENDMENT TO PROHIBIT THE CONSTITUTION FROM ABOLISHING OR INTERFERING WITH SLAVERY.

(The Corwin Amendment.)

Congress, March 2, 1861, proposed to the States the following Amendment to the Constitution:

"No amendment shall be made to the Constitution which will authorize or give to Congress the power to abolish or interfere, within any State, with the domestic institutions thereof, including that of persons held to labor or service by the laws of said State."

Ratified by Ohio, March 13, 1861; Maryland, Jan. 10, 1862; Illinois (convention), Feb. 14, 1862. The amendment failed, for lack of a sufficient number of ratifications.

THE TEN ORIGINAL AMENDMENTS.

(They were declared in force December 15, 1791.)

ARTICLE I.

Religious Establishment Prohibited Freedom of Speech, of the Press, and Right to Petition.

Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech or of the press; or the right of the people peaceably to assemble and to petition the Government for a redress of grievances.

ARTICLE II.

Right to Keep and Bear Arms.

A well-regulated militia being necessary to the security of a free State, the right of the people to keep and bear arms shall not be infringed.

ARTICLE III.

No Soldier to Be Quartered in Any House, Unless, Etc.

No soldier shall, in time of peace, be quartered in any house without the consent of the owner, nor in time of war but in a manner to be prescribed by law.

ARTICLE IV.

Right of Search and Seizure Regulated.

The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no warrants shall issue but upon probable cause, supported by oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.

ARTICLE V.
Provisions Concerning Prosecution, Trial and Punishment.—Private Property Not to Be Taken for Public Use, Without Compensation.

No person shall be held to answer for a capital or other infamous crime unless on a presentment or indictment of a Grand Jury, except in cases arising in the land or naval forces, or in the militia, when in actual service, in time of war or public danger; nor shall any person be subject for the same offense to be twice put in jeopardy of life or limb; nor shall be compelled in any criminal case to be a witness against himself, nor be deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use without just compensation.

ARTICLE VI.
Right to Speedy Trial, Witnesses, Etc.

In all criminal prosecutions, the accused shall enjoy the right to a speedy and public trial, by an impartial jury of the State and district wherein the crime shall have been committed, which districts shall have been previously ascertained by law, and to be informed of the nature and cause of the accusation; to be confronted with the witnesses against him; to have compulsory process for obtaining witnesses in his favor, and to have the assistance of counsel for his defense.

ARTICLE VII.
Right of Trial by Jury.

In suits at common law, where the value in controversy shall exceed twenty dollars, the right of trial by jury shall be preserved, and no fact tried by a jury shall be otherwise re-examined in any court of the United States than according to the rules of the common law.

ARTICLE VIII.
Excessive Bail or Fines and Cruel Punishment Prohibited.

Excessive bail shall not be required, nor excessive fines imposed, nor cruel and unusual punishments inflicted.

ARTICLE IX.
Rule of Construction of Constitution.

The enumeration in the Constitution of certain rights shall not be construed to deny or disparage others retained by the people.

ARTICLE X.
Rights of States Under Constitution.

The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people.

ARTICLE XI.
Judicial Powers Construed.

The following amendment was proposed to the Legislatures of the several States by the Third Congress on the 5th of March, 1794, and was declared to have been ratified in a message from the President to Congress, dated Jan. 8, 1798.

The judicial power of the United States shall not be construed to extend to any suit in law or equity, commenced or prosecuted against one of the United States, by citizens of another State, or by citizens or subjects of any foreign state.

ARTICLE XII.
Manner of Choosing President and Vice-President.

The following amendment was proposed to the Legislatures of the several States by the Eighth Congress on the 12th of December, 1803, and was declared to have been ratified in a proclamation by the Secretary of State, dated September 25, 1804. It was ratified by all the States except Connecticut, Delaware, Massachusetts, and New Hampshire.

The Electors shall meet in their respective States, and vote by ballot for President and Vice-President, one of whom at least shall not be an inhabitant of the same State with themselves; they shall name in their ballots the person voted for as President, and in distinct ballots the person voted for as Vice-President; and they shall make distinct list of all persons voted for as President, and of all persons voted for as Vice-President, and of the number of votes for each, which list they shall sign and certify, and transmit, sealed, to the seat of the Government of the United States, directed to the President of the Senate; the President of the Senate shall, in the presence of the Senate and House of Representatives, open all the certificates and the votes shall then be counted; the person having the greatest number of votes for President shall be the President, if such number be a majority of the whole number of Electors appointed; and if no person have such majority, then from the persons having the highest number, not exceeding three, on the list of those voted for as President, the House of Representatives shall choose immediately, by ballot, the President. But in choosing the President, the votes shall be taken by States, the representation from each State having one vote; a quorum for this purpose shall consist of a member or members from two-thirds of the States, and a majority of all the States shall be necessary to a choice. And if the House of Representatives shall not choose a President, whenever the right of choice shall devolve upon them, before the fourth day of March next following, then the Vice-President shall act as President, as in the case of the death or other constitutional disability of the President. The person having the greatest number of votes as Vice-President shall be the Vice-President if such number be a majority of the whole number of Electors appointed, and if no person have a majority, then from the two highest numbers on the list the Senate shall choose the Vice-President; a quorum for the purpose shall consist of two-thirds of the whole number of Senators, and a majority of the whole number shall be necessary to a choice. But no person constitutionally ineligible to the office of President shall be eligible to that of Vice-President of the United States.

ARTICLE XIII.
Slavery Abolished.

The following amendment was proposed to the Legislatures of the several States by the Thirty-eighth Congress on the 1st of February, 1865, and was declared to have been ratified in a proclamation by the Secretary of State dated December 18, 1865. It was rejected by Delaware and Kentucky: was conditionally ratified by Alabama and Mississippi: and Texas took no action.

1. Neither slavery nor involuntary servitude, except as a punishment for crime whereof the party shall have been duly convicted, shall exist within the United States, or any place subject to their jurisdiction.

2. Congress shall have power to enforce this article by appropriate legislation.

ARTICLE XIV.
Citizenship Rights Not to Be Abridged.

The following, popularly known as the Reconstruction Amendment, was proposed to the Legislatures of the several States by the Thirty-ninth Congress on the 16th of June, 1866, and was declared to have been ratified in a proclamation by the Secretary of State, dated July 28, 1868. The amendment got the support of 23 Northern States: it was rejected by Delaware, Kentucky, Maryland, and 10 Southern States. California took no action. Subsequently it was ratified by the 10 Southern States.

1. All persons born or naturalized in the United States, and subject to the jurisdiction thereof, are citizens of the United States and of the State wherein they reside. No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty, or property without due process of law, nor deny to any person within its jurisdiction the equal protection of the laws.

Apportionment of Representatives in Congress.

2. Representatives shall be apportioned among the several States according to their respective numbers, counting the whole number of persons in each State excluding Indians not taxed. But when the right to vote at any election for the choice of Electors for President and Vice-President of the United States, Representatives in Congress, the executive and judicial officers of a State, or the members of the Legislature thereof, is denied to any of the male inhabitants of such State, being twenty-one years of age, and citizens of the United States, or in any way abridged, except for participation in rebellion, or other crime, the basis of representation therein shall be reduced in the proportion which the number of such male citizens shall bear to the whole number of male citizens twenty-one years of age in such State.

Power of Congress to Remove Disabilities of United States Officials for Rebellion.

3. No person shall be a Senator or Representative in Congress, or Elector of President and Vice-President or holding any office, civil or military, under the United States, or under any State, who, having previously taken an oath, as a member of Congress, or as an officer of the United States, or as a member of any State Legislature or as an executive or judicial officer of any State, to support the Constitution of the United States, shall have engaged in insurrection or rebellion against the same, or given aid and comfort to the enemies thereof. But Congress may, by a vote of two-thirds of each House, remove such disability.

What Public Debts Are Valid.

4. The validity of the public debt of the United States, authorized by law, including debts incurred for payment of pensions and bounties for services in suppressing insurrection and rebellion, shall not be questioned. But neither the United States nor any State shall assume or pay any debt or obligation incurred in aid of insurrection or rebellion against the United States, or any claim for the loss or eman-

cipation of any slave; but all such debts, obligations, and claims shall be held illegal and void.

5. The Congress shall have power to enforce by appropriate legislation the provisions of this article.

ARTICLE XV.
Equal Rights for White and Colored Citizens.

The following amendment was proposed to the Legislatures of the several States by the Fortieth Congress on the 27th of February, 1869, and was declared to have been ratified in a proclamation by the Secretary of State, dated March 30, 1870. It was not acted on by Tennessee; it was rejected by California, Delaware, Kentucky, Maryland, and Oregon; ratified by the remaining 30 States. New York rescinded its ratification January 5, 1870. New Jersey rejected it in 1870, but ratified it in 1871.

1. The right of the citizens of the United States to vote shall not be denied or abridged by the United States or by any State on account of race, color, or previous condition of servitude.

2. The Congress shall have power to enforce the provisions of this article by appropriate legislation.

ARTICLE XVI.
Income Taxes Authorized.

The following amendment was proposed to the Legislatures of the several States by the Sixty-first Congress on the 12th day of July, 1909, and was declared to have been ratified in a proclamation by the Secretary of State, dated February 25, 1913. The income tax amendment was ratified by all the States except Connecticut, Florida, Pennsylvania, Rhode Island, Utah, and Virginia.

The Congress shall have power to lay and collect taxes on incomes, from whatever sources derived, without apportionment among the several States, and without regard to any census or enumeration.

ARTICLE XVII.
United States Senators to Be Elected by Direct Popular Vote.

The following amendment was proposed to the Legislatures of the several States by the Sixty-second Congress on the 16th day of May, 1912, and was declared to have been ratified in a proclamation by the Secretary of State, dated May 31, 1913. It got the vote of all the States except Alabama, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, Rhode Island, South Carolina, Utah, and Virginia.

1. The Senate of the United States shall be composed of two Senators from each State, elected by the people thereof, for six years; and each Senator shall have one vote. The electors in each State shall have the qualifications requisite for electors of the most numerous branch of the State Legislatures.

Vacancies in Senatorships, When Governor May Fill by Appointment.

2. When vacancies happen in the representation of any State in the Senate, the executive authority of such State shall issue writs of election to fill such vacancies: Provided, That the Legislature of any State may empower the Executive thereof to make temporary appointment until the people fill the vacancies by election as the Legislature may direct.

3. This amendment shall not be so construed as to affect the election or term of any Senator chosen before it becomes valid as part of the Constitution.

ARTICLE XVIII.
Liquor Prohibition Amendment.

The following amendment was proposed to the Legislatures of the several States by the Sixty-fifth Congress, December 18, 1917; and on January 29, 1919, the United States Secretary of State proclaimed its adoption by 36 States, and declared it in effect on January 16, 1920.

The amendment ultimately was adopted by all the States except Connecticut and Rhode Is and. New Jersey ratified on March 10, 1922.

Enforcement of the National Prohibition Act was in effect at 12 P. M., January 16, 1920, except as to certain sections of Title II. wherein other dates were specified.

Early in 1920, the validity of the Eighteenth Amendment was upheld by the Supreme Court of the United States, in suits to void, brought by the States of Rhode Island and New Jersey, and by various brewers and distillers.

1. After one year from the ratification of this article the manufacture, sale, or transportation of intoxicating liquors within, the importation thereof into, or the exportation thereof from the United States and all territory subject to the jurisdiction thereof for beverage purposes is hereby prohibited.

2. The Congress and the several States shall have concurrent power to enforce this article by appropriate legislation.

3. This article shall be inoperative unless it shall have been ratified as an amendment to the Constitution by the Legislatures of the several States, as provided in the Constitution, within seven years from the date of the submission hereof to the States by the Congress.

ARTICLE XIX.
Giving Nation-Wide Suffrage to Women.

The following amendment was proposed to the Legislatures of the several States by the Sixty-fifth Congress, having been adopted by the House of Representatives, May 21, 1919, and by the Senate, June 4, 1919. On August 26, 1920, the United States Secretary of State proclaimed it in effect, having been adopted (June 10, 1919–August 18, 1920) by three-quarters of the States. The Tennessee House, August 31, rescinded its ratification, 47 to 24.

1. The right of citizens of the United States to vote shall not be denied or abridged by the United States or by any State on account of sex.

2. Congress shall have power, by appropriate legislation, to enforce the provisions of this article.

THE PROPOSED ARTICLE XX.
Federal Regulation of Child Labor.

The following amendment was proposed to the Legislatures of the several States by the Sixty-eighth Congress, having been adopted as a joint resolution by the House of Representatives (297 to 69) on April 26, 1924, and by the Senate (61 to 25) on June 2, 1924.

Section 1—The Congress shall have power to limit, regulate, and prohibit the labor of persons under eighteen years of age.

Section 2—The power of the several States is unimpaired by this article except that the operation of State laws shall be suspended to the extent necessary to give effect to legislation enacted by the Congress.

Five states have adopted the Amendment—Arizona, Arkansas, California, Montana, and Wisconsin.

Six states have taken no definite action—Alabama, Illinois, Mississippi, New Jersey, New York, and Rhode Island.

It has been ratified by one House of the Legislature in New Mexico, and Nevada.

It has been rejected by both Houses, in Connecticut, Delaware, Florida, Georgia, Indiana, Kansas, Kentucky, Maine, Maryland, Massachusetts, Minnesota, Missouri, New Hampshire, North Carolina, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia.

The amendment was rejected by one House in Idaho, Louisiana, Michigan, Nebraska, North Dakota, Ohio, Oklahoma, Oregon, and Wyoming.

A vote was indefinitely postponed by one House, in Colorado and Iowa.

THE OATH OF A PRESIDENT.

The Constitution of the United States (Article II, Section 1, paragraph 8) directs that the President, before he enters on the execution of his office, shall take the following oath or affirmation:

"I do solemnly swear (or affirm) that I will faithfully execute the office of president of the United States, and will, to the best of my ability, *preserve, protect,* and *defend* the Constitution of the United States."

Chief Justice Taft, in administering the oath to president-elect Herbert Hoover, on the Capitol portico, on March 4, 1929, used the words "*preserve, maintain,* and *defend.*"

When his attention was called, by letter, to the lapse, by Miss Helen Terwilliger, 13, of Walden, N. Y., Mr. Taft wrote to her saying his memory was that he had said "*preserve, maintain,* and *protect.*"

But when the Pathe and Paramount sound news reels of the inauguration were run off, before newspaper men, at New York City, they proved that Miss Terwilliger was right, and that the Chief Justice's recollection was at fault.

The validity of the oath was not interfered with by substitution of "maintain" for "protect," Mr. Taft assured the Walden girl. He told her that when he was sworn in as president, in the Senate Chamber, Chief Justice Fuller made a similar slip.

It is asserted that when Vice-President Curtis administered the oath to Senators he inadvertantly substituted "without mental *obligation*" for "without mental *reservations.*"

Declaration of Independence.

(Unanimously adopted, July 4, 1776; signed by 54 delegates, Aug. 2, 1776; by Thos. McKean, Del., in Oct., and by Matthew Thornton, N. Hamp., in Nov. of that year.)

When in the Course of human events, it becomes necessary for one people to dissolve the political bands which have connected them with another, and to assume among the powers of the earth, the separate and equal station to which the Laws of Nature and of Nature's God entitle them, a decent respect to the opinions of mankind requires that they should declare the causes which impel them to the separation.

We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness. That to secure these rights, Governments are instituted among Men, deriving their just powers from the consent of the governed, That whenever any Form of Government becomes destructive of these ends, it is the Right of the People to alter or to abolish it, and to institute new Government, laying its foundation on such principles and organizing its powers in such form, as to them shall seem most likely to effect their Safety and Happiness. Prudence, indeed, will dictate that Governments long established should not be changed for light and transient causes; and accordingly all experience hath shewn, that mankind are more disposed to suffer, while evils are sufferable, than to right themselves by abolishing the forms to which they are accustomed. But when a long train of abuses and usurpations, pursuing invariably the same object evinces a design to reduce them under absolute Despotism, it is their right, it is their duty, to throw off such Government, and to provide new Guards for their future security. Such has been the patient sufferance of these Colonies; and such is now the necessity which constrains them to alter their former Systems of Government. The history of the present King of Great Britain is a history of repeated injuries and usurpations, all having in direct object the establishment of an absolute Tyranny over these States. To prove this, let Facts be submitted to a candid world.

He has refused his Assent to Laws, the most wholesome and necessary for the public good.

He has forbidden his Governors to pass Laws of immediate and pressing importance, unless suspended in their operation till his Assent should be obtained, and when so suspended, he has utterly neglected to attend to them.

He has refused to pass other Laws for the accommodation of large districts of people, unless those people would relinquish the right of Representation in the Legislature, a right inestimable to them and formidable to tyrants only.

He has called together legislative bodies at places unusual, uncomfortable, and distant from the depository of their public Records, for the sole purpose of fatiguing them into compliance with his measures.

He has dissolved Representative Houses repeatedly, for opposing with manly firmness his invasions on the rights of the people.

He has refused for a long time, after such dissolutions, to cause others to be elected; whereby the Legislative powers, incapable of Annihilation, have returned to the People at large for their exercise; the State remaining in the meantime exposed to all the dangers of invasion from without, and convulsions within.

He has endeavoured to prevent the population of these States; for that purpose obstructing the Laws for Naturalization of Foreigners; refusing to pass others to encourage their migration hither, and raising the conditions of new Appropriations of Lands.

He has obstructed the Administration of Justice, by refusing his Assent to Laws for establishing Judiciary powers.

He has made Judges dependent on his Will alone, for the tenure of their offices, and the amount and payment of their salaries.

He has erected a multitude of New Offices, and sent hither swarms of Officers to harass our people, and eat out their substance.

He has kept among us, in times of peace, Standing Armies, without the Consent of our legislature.

He has affected to render the Military independent of and superior to the Civil power.

He has combined with others to subject us to a jurisdiction foreign to our constitution and unacknowledged by our laws; giving his Assent to their Acts of pretended Legislation: For quartering large bodies of armed troops among us: For protecting them by a mock Trial from punishment for any Murders which they should commit on the Inhabitants of these States: For cutting off our Trade with all parts of the world: For imposing Taxes on us without our Consent: For depriving us in many cases of the benefits of Trial by Jury: For transporting us beyond Seas to be tried for pretended offences: For abolishing the free System of English Laws in a neighbouring Province, establishing therein an Arbitrary government, and enlarging its Boundaries so as to render it at once an example and fit instrument for introducing the same absolute rule into these Colonies: For taking away our Charters, abolishing our most valuable Laws and altering fundamentally the Forms of our Governments: For suspending our own Legislatures, and declaring themselves invested with power to legislate for us in all cases whatsoever.

He has abdicated Government here by declaring us out of his Protection and waging War against us.

He has plundered our seas, ravaged our Coasts, burnt our towns, and destroyed the lives of our people.

He is at this time transporting large Armies of foreign Mercenaries to complete the works of death, desolation and tyranny, already begun with circumstances of cruelty and perfidy scarcely paralleled in the most barbarous ages, and totally unworthy the Head of a civilized nation.

He has constrained our fellow Citizens taken Captive on the high Seas to bear Arms against their Country, to become the executioners of their friends and Brethren, or to fall themselves by their Hands.

He has excited domestic insurrections amongst us, and has endeavoured to bring on the inhabitants of our frontiers, the merciless Indian Savages, whose known rule of warfare is an undistinguished destruction of all ages, sexes and conditions. In every stage of these Oppressions We have Petitioned for Redress in the most humble terms. Our repeated Petitions have been answered by repeated injury. A Prince, whose character is thus marked by every act which may define a Tyrant, is unfit to be the ruler of a free people. Nor have We been wanting in attentions to our British brethren. We have warned them from time to time of attempts by their legislature to extend an unwarrantable jurisdiction over us. We have reminded them of the circumstances of our emigration and settlement here. We have appealed to their native justice and magnanimity, and we have conjured them by the ties of our common kindred to disavow these usurpations, which would inevitably interrupt our connections and correspondence. They too have been deaf to the voice of justice and of consanguinity. We must, therefore, acquiesce in the necessity, which denounces our Separation, and hold them, as we hold the rest of mankind, Enemies in War, in Peace Friends.

WE THEREFORE, the Representatives of the United States of America, in General Congress, Assembled, appealing to the Supreme Judge of the world for the rectitude of our intentions, do, in the Name, and by authority of the good People of these Colonies, solemnly publish and declare, That these United Colonies are, and of Right ought to be Free and Independent States; that they are Absolved from all Allegiance to the British Crown, and that all political connection between them and the State of Great Britain is and ought to be totally dissolved; and that as Free and Independent States, they have full Power to levy War, conclude Peace, contract Alliances, establish Commerce, and to do all other Acts and Things which Independent States may of right do. And for the support of this Declaration, with a firm reliance on the protection of Divine Providence, we mutually pledge to each other our Lives, our Fortunes, and our sacred Honor.

SIGNERS OF THE DECLARATION OF INDEPENDENCE.

(Compiled by Simon Newton, Detroit.)

NAME.	Delegate From.	Occupation.	Birthplace.	Date of Birth.	Date of Death.
Adams, John	Mass	Lawyer	Braintree (now Quincy), Mass.	Oct. 30, 1735	July 4, 1826
Adams, Samuel	Mass	Merchant	Boston, Mass	Sept. 27, 1722	Oct. 2, 1803
Bartlett, Josiah	N. H	Physician	Amesbury, Mass	Nov. 21, 1729	May 19, 1795
Braxton, Carter	Va	Planter	Newington, Va	Sept. 10, 1736	Oct. 10, 1797
Carroll, Charles	Md	Lawyer	Annapolis, Md	Sept. 20, 1737	Nov. 14, 1832
Chase, Samuel	Md	Lawyer	Somerset County, Md	April 17, 1741	June 19, 1811
Clark, Abraham	N. J	Lawyer	Elizabethtown, N. J	Feb. 15, 1726	Sept. 15, 1794
Clymer, George	Pa	Merchant	Philadelphia, Pa	Jan. 24, 1739	Jan. 23, 1813
Ellery, William	R. I	Lawyer	Newport, R. I	Dec. 22, 1727	Feb. 15, 1820
Floyd, William	N. Y	Farmer	Mastic, N. Y	Dec. 17, 1734	Aug. 4, 1821
Franklin, Benjamin	Pa	Printer	Boston, Mass	Jan. 17, 1706	April 17, 1790
Gerry, Elbridge	Mass	Merchant	Marblehead, Mass	July 17, 1744	Nov. 23, 1814
Gwinnett, Button	Ga	Merchant	Down Hatherly, Glo'shire, Eng	Apr. 10, 1735	May 27, 1777
Hall, Lyman	Ga	Physician	Wallingford, Conn	April 12, 1724	Oct. 19, 1790
Hancock, John	Mass	Merchant	Quincy, Mass	Jan. 12, 1737	Oct. 8, 1793
Harrison, Benjamin	Va	Farmer	Berkeley, Va	(About) 1740	April .., 1791
Hart, John	N. J	Farmer	Hopewell, N. J	 1708	 1780
Hewes, Joseph	N. C	Lawyer	Kingston, N. J	 1730	Nov. 10, 1779
Heyward, Thomas, jr	S. C	Lawyer	St. Luke's Parish, S. C	 1746	March 6, 1809
Hooper, William	N. C	Lawyer	Boston, Mass	June 17, 1742	Oct. .., 1790
Hopkins, Stephen	R. I	Farmer	Scituate, R. I	March 7, 1707	July 13, 1785
Hopkinson, Francis	N. J	Lawyer	Philadelphia, Pa	Sept. 21, 1737	May 9, 1791
Huntington, Samuel	Conn	Lawyer	Windham, Conn	July 3, 1731	Jan. 5, 1796
Jefferson, Thomas	Va	Lawyer	Shadwell, Va	April 2, 1743	July 4, 1826
Lee, Richard Henry	Va	Soldier	Stratford, Va	Jan. 20, 1732	June 19, 1794
Lee, Francis Lightfoot	Va	Farmer	Stratford, Va	Oct. 14, 1734	April 3, 1797
Lewis, Francis	N. Y	Merchant	Llandaff, Wales	March .., 1713	Dec. 19, 1803
Livingston, Philip	N. Y	Merchant	Albany, N. Y	Jan. 15, 1716	June 12, 1778
Lynch, Thomas, jr	S. C	Lawyer	Prince George Parish, S. C	Aug. 5, 1749	(at sea) 1779
McKean, Thomas	Del	Lawyer	New London, Pa	Mar. 19, 1734	June 24, 1817
Middleton, Arthur	S. C	Lawyer	Middleton Place, S. C	June 26, 1742	Jan. 1, 1787
Morris, Lewis	N. Y	Farmer	Morrisania, N. Y	 1726	Jan. 22, 1798
Morris, Robert	Pa	Merchant	Liverpool, England	Jan. 20, 1734	May 8, 1806
Morton, John	Pa	Surveyor	Ridley, Pa	 1724	April .., 1777
Nelson, Thomas, jr	Va	Statesman	Yorktown, Va	Dec. 26, 1738	Jan. 4, 1789
Paca, William	Md	Lawyer	Wyehall, Md	Oct. 31, 1740	 1799
Paine, Robert Treat	Mass	Lawyer	Boston, Mass	Mar. 11, 1731	May 11, 1814
Penn, John	N. C	Lawyer	Caroline County, Va	May 17, 1741	Sept. .., 1788
Read, George	Del	Lawyer	Cecil County, Md	Sept. 17, 1733	Sept. 21, 1798
Rodney, Caesar	Del	General	Dover, Del	Oct. 7, 1728	June 29, 1784
Ross, George	Pa	Lawyer	Newcastle, Del	 1730	July .., 1779
Rush, Benjamin	Pa	Physician	Byberry Township, Pa	Dec. 24, 1745	April 19, 1813
Rutledge, Edward	S. C	Lawyer	Charleston, S. C	Nov. 23, 1749	Jan. 23, 1800
Sherman, Roger	Conn	Shoemaker	Newton, Mass	April 19, 1721	July 23, 1793
Smith, James	Pa	Lawyer	..... Ireland	(About) 1720	July 11, 1806
Stockton, Richard	N. J	Lawyer	Near Princeton, N. J	Oct. 1, 1730	Feb. 28, 1781
Stone, Thomas	Md	Lawyer	Charles County, Md	 1743	Oct. 5, 1787
Taylor, George	Pa	Physician	....., Ireland	 1716	Feb. 23, 1781
Thornton, Matthew	N. H	Physician	..... Ireland	(About) 1714	June 24, 1803
Walton, George	Ga	Lawyer	Frederick County, Va	 1740	Feb. 2, 1804
Whipple, William	N. H	Sailor	Kittery, Me	Jan. 14, 1730	Nov. 28, 1785
Williams, William	Conn	Statesman	Lebanon, Conn	April 18, 1731	Aug. 2, 1811
Wilson, James	Pa	Lawyer	Near St. Andrews, Scotland	Sept. 14, 1742	Aug. 28, 1798
Witherspoon, John	N. J	Minister	Gifford, Scotland	Feb. 5, 1722	Sept. 15, 1794
Wolcott, Oliver	Conn	Physician	Windsor, Conn	Nov. 26, 1726	Dec. 1, 1797
Wythe, George	Va	Lawyer	Elizabeth City, Va	 1726	June 8, 1806

The oldest signer when the signatures were affixed was Benjamin Franklin, the next oldest was Stephen Hopkins.

The first of the signers to die was John Morton; the second was Button Gwinnett.

The earliest known attempt in the American colonies of a declaration of independence was at a town meeting at Mendon, Mass., in 1773.

There was also the Mecklenburg, N. C., declaration for independence, May 31, 1775.

The date in the above table given as that of the birth of Button Gwinnett is the date of his baptism, as recorded in the parish register at Down Hatherly, Gloucestershire, England, where the Georgia signer was born. It was customary in those days to baptize within ten days of birth.

A signature of Button Gwinnett, attached to a will as a witness, the document having been filed in Georgia, was sold at auction at New York City in April, 1926, for $22,500. Gwinnett was killed in a duel.

A letter of the Marine Committee at Philadelphia, July 12, 1776, containing the signatures of Robert Morris, Button Gwinnett, Francis Lewis, George Read, and Arthur Middleton, was sold for $51,000 on March 15, 1927. Another Gwinnett signature sold for $28,500, in Nov., 1926 and still another for $18,600 on Nov. 4, 1927, at N. Y. City.

An autograph of Thomas Lynch, Jr., a signer, was sold at N. Y. City in 1929 for $9,500. It was signed on Aug. 22, 1775, and was on a receipt for £50, in payment by South Carolina for one of Lynch's father's slaves who had been executed.

It was to this Declaration that John Hancock of Massachusetts was the first to affix his signature, saying, according to some historians: "I write so that George the Third may read without his spectacles."

And Benjamin Franklin is said to have remarked: "If we don't hang together, we'll all hang separately."

The signers and their families were proscribed as traitors by the British Government, and rewards fo £500 were offered for their apprehension.

DUTIES OF THE SECRETARY OF STATE OF THE UNITED STATES.

The Secretary of State is charged, under the direction of the President, with the duties appertaining to correspondence with the public ministers and the consuls of the United States and with the representatives of foreign powers accredited to the United States, and to negotiations of whatever character relating to the foreign affairs of the United States.

He is also the medium of correspondence between the President and the chief executives of the several States of the United States; he has the custody of the great seal of the United States, and countersigns and affixes such seal to all Executives proclamations, to various commissions, and to warrants for the extradition of fugitives from justice.

He is regarded as the first in rank among the members of the Cabinet.

He is also the custodian of the treaties made with foreign States, and of the laws of the United States.

He grants and issues passports, and exequaturs to foreign consuls in the United States are issued through his office.

He publishes the laws and resolutions of Congress, amendments to the Constitution, and proclamations declaring the admission of new States into the Union.

THE MONROE DOCTRINE.

The Secretary of State of the United States, Charles E. Hughes, in an address delivered before the American Bar Association at Minneapolis, Minn., Aug. 30, 1923, restated the genesis and scope of the Monroe Doctrine as it stands to-day. The Secretary's main points were:

The people of the United States had watched with deep sympathy the long struggle of our Southern neighbors for independence. The Republic of Colombia was recognized in 1822, the Government of Buenos Aires and the States of Mexico and Chile, early in 1823. Deeply interested as we were in the development of republican institutions, the United States did not hesitate because of the political form of government and was the first to recognize the independent Empire of Brazil in May, 1824, and this was followed by the recognition of the Federation of Central American States in August of that year.

The Holy Alliance formed by the sovereigns of Austria, Russia, and Prussia had sought to enforce the divine right of kings against the progress of liberal principles. Joined by France, they undertook "to put an end to the system of representative government" and after Ferdinand VII had been restored to Spain, the overthrowing of the new governments erected out of the old colonies of Spain in the Americas was proposed. In August, 1823, George Canning, British Foreign Secretary, wrote Richard Rush, American Minister in London, suggesting a joint declaration, in substance, that the recovery of the colonies by Spain was hopeless; that neither Great Britain nor the United States was aiming at the possession of any portion of these colonies; and that they could not see with indifference any portion of them transferred to any other power. Correspondence followed between President Monroe and Jefferson and Madison, whose advice he sought. It was after mature deliberation by the President and his Cabinet, which contained not only John Quincy Adams, Secretary of State, but John C. Calhoun and William Wirt, that the American position was formulated in President Monroe's message of December 2, 1823.

The Russian Emperor had issued a ukase in 1821 prohibiting citizens of other nations from navigating and fishing within 100 Italian miles of the northwest coast of North America from Bering Straits to the fifty-first parallel of north latitude. Protests had followed. In July, 1823, Secretary Adams informed the Russian Minister that the United States "should contest the right of Russia to any territorial establishment on this continent, and that we should assume distinctly the principle that the American continents are no longer subjects for any new European colonial establishments." It was in connection with this pretension of Russia that President Monroe, declared in his message:

"In the discussions to which this interest has given rise, and in the arrangements by which they may terminate, the occasion has been judged proper for asserting as a principle, in which the rights and interests of the United States are involved, that the American continents, by the free and independent condition which they have assumed and maintained are henceforth not to be considered as subjects for future colonization by any European powers."

The other paragraph of President Monroe's message concerned our neighbors to the south, as follows:

"In the wars of the European powers in matters relating to themselves we have never taken any part, nor does it comport with our policy so to do. It is only when our rights are involved or seriously menaced that we resent injuries or make preparation for our defense. With the movements in this hemisphere we are, of necessity, more intimately connected, and by causes which must be obvious to all enlightened and impartial observers. The political system of the allied powers is essentially different in this respect from that of America. * * *

"We owe it, therefore, to candor and to the amicable relations existing between the United States and those powers to declare that we should consider any attempt on their part to extend their system to any portion of this hemisphere as dangerous to our peace and safety. With the existing colonies or dependencies of any European power we have not interfered and shall not interfere. But with the governments who have declared their independence and have maintained it and whose independence we have, on great consideration and on just principles, acknowledged, we could not view any interposition for the purpose of oppressing them or controlling in any other manner their destiny, by any European power, in any other light than as the manifestation of an unfriendly disposition toward the United States."

Properly understood, it is opposed (1) to any non-American action encroaching upon the political independence of American States under any guise and (2) to the acquisition in any manner of the control of additional territory in this hemisphere by any non-American power.

The Monroe Doctrine is not a legislative pronouncement; it has been approved by action of Congress, but it does not rest upon any Congressional sanction. It has had the implied indorsement of the treaty-making power in the reservations to the two Hague conventions of 1899 and 1907, but it is not defined by treaty and does not draw its force from any international agreement. It is not like a constitutional provision deriving its authority from the fact that it is a part of the organic law transcending and limiting executive and legislative power. It is not a part of international law, maintained by the consent of the civilized powers and alterable only at their will. It is a policy declared by the Executive of the United States and repeated in one form or another by Presidents and Secretaries of State in the conduct of our foreign relations. Its significance lies in the fact that in its essentials, as set forth by President Monroe and as forcibly and repeatedly, asserted by our responsible statesmen, it has been for 100 years, and continues to be, an integral part of our national thought and purpose, expressing a profound conviction which even the upheaval caused by the Great War, and our participation in that struggle upon European soil, has not uprooted or fundamentally changed.

The Monroe Doctrine is not a policy of aggression; it is a policy of self-defense. It was asserted at a time when the danger of foreign aggression in this hemisphere was very real, when the new American States had not yet established a firm basis of independent national life, and we were menaced by threats of old world powers directed against republican institutions. It still remains an assertion of the principle of national security.

As the policy embodied in the Monroe Doctrine is distinctively the policy of the United States, the Government of the United States reserves to itself its definition, interpretation and application. This Government has not been disposed to enter into engagements which would have the effect of submitting to any other power or to any concert of powers the determination either of the occasions upon which the principles of the Monroe Doctrine shall be invoked or of the measures that shall be taken in giving it effect. As President Wilson observed: "The Monroe Doctrine was proclaimed by the United States on her own authority. It always has been maintained and always will be maintained upon her own responsibility."

The policy of the Monroe Doctrine does not infringe upon the independence and sovereignty of other American States. Misconception upon this point is the only disturbing influence in our relations with Latin American States. The declaration of our purpose to oppose what is inimical to our safety does not imply an attempt to establish a protectorate any more than a similar assertion by any one of the great southern republics of opposition to conduct on the part of any of the others endangering its security would aim at the establishment of a protectorate.

We utterly disclaim as unwarranted the observations which occasionally have been made implying a claim on our part to superintend the affairs of our sister republics, to assert an overlordship, to consider the spread of our authority beyond our own domain as the aim of our policy and to make our power the test of right in this hemisphere.

Such assertions do not express our national purpose; they belie our sincere friendship; they are false to the fundamental principles of our institutions and of our foreign policy which has sought to reflect with rare exceptions, the ideals of liberty; they menace us by stimulating a distrust which has no real foundation. They find no sanction whatever in the Monroe Doctrine. There is room in this hemisphere, without danger of collision, for the complete recognition of that doctrine and the independent sovereignty of the Latin-American republics.

We have grown rich and powerful, but we have not outgrown the necessity, in justice to ourselves and without injustice to others, of safeguarding our future peace and security.

So far as the region of the Caribbean Sea is concerned it may be said that if we had no Monroe Doctrine we should have to create one. * * * The United States has rights and obligations which that doctrine does not define. And in the unsettled condition of certain countries in the region of the Caribbean it has been necessary to assert these rights and obligations as well as the limited principles of the Monroe Doctrine. * * *

The disturbed conditions and revolutionary tendencies in some of the Central American republics have given great solicitude to the Government of the United States, and its efforts have been directed to the promotion of tranquillity and stability. This is in the interest of the maintenance of the unimpaired integrity and sovereignty of these republics.

BRIEF BIOGRAPHIES OF THE PRESIDENTS.

No.	Name.	Politics.	Native State.	Born.	Inaug.	Age at Inaug.	Time of Death.	Age at Death.
1.	George Washington	Fed.	Va.	1732, Feb. 22	1789	57	1799, Dec. 14	67
2.	John Adams	Fed.	Mass.	1735, Oct. 30	1797	61	1826, July 4	90
3.	Thomas Jefferson	Rep.	Va.	1743, April 13	1801	57	1826, July 4	83
4.	James Madison	Rep.	Va.	1751, March 16	1809	57	1836, June 28	85
5.	James Monroe	Rep.	Va.	1758, April 28	1817	58	1831, July 4	73
6.	John Quincy Adams	Rep.	Mass.	1767, July 11	1825	57	1848, Feb. 23	80
7.	Andrew Jackson	Dem.	N. C.	1767, March 15	1829	61	1845, June 8	78
8.	Martin Van Buren	Dem.	N. Y.	1782, Dec. 5	1837	54	1862, July 24	79
9.	William Henry Harrison	Whig.	Va.	1773, Feb. 9	1841	68	1841, April 4	68
10.	John Tyler	Dem.	Va.	1790, March 29	1841	51	1862, Jan. 17	71
11.	James Knox Polk	Dem.	N. C.	1795, Nov. 2	1845	49	1849, June 15	53
12.	Zachary Taylor	Whig.	Va.	1784, Nov. 24	1849	64	1850, July 9	65
13.	Millard Fillmore	Whig.	N. Y.	1800, Jan. 7	1850	50	1874, March 8	74
14.	Franklin Pierce	Dem.	N. H.	1804, Nov. 23	1853	48	1869, Oct. 8	64
15.	James Buchanan	Dem.	Pa.	1791, April 23	1857	65	1868, June 1	77
16.	Abraham Lincoln	Rep.	Ky.	1809, Feb. 12	1861	52	1865, April 15	56
17.	Andrew Johnson	Rep.	N. C.	1808, Dec. 29	1865	56	1875, July 31	66
18.	Ulysses Simpson Grant	Rep.	Ohio.	1822, April 27	1869	46	1885, July 23	63
19.	Rutherford Birchard Hayes	Rep.	Ohio.	1822, Oct. 4	1877	54	1893, Jan. 17	70
20.	James Abram Garfield	Rep.	Ohio.	1831, Nov. 19	1881	49	1881, Sept. 19	49
21.	Chester Alan Arthur	Rep.	Vt.	1830, Oct. 5	1881	50	1886, Nov. 18	56
22.	Grover Cleveland	Dem.	N. J.	1837, March 18	1885	47	1908, June 24	71
23.	Benjamin Harrison	Rep.	Ohio.	1833, Aug. 20	1889	55	1901, March 13	67
24.	Grover Cleveland	Dem.	N. J.	1837, March 18	1893	55	1908, June 24	71
25.	William McKinley	Rep.	Ohio.	1843, Jan. 29	1897	54	1901, Sept. 14	58
26.	Theodore Roosevelt	Rep.	N. Y.	1858, Oct. 27	1901	42	1919, Jan. 6	61
27.	William Howard Taft	Rep.	Ohio.	1857, Sept. 15	1909	51	.....	..
28.	Woodrow Wilson	Dem.	Va.	1856, Dec. 28	1913	56	1924, Feb. 3	67
29.	Warren Gamaliel Harding	Rep.	Ohio.	1865, Nov. 2	1921	55	1923, Aug. 2	58
30.	Calvin Coolidge	Rep.	Vt.	1872, July 4	1923	51	.....	..
31.	Herbert Clark Hoover	Rep.	Iowa.	1874, Aug. 10	1929	54	.....	..

Grant's baptismal Christian name was Hiram Ulysses; Cleveland's was Stephen Grover; Wilson's was Thomas Woodrow; Coolidge's was John Calvin.

RELIGIOUS AFFILIATIONS.

Friends (Quakers)—Hoover.
Episcopalians—Washington, Madison, Monroe, Gen. W. H. Harrison, Tyler, Taylor, Pierce, Arthur.
Presbyterians—Jackson, Polk, Buchanan, Cleveland, Benj. Harrison, Wilson.
Methodists—Johnson, Grant, Hayes, McKinley.
Unitarian—John Adams, J. Q. Adams, Fillmore, Taft.
Reformed Dutch—Van Buren, Roosevelt.
Baptist—Harding. *Congregationalist*—Coolidge.
Disciples—Garfield.
Jefferson and Lincoln did not claim membership in any denomination.

ANCESTRY.

Swiss—Hoover.
English—Washington, J. Adams, Madison, J. Q. Adams, W. H. Harrison, Tyler, Taylor, Fillmore, Pierce, Lincoln, Johnson, Grant, Garfield, Cleveland, B. Harrison, Taft, Harding. Coolidge.
Welsh—Jefferson.
Scotch—Monroe, Hayes. *Scotch-Irish*—Jackson, Polk, Buchanan, Arthur, McKinley, Wilson.
Dutch—Van Buren, Roosevelt.
The following Presidents were lawyers—J. Adams, Jefferson, Madison, Monroe, J. Q. Adams, Jackson, Van Buren, Tyler, Polk, Pierce, Buchanan, Lincoln, Hayes, Garfield, Cleveland, B. Harrison, McKinley, Taft, Wilson, Coolidge.
Washington was a planter and surveyor; Fillmore and Johnson were tailors; Hoover was a mining engineer.

PRESIDENTS OF THE CONTINENTAL CONGRESS.

The Continental Congress was in session at intervals from Sept. 5, 1774, to Oct. 21, 1788, at Philadelphia, Baltimore, Lancaster, Pa., York, Pa., Princeton, N. J., Annapolis, Md., Trenton, N. J., and New York City.
The Presidents of that Congress, with the dates of their election, were—(1) Peyton Randolph, Va., Sept. 5, 1774; (2) Henry Middleton, S. C., Oct. 22, 1774; (3) Peyton Randolph, Va., May 10, 1775; (4) John Hancock, Mass., May 24, 1775; (5) Henry Laurens, S. C., Nov. 1, 1777; (6) John Jay, N. Y., Dec. 10, 1778; (7) Samuel Huntington, Conn., Sept. 28, 1779; (8) Thomas McKean, Del., July 10, 1781; (9) John Hanson, Md., Nov. 5, 1781; (10) Elias Boudinot, N. J., Nov. 4, 1782; (11) Thomas Mifflin, Nov. 3, 1783; (12) R. H. Lee, Va., Nov. 30, 1784; (13) John Hancock, Mass., Nov. 23, 1785 (sick and did not serve); (14) Nathaniel Gorham, Mass., June 6, 1786; (15) Arthur St. Clair, Pa., Feb. 2, 1787; (16) Cyrus Griffin, Va., Jan. 22, 1788.

THE WIVES OF THE PRESIDENTS.

President.	Wife's Name.	Native State.	Born.	Married.	Died.	Sons.	Daughters.
Washington	Martha (Dandridge) Custis	Va.	1731	1759	1802	.....	.....
J. Adams	Abigail Smith	Mass.	1744	1764	1818	3	2
Jefferson	Martha (Wayles) Skelton	Va.	1748	1772	1782	1	5
Madison	Dorothy ("Dolly") (Payne) Todd	N. Car.	1772	1794	1849	.....	.....
Monroe	Eliza Kortright	N. Y.	1768	1786	1830	.....	2
J. Q. Adams	Louisa Catherine Johnson	England.	1775	1797	1852	3	1
Jackson	Rachel (Donelson) Robards	N. Car.	1767	1791	1828	.....	.....
Van Buren	Hannah Hoes	N. Y.	1783	1807	1819	4	.....
Harrison	Anna Symmes	N. J.	1775	1795	1864	6	4
Tyler	Letitia Christian	Va.	1790	1813	1842	3	4
	Julia Gardiner	N. Y.	1820	1844	1889	5	2
Polk	Sarah Childress	Tenn.	1803	1824	1891	.....	.....
Taylor	Margaret Smith	Md.	1788	1810	1852	1	5
Fillmore	Abigail Powers	N. Y.	1798	1826	1853	1	1
	Caroline (Carmichael) McIntosh	N. J.	1813	1858	1881	.....	.....
Pierce	Jane Means Appleton	N. H.	1806	1834	1863	3	.....
Buchanan	(Unmarried)	.....	.....	.....	.....	.....	.....
Lincoln	Mary Todd	Ky.	1818	1842	1882	4	.....
Johnson	Eliza McCardle	Tenn.	1810	1827	1876	3	2
Grant	Julia Dent	Mo.	1826	1848	1902	3	1
Hayes	Lucy Ware Webb	Ohio.	1831	1852	1889	7	1
Garfield	Lucretia Rudolph	Ohio.	1833	1858	1918	4	1
Arthur	Ellen Lewis Herndon	Va.	1837	1859	1880	2	1
Cleveland	Frances Folsom	N. Y.	1864	1886	.....	2	3
B. Harrison	Caroline Lavinia Scott	Ohio.	1832	1853	1892	1	1
	Mary Scott (Lord) Dimmick	Ohio.	1858	1896	.....	.....	1
McKinley	Ida Saxton	Ohio.	1844	1871	1907	.....	2
Roosevelt	Alice Hathaway Lee	Mass.	.....	1883	1884	.....	1
	Edith Kermit Carow	N. Y.	1861	1886	.....	4	1
Taft	Helen Herron	Ohio.	1861	1886	.....	2	1
Wilson	Ellen Louise Axson	Ga.	1860	1885	1914	.....	3
	Edith (Bolling) Galt	Va.	1872	1915	.....	.....	.....
Harding	Florence Kling	Ohio.	1860	1891	1924	.....	.....
Coolidge	Grace Anna Goodhue	Vt.	1879	1905	.....	2	.....
Hoover	Lou Henry	Iowa.	1875	1899	.....	2	.....

BIOGRAPHIES OF THE PRESIDENTS AND THEIR WIVES.

The following brief biographical notes of the Presidents and their wives are supplemental to the convenient tables which precede them and of which they form a part.

George Washington, Federalist, born on a Friday, was the great-grandson of Col. John Washington (1634-1677), who came from Yorkshire, England, and settled in 1657, or 1658, on a large tract he bought in Westmoreland County, Virginia, bordering the west shore of the Potomac River near its mouth. It is not known positively whether Col. John Washington's brother, Lawrence, and his sister, Martha, came over with him, or later. His brother Lawrence had married, in England, Mary Jones, daughter of a lawyer at Luton, in Bedfordshire.

The Washingtons had been aristocrats in England, adherents of the royal house of the Stuarts, and when Charles I was unseated by Cromwell, the Washingtons emigrated to the United States.

Col. John Washington, the pioneer settler, led troops against the Susquehannock Indians. He had a son, Lawrence Washington (baptized at Tring, England, June 18, 1635), whose second son was Augustine Washington, born in 1694. Augustine was twice married. By his first wife, Jane Butler, who died Nov. 24, 1729, he had four children. His second wife, Mary Ball, whom he married March 6, 1731, bore, as her first child, George Washington, born, as was his father, at Wakefield, on the Potomac, fifty miles below Mount Vernon. The Washingtons by that time owned much of the land in the fertile peninsula between the Potomac and Rappahannock Rivers.

It has been the opinion of some historians that the Washingtons settled first in the Barbados, after leaving England, and came from the Barbados to Virginia.

George's parents moved about 1735 to Mount Vernon, then called Hunting Creek. The mansion was burned in 1739, and the present one erected on the site. Augustine died April 12, 1743. There George Washington studied mathematics and became a surveyor in the employ of William Fairfax, father of Lawrence's wife and manager of the great Virginia estate of his cousin, Lord Fairfax. George accompanied Lawrence to Barbados, West Indies and got smallpox. After his return, he entered the military service of Virginia. He later served under Gen. Braddock in the war between the English and the French.

Washington took command of the Continental Army, at Cambridge, Mass., July 3, 1775, under a commission issued by Congress on June 17, that year; after winning the Revolutionary War, he took leave of the officers of his force, Dec. 4, 1783, at Fraunces's Tavern, New York City, and formally resigned to Congress, Dec. 20, that year, at Annapolis, Md., his commission as General and Commander in Chief.

He was President of the Convention that drafted the Constitution in 1787.

The estate at Mt. Vernon, which George Washington inherited from his half-brother Lawrence, had been named by Lawrence in honor of the British Admiral, Lord Vernon, under whom Lawrence had served at the siege of Carthagena.

Congress, on July 3, 1798, when war with France was imminent, again commissioned Washington as Lieutenant General and Commander in Chief, but hostilities were averted.

Washington's death was due to exposure on Dec. 12, 1799, in a storm while riding over his estate with his managers. He went to bed with a sore throat, followed by an ague. He had signed his will on July 9, 1799. The end came about 10.20 P. M., Saturday, Dec. 14, 1799. A vault was made for Washington's body under the dome of the Capitol at Washington, but the remains were interred at Mt. Vernon.

He was one of the wealthiest men in the country, owning 70,000 acres of land in Virginia and 40,000 acres in the near-west, which latter Congress gave him for his military service. His estate, at death, was valued at $5,300,000.

Washington was a slave owner, and a distiller, as well as a farmer. He was a man of powerful physique, 6 feet, 2 inches, in height, with sandy hair, blue eyes, big hands and feet. He weighed 210 pounds when 40 years of age. He was not a prohibitionist, and was a horseback rider, hunter and fisherman.

The Washington family in America were Episcopalians, and George Washington attended those services, at Alexandria, Va., and at New York City, where he had a family pew in St. Paul's Chapel, Broadway and Vesey St.

Washington's first inauguration was at New York, April 30, 1789; his second, at Philadelphia.

A granite monument, bearing the inscription "George Washington's Birthplace," marks, since 1896, almost the site of the house where Washington was born.

The farm extends to the west bank of the Potomac River, below the little settlement of Oak Grove, about 97 miles from the City of Washington by automobile and perhaps 75 miles by boat.

The Douglass House, at Trenton, N. J., in which Gen. Washington conferred with his staff on the night of Jan. 2, 1777, has become the property of that state as a historic place. The building has been completely restored. The conference held in the Douglass house by General Washington and his fellow-officers resulted in flanking the British army on the opposite side of Assunpink Creek in Trenton and the subsequent taking of Princeton by the Colonial troops.

Mrs. Washington was a daughter of Col. John Dandridge, planter, of New Kent County, Va., and widow of Daniel Parke Custis, also a rich farmer of that country. She was an Episcopalian.

Her marriage to Washington was on Jan. 6, 1759.

Gen. Washington had no children of his own. His wife, who was small and plump, with dark hair and hazel eyes, had become the mother of four children, Martha Parke Custis, and Col. John Parke Custis, and two who died in infancy.

Col. John Parke Custis (1753-1781), who inherited from his father an estate of 1,000 acres at Arlington, Va., near Washington, where now the National Cemetary is located, had four children—Eliza (1776-1832) who married Thomas Law; Martha, born in 1777, who became the wife of Thomas Peter; George Washington Parke Custis, who married Mary Lee Fitzhugh of Va., and whose daughter became the wife of Gen. Robert E. Lee, Confederate General; and Eleanor Parke Custis, who became the wife of Major Lawrence Lewis, son of Fielding Lewis, whose father, Fielding Lewis, 1725-1781, had married George Washington's sister, Elizabeth, and was a rich Virginia planter, owning half of the town of Fredericksburg, on the Rappahannock River.

At official receptions the visitors were seated while the President and wife passed among them.

John Adams, Federalist, who was born in the town of Quincy, Mass., and died there, was a great-grandson of Henry Adams, who came with his eight sons from Barton St. David, Somersetshire, England, in 1636, and settled on a grant of 40 acres. John was the eldest son of John Adams, farmer, and of Susanna Boylston, daughter of Peter Boylston, of Brookline, Mass. He graduated at Harvard in 1755; taught school at Worcester; practiced law at Boston; served in the State Legislature, in the Revolutionary Provincial Congress of Massachusetts and in the Continental Congress; he was a signer of the Declaration of Independence; Commissioner to France, 1778, with Benjamin Franklin and Arthur Lee, Minister to Holland; helped negotiate treaties in Europe; Minister to England 1785-1788; elected Vice President in 1788, and again in 1792; chosen President in 1796. He was inaugurated at Philadelphia.

He was the first President to live in the White House, at Washington.

Enraged at his failure of re-election in 1800 he started in his coach for Massachusetts early on March 4, 1801, refusing to attend the inauguration of Thomas Jefferson.

John Adams was a Unitarian and was a cousin of Samuel Adams of Massachusetts, who also was a signer of the Declaration. He was an orator and a pamphleteer; a man of medium height, active, florid, and corpulent. He died of debility, due to old age, on the same day as Jefferson.

The papers of John Adams and John Quincy Adams are in the possession of the family and in the custody of the Massachusetts Historical Society. These papers are being printed largely under the editorship of Worthington C. Ford. The Library of Congress has many letters of both Presidents.

Mrs. Adams was a daughter of the Rev. William Smith, a Congregational minister of Weymouth, Mass. Her mother, Elizabeth Quincy, was a great-great-granddaughter of the Puritan divine, Thomas Shepard of Cambridge, Mass., and great-grand-niece of the Rev. John Morton of Boston. Mrs. Adams's older sister, Mary, was the wife of Judge Richard Cranch of Boston.

Adams's oldest son, John Quincy Adams, became sixth President in 1825. A daughter, Abigail, married Col. William S. Smith.

Thomas Jefferson was of Welsh descent and was a Republican, that is, an anti-Federalist, and is called the founder of what is now known as the Democratic Party. He was born at Shadwell, in Albemarle County, Va., the third of ten children. His mother was a daughter of Isham Randolph, a rich Virginian. His father, Peter Jefferson, with the aid of thirty slaves, tilled a 1,900-acre tobacco and wheat plantation. The President died of old age and chronic diarrhea, in Albemarle County, at Monticello, which he had built from his own design and which creditors would have taken but for the financial aid of friends.

Jefferson was a lawyer. He was a writer, not an orator. He served in the Virginia House of

Burgesses with Washington, and in the Continental Congress; helped draft and signed the Declaration of Independence; succeeded Patrick Henry, in 1779, as Governor of Virginia; served in the Virginia militia in the Revolution; negotiated, in Europe, treaties with various countries; Secretary of State under Washington; elected Vice President under John Adams; elected President in 1800, with Aaron Burr, his rival for the Presidency, as Vice President; re-elected in 1804.

Jefferson was tall, raw-boned, freckled and sandy. He played the violin, and was a voluminous writer. He had no religious affiliations.

Jefferson was the first of the Presidents inaugurated at Washington.

Mrs. Jefferson, who was tall, slim, vivacious, with brown eyes, was a daughter of John Wayles, a wealthy lawyer of Charles City County, Va. Her first husband was Bathwest Skelton, who died before she was twenty years old.

Two of the children of the Jeffersons died in infancy. Of those who grew up, Martha, 1772-1836, became, in 1789, the wife of her cousin, Thomas M. Randolph, afterward Governor of Virginia, left a large family of sons and daughters and was the companion of her father in his declining years; Mary, 1778-1804, married her cousin, John Wayles Eppes, and had two children, one of whom, Mrs. S. R. Meikleham, died at Washington in 1897. Mrs. Jefferson's daughters were educated at Roman Catholic convent schools.

Mrs. Jefferson died nineteen years before her husband became President, and Mrs. Madison for a time acted as mistress of the White House. Later he abolished levees.

Jefferson inherited through his wife from her father 40,000 acres of land and 135 slaves.

James Madison, Republican, was born at Port Conway, King George County, Va., and died of old age at Montpelier, Orange County, Va. He was a son of James Madison, descendant of John Madison, of England, who in 1653 took out a patent for land on Chesapeake Bay between the York and North Rivers. James Madison's paternal grandmother, Frances Taylor, of Orange County, had four brothers, one of whom was grandfather of President Zachary Taylor. Madison's mother was Nelly Conway, and he was the first of twelve children.

Madison graduated at Princeton; helped draft the Virginia State Constitution, and was a member of the first State Legislature; a delegate to the Continental Congress; again a member of the Virginia Legislature; once more a delegate to the Continental Congress; served in the Federal Convention and helped draw up and signed the Federal Constitution; drew up the Virginia Resolution against the alien and sedition laws; Secretary of State under Jefferson; President for two terms.

Madison was small in stature, neat in attire, quiet, polite, and scholarly. He spent the latter part of his life on his estate at Montpelier. There he was buried. He was an Episcopalian.

Mrs. Madison, who was raised as a Quaker, was a daughter of John Payne of North Carolina. Her mother, Mary Coles, was a cousin of Patrick Henry. Her grandfather, John Payne, an English gentleman, settled in Virginia early in the eighteenth century. Her first husband, whom she married when nineteen, was John Todd, a Pennsylvania lawyer and Quaker, who died in 1793 at Philadelphia in a yellow fever epidemic. He left her one son, Payne Todd.

Madison married Mrs. Dorothy, or Dolly, Payne Todd at Harewood, Jefferson County, Va., the home of her younger sister, Mrs. Phillip Steptoe Washington. Mrs. Madison and her husband fled from Washington to Virginia by night in 1814, when British troops set fire to the Capitol and other buildings.

The first marriage in the White House was on March 11, 1811, and united Justice Thomas Todd, of the United States Supreme Court, and Lucy Payne Washington, widow of Phillip Steptoe Washington (nephew of George Washington) and sister of Dorothy or Dolly Payne, who married John Todd, and, after his death, became the wife of President Madison.

The second marriage in the White House occurred in 1812, and united Anna Todd, a cousin of the Payne sisters, and Edward Brake Jackson, of Virginia, afterwards a member of Congress.

James Monroe, Republican, was born on a Friday in Westmoreland County, Va., and died of old age at New York City. His ancestry was Scotch. The first Monroe in Virginia settled there prior to 1650. James was a son of Spence Monroe and Eliza Jones, sister of Judge Joseph Jones, a Virginia delegate to the Continental Congress. He attended William and Mary College, but soon, with teachers and students, left and joined the Revolutionary Army under Gen. Washington and was wounded in action.

He served in the Virginia Legislature and in the Continental Congress; helped draw up the Federal Constitution; served as United States Senator; Envoy to France, 1794; Governor of Virginia twice; Plenipotentiary to France, and in 1803 took part in the Louisiana Purchase; Minister to England; Secretary of State under Madison, and in 1814-15 also Secretary of War; President for two terms. As President in 1823 he formulated the "Monroe Doctrine," which declares against European aggrandizement in the three Americas.

He died of old age. His body was buried in the Marble Cemetery, Second Street, New York City, but in 1858 was interred in Hollywood Cemetery, Richmond, Va.

Except when in New York City, Monroe lived on his estate at Oak Hill, Loudon County, Va. He was a lawyer but seldom had practiced. He was an Episcopalian.

Mrs. Monroe, Eliza or Elizabeth, was born at New York City and was a daughter of former Capt. Lawrence Kortright of the British Army. While in France Mr. Monroe, then being the American Minister, secured the release from the prison, La Force, of Mme. de Lafayette, who hourly expected to be executed. One of Mrs. Monroe's sisters was the wife of M. Heyliger, Grand Chamberlain to the King of Denmark; another sister married Nicholas Gouverneur of New York City.

One of the daughters of the Monroes married Judge George Hay of Richmond, Va.; the younger, Maria, became in 1820 the wife of a cousin, Samuel L. Gouverneur of New York City. The marriage took place at the White House. She died in 1850. Mrs. Hay died at Paris and was buried there in Pere la Chaise.

John Quincy Adams, a son of President John Adams, and likewise a Unitarian, was born at Quincy, Mass., and died following a stroke of paralysis while in Congress at Washington. His mother's grandfather was John Quincy.

J. Q. Adams was educated in Europe, graduated at Harvard, and practiced law; was Minister to Holland, and to Portugal, under Washington; in his father's Administration was Minister to Prussia; served in the Massachusetts Senate; in 1803 entered the United States Senate, where he quit the Federalist Party and became a Republican and later a Whig.

Resigning from the Senate, he taught rhetoric at Harvard; Minister to Russia under Madison; took part in the peace treaty at Ghent; Minister to England; Secretary of State under Monroe and negotiated the Florida Purchase, and took part in formulating the Monroe Doctrine; chosen President by the House of Representatives, though Gen. Jackson had got the highest number of electoral votes at the election—Jackson, 99; Adams, 84; Crawford, 41; Clay, 37.

Soon after his Presidential term ended he was elected to the House of Representatives from Massachusetts and fought the slave power aggressively. He was a skilful and fiery debater, insensible to fear. He was buried at Quincy, Mass.

Mrs. John Quincy Adams was born at London and was a niece of Thomas Johnson of Maryland. Her father had lived abroad for years and by direction of Congress acted as American fiscal agent in France and later in England. Miss Johnson became the wife of Adams at London and was his companion during his long diplomatic career in Europe.

Their children were: George Washington Adams, born at Berlin in 1801; John Q. Adams jr., born at Boston, July 4, 1803; Charles Francis Adams, born at Boston in 1807; and Louisa Catherine Adams, born at St. Petersburg in 1811 and died there in 1812. Their son, C. F. Adams, lawyer, served in the Massachusetts Legislature; was Free Soil candidate for Vice-President in 1848; served in Congress; was Minister to England during the Civil War; was President of the Geneva Board of Arbitration. His four sons were all prominent.

Cake and wine were passed to guests at White House receptions in Adams's time.

J. Q. Adams jr. married his cousin, Miss Mary Hellen, in 1826, at the White House.

Andrew Jackson, Democrat, was born in the Waxhaw settlement on or close to the North Carolina-Tennessee border.

According to John T. Moore, Tennessee State Historian, Jackson was born in the George McKemey (spelled also McCamie, and McKamie) log cabin, which cabin is now situated about 407 yards on the North Carolina side of the North Carolina-Tennessee State line, and about 10 or 12 miles from the town of Monroe, N. C. He died of tuberculosis at his home, the Hermitage, near Nashville, Tenn. He was a son of Andrew Jackson, who came over from North Ireland in 1765, and his mother was Elizabeth Hutchinson, also from Ireland. He studied law at Salisbury, N. C., practiced at Nashville; he helped draw, in 1796, the Constitution of Tennessee; served in Congress, and in the U. S.

Senate; resigned in 1798 to become a Tennessee Supreme Court Judge; fought several duels, in one of which he killed Charles Dickinson and was himself severely wounded.

In 1812 Jackson, "Old Hickory," headed 2,000 troops against the British; in 1813 he defeated the Creek Indians on the Tallapoosa River; in 1814 he became a Major General in the army, and he defeated the British at Mobile, at Pensacola, and at New Orleans; he seized Florida temporarily from the Spanish, and quelled Negro and Indian disorders there. In 1821, after the purchase of Florida, he was appointed Governor; in 1823 he entered the U. S. Senate. In 1824 he got more electoral votes for President than J. Q. Adams, but election was thrown into the House of Representatives, where Adams was elected President by the vote of 13 States, 7 voting for Jackson and 4 for Crawford. In 1828 Jackson was elected President, and re-elected in 1832.

He was shot at, in the Capitol at Washington, Jan. 29, 1835, by Richard Lawrence, a house painter. The weapon missed fire. He was a Presbyterian.

Mrs. Jackson, born in North Carolina, was the daughter of Col. John Donelson, a surveyor who, in 1779, sold his ironworks in Pittsylvania County, Va., and, after a 2,000-mile journey by rivers, settled near Nashville, Tenn. His daughter was the best horsewoman and dancer in that part of the country. Her first husband, Capt. Lewis Robards, divorced her, after accusing Jackson, who married her, first, at Natchez in 1791, before the divorce actually was granted, and again in 1794, after the decree.

Mrs. Jackson died before her husband went into the White House. She had no children, but Gen. Jackson adopted one of her sister's children, a boy who was named Andrew Jackson jr. and who inherited the General's large estate.

The mistress of the White House in the Jackson Administration was his wife's sister, Emily, a slender brunette, who had married her cousin, Major A. J. Donelson. The latter served as private secretary to President Jackson. Emily's four children were born at the White House. She was assisted as mistress by Mrs. Sarah Yorke Jackson of Philadelphia, wife of the President's adopted son.

Gen. Jackson passed cheese to guests at White House levees.

There were two White House weddings in Jackson's Administration, that of M. Pageot of Martinique, later French Minister to the U. S., and Miss Lewis, daughter of Major Lewis of Nashville; and that of a niece of Jackson and Mr. Polk of Tennessee.

Martin Van Buren, Democrat, was born at Kinderhook, N. Y., and died there of asthma. He was the son of Abraham Van Buren and Mary Hoes (originally spelled Goes), widow of a man named Van Alen. James J. Van Alen was his half-brother. The whole family was of Dutch origin.

Van Buren practiced law; was Surrogate of Columbia County; a State Senator; Attorney General of the State; re-entered the State Senate; became U. S. Senator in 1821, and resigned to become Governor of New York; was Secretary of State under President Jackson; resigned in 1831 to be Minister to England but was not confirmed; was elected Vice President in 1832; in 1836 was elected President; was Free Soil candidate for President in 1848, but was defeated.

He was a member of the Dutch Reformed Church.

Mrs. Van Buren, like her husband, was of Dutch descent and was a blood relative of his mother, Mary Hoes, and was his classmate at the public school at Kinderhook, N. Y.

Of the Van Buren children, Abraham, 1807-1873, was a West Point graduate, an army officer on the western frontier, secretary to his father as President, an army officer in the Mexican War, and in his later years a man of leisure at New York City. Another son "Prince" John, 1810-1866, a lawyer, was elected Attorney General of New York State in 1845. He died at sea.

Abraham's wife, Angelica Singleton, born in South Carolina in 1820, daughter of a planter, was a cousin of William C. Preston and of President Madison's wife. She was mistress of the White House during most of Van Buren's term. Mrs. Van Buren was a member of the Dutch Reformed Church.

W. H. Harrison, a Whig, of English descent, was born at Berkeley, Charles City County, Va., and died of pneumonia at Washington. He was the third son of Benjamin Harrison, a signer of the Declaration of Independence. He graduated at Hampden Sidney College and studied medicine. Against the advice of his guardian, Robert Morris, he joined the army and went west and fought the Indians.

Harrison was Secretary of the Northwest Territory; a delegate in Congress; Governor of the Indian Territory; defeated the Indians at Tippecanoe, on the Wabash River; in 1812 took command of all United States troops in the northwest; in 1813 defeated the British in Canada. In 1816 he entered Congress; in 1819 he was in the Ohio Senate; in 1824 he entered the United States Senate, resigning to be Minister to Colombia; in 1836 he was defeated for President; in 1840 he was elected, and a month after his inauguration he died of pneumonia.

Harrison was an Episcopalian.

Mrs. Harrison was a daughter of Col. John Cleves Symmes, a delegate to the Continental Congress, a soldier in the Revolutionary Army, and Chief Justice of the New Jersey Supreme Court. She was born in Morristown, N. J.

Of President Harrison's sons, the third, John Scott Harrison of Indiana, 1804-1878, was a Whig in Congress and was the father of Benjamin Harrison, the twenty-third President. His daughter, Lucy, 1798-1826, born at Richmond, Va., became the wife of D. K. Este, a lawyer and judge of Cincinnati.

Gen. Harrison died a month after his inauguration. His wife, who at that time was an invalid, did not go to the White House with him, but remained at her home, North Bend, O. Mrs. Harrison was brought up a Methodist. She outlived her husband a quarter of a century. The mistress of the Executive Mansion during Gen. Harrison's occupancy was Mrs. Jane Findlay Irwin Harrison, wife of the President's second son, Col. W. H. Harrison jr. Her sister, Elizabeth Irwin, was the wife of John Scott Harrison.

John Tyler, a Democrat, second son of Judge John Tyler and Mary Armistead, both of English ancestry, was born at Greenway, Charles City County, Va., and died Jan. 17, 1862, of liver trouble at Richmond, Va. He graduated at William and Mary College; practiced law; served in the Virginia Legislature; fought in 1813 in the defense of Richmond against the British; re-elected to the Legislature; entered the House of Representatives in 1816, retiring in 1821 because of his health; entered the Legislature; became rector and chancellor of William and Mary College; in 1825 was elected Governor of Virginia, and was re-elected; in 1826 was elected to the U. S. Senate; was defeated, in 1836, for Vice President on the State-Rights Whig ticket; resigned from the Senate after refusing to obey a resolution of the Virginia Legislature demanding he vote for the Benton resolution; in 1838 re-entered the Virginia Legislature; in 1840 was chosen Vice President, and became President on Gen. Harrison's death.

In 1861 Tyler was a delegate from Virginia to the Peace Convention of 13 northern and 7 border States, at Washington, called after the secession of South Carolina, to adopt a place for settling the controversy between the North and the South. He was President of the gathering. The U. S. Senate rejected the convention's proposals. Tyler was elected by Virginia to the Confederate Congress, but died before it assembled.

Tyler was an Episcopalian, tall, thin, clean-shaven, with a Roman nose and a high receding forehead. His eyes were blue, his voice shrill. He was playing "knuckles" with his children at Williamsburg, Va., when notified, by a messenger who had come from Washington by sail boat, of President Harrison's sudden death, and he had to borrow money to get to the national capital. He was a violin player.

The first **Mrs. Tyler** was Letitia, a daughter of Robert Christian, a planter of New Kent County, Va. She was delicate and died in the White House. She was an Episcopalian.

Of her children, Robert Tyler, 1818-1877, lawyer editor, poet, married Priscilla, a daughter of T. A. Cooper, the tragedian, and she and her daughter, Mrs. Letitia Semple, were the mistresses of the White House. The latter was the wife of the nephew and adopted son of Judge Semple of Williamsburg, Va. One daughter, Elizabeth, married, at the White House, William Waller of Williamsburg, Va.; another, Alice, married the Rev. H. M. Denison of Wyoming, Pa.

The second **Mrs. Tyler** was Julia Gardiner, daughter of David Gardiner, whom he married on June 26, 1844, at New York City, was born on Gardiner's Island, near Easthampton, N. Y., and was a member of the family that held manorial rights on that island. Of her children, Lyon Gardiner Tyler, lawyer, legislator, became, in 1888, President of William and Mary College, Williamsburg, Va. Another son of President Tyler, State Judge David Gardiner Tyler, a Confederate veteran and a former member of Congress and a classmate of General Robert E. Lee, died aged 81. Sept. 5, 1927, at the ancestral homestead, Sherwood Forest, in Charles City County, Virginia. Her youngest son, Robert Fitzwalter Tyler, died, aged 70, at Richmond, Va., Dec. 30, 1927.

Mrs. Tyler was a Roman Catholic. Her father was killed by a cannon explosion on a warship on

the Potomac, and his body and that of other victims—the whole party having been the President's guests on a pleasure cruise—were removed to the White House. There Miss Gardiner met the President and aroused his affection.

James K. Polk, a Democrat, was born in Mecklenburg County, N. C., and died of diarrhea at Nashville, Tenn. The name originally was Pollock, and the family came from Ireland. His father was Samuel Polk, a farmer and surveyor, and his mother, Jane Knox, of Iredell County, N. C.

He graduated at the University of North Carolina; practiced law; served in the Legislature and in Congress; was elected Governor of Tennessee in 1839. He was called the "Napoleon of the Stump." He was, 1835-1839, Speaker of the U. S. House of Representatives; chosen President in 1844. He was a Presbyterian, wore his hair long, and was democratic and affable.

Mrs. Polk was a daughter of Joel Childress, a wealthy planter near Murfreesboro, Tenn. She was educated in a Moravian school. She abolished drink and dancing from White House receptions. She was a handsome woman of the Spanish type. Having no children, Mrs. Polk, after her husband's death, adopted a niece.

The Missouri Legislature has appropriated $15,000 for a statue to David R. Atchison, U. S. Senator from that state, 1843-1855, and who, it is claimed in Missouri, was actually President from midnight, Mar. 3, when Polk's term expired, to noon of Mar. 5, 1849, when Zachary Taylor was sworn in and inaugurated. Atchison, it is asserted, served as President because there was no Vice President and he, Atchison, was President pro tem of the Senate. Atchison never took the oath as President.

Zachary Taylor, a Whig, fifth in descent from an English immigrant of 1658, was born in Orange County, Va., and died of indigestion at the White House. His father, Col. Richard Taylor, was an American officer in the Revolution.

Zachary Taylor at 23 entered the army, fought the Indians along the Wabash and in Florida, in the Black Hawk and Seminole Wars; he defeated the Mexicans at the Rio Grande border of Texas, and, with Gen. Winfield Scott, was a hero of the Mexican War; was elected President in 1848. He was a cotton planter and had a large landed estate in Louisiana. He was buried at Springfield, near Louisville, Ky. He was an Episcopalian.

Mrs. Taylor was a daughter of Walter Smith, a planter of Calvert County, Md. Her younger daughter, Elizabeth ("Betty") Taylor, wife of Major W. W. S. Bliss, was mistress of the White House. "Betty," when a widow, married P. P. Sandridge of Winchester, Pa.

The Taylors' older daughter, Ann, became the wife of Dr. Robert Wood. Assistant Surgeon General of the army. Another, Sarah Knox Taylor, became the wife of Jefferson Davis.

Taylor's son, Richard, 1826-1879, born in Kentucky, served in the Confederate Army under "Stonewall" Jackson, and rose to be a Lieutenant General. He died at New York city.

Millard Fillmore, a Whig, was of English descent, the first of the name in the United States having been John, a mariner, of Ipswich, Mass. Millard's father, Nathaniel, was a pioneer log-cabin settler in Cayuga County, N. Y. Millard served apprenticeship as a wool carder, and then became a lawyer, at Buffalo. He served in the Legislature and in Congress, was State Comptroller, and in 1848 was elected Vice President and succeeded to the Presidency on Gen. Taylor's death, July 9, 1850.

The letters *to* President Fillmore were found in 1914 in an attic of his lawyer's in Buffalo. These papers are now in the Buffalo Historical Society; there are seventy volumes, and a list of the letters in these volumes is now being prepared for the Library of Congress with the view to photostat such of the letters as have historical importance. A collection of letters *from* Fillmore has been published under the auspices of the Buffalo Historical Society. Ex-President Fillmore passed his last years at Buffalo, dying there of old age, and was buried in Forest Lawn Cemetery, Buffalo. He was a Unitarian.

The first **Mrs. Fillmore** was the daughter of a Baptist clergyman, the Rev. Lemuel Powers of Stillwater, Saratoga County, N. Y. She taught school in Cayuga County, N. Y., in a backwoods district, and continued to teach after Fillmore married her. Owing to Mrs. Fillmore's health, her daughter, Miss Mary Abigail, was the White House mistress.

The second **Mrs. Fillmore,** whom he married at Albany, N. Y., at the Schuyler mansion, was Caroline Carmichael, a daughter of Charles Carmichael and Temperance Blachley of Morristown, N. J., and widow of Ezekiel C. McIntosh, a prominent merchant of Albany.

Franklin Pierce, a Democrat, born on Friday, inaugurated on Friday, died on Friday, first saw the light at Hillsborough, N. H., and died of stomach trouble at Concord, N. H. He was a son of Benjamin Pierce, farmer and officer in the Revolutionary Army. He graduated at Bowdoin College in 1824; practiced law; served in the New Hampshire Legislature, in the United States House of Representatives, and in the U. S. Senate, resigning in 1842 to resume his profession; was an officer, in 1847, in the war in Mexico; was elected President in 1852. After his term he made a tour of Europe.

Pierce was handsome, graceful, well-dressed; and was a notable orator. He was an Episcopalian. He left an estate valued at $72,000.

Mrs. Pierce was born at Hampton, N. H., was a daughter of the Rev. Jesse Appleton, President of Bowdoin College. Of the children of the Pierces, two sons died in early youth and the youngest, Benjamin, thirteen years old, was killed, Jan. 6, 1853, in a railroad accident near Lawrence, Mass., in the presence of his parents. This was two months before Mr. Pierce's inauguration.

James Buchanan, a Federalist, later a Democrat, of Scotch descent, was born near Mercersburg, Pa., and died of rheumatic gout, at Lancaster, Pa. He served as a volunteer in the defense of Baltimore, in the War of 1812; graduated at Dickinson College; practiced law; served in the Pennsylvania Legislature; was elected in 1820 to the House of Representatives, from which he resigned in 1831, when President Jackson appointed him Minister to Russia; was elected in 1824 to the U. S. Senate, where he stayed till 1845, when he became Secretary of State under President Polk. In 1849 he retired to Wheatland, his 22-acre estate near Lancaster; in 1853 was Minister to England; in 1856 he was elected President. He was a Presbyterian.

The Buchanan papers are mainly with the Pennsylvania Historical Society, but the Library of Congress has important sections, such as his letters to Harriet Lane Johnston.

President Buchanan was a bachelor. The mistress of the White House in his Administration was his sister Jane's daughter, Harriet Lane, whose father, Elliott T. Lane, came from an old Virginia family and had grown wealthy as a transcontinental trader. He lived at Mercersburg, Pa.

Miss Lane, tall and blonde with violet eyes, had been educated at a Roman Catholic school at Georgetown; later in life she became an Episcopalian. Her mother died when she was seven, her father when she was nine. Thereafter she made her home with her uncle. She was with him in his diplomatic career abroad.

The Prince of Wales (later King Edward) was a guest at the White House in the Buchanan Administration.

In January, 1866, Miss Lane married Henry Elliott Johnston of Baltimore. Her son, James Buchanan Johnston, died in 1881.

Abraham Lincoln, a Whig, later a Republican, 6 ft. 4 in. in height, was born in Hardin County, Ky., and was a descendant of Samuel Lincoln, who came over from Hingham, near Norwich, England, in 1637, and settled at Hingham, Mass. The Lincolns in successive generations lived in New Jersey, Pennsylvania, Virginia and Kentucky. Abraham's father, Thomas (grandson of John Lincoln of Rockingham, Va., and great-grandson of Mordecai Lincoln of Chester County, Penn.) was a carpenter, his mother, Nancy Hanks, was the niece of a carpenter. Abraham had a sister and a brother. The sister married but had no children. The brother died in infancy. In 1816 Abraham's parents moved across the Ohio River into Indiana, where his mother died in 1818. His father then married a widow, Sarah Bush Johnston. In 1830 the family moved to Macon County, Ill.

Abraham cleared the forest and helped build their cabin home; with Denton Offutt he carried farm produce by water to New Orleans and sold it; he kept a general store at New Salem, Ill., he served as an officer of volunteers in the Black Hawk Indian War; was Postmaster at New Salem; he served in the Illinois Legislature 1834-1840; practiced law at Springfield, Ill.; in 1846 was elected to House of Representatives and served one term; in 1858 debated slavery with Stephen A. Douglas in the latter's successful campaign for re-election to the U. S. Senate; in 1860 was elected President; re-elected in 1864; was shot Friday, April 14, 1865, at Ford's Theatre, Washington, by John Wilkes Booth, an actor, and died the next day. The assassin was shot to death April 26, by Sergt. Boston Corbett, U. S. Army, near Fredericksburg, Va. Lincoln was buried at Springfield, Ill.

Lincoln's estate, as administered by U. S. Supreme Court Justice David Davis, amounted to $110,295, mostly saved from his salary of $25,000 a year and invested in Government securities. The property

was equally divided among the widow and the two sons, Robert T., and Thomas ("Tad").

There were coincidences in the lives of Abraham Lincoln and Jefferson Davis. Both were born in Kentucky; Lincoln in 1809, Davis in 1808. Both removed from their native State in childhood, Lincoln to the Northwest, Davis to the Southwest. Lincoln was a Captain of Volunteers and Davis a Second Lieutenant of Regulars in the Black Hawk War of 1832. They began their political careers the same year, 1844, Lincoln being a Presidential Elector for Clay, and Davis for Polk. They were elected to Congress about the same time, 1845 and 1846. They were called to preside over their respective Governments the same year and within a few days, Davis, Feb.8,1861; Lincoln, March 4,1861.

Mrs. Lincoln was born at Lexington, Ky., was a daughter of Robert S. Todd, a pioneer settler, and a sister of the son of Gov. Ninian Edwards of Illinois.

Of the Lincoln children, William Wallace died in 1862, and Thomas ("Tad") in 1871. Another son, Robert Todd Lincoln, born at Springfield, Aug. 1, 1843, studied law at Harvard, served in the Civil War, was Secretary of War in the Garfield Cabinet, then Minister to Great Britain, and later counsel to and President of the Pullman Palace Car Co.

Robert T. Lincoln was found dead in bed, July 26, 1926, at his home, Manchester, Vt.

He had turned over to the U. S. Government more than 10,000 letters to and from Abraham Lincoln, also drafts of state papers, pamphlets, and newspaper clippings—all to be kept sealed at the Library of Congress until twenty-one years after the donor's death.

It is said of Mrs. Lincoln that she had from girlhood the ambition to be a President's wife. She refused an offer of marriage from Senator Stephen A. Douglas. As mistress of the White House there was little opportunity for formal receptions or for indulgence in her fondness of society, owing to the Civil War. The Executive Mansion was almost constantly the scene of war councils.

Andrew Johnson, a Democrat, whose father perished in rescuing a man from drowning, was born at Raleigh, N. C., and died of paralysis near Carter's Station, Tenn., and was buried at Greenville, Tenn. He was apprenticed, at 10 years, to a tailor and worked as a journeyman tailor. He married Eliza McCardle, who taught him to write; was elected an Alderman and in 1830 Mayor of Greenville, Tenn.; in 1835 entered the Legislature; in 1843 was elected to the House of Representatives as an anti-U. S. Bank Democrat, and served till 1853, when he was elected Governor of Tennessee; in 1857 he was elected to the U. S. Senate, where he was a Union man; was appointed by President Lincoln in 1862 Military Governor of Tennessee; in 1864 was elected Vice President when Lincoln was re-elected; was impeached by the House of Representatives for having removed without the Senate's consent E. M. Stanton, Secretary of War, and on other charges. Johnson was tried by the U. S. Senate, which voted 35 for conviction, 19 for acquittal; but as two-thirds vote was necessary for conviction the impeachment failed.

In 1875 he was again elected to the U. S. Senate from Tennessee. Johnson, bitter at his failure of renomination, refused to ride with Gen. Grant to the latter's inauguration and remained at the White House. He was a stocky man of medium height.

Mrs. Johnson, born at Leesburg, Tenn., died at Home, Tenn., was the only daughter of a widow in a mountain hamlet when Johnson married her.

Their daughter, Martha, born in 1828, was educated at Georgetown, D. C., was often a guest at the White House in Polk's Administration. In 1857 she married Judge D. T. Patterson and was mistress of the White House in place of her invalid mother. Another daughter, Mary, 1832-1883, was the wife, first of Daniel Stover of Carter County, Tenn., and, after his death, of W. R. Bacon of Greeneville, Tenn. By Stover she had three children.

Ulysses S. Grant, of Scotch descent, the pioneer in America being Matthew Grant, who settled in 1630 at Dorchester, Mass., was born at Point Pleasant, O., and died of cancer on Mt. McGregor, near Saratoga, N. Y. Grant's Tomb overlooks the Hudson at New York City.

He was the oldest of the six children of Jesse R. Grant, a tanner, and Hannah Simpson, and was baptized as Hiram Ulysses Grant. He worked as a boy on his father's farm; graduated in 1843 at the U. S. Military Academy; served as an officer under Gen. Zachary Taylor, 1845-48 in the war with Mexico; resigned in 1854, after service in the West, from the army, and was a farmer and real estate dealer at St. Louis; in 1860 clerked in his father's hardware and leather store at Galena, Ill.

At the outbreak of the Civil War he drilled volunteers, and was commissioned Colonel of the 21st Illinois Regiment by Gov. Yates. In 1862, after his capture of Ft. Donelson, he was made a Major General; captured Vicksburg July 4, 1863; won the battle of Chattanooga Nov. 24-25, 1863; in 1864 he was made Lieutenant-General; forced Lee's surrender at Appomattox, Va., April 9, 1865; in 1866 Congress commissioned him General of the Army.

Gen. Grant was elected President in 1868, by the Republican party. Early in life he was a Whig, but in 1856 he voted for Buchanan. In 1872 he was re-elected President on the Republican ticket; in 1877-1879 made a tour of the world and in 1880 visited the South, Cuba, and Mexico; in 1880 his Republican friends failed to renominate him for the Presidency, after 36 ballots; in 1884 he lost his fortune in the failure of Grant & Ward, New York, bankers, but recouped it by writing his memoirs. He was a Methodist.

Mrs. Grant was a daughter of Judge Frederick Dent of St. Louis, a son of a Revolutionary officer. The Grants had four children—Frederick Dent, Ulysses jr., Jesse and Nellie. The last named became the wife of Algernon Sartoris of London.

Gen. Frederick Dent Grant, West Point graduate and soldier, was Minister to Austria in the Benj. Harrison Administration, a New York City Police Commissioner, a general officer in the war with Spain.

Nellie Grant and Capt. Sartoris were married at the White House in 1874. Sartoris's mother was a sister of the actress Fannie Kemble. In 1912 Mrs. Sartoris, then a widow, became the wife of Frank H. Jones, a lawyer, who was First Assistant Postmaster General in Cleveland's Administration.

Rutherford B. Hayes, a Whig and then a Republican, was born, a posthumous child, on a Friday at Delaware, O., and died of heart disease at Fremont, O. His mother was Sophia Birchard, of Suffield, Conn. He graduated at Kenyon College, studied law at Harvard, and began to practice at Fremont; was City Solicitor of Cincinnati; served as a Union General in the Civil War; served in the House of Representatives, 1865-1867; was elected Governor of Ohio, in 1867 and was re-elected; defeated for Congress in 1872; re-elected Governor in 1875; in 1876 was the Republican candidate for President. The votes of Louisiana, South Carolina and Florida being in dispute, Congress appointed an Electoral Commission of 5 Senators, 5 Representatives and 5 Justices of the United States Supreme Court, who, by vote of 8 to 7, decided the votes of these States in favor of Gen. Hayes and he was seated.

He was a Methodist, and was a descendant of George Hayes, a Scotchman, who settled in 1680 at Windsor, Conn.

The Hayes papers are at Fremont, O.

Mrs. Hayes was a daughter of Dr. James Webb of Chillicothe, O., and a granddaughter of Dr. Isaac Cook. The Webbs had come from North Carolina. She refused to let wine be served in the White House. She was a Methodist and was a college graduate.

President Hayes and his wife had eight children: Birchard A. (1853); Webb C. (1856); Rutherford P. (1858); Joseph T. (1861-1863); George C. (1864-1866); Fanny (1867); Scott R. (1871); Manning F. (1873-1874).

In June, 1878, a White House wedding united Gen. Russell Hastings to his second wife, Emily Platt, niece of President Hayes and daughter of William A. Platt of Columbus, O. Gen. Hastings was a Civil War soldier born in Massachusetts in 1835. His first wife was Adele Humphreys of Michigan, by whom he had a son, Clive Hastings. By the White House bride he had three children, Russell Platt Hastings, Lucy Webb Hastings, and Fannie Hastings.

James A. Garfield, a Republican, born at Orange, O., died at Elberon, N. J., from assassin Guiteau's bullet, was a descendant of Edwin Garfield, an English Puritan, who, in 1630, was one of the founders of Watertown, Mass. His mother was Eliza Ballou, a New England descendant of a French Huguenot. His father, Abram Garfield, was a native of New York who pioneered in 1830 to the Ohio wilderness.

Garfield worked on a boat on the Ohio canals; did carpentry; was baptized in youth a Campbellite into the fold of "The Disciples;" graduated at Williams College; taught school at Hiram, O.; was admitted to the bar; in 1859 was elected to the State Senate; served as a Union General in the Civil War; resigned from the army in 1863 to take a seat in the United States House of Representatives, and served until 1880, when he was elected to the United States Senate. While in the House he was charged with having owned stock in the Credit Mobilier, a dummy scheme to aid the Union Pacific Railroad in Congress. This he denied.

In 1880 Garfield was elected President, and was

inaugurated on a Friday; on July 2, 1881, he was fatally shot at the Baltimore and Potomac Railway depot, Washington, by Charles Jules Guiteau Garfield was buried at Cleveland, O. Guiteau was convicted of murder and was hanged at the jail at Washington, June 30, 1882.

Garfield was burly and strong. He was remarked for his bright green "gander" eyes.

The Garfield papers are at Mentor, O.

Mrs Garfield's father was Zeb Rudolph, a farmer at Garrettsville, O. She and Garfield were schoolmates, and when she became his wife he was President of the Eclectic Institute at Hiram O. Her mother was a daughter of Elijah Mason of Lebanon, Conn., and a descendant of Gen. Nathaniel Greene.

Of the Garfield children, Harry A., lawyer, became President of Williams College; James R., lawyer, was Secretary of the Interior under Roosevelt; Abram became an architect; Irvin McDowell; Mary married J. Stanley Brown.

Chester A. Arthur, a Whig, then a Republican, who became President when Garfield died, was born at Fairfield, Vt., and died at New York City. He was a son of the Rev. William Arthur and Malvina Stone, of an old New Hampshire family.

He graduated at Union College; taught school at Pownall, Vt.; studied law in New York City, helped organize in 1861 the New York State Militia, and when the Civil War began he was appointed Quartermaster General and equipped State troops for service at the front; in 1871 was appointed Collector of the Port of New York and served until 1878, when President Hayes removed him for political reasons. In 1880 as delegate at large from New York State he was a leader in the fight at the Republican National Convention to name Gen. Grant for a third term, and in the interests of harmony was put on the ticket for Vice-President.

Arthur was tall, portly, dark, handsome, courtly. His death was due to apoplexy. He was buried at Albany, N. Y. He was an Episcopalian.

Mrs. Arthur, who died before her husband became President, was a Virginian from Fredericksburg, and was a daughter of Commander William Lewis Herndon of the Navy, who, in 1851, explored the Amazon River. The Arthurs had three children, W. L. H. Arthur, who died in infancy, Chester Alan Arthur Jr., born 1865, and Ellen Herndon Arthur, born 1871, who became the wife of Charles Pinkerton.

The mistress of the White House in Arthur's Administration was his sister Mary, wife of John E. McElroy of Albany, N. Y.

Grover Cleveland, a Democrat, born at Caldwell, N. J., died of debility at Princeton, N. J., was descended from Moses Cleveland, of England, who settled near Woburn, Mass., in 1635. Grover's father, Richard Falley Cleveland, was a son of a watchmaker, and was pastor of the Presbyterian Church at Caldwell. His mother was Anne Nealy, of Baltimore, daughter of a merchant, of Irish birth, and was tall, dark and slim. Grover was named after the Rev. Stephen Grover, his father's predecessor at Caldwell. He dropped the "Stephen" while a lad at Fayetteville, N. Y., whither his family had moved.

When he was 16 his father died and the son left school to clerk in a store at Clinton, N. Y.; he taught, with an older brother, at the New York City Institution for the Blind; he made up a herd book for his uncle, Lewis F. Allen, a stock breeder at Black Rock, near Buffalo; studied law at Buffalo and was admitted to the bar in 1859; in 1863 became Assistant District Attorney of Erie County; defeated for District Attorney in 1865, but was elected Sheriff in 1870; in 1881 was elected Mayor of Buffalo; in 1882 was elected Governor of New York; in 1884 he was elected President; defeated in 1888; re-elected President in 1892.

After leaving the White House he settled at Princeton, N. J. On the change of control of the Equitable Life Assurance Society of New York he was made a trustee. He was fond of hunting and fishing.

Mrs. Cleveland's father, Oscar Folsom, was a law partner of Cleveland at Buffalo. Her mother was Emma C. Harmon. She married the President at the White House and their second daughter was born there in 1893. Before the marriage, the mistress of the Executive Mansion was the President's youngest sister, Rose Elizabeth Cleveland.

President Cleveland had five children, Ruth, Esther, Marion, Richard Folsom, and Francis Grover. Cleveland's widow married, Feb. 10, 1913, Thomas Jex Preston jr., Professor of Archaeology at Princeton University.

Benjamin Harrison, a Republican, was born at North Bend, O., and died of pneumonia, at Indianapolis. He was descended from the Virginia Harrisons. He was the third son of John Scott Harrison, a son of President William Henry Harrison. By some, the Harrison lineage is traced to Pocahontas. Benjamin's mother was Elizabeth F. Irwin.

He worked on his father's 400-acre farm; graduated at Miami University; was admitted to practice law in 1853 at Cincinnati; elected in 1860 as reporter of the Indiana Supreme Court; raised volunteers and served as a Union General in the Civil War; defeated for Governor in 1876; in 1879 a member of the Mississippi River Commission; in 1881 elected from Indiana to the United States Senate; in 1888 was elected President; in 1892 was renominated but was defeated.

Harrison was an elder in the Presbyterian Church at Indianapolis. He was short, sandy, astute, unsociable, with small, bright, sharp eyes. His estate was estimated at $375,000.

The first **Mrs. Harrison**, who was born at Oxford, O., and died in the White House, was a daughter of Prof. John W. Scott of Miami University, later President of Oxford Seminary. She was a musician and painter, a Presbyterian Sunday school teacher, and was the first President-General of the Daughters of the American Revolution. Mrs. Harrison's son, Russell B., mining engineer and journalist, is a Lafayette graduate. Her daughter, Mary, married James R. McKee, an Indianapolis merchant.

The second **Mrs. Harrison** was Mrs. Mary Scott Lord Dimmick, niece of the first Mrs. Harrison, and widow of Walter Erskine Dimmick, a lawyer, who died at sea. She had spent two years at the White House during her aunt's life. The ex-President married her at New York City. By the second wife Mr. Harrison had one child, Elizabeth Harrison, born in 1897. In 1921, when she was a lawyer, she married James Blaine Walker jr., a great-nephew of James G. Blaine. The children of the first wife fought the second wife in court over a division of the Harrison estate.

William McKinley, a Republican, was born at Niles, O. and died at Buffalo, N. Y. He was of Highland Scotch descent, his ancestors having lived long in Ireland though before settling in York County, Pa. His father was William McKinley, operator of charcoal furnaces at Niles, O., his mother was Nancy Allison, of Scotch lineage, whose family had settled in Westmoreland County, Pa.

McKinley was the seventh of nine children. He quit Allegheny College to make a living, and taught school; enlisted as a private and served in the Civil War, and came out a Major; studied law and practiced at Canton, O.; elected, 1869, Prosecuting Attorney of Stark County; in 1876 was elected to the House of Representatives and served until 1891, except for a short time in 1884 when a contest unseated him; elected Governor, 1891 and re-elected in 1893; elected President in 1896 and re-elected in 1900; assassinated by an anarchist, Leon Czolgosz, who shot him twice, with a pistol hidden in a handkerchief, Sept. 6, 1901, at the Pan-American Exposition, Buffalo, N. Y. The President died Sept. 14, at the home of John G. Milburn, at Buffalo. Czolgosz was convicted and was electrocuted Oct. 29, 1901, at Auburn State Prison.

McKinley was a Methodist. He was buried at Canton, O.

The McKinley papers are in the possession of George B. Cortelyou at New York City.

Mrs. McKinley was a daughter of James Asbury Saxton and Catherine DeWalt. She was educated in private schools, spent some time in Europe and was cashier in her father's bank at Canton, Ohio, when she married. Their two children, Katie and Ida, died in early childhood. A nervous ailment then made her an invalid for the rest of her life. She was, nevertheless, the mistress of the White House, accompanied her husband everywhere, and was with him at Buffalo when he was assassinated.

Theodore Roosevelt, Republican, of Holland descent, was born at New York City and died in sleep of heart trouble at Oyster Bay, N. Y. He was a son of Theodore Roosevelt. His grandfather explored the Ohio and Mississippi on the first steamboat that navigated them. Theodore's mother, Martha Bullock, of Roswell, Ga., was descended from Georgia's first Governor, Archibald Bullock.

Roosevelt graduated at Harvard, traveled in Europe; served 1882-1884 in the New York State Assembly; lived 1884-1886 on a North Dakota ranch; was an unsuccessful candidate for Mayor of New York City in 1886; was Police Commissioner; was a member of the National Civil Service Commission; 1897-1898 Assistant Secretary of the Navy, resigning to organize, with Surgeon Leonard Wood, 1st U. S. Cavalry (Roosevelt's Rough Riders), which served in Cuba in the Spanish-American War, and of which he became Colonel; elected Governor of New York 1898; elected Vice President in 1900 and became President in 1901 on McKinley's assassination; elected President in 1904; hunted in East Africa in

1909-1910; defeated for President on the Progressive (Bull Moose) ticket in 1912; visited and explored South America, 1913-1914.

Roosevelt was a voluminous author, and fond of athletics. He was awarded the Nobel Peace Prize in 1906.

He was shot and wounded at Milwaukee, Oct. 14, 1912, by a crank. He belonged to the Reformed Dutch Church. He was buried at Oyster Bay, N. Y.

The first Mrs. **Roosevelt** was Alice Hathaway Lee, daughter of George Cabot Lee of Boston; she died in 1884. Her only child was Alice Lee Roosevelt, who, in 1906, at the White House, married Nicholas Longworth, a Cincinnati lawyer and landowner and a Republican Representative in Congress. A child, Paulina, was born Feb. 14, 1925.

The second **Mrs. Roosevelt**, whom he married in 1886 at London, was Edith Kermit Carow, daughter of Charles Carow of New York City. By this union there were five children—Theodore jr., Kermit, Ethel Carow (Mrs. Richard Derby), Archibald Bullock, and Quentin. The last, an aviator in Europe in the World War, was killed in action and was buried where he fell. Theodore, who served as Lieutenant Colonel in the World War, was Assistant Secretary of the Navy under Harding and under Coolidge, and ran unsuccessfully for Governor of New York State in 1924. Kermit and Archie also served in the war.

William H. Taft was born at Cincinnati, the son of Alphonso Taft and the latter's second wife, Louisa Maria Torrey, and he is a brother of Henry W. and Horace D. Taft, and a half-brother of Charles P. Taft, the latter's mother being Fannie Phelps, of Vermont. Alphonso Taft was Attorney General in Hayes Cabinet.

W. H. Taft graduated in 1878 at Yale, and in 1880 at the Cincinnati Law School; admitted to the Bar in 1880; was a law reporter on Cincinnati dailies; Assistant Prosecuting Attorney 1881-1883; Assistant City Solicitor, 1887; Judge Cincinnati Superior Court, 1887-1890; United States Solicitor General, 1890-1892; United States Circuit Judge, 1892-1900; professor at the University of Cincinnati, 1896-1900; President of the United States Philippine Commission, 1900-1901; Civil Governor of the Philippines, 1901-1904; in 1902 arranged at Rome with Pope Leo XIII. the question of purchase of Roman Catholic lands in the Philippines; Secretary of War under Roosevelt, 1904-1908; Provisional Governor of Cuba for a while in 1907; on Government mission in 1907 to Cuba, Panama and the Philippines.

He was elected President in 1908; defeated for re-election in 1912; professor of law at Yale University, 1913-1921; appointed Chief Justice United States Supreme Court, June 30, 1921.

Taft is a Unitarian. He is tall, portly and suave.

Mrs. Taft was Helen Herron of Cincinnati, a daughter of Judge John W. Herron and Harriet Collins. She is one of eight children, a musician and a founder of the Cincinnati Orchestra. Her father was a law partner of Rutherford B. Hayes before the latter became President. She comes from an old New England family. Her only daughter is Helen Herron Taft, wife of Frederick J. Manning, an instructor in history at Yale University; her sons are Robert Alphonso Taft and Charles Phelps Taft 2d, both of whom are married.

Mrs. Taft had a nervous breakdown in 1909 and the mistress of the White House for a time was her sister, Mrs. Louis More, wife of a professor at the University of Cincinnati. She is an Episcopalian. She instituted 5 o'clock teas at the White House. She has blue-gray eyes and a contralto voice, a broad forehead and brown hair.

Woodrow Wilson, a Democrat, was born at Staunton, Va., and died of heart disease, at Washington. He was a son of a Presbyterian minister, the Rev. Joseph Ruggles Wilson, and Janet Woodrow, daughter of a Scotch Presbyterian Minister; and a grandson of James Wilson, a Presbyterian, of Ulster, Ireland, who settled at Philadelphia in 1807 and became a printer, marrying, in 1808, a girl, also an Ulster Presbyterian, who had come across the Atlantic in the same ship with him. The Wilson ancestry was Scotch-Irish on both sides.

Wilson graduated at Princeton University, 1879; graduated in law at the University of Virginia in 1881; and took his Ph.D. degree at Johns Hopkins in 1886. He practiced law at Atlanta, Ga., 1882-1883; taught history and political economy at Bryn Mawr College, 1885-1888 and at Wesleyan University, 1888-1890; professor of jurisprudence and political economy at Princeton University, 1890-1902.

In 1902 he was chosen President of Princeton University and served until Oct. 1910; Governor of New Jersey, 1911-1913; elected President in 1912, re-elected in 1916. He helped draft a treaty of peace with Germany, at Paris, in 1919, welding in it the covenant of the League of Nations. The treaty was accepted by Japan and the Allies in Europe, but was rejected by the United States Senate. In campaigning in the West to arouse public sentiment for the treaty, the President became partly paralyzed by apoplexy and thereafter was an invalid. He was awarded the Nobel Peace Prize in 1919. Wilson was a Presbyterian. He was entombed at the P. E. Cathedral, Washington.

By his will, his daughter, Miss Margaret, inherited an annuity of $2,500, and the rest of the estate went to his widow. Its total value was estimated to be over $600,000.

The first **Mrs. Wilson**, Ellen Louise Axson of Rome, Ga., was a sister of Prof. Stockton Axson of Princeton University and a daughter of the Rev. S. E. Axson and Margaret Hoyt. She was aided as mistress of the White House, by her three children, Margaret W., Eleanor R., who there became the second wife of William G. McAdoo, Secretary of the Treasury under Wilson; and Jessie W., who also there married Francis B. Sayre, professor of law, Harvard. He is a member of the Pennsylvania family that has large coal and railroad properties. The first Mrs. Wilson died at the White House.

The second **Mrs. Wilson** was Edith Bolling of Wytheville, Va., widow of Norman Galt, a Washington jeweler. She is one of three sisters, inherited a fortune from her first husband and was mistress of the White House during the last of the first and all of the second Wilson Administration, accompanied him to the Versailles Peace Conference and was his companion in all of his travels in Europe and the United States. She was with him when he was stricken in the West.

Warren G. Harding was born at Corsica, O., and died of heart trouble, following pneumonia, at San Francisco. He was the son of Dr. George Tryon Harding and Phoebe Elizabeth Dickerson. He studied, 1879-1882, at Ohio Central College; in 1884 became connected with the Daily Star, at Marion, O., and later owned and edited the paper, selling it shortly before his death.

He served in the State Senate, 1900-1904; was Lieutenant Governor of Ohio, 1904-1906; defeated for Governor in 1910; entered the United States Senate in 1915; elected United States President in 1920.

The Limitation of Armament Conference was held under his invitation, at Washington, beginning on Nov. 11, 1921.

Harding was tall, leisurely in movement, genial, and a pacifier. He was a Baptist. He was buried at Marion, O.

His estate, exclusive of his newspaper, was officially appraised at $486,566. Personal property and chattels were appraised at $4,154.83, money $34,895.90, securities $400,794.91, and real estate at $46,720.

Securities listed in the report were three blocks of United States gold bonds of $64,000, $30,000 and $6,000. United States Liberty bonds, two blocks of $42,000 and $40,250; Federal Land Bank bonds to the value of $10,000; United States Treasury certificates of $92,250, and United States Treasury notes, three blocks, $15,000, $52,000 and $5,000.

Life insurance carried by the late President totaled $34,422.41.

Mrs. Harding, Florence Kling, born Aug. 15, 1860, was a daughter of Amos O. Kling, a Marion, Ohio, hardware merchant and later a banker. Her family were Mennonites. Mrs. Harding's first husband was Henry De Wolfe, by whom she had a son, Marshall Eugene De Wolfe. The couple were separated by a divorce decree and the Ohio Court restored her maiden name. De Wolfe died at about the time of the decree. The son, Marshall, died of tuberculosis in Colorado, where he had been established by Mr. Harding in the newspaper business.

Mrs. Harding died at Marion, Nov. 21, 1924. Almost all of her estate, estimated at over $500,000, was left in trust to Marshall De Wolfe's children, Jean and George N.

The cornerstone of the Harding memorial tomb, at Marion, was laid May 30, 1926.

Calvin Coolidge, a Republican, was born in Plymouth, Vt., son of Col. John Calvin Coolidge, farmer and storekeeper (who died, aged 80, at Plymouth, Vt., March 18, 1926), and Victoria J. Moor. His ancestor, John Coolidge, came with his wife, Mary, from England and settled at Cambridge (then Watertown), in the Puritan Colony of Massachusetts Bay, in 1630.

Calvin Coolidge graduated at Amherst College, 1895; admitted to practice law, 1897, at Northampton, Mass.; City Councilman, 1899; City Solicitor, 1900-1901; clerk of the Courts, 1904; member of the Lower House of the Massachusetts Legislature, 1907-1908; Mayor of Northampton, 1910-1911; member of the State Senate, 1912-1915, and President of that body, 1914-1915; Lieutenant Governor of Massachusetts, 1916-1918; Governor, 1919-1920. elected Vice President in 1920, and became President on Harding's death, Aug. 2, 1923. On retirement he returned to his Northampton (Mass.) home.

Coolidge is a Congregationalist.

Mrs. Coolidge is the daughter of Capt. Andrew I. Goodhue and Almira Barret, and was born on Jan. 3, 1879, at Burlington, Vt. The Captain was a Democrat and was a steamboat inspector while Grover Cleveland was President. The President's wife graduated at the University of Vermont in 1902 and then taught at the Clarke Institute for the Deaf, Northampton, Mass. They had two children, John B. Coolidge, born in 1906, who graduated at Amherst College, in the spring of 1923; and Calvin Coolidge jr., born in 1908, who died in Washington, July 7, 1924. Mrs. Coolidge is a brunette, active in social work, skilled in cooking and needlework. She is a Congregationalist.

Herbert Clark Hoover is of Swiss ancestry, according to the latest information. His genealogy, as given by himself in the Abridged Compendium of American genealogy, Vol. I, page 370, is as follows:

Andrew Hoover, born in Baden, Germany, came to America about 1740, and settled in Maryland. He married Margaret Foutz. Their son, John Hoover, removed from North Carolina to Ohio, married Sarah ——. Their son, Jesse Hoover (1799-1856), settled at West Branch, Iowa, 1854, married Rebecca Yount. Their son, Eli Hoover (1820-1892), married (1st) Mary Davis. Their son, Jesse Clark Hoover (1847-1880), married Hulda Randall Minthorn (1848-1883). Their son, Herbert Hoover, was born at West Branch, Iowa, Aug. 10, 1874.

The Andrew or Andreas Hoover, or Huber, who was born in Baden, was the son of Jonas Huber, who lived at Ellerstadt, District of Durkheim (Rhenish Palatinate). Jonas was the son of Johann Heinrich Huber, linen weaver, native of the Swiss Canton of Berne.

Herbert Hoover's parents were Quakers; the father, a blacksmith; the mother, a preacher of her faith. They had two other children, Theodore, and Mary, still living.

Left an orphan in childhood, Herbert worked with two of his uncles, on their farms in Iowa and in the Indian Territory, and then emigrated with a third uncle, John Minthorn to Newberg, Oregon, where a pioneer Quaker settlement was founded. The lad had learned among the Osage Indians to hunt and fish, in what is now Oklahoma.

Herbert Hoover's education was begun at his Uncle John Minthorn's Pacific Academy, now Pacific College, and was finished at Leland Stanford Junior University, which he entered when it first opened, in the fall of 1891. He specialized in geology, worked his way through, and graduated in 1895. There he met Miss Lou Henry, also a student, whom he married in 1899.

As an undergraduate he worked for the Arkansas and the United States Geological Surveys. After some experience as an actual mine laborer in northern California, he started on the career of a mining engineer, and from 1895 to 1914 he was thus engaged, in this country, South America, Europe, and Asia. From 1902 to 1908 he was a partner in the London firm of Bewick, Moreing & Co., mine operators.

He was Chairman 1914-1915 of the American Relief Commission, at London; he was the head, 1915-18, of the American Commission for Relief in Belgium; chairman, April-Aug., 1917, of the Food Commission of the (U. S.) Council of National Defense; U. S. Food Administrator, Aug. 1917-June, 1919.

He was U. S. Secretary of Commerce, 1921-28; Chairman, in 1927, of the Mississippi Flood Relief Commission. He served on many other national conferences, and, after his election to the Presidency, late in 1928, he made a friendship tour of South America.

The President is 5 ft. 11 in. in height, sturdy, and his average weight is 195 lbs. He has brown hair and blue gray eyes.

Mrs. Hoover, whose maiden name was Lou Henry, was born at Waterloo, Iowa, daughter of a banker and man of means, who died in 1928. Because of the mother's poor health, the Henrys moved first to Whittier, in Los Angeles County, Calif., and then to Monterey, same state.

Mrs. Hoover went, as a bride, in 1899, to China, and took part with her husband in the defense of Tientsin in the Boxer outbreak of 1900.

The Hoovers have two children, Herbert Jr., and Allan. The former is married, and has two children.

Mrs. Hoover was brought up as an Episcopalian. She and her husband were united in marriage, at Monterey, by a priest, Father Ramon Mestres, of the Roman Catholic mission there. The Hoovers attend the Friends' Meeting House at Washington.

CHARLES CURTIS, VICE-PRESIDENT.

Charles Curtis, of Topeka, was elected Vice President of the United States on Nov. 6, 1928. He was born in Topeka, Shawnee Co., Kans., Jan. 25, 1860. His maternal grandmother was half French and half Indian of the Kaw tribe and he has always been proud of his Indian blood and early upbringing with the tribe. Mr. Curtis received his education in the common schools of Topeka and studied law there. He was admitted to the bar and entered into partnership with A. H. Case in 1881.

Mr. Curtis was elected to Congress in 1892 and served until January, 1907, when he was elected to the United States Senate to fill out the unexpired term of J. R. Burton, resigned, succeeding Hon. A. W. Benson, appointed ad interim, and for the full term beginning March 4, 1907. He was President pro tempore of the Senate from Dec. 4 to Dec. 12, 1911. Mr. Curtis received the popular vote for renomination in 1912, but lost the nomination under the district plan. The Kansas Legislature in the session of 1913 provided for the nomination of United States Senators by direct vote of the people, and at the primary in 1914 Mr. Curtis won the nomination over Senator J. L. Bristow, was elected and was relected in 1920 and 1926.

Mr. Curtis married Annie M. Baird, Nov. 27, 1884. His wife is dead. His children are Mrs. Permelia George, Henry K. Curtis, and Mrs. Leona Knight of Providence, R. I.

VICE PRESIDENTS OF THE UNITED STATES.

	Name.	Birthplace.	Yr.	Residence.	Qualif.	Politics.	Place of Death.	Yr.	Age.
1	John Adams	Quincy, Mass.	1735	Mass.	1789	Fed.	Quincy, Mass.	1826	90
2	Thomas Jefferson	Shadwell, Va.	1743	Va.	1797	Rep.	Monticello, Va.	1826	83
3	Aaron Burr	Newark, N. J.	1756	N. Y.	1801	Rep.	Staten Island, N. Y.	1836	80
4	George Clinton	Ulster Co., N. Y.	1739	N. Y.	1805	Rep.	Washington, D. C.	1812	73
5	Elbridge Gerry	Marblehead, Mass.	1744	Mass.	1813	Rep.	Washington, D. C.	1814	70
6	Daniel D. Tompkins	Scarsdale, N. Y.	1774	N. Y.	1817	Rep.	Staten Island, N. Y.	1825	51
7	John C. Calhoun	Abbeville, S. C.	1782	S. C.	1825	Rep.	Washington, D. C.	1850	68
8	Martin Van Buren	Kinderhook, N. Y.	1782	N. Y.	1833	Dem.	Kinderhook, N. Y.	1862	79
9	Richard M. Johnson	Louisville, Ky.	1780	Ky.	1837	Dem.	Frankfort, Ky.	1850	70
10	John Tyler	Greenway, Va.	1790	Va.	1841	Dem.	Richmond, Va.	1862	72
11	George M. Dallas	Philadelphia, Pa.	1792	Pa.	1845	Dem.	Philadelphia, Pa.	1864	72
12	Millard Fillmore	Summerhill, N. Y.	1800	N. Y.	1849	Whig.	Buffalo, N. Y.	1874	74
13	William R. King	Sampson Co., N. C.	1786	Ala.	1853	Dem.	Dallas Co., Ala.	1853	67
14	John C. Breckinridge	Lexington, Ky.	1821	Ky.	1857	Dem.	Lexington, Ky.	1875	54
15	Hannibal Hamlin	Paris, Me.	1809	Me.	1861	Rep.	Bangor, Me.	1891	81
16	Andrew Johnson	Raleigh, N. C.	1808	Tenn.	1865	Rep.	Carter Co., Tenn.	1875	66
17	Schuyler Colfax	New York City, N. Y.	1823	Ind.	1869	Rep.	Mankato, Minn.	1885	62
18	Henry Wilson	Farmington, N. H.	1812	Mass.	1873	Rep.	Washington, D. C.	1875	63
19	William A. Wheeler	Malone, N. Y.	1819	N. Y.	1877	Rep.	Malone, N. Y.	1887	68
20	Chester A. Arthur	Fairfield, Vt.	1830	N. Y.	1881	Rep.	New York City, N. Y.	1886	56
21	Thos. A. Hendricks	Muskingum Co., Ohio.	1819	Ind.	1885	Dem.	Indianapolis, Ind.	1885	66
22	Levi P. Morton	Shoreham, Vt.	1824	N. Y.	1889	Rep.	Rhinebeck, N. Y.	1920	96
23	Adlai E. Stevenson	Christian Co., Ky.	1835	Ill.	1893	Dem.	Chicago, Ill.	1914	78
24	Garrett A. Hobart	Long Branch, N. J.	1844	N. J.	1897	Rep.	Paterson, N. J.	1899	55
25	Theodore Roosevelt	New York City, N. Y.	1858	N. Y.	1901	Rep.	Oyster Bay, N. Y.	1919	61
26	Chas. W. Fairbanks	Unionville Centre, Ohio	1852	Ind.	1905	Rep.	Indianapolis, Ind.	1918	66
27	James S. Sherman	Utica, N. Y.	1855	N. Y.	1909	Rep.	Utica, N. Y.	1912	57
28	Thos. R. Marshall	No. Manchester, Ind.	1854	Ind.	1913	Dem.	Washington, D. C.	1925	71
29	Calvin Coolidge	Plymouth, Vt.	1872	Mass.	1921	Rep.			
30	Charles G. Dawes	Marietta, Ohio.	1865	Ill.	1925	Rep.			
31	Charles Curtis	Topeka, Kan.	1866	Kan.	1929	Rep.			

JUSTICES OF THE UNITED STATES SUPREME COURT.

(Chief Justices are in italics.)

NAME.	SERVICE. Term.	Yrs	Born.	Died.
John Jay, N. Y.	1789-1795	6	1745	1829
John Rutledge, S. C.	1789-1791	2	1739	1800
William Cushing, Mass.	1789-1810	21	1733	1810
James Wilson, Pa.	1789-1798	9	1742	1798
John Blair, Va.	1789-1796	7	1732	1800
Robert H. Harrison, Md.	1789-1790	1	1745	1790
James Iredell, N. C.	1790-1799	9	1751	1799
Thomas Johnson, Md.	1791-1793	2	1732	1819
William Paterson, N. J.	1793-1806	13	1745	1806
John Rutledge, S. C.	1795-1795	..	1739	1800
Samuel Chase, Md.	1796-1811	15	1741	1811
Oliver Ellsworth, Conn.	1796-1800	4	1745	1807
Bushrod Washington, Va.	1798-1829	31	1762	1829
Alfred Moore, N. C.	1799-1804	5	1755	1810
John Marshall, Va.	1801-1835	34	1755	1835
William Johnson, S. C.	1804-1834	30	1771	1834
Brock. Livingston, N. Y.	1806-1823	17	1757	1823
Thomas Todd, Ky.	1807-1826	19	1765	1826
Joseph Story, Mass.	1811-1845	34	1779	1845
Gabriel Duval, Md.	1811-1836	25	1752	1844
Smith Thompson, N. Y.	1823-1843	20	1767	1843
Robert Trimble, Ky.	1826-1828	2	1777	1828
John McLean, Ohio	1829-1861	32	1785	1861
Henry Baldwin, Pa.	1830-1844	14	1779	1844
James M. Wayne, Ga.	1835-1867	32	1790	1867
Roger B. Taney, Md.	1836-1864	28	1777	1864
Philip P. Barbour, Va.	1836-1841	5	1783	1841
John Catron, Tenn.	1837-1865	28	1786	1865
John McKinley, Ala.	1837-1852	15	1780	1852
Peter V. Daniel, Va.	1841-1860	19	1785	1860
Samuel Nelson, N. Y.	1845-1872	27	1792	1873
Levi Woodbury, N. H.	1845-1851	6	1789	1851
Robert C. Grier, Pa.	1846-1870	24	1794	1870
Benj. R. Curtis, Mass.	1851-1857	6	1809	1874
John A. Campbell, Ala.	1853-1861	8	1811	1889
Nathan Clifford, Me.	1858-1881	23	1803	1881
Noah H. Swayne, Ohio	1862-1881	20	1804	1884
Samuel F. Miller, Iowa	1862-1890	28	1816	1890
David Davis, Ill.	1862-1877	15	1815	1886
Stephen J. Field, Cal.	1863-1897	34	1816	1899
Salmon P. Chase, Ohio	1864-1873	9	1808	1873
William Strong, Pa.	1870-1880	10	1808	1895
Joseph P. Bradley, N. J.	1870-1892	22	1813	1892
Ward Hunt, N. Y.	1872-1882	10	1811	1886
Morrison R. Waite, Ohio	1874-1888	14	1816	1888
John M. Harlan, Ky.	1877-1911	34	1833	1911
William B. Woods, Ga.	1880-1887	7	1824	1887
Stanley Matthews, Ohio	1881-1889	8	1824	1889
Horace Gray, Mass.	1881-1902	21	1828	1902
Samuel Blatchford, N. Y.	1882-1893	11	1820	1893
Lucius Q. C. Lamar, Miss.	1888-1893	5	1825	1893
Melville W. Fuller, Ill.	1888-1910	22	1833	1910
David J. Brewer, Kan.	1889-1910	21	1837	1910
Henry B. Brown, Mich.	1890-1906	16	1836	1913
George Shiras jr., Pa.	1892-1903	11	1832	1924
Howell E. Jackson, Tenn.	1893-1895	2	1832	1895
Edward D. White, La.	1894-1910	16	1845	1921
Rufus W. Peckham, N. Y.	1896-1909	14	1838	1909
Joseph McKenna, Cal.	1898-1925	27	1843	1926
Oliver W. Holmes, Mass.	1902-....	..	1841	....
William R. Day, Ohio	1903-1922	19	1849	1923
William H. Moody, Mass.	1906-1910	4	1853	1917
Horace H. Lurton, Tenn.	1910-1914	5	1844	1914
Charles E. Hughes, N. Y.	1910-1916	6	1862	....
Willis Van Devanter, Wyo.	1911-....	..	1859	....
Joseph R. Lamar, Ga.	1911-1916	6	1857	1916
Edward D. White, La.	1910-1921	11	1845	1921
Mahlon Pitney, N. J.	1912-1922	12	1858	1924
Jas. C. McReynolds, Tenn.	1914-....	..	1862	....
Louis D. Brandeis, Mass.	1916-....	..	1856	....
John H. Clarke, Ohio	1916-1922	6	1857	....
William H. Taft, Conn.	1921-....	..	1857	....
George Sutherland, Utah.	1922-....	..	1862	....
Pierce Butler, Minn.	1922-....	..	1866	....
Edward T. Sanford, Tenn.	1923-....	..	1865	....
Harlan F. Stone, N. Y.	1925-....	..	1872	....

SPEAKERS OF THE HOUSE OF REPRESENTATIVES.

NAME.	State.	Time.	NAME.	State.	Time.	NAME.	State.	Time.
F. A. Muhlenburg	Pa.	1789-1791	And. Stephenson	Va.	1827-1834	Schuyler Colfax	Ind.	1863-1869
J. Trumbell	Ct.	1791-1793	John Bell	Tenn.	1834-1835	James G. Blaine	Me.	1869-1875
F. A. Muhlenburg	Pa.	1793-1795	James K. Polk	Tenn.	1835-1839	Michael C. Kerr	Ind.	1875-1876
Jonathan Dayton	N. J.	1795-1799	R. M. T. Hunter	Va.	1839-1841	Samuel J. Randall	Pa.	1876-1881
Theo. Sedgwick	Mass.	1799-1801	John White	Ky.	1841-1843	Joseph W. Keifer	Ohio	1881-1883
Nathaniel Macon	N. C.	1801-1807	John W. Jones	Va.	1843-1845	John G. Carlisle	Ky.	1883-1889
Joseph B. Varnum	Mass.	1807-1811	John W. Davis	Ind.	1845-1847	Thomas B. Reed	Me.	1889-1891
Henry Clay	Ky.	1811-1814	R. C. Winthrop	Mass.	1847-1849	Charles F. Crisp	Ga.	1891-1895
Langdon Cheves	S. C.	1814-1815	Howell Cobb	Ga.	1849-1851	Thomas B. Reed	Me.	1895-1899
Henry Clay	Ky.	1815-1820	Linn Boyd	Ky.	1851-1855	D. B. Henderson	Ia.	1899-1903
John W. Taylor	N. Y.	1820-1821	N. P. Banks	Mass.	1856-1857	Joseph G. Cannon	Ill.	1903-1910
Philip P. Barbour	Va.	1821-1823	James L. Orr	S. C.	1857-1859	Champ Clark	Mo.	1911-1919
Henry Clay	Ky.	1823-1825	Wm. Pennington	N. J.	1860-1861	Fred'k H. Gillett	Mass.	1919-1925
John W. Taylor	N. Y.	1825-1827	Galusha A. Grow	Pa.	1861-1863	Nich. Longworth	Ohio	1925-....

Dayton of New Jersey presided over the 4th and 5th Congresses, Macon of North Carolina, the 7th, 8th and 9th; Varnum of Massachusetts, 10th and 11th; Henry Clay of Kentucky, 12th-16th and 18th; Taylor of New York, 16th and 19th; Stephenson of Virginia, 20th-23d; Polk of Tennessee, 24th and 25th; Reed of Maine, 51st, 54th and 55th; Henderson of Iowa, 56th and 57th; Cannon of Illinois, 58th, 59th, 60th and 61st, Clark of Missouri, 62d, 63d, 64th and 65th; Gillett, 66th, 67th, 68th.

SECRETARIES OF STATE.

PRESIDENTS.	Cabinet Officers.	Residences.	Appointed.
Washington	John Jay	N. Y.	....
"	Thomas Jefferson	Va.	1789
"	Edmund Randolph	"	1794
"	Timothy Pickering	Mass.	1795
Adams	"	"	1797
"	John Marshall	Va.	1800
Jefferson	James Madison	"	1801
Madison	Robert Smith	Md.	1809
"	James Monroe	Va.	1811
Monroe	John Quincy Adams	Mass.	1817
J. Q. Adams	Henry Clay	Ky.	1825
Jackson	Martin Van Buren	N. Y.	1829
"	Edward Livingston	La.	1831
"	Louis McLane	Del.	1833
"	John Forsyth	Ga.	1834
Van Buren	"	"	1837
Harrison	Daniel Webster	Mass.	1841
Tyler	"	"	1841
"	Hugh S. Legaré	S. C.	1843
"	Abel P. Upshur	Va.	1843
"	John C. Calhoun	S. C.	1844
Polk	James Buchanan	Pa.	1845
Taylor	John M. Clayton	Del.	1859
Fillmore	Daniel Webster	Mass.	1850
"	Edward Everett	"	1852
Pierce	William L. Marcy	N. Y.	1853
Buchanan	Lewis Cass	Mich.	1857
Buchanan	Jeremiah S. Black	Pa.	1860
Lincoln	William H. Seward	N. Y.	1861
Johnson	"	"	1865
Grant	Elihu B. Washburne	Ill.	1869
"	Hamilton Fish	N. Y.	1869
Hayes	William M. Evarts	"	1877
Garfield	James G. Blaine	Me.	1881
Arthur	"	"	1881
"	F. T. Frelinghuysen	N. J.	1881
Cleveland	Thomas F. Bayard	Del.	1885
B. Harrison	James G. Blaine	Me.	1889
"	John W. Foster	Ind.	1892
Cleveland	Walter Q. Gresham	Ill.	1893
"	Richard Olney	Mass.	1895
McKinley	John Sherman	Ohio	1897
"	William R. Day	"	1898
"	John Hay	"	1898
Roosevelt	"	"	1901
"	Elihu Root	N. Y.	1905
"	Robert Bacon	"	1909
Taft	Philander C. Knox	Pa.	1909
Wilson	William J. Bryan	Neb.	1913
"	Robert Lansing	N. Y.	1915
"	Bainbridge Colby	"	1920
Harding	Charles E. Hughes	"	1921
Coolidge	"	"	1923
"	Frank B. Kellogg	Minn.	1925
Hoover	Henry L. Stimson	N. Y.	1929

SECRETARIES OF THE TREASURY.

PRESIDENTS.	Cabinet Officers.	Residences.	Date Appointed.
Washington.	Alexander Hamilton	N. Y.	1789
"	Oliver Wolcott jr.	Ct.	1795
Adams.	"	"	1797
"	Samuel Dexter	Mass.	1801
Jefferson.	"	"	1801
"	Albert Gallatin	Pa.	1801
Madison.	"	"	1809
"	George W. Campbell	Tenn.	1814
"	Alexander J. Dallas	Pa.	1814
"	William H. Crawford	Ga.	1816
Monroe.	"	"	1817
J. Q. Adams.	Richard Rush	Pa.	1825
Jackson.	Samuel D. Ingham	"	1829
"	Louis McLane	Del.	1831
"	William J. Duane	Pa.	1833
"	Roger B. Taney	Md.	1833
"	Levi Woodbury	N. H.	1834
Van Buren	"	"	1837
Harrison.	Thomas Ewing	Ohio	1841
Tyler.	"	"	1841
"	Walter Forward	Pa.	1841
"	John C. Spencer	N. Y.	1843
"	George M. Bibb	Ky.	1844
Polk.	Robert J. Walker	Miss.	1845
Taylor.	William M. Meredith	Pa.	1849
Fillmore.	Thomas Corwin	Ohio	1850
Pierce.	James Guthrie	Ky.	1853
Buchanan.	Howell Cobb	Ga.	1857
"	Philip F. Thomas	Md.	1860
"	John A. Dix	N. Y.	1861
Lincoln.	Salmon P. Chase	Ohio	1861
"	William P. Fessenden	Me.	1864
"	Hugh McCulloch	Ind.	1865
Johnson.	"	"	1865
Grant.	George S. Boutwell	Mass.	1869
"	Wm. A. Richardson	"	1873
"	Benjamin H. Bristow	Ky.	1874
"	Lot M. Morrill	Me.	1876
Hayes.	John Sherman	Ohio.	1877
Garfield.	William Windom	Minn.	1881
Arthur.	"	"	1881
"	Charles J. Folger	N. Y.	1881
"	Walter Q. Gresham	Ind.	1884
"	Hugh McCulloch	"	1884
Cleveland.	Daniel Manning	N. Y.	1885
"	Charles S. Fairchild	"	1887
B. Harrison.	William Windom	Minn.	1889
"	Charles Foster	Ohio.	1891
Cleveland.	John G. Carlisle	Ky.	1893
McKinley.	Lyman J. Gage	Ill.	1897
Roosevelt.	"	"	1901
"	Leslie M. Shaw	Ia.	1902
"	George B. Cortelyou	N. Y.	1907
Taft.	Franklin MacVeagh	Ill.	1909
Wilson.	William G. McAdoo	N. Y.	1913
"	Carter Glass	Va.	1919
"	David F. Houston	Mo.	1920
Harding.	Andrew W. Mellon	Pa.	1921
Coolidge.	"	"	1923
Hoover.	"	"	1929

SECRETARIES OF WAR.

Washington.	Henry Knox	Mass.	1789
"	Timothy Pickering	"	1795
"	James McHenry	Md.	1796
Adams.	"	"	1797
"	Samuel Dexter	Mass.	1800
Jefferson.	Henry Dearborn	"	1801
Madison.	William Eustis	"	1809
"	John Armstrong	N. Y.	1813
"	James Monroe	Va.	1814
"	William H. Crawford	Ga.	1815
Monroe.	Geo. Graham (*ad. in*)	Va.	1817
"	John C. Calhoun	S. C.	1817
J. Q. Adams.	James Barbour	Va.	1825
"	Peter B. Porter	N. Y.	1828
Jackson.	John H. Eaton	Tenn.	1829
"	Lewis Cass	Ohio	1831
"	Benjamin F. Butler	N. Y.	1837
Van Buren.	Joel R. Poinsett	S. C.	1837
Harrison.	John Bell	Tenn.	1841
Tyler.	John C. Spencer	N. Y.	1841
"	James M. Porter	Pa.	1843
"	William Wilkins	"	1844
Polk.	William L. Marcy	N. Y.	1845
Taylor.	George W. Crawford	Ga.	1849
Fillmore.	Charles M. Conrad	La.	1850
Pierce.	Jefferson Davis	Miss.	1853
Buchanan.	John B. Floyd	Va.	1857
"	Joseph Holt	Ky.	1861
Lincoln.	Simon Cameron	Pa.	1861
Lincoln.	Edwin M. Stanton	Pa.	1862
Johnson.	U. S. Grant (*ad. in*)	Ill.	1867
"	John M. Schofield	"	1868
Grant.	John A. Rawlins	"	1869
"	William T. Sherman	Ohio.	1869
"	William W. Belknap	Ia.	1869
"	Alphonso Taft	Ohio.	1876
"	James Don. Cameron	Pa.	1876
Hayes.	George W. McCrary	Ia.	1877
"	Alexander Ramsey	Minn.	1879
Garfield.	Robert T. Lincoln	Ill.	1881
Arthur.	"	"	1881
Cleveland.	William C. Endicott	Mass.	1885
B. Harrison.	Redfield Proctor	Vt.	1889
"	Stephen B. Elkins	W. Va.	1891
Cleveland.	Daniel S. Lamont	N. Y.	1893
McKinley.	Russell A. Alger	Mich.	1897
"	Elihu Root	N. Y.	1899
Roosevelt.	"	"	1901
"	William H. Taft	Ohio.	1904
"	Luke E. Wright	Tenn.	1908
Taft.	Jacob M. Dickinson	"	1909
"	Henry L. Stimson	N. Y.	1911
Wilson.	Lindley M. Garrison	N. J.	1913
"	Newton D. Baker	Ohio.	1916
Harding.	John W. Weeks	Mass.	1921
Coolidge.	"	"	1923
"	Dwight F. Davis	Mo.	1925
Hoover.	James W. Good	Iowa.	1929

Stanton continued also in Johnson's Cabinet.

ATTORNEYS-GENERAL.

Washington.	Edmund Randolph	Va.	1789
"	William Bradford	Pa.	1794
"	Charles Lee	Va.	1795
Adams.	"	"	1797
Jefferson.	Levi Lincoln	Mass.	1801
"	John Breckenridge	Ky.	1805
"	Cæsar A. Rodney	Del.	1807
Madison.	"	"	1809
"	William Pinkney	Md.	1811
"	Richard Rush	Pa.	1814
Monroe.	"	"	1817
"	William Wirt	Va.	1817
J. Q. Adams.	"	"	1825
Jackson.	John McP. Berrien	Ga.	1829
"	Roger B. Taney	Md.	1831
"	Benjamin F. Butler	N. Y.	1833
Van Buren.	"	"	1837
"	Felix Grundy	Tenn.	1838
"	Henry D. Gilpin	Pa.	1840
Harrison.	John J. Crittenden	Ky.	1841
Tyler.	"	"	1841
"	Hugh S. Legare	S. C.	1841
"	John Nelson	Md.	1843
Polk.	John Y. Mason	Va.	1845
"	Nathan Clifford	Me.	1846
"	Isaac Toucey	Ct.	1848
Taylor.	Reverdy Johnson	Md.	1849
Fillmore.	John J. Crittenden	Ky.	1850
Pierce.	Caleb Cushing	Mass.	1853
Buchanan.	Jeremiah S. Black	Pa.	1857
"	Edwin M. Stanton	"	1860
Lincoln.	Edward Bates	Mo.	1861
Lincoln.	James Speed	Ky.	1864
Johnson.	"	"	1865
"	Henry Stanbery	Ohio.	1866
"	William M. Evarts	N. Y.	1868
Grant.	Ebenezer R. Hoar	Mass.	1869
"	Amos T. Akerman	Ga.	1870
"	George H. Williams	Ore.	1871
"	Edwards Pierrepont	N. Y.	1875
"	Alphonso Taft	Ohio.	1876
Hayes.	Charles Devens	Mass.	1877
Garfield.	Wayne MacVeagh	Pa.	1881
Arthur.	"	"	1881
"	Benjamin H. Brewster	"	1881
Cleveland.	Augustus H. Garland	Ark.	1885
B. Harrison.	William H. H. Miller	Ind.	1889
Cleveland.	Richard Olney	Mass.	1893
"	Judson Harmon	Ohio.	1895
McKinley.	Joseph McKenna	Cal.	1897
"	John W. Griggs	N. J.	1898
"	Philander C. Knox	Pa.	1901
Roosevelt.	"	"	1901
"	William H. Moody	Mass.	1904
"	Charles J. Bonaparte	Md.	1906
Taft.	Geo. W. Wickersham	N. Y.	1909
Wilson.	James C. McReynolds	Tenn.	1913
"	Thomas W. Gregory	Texas.	1914
"	A. M. Palmer	Penn.	1919
Harding.	Harry M. Daugherty	Ohio.	1921
Coolidge.	"	"	1923
"	Harlan F. Stone	N. Y.	1924
"	John G. Sargent	Vt.	1925
Hoover.	William D. Mitchell	Minn.	1929

POSTMASTERS-GENERAL.

Presidents.	Cabinet Officers.	Residences.	Date Appointed.
Washington.	Samuel Osgood	Mass.	1789
"	Timothy Pickering	"	1791
"	Joseph Habersham	Ga.	1795
Adams	"	"	1797
Jefferson	"	"	1801
"	Gideon Granger	Ct.	1801
Madison	"	"	1809
"	Return J. Meigs jr.	Ohio.	1814
Monroe	"	"	1817
"	John McLean	"	1823
J. Q. Adams.	"	"	1825
Jackson	William T. Barry	Ky.	1829
"	Amos Kendall	"	1835
Van Buren.	"	"	1837
"	John M. Niles	Ct.	1840
Harrison	Francis Granger	N. Y.	1841
Tyler	"	"	1841
"	Charles A. Wickliffe	Ky.	1841
Polk	Cave Johnson	Tenn.	1845
Taylor	Jacob Collamer	Vt.	1849
Fillmore	Nathan K. Hall	N. Y.	1850
"	Samuel D. Hubbard	Ct.	1852
Pierce	James Campbell	Pa.	1853
Buchanan.	Aaron V. Brown	Tenn.	1857
"	Joseph Holt	Ky.	1859
"	Horatio King	Me.	1861
Lincoln	Montgomery Blair	Md.	1861
"	William Dennison	Ohio.	1864
Johnson	William Dennison	Ohio.	1865
"	Alexander W. Randall	Wis.	1866
Grant	John A. J. Creswell	Md.	1869
"	James W. Marshall	Va.	1874
"	Marshall Jewell	Ct.	1874
"	James N. Tyner	Ind.	1876
Hayes	David McK. Key	Tenn.	1877
"	Horace Maynard	"	1880
Garfield	Thomas L. James	N. Y.	1881
Arthur	"	"	1881
"	Timothy O. Howe	Wis.	1881
"	Walter Q. Gresham	Ind.	1883
"	Frank Hatton	Ia.	1884
Cleveland	William F. Vilas	Wis.	1885
"	Don M. Dickinson	Mich.	1888
B. Harrison.	John Wanamaker	Pa.	1889
Cleveland	Wilson S. Bissel	N. Y.	1893
"	William L. Wilson	W. Va.	1895
McKinley.	James A. Gary	Md.	1897
"	Charles Emory Smith	Pa.	1898
Roosevelt.	"	"	1901
"	Henry C. Payne	Wis.	1902
"	Robert J. Wynne	Pa.	1904
"	George B. Cortelyou	N. Y.	1905
"	George von L. Meyer	Mass.	1907
Taft	Frank H. Hitchcock	"	1909
Wilson	Albert S. Burleson	Tex.	1913
Harding	Will H. Hays	Ind.	1921
"	Hubert Work	Col.	1922
"	Harry S. New	Ind.	1923
Coolidge.	"	"	1923
Hoover	Walter F. Brown	Ohio.	1929

SECRETARIES OF THE NAVY.

Adams	Benjamin Stoddert	Md.	1798
Jefferson	"	"	1801
"	Robert Smith	"	1802
Madison	"	"	1802
"	Paul Hamilton	S. C.	1809
"	William Jones	Pa.	1813
"	B. W. Crowninshield	Mass.	1814
Monroe	"	"	1817
"	Smith Thompson	N. Y.	1818
"	Samuel L. Southard	N. J.	1823
J. Q. Adams.	"	"	1825
Jackson	John Branch	N. C.	1829
"	Levi Woodbury	N. H.	1831
"	Mahlon Dickerson	N. J.	1834
Van Buren.	"	"	1837
"	James K. Paulding	N. Y.	1838
Harrison	George E. Badger	N. C.	1841
Tyler	"	"	1841
"	Abel P. Upshur	Va.	1841
"	David Henshaw	Mass.	1843
"	Thomas W. Gilmer	Va.	1844
"	John Y. Mason	"	1844
Polk	George Bancroft	Mass.	1845
"	John Y. Mason	Va.	1846
Taylor	William B. Preston	"	1849
Fillmore	William A. Graham	N. C.	1850
"	John P. Kennedy	Md.	1852
Pierce	James C. Dobbin	N. C.	1853
Buchanan	Isaac Toucey	Ct.	1857
Lincoln	Gideon Welles	"	1861
Johnson	"	"	1865
Grant	Adolph E. Borie	Pa.	1869
"	George M. Robeson	N. J.	1869
Hayes	Richard W. Thompson	Ind.	1877
"	Nathan Goff jr.	W. Va.	1881
Garfield	William H. Hunt	La.	1881
Arthur	"	"	1881
"	William E. Chandler	N. H.	1882
Cleveland	William C. Whitney	N. Y.	1885
B. Harrison.	Benjamin F. Tracy	"	1889
Cleveland	Hilary A. Herbert	Ala.	1893
McKinley	John D. Long	Mass.	1897
Roosevelt.	"	"	1901
"	William H. Moody	"	1902
"	Paul Morton	Ill.	1904
"	Charles J. Bonaparte	Md.	1905
"	Victor H. Metcalf	Cal.	1906
"	Truman H. Newberry	Mich.	1908
Taft	George von L. Meyer	Mass.	1909
Wilson	Josephus Daniels	N. C.	1913
Harding	Edwin Denby	Mich.	1921
Coolidge	"	"	1923
"	Curtis D. Wilbur	Cal.	1924
Hoover	Charles Francis Adams	Mass.	1929

SECRETARIES OF THE INTERIOR.

Taylor	Thomas Ewing	Ohio.	1849
Fillmore	Thos. M. T. McKennan	Pa.	1850
"	Alexander H. H. Stuart	Va.	1850
Pierce	Robert McClelland	Mich.	1853
Buchanan.	Jacob Thompson	Miss.	1857
Lincoln	Caleb B. Smith	Ind.	1861
"	John P. Usher	"	1863
Johnson	"	"	1865
"	James Harlan	Iowa.	1865
"	Orville H. Browning	Ill.	1866
Grant	Jacob D. Cox	Ohio.	1869
"	Columbus Delano	"	1870
"	Zachariah Chandler	Mich.	1875
Hayes	Carl Schurz	Mo.	1877
Garfield	Samuel J. Kirkwood	Iowa.	1881
Arthur	Samuel J. Kirkwood	Iowa.	1881
"	Henry M. Teller	Col.	1882
Cleveland	Lucius Q. C. Lamar	Miss.	1885
Cleveland	William F. Vilas	Wis.	1888
B. Harrison.	John W. Noble	Mo.	1889
Cleveland	Hoke Smith	Ga.	1893
"	David R. Francis	Mo.	1896
McKinley	Cornelius N. Bliss	N. Y.	1897
"	Ethan A. Hitchcock	Mo.	1898
Roosevelt.	"	"	1901
"	James R. Garfield	Ohio.	1907
Taft	Richard A. Ballinger	Wash.	1909
"	Walter L. Fisher	Ill.	1911
Wilson	Franklin K. Lane	Cal.	1913
"	John B. Payne	Va.	1920
Harding	Albert B. Fall	N. M.	1921
"	Hubert Work	Col.	1923
Coolidge	"	"	1923
"	Roy O. West	Ill.	1928
Hoover	Ray Lyman Wilbur	Cal.	1929

SECRETARIES OF AGRICULTURE.

Cleveland	Norman J. Colman	Mo.	1889
B. Harrison.	Jeremiah M. Rusk	Wis.	1889
Cleveland	J. Sterling Morton	Neb.	1893
McKinley	James Wilson	Ia.	1897
Roosevelt.	James Wilson	Ia.	1901
Taft	James Wilson	Ia.	1909
Wilson	David F. Houston	Mo.	1913
"	Edw. T. Meredith	Ia.	1920
Harding	Henry C. Wallace	"	1921
Coolidge	Howard M. Gore	W. Va.	1924
"	W. M. Jardine	Kan.	1925
Hoover	Arthur M. Hyde	Mo.	1929

SECRETARIES OF COMMERCE AND LABOR.

Roosevelt.	George B. Cortelyou	N. Y.	1903
"	Victor H. Metcalf	Cal.	1904
Roosevelt.	Oscar S. Straus	N. Y.	1906
Taft	Charles Nagel	Mo.	1909

SECRETARIES OF COMMERCE.

Wilson	William C. Redfield	N. Y.	1913
"	Josh. W. Alexander	Mo.	1919
Harding	Herbert C. Hoover	Cal.	1921
Coolidge	"	"	1923
"	William F. Whiting	Mass.	
Hoover	Robert P. Lamont		

SECRETARIES OF LABOR.

Wilson	William B. Wilson	Pa.	1913
Harding	James J. Davis	"	1921
Coolidge	"	"	1923
Hoover	"	"	1929

UNITED STATES ENVOYS TO GREAT BRITAIN.

PRESIDENT.	Representative.	State.	Yr.
Washington.	Thomas Pinckney	S. C.	1792
"	Rufus King	N. Y.	1796
John Adams	" "	"	1796
Jefferson	James Monroe	Va.	1803
"	William Pinckney	Md.	1806
Madison	Jonathan Russell, ch. d'aff.	R. I.	1811
"	John Quincy Adams	Mass.	1815
Monroe	J. Adams Smith, ch. d'aff.	"	1817
"	Richard Rush	Pa.	1817
J. Q. Adams	Rufus King	N. Y.	1825
"	Albert Gallatin	Pa.	1826
"	W. B. Lawrence, ch. d'aff.	N. Y.	1827
"	James Barbour	Va.	1828
Jackson	Louis McLane	Del.	1829
"	Wash'gton Irving, ch. d'aff.	N. Y.	1831
"	Martin Van Buren	"	1831
"	Aaron Vail, ch. d'aff.	"	1832
"	Andrew Stevenson	Va.	1836
Tyler	Edward Everett	Mass.	1841
Polk	Louis McLane	Md.	1845
"	George Bancroft	N. Y.	1846
Taylor	J. C. B. Davis, ch. d'aff.	Mass.	1849
"	Abbott Lawrence	"	1849
Fillmore	Joseph R. Ingersoll	Pa.	1852
Pierce	James Buchanan	"	1853
"	George M. Dallas	Pa.	1856
Buchanan	" " "	Pa.	1865
Lincoln	Charles Francis Adams	Mass.	1861
Johnson	" " "	"	1861
"	Reverdy Johnson	Md.	1868
Grant	John Lothrop Motley	Mass.	1869
"	Robert C. Schenck	Ohio.	1870
"	Edwards Pierrepont	N. Y.	1876
Hayes	John Welsh	Pa.	1877
"	Wm. J. Hoppin, ch. d'aff.	N. Y.	1879
"	James Russell Lowell	Mass.	1880
Garfield	" " "	"	1880
Arthur	" " "	"	1880
Cleveland	Edward J. Phelps	Vt.	1885
B. Harrison.	Robert T. Lincoln	Ill.	1889
Cleveland	Thos. F. Bayard, amb.	Del.	1893
McKinley	John Hay, amb.	Ohio.	1897
"	Henry White, ch. d'aff.	R. I.	1898
"	Joseph H. Choate, amb.	N. Y	1899
Roosevelt	" " "	"	1899
"	Whitelaw Reid, amb.	"	1905
Taft	" " "	"	1909
Wilson	Walter H. Page, amb.	"	1913
"	John W. Davis, amb.	W.Va	1918
Harding	George B. M. Harvey, amb.	N. J.	1921
Coolidge	" " "	"	1921
"	Frank B. Kellogg, amb.	Minn	1923
"	Alanson B. Houghton, amb.	N. Y.	1925
Hoover	Charles G. Dawes	Ill.	1929

Monroe was appointed alone in 1803, and then jointly with Pinckney in 1806.

BRITISH ENVOYS TO THE UNITED STATES.

SOVEREIGN.	Representative.	Yr.
George III	George Hammond	1791
"	Phineas Bond, ch. d'aff.	1795
"	Robert Liston	1796
"	Edward Thornton, ch. d'aff.	1800
"	Anthony Merry	1803
"	David M. Erskine	1806
"	Francis James Jackson	1809
"	John Philip Morier, ch. d'aff.	1810
"	Augustus John Foster	1811
"	Anthony St. J. Baker, ch. d'aff.	1815
"	Charles Bagot	1816
George IV	Gibbs C. Antrobus, ch. d'aff.	1819
"	Sir Stratford Canning	1820
"	Henry U. Addington, ch. d'aff.	1823
"	Charles Richard Vaughan	1825
William IV	" " "	1825
"	Charles Bankhead, ch. d'aff.	1835
Victoria	Henry Stephen Fox	1836
"	Richard Pakenham	1844
"	John F. T. Crampton, ch. d'aff.	1847
"	Sir Henry Lytton Bulwer	1849
"	John F. T. Crampton, ch. d'aff.	1851
Victoria	John F. T. Crampton, env. & m.	1852
"	Philip Griffith, ch. d'aff.	1853
"	John Saville Lumley, ch. d'aff.	1855
"	Lord Napier	1857
"	Lord Lyons	1859
"	Jos. Hume Burnley, ch. d'aff.	1864
"	Sir Frederick W. A. Bruce	1865
"	Francis Clark Ford, ch. d'aff.	1867
"	Sir Edward Thornton	1868
"	Lionel S. Sackville West	1881
"	Sir Julian Pauncefote	1889
"	" " " amb.	1893
Edward VII	" " " "	1893
"	Hon. Sir Mich'l H. Herbert, amb.	1902
"	Sir Henry M. Durand, amb.	1903
"	James Bryce, amb.	1907
George V	" " " "	1910
"	Sir Cecil A. Spring-Rice, amb.	1912
"	Earl Reading (spec. miss.), amb.	1918
"	Earl Grey (spec. miss.), amb.	1919
"	Sir Auckland Geddes, amb.	1920
"	Sir Esme Howard, amb.	1924

Sackville West's career as the British envoy at Washington was ended by his letter of Sept. 13, 1888, from Beverly, Mass., to Charles F. Murchison, Pomona, Cal., advising Murchison, who was an Americanized Briton, to vote for Grover Cleveland in the oncoming Presidential election.

UNITED STATES ENVOYS TO FRANCE.

PRESIDENT.	Representative.	State.	Yr.
Confed'at'n.	Thomas Jefferson	Va.	....
Washington.	William Short, ch. d'aff.	"	1790
"	Gouverneur Morris	N. Y.	1792
"	James Monroe	Va.	1794
"	Charles C. Pinckney	S. C.	1796
John Adams	Charles C. Pinckney	"	1797
	John Marshall	Va.	1797
	Elbridge Gerry	Mass.	1797
	Oliver Ellsworth	Ct.	1799
"	William Vans Murray	Md.	1799
	William R. Davie	N. C.	1799
Jefferson	Robert R. Livingston	N. Y.	1801
"	John Armstrong	"	1804
Madison	Jonathan Russell, ch. d'aff.	R. I.	1810
"	Joel Barlow	Ct.	1811
"	William H. Crawford	Ga.	1813
"	Henry Jackson, ch. d'aff.	Ky.	1815
"	Albert Gallatin	Pa.	1816
Monroe	James Brown	La.	1823
Jackson	William C. Rives	Va.	1829
"	Nathaniel Niles, ch. d'aff.	Vt.	1832
"	Edward Livingston	La.	1833
"	Thos. P. Barton, ch. d'aff.	Pa.	1835
"	Lewis Cass	Ohio.	1836
Van Buren	" "	"	1836
Tyler	" "	"	1836
"	Henry Ledyard, ch. d'aff.	Mich.	1842
"	William R. King	Ala.	1844
Polk	J. L. Martin, ch. d'aff.	N. C.	1846
"	Richard Rush	Pa.	1847
Taylor	William C. Rives	Va.	1849
Fillmore	William C. Rives	Va.	1849
Pierce	Henry S. Sanford, ch. d'aff.	Ct.	1853
"	John Y. Mason	Va.	1853
Buchanan	W. R. Calhoun, ch. d'aff.	S. C.	1859
"	Charles J. Faulkner	Va.	1860
Lincoln	William L. Dayton	N. J.	1861
"	John Bigelow	N. Y.	1864
Johnson	John Hay, ch. d'aff.	Ill.	1866
"	John A. Dix	N. Y.	1866
Grant	Elihu B. Washburne	Ill.	1869
Hayes	Edward F. Noyes	Ohio.	1877
Garfield	Levi P. Morton	N. Y.	1881
Arthur	" "	"	1881
Cleveland	Robert M. McLane	Md.	1885
B. Harrison.	Whitelaw Reid	N. Y.	1889
"	T. Jefferson Coolidge	Mass.	1892
Cleveland	Jas. B. Eustis, amb.	La.	1893
McKinley	Horace Porter, amb.	N. Y.	1897
Roosevelt	" " "	"	1897
"	Robert S. McCormick, amb.	Ill.	1905
"	Henry White, amb.	R. I.	1907
Taft	" " "	"	1909
"	Robert Bacon, amb.	N. Y	1909
"	Myron T. Herrick, amb.	Ohio.	1912
Wilson	" " "	"	1913
"	William G. Sharp, "	"	1914
"	Hugh C Wallace, "	Wash	1919
Harding	Myron T. Herrick, "	Ohio.	1921
Coolidge	" " "	"	1921
Hoover	Walter E. Edge	N. J.	1929

FRENCH ENVOYS TO THE UNITED STATES.

Government.	Representative.	Yr.
Louis XVI....	Count de Moustier.....	1788
"	M. Otto, ch. d'aff.....	1789
"	Colonel Ternant.....	1791
Convention...	Edmond C. Genet.....	1793
Directory.....	Joseph Fauchet.....	1794
"	Pierre Auguste Adet.....	1795
Consulate....	" " "	1795
"	L. A. Pichon, ch. d'aff.....	1801
Napoleon I...	General Turreau.....	1805
"	M. Serurier.....	1811
Louis XVIII..	" "	1811
" ..	G. Hyde de Neuville.....	1816
" ..	Count de Menou, ch. d'aff.....	1822
Charles X....	Baron de Mareuil.....	1824
"	Count de Menou, ch. d'aff.....	1827
"	Roux de Rochelle.....	1830
L. Philippe...	M. Serurier.....	1831
"	Alphonse Pageot, ch. d'aff.....	1835
"	Edouard Pontois.....	1837
"	Alphonse Pageot, ch. d'aff.....	1839
"	L. A. A. Fourier de Bacourt.....	1840
"	Alphonse Joseph Yver Pageot..	1842
L. Napoleon..	Guillaume T. L. Poussin.....	1848
"	E. A. O Sain de Boislecomte...	1850
Napoleon III.	Count de Sartiges.....	1851
"	Visc't J. Treilhard, ch. d'aff..	1859
"	Henri Mercier.....	1860
"	Visc't J. Treilhard, ch. d'aff....	1863
Napoleon III..	Louis de Geofroy, ch. d'aff.....	1864
" ..	Marquis de Montholon.....	1865
" ..	Jules Berthemy.....	1866
" ..	Count de Faverney, ch. d'aff...	1869
" ..	Prevost Paradol.....	1870
" ..	Jules Berthemy.....	1870
Nat. Defense.	Viscount Jules Treilhard.....	1870
Pres. Thiers...	Henry de Bellonet, ch. d'aff...	1871
"	Marquis de Noailles.....	1872
Pr. MacMahon	A. Bartholdi.....	1874
"	F. de Vaugelas, ch. d'aff.....	1876
"	Mamime Outrey.....	1877
"	Theodore J. D. Roustan.....	1882
Pres. Grevy...	J. Patenotre.....	1891
Pres. Carnot..	"	1891
" ..	" amb.....	1893
Pres. Faure...	" "	1893
" ..	Jules Cambon, amb.....	1898
Pres. Loubet..	" " "	1898
" ..	Jean J. Jusserand, amb.....	1902
Pres. Fallieres.	" " "	1906
Pres. Poincare.	" " "	1913
Pr. Deschanel.	" " "	1920
Pr. Millerand..	" " "	1920
Pr. Doumergue	" " "	1924
"	Emile Daeschner, "	1925
"	Henri Berenger, "	1926
"	Paul Claudel, "	1927

UNITED STATES ENVOYS TO GERMANY.

President.	Representative.	State.	Yr.
Grant.....	George Bancroft.....	N. Y.	1871
"	Nicholas Fish, ch. d'aff.....	"	1874
"	J. C. Bancroft Davis.....	"	1874
Hayes.....	B. Sidney Everett, ch. d'aff.	Mass.	1877
"	Bayard Taylor.....	Pa...	1878
"	H. Sidney Everett, ch. d'aff.	Mass.	1878
"	Andrew D. White.....	N. Y.	1879
Garfield....	H. Sidney Everett, ch. d'aff.	Mass.	1881
Arthur.....	A. A. Sargent.....	Cal...	1882
"	John A. Kasson.....	Ia....	1884
Cleveland...	George H. Pendleton.....	Ohio.	1885
B. Harrison.	William Walter Phelps.....	N. J.	1889
Cleveland...	Theodore Runyon, amb.....	N. J.	1893
Cleveland...	Edwin F. Uhl, amb.....	Mich.	1896
McKinley..	Andrew D. White, amb.....	N. Y.	1897
Roosevelt...	" " " "	"	1897
"	Charlemagne Tower, amb..	Pa...	1902
" ...	David J. Hill, amb.....	N. Y.	1907
Taft.....	" " " "	"	1909
"	John G. A. Leishman, amb.	Pa...	1911
Wilson.....	James W. Gerard, amb....	N. Y.	1913
Harding....	Alanson B. Houghton, amb.	"	1922
Coolidge....	" " " "	"	1922
"	Jacob G. Schurman, amb...	"	1925
Hoover.....	"	"	1929

GERMAN ENVOYS TO THE UNITED STATES.

Emperor.	Representative.	Yr.
William I.....	Kurd von Schlozer.....	1871
"	Count von Beust, ch. d'aff.....	1882
"	Karl von Eisen Decher.....	1883
"	H. von Alvensleben.....	1884
William II....	Count Arco Valley.....	1888
"	A. von Mumm, ch. d'aff.....	1891
"	Theodore von Holleben.....	1892
"	Baron von Saurma-Jeltsch, amb.	1893
William II....	Baron M. von Thielmann, amb.	1895
"	Herr von Holleben, amb.....	1898
"	Baron S. von Sternburg, amb...	1904
"	Johann H. von Bernstorff, amb.	1908
Republic.....	Dr. Otto Wiedfeldt, amb.....	1922
"	Baron Ago v. Maltzan, amb....	1925
"	Dr. W. V. Prittwitz-Gaffron, amb.....	1927

UNITED STATES ENVOYS TO AUSTRIA-HUNGARY.

President.	Representative.	State.	Yr.
Van Buren..	Henry A. Muhlenberg.....	Pa...	1838
" ..	J. R. Clay, ch. d'aff.....	" ...	1840
Tyler.....	Daniel Jenifer.....	Md..	1841
Polk.....	Wm. H. Stiles, ch. d'aff....	Ga...	1845
Taylor.....	J. Watson Webb, ch. d'aff..	N. Y.	1849
Fillmore....	C. J. McCurdy, ch. d'aff....	Ct...	1850
"	T. M. Foote, ch. d'aff.....	N. Y.	1852
Pierce.....	H. R. Jackson, min. res....	Ga...	1853
Buchanan..	J. Glancy Jones.....	Pa...	1858
Lincoln.....	Anson Burlingame.....	Mass.	1861
"	John Lothrop Motley.....	"	1861
Johnson....	George W. Lippitt, ch. d'aff.	R. I.	1867
"	John Hay, ch. d'aff.....	Ill...	1867
"	Henry M. Watts.....	Pa...	1868
Grant.....	John Jay.....	N. Y.	1869
"	Godlove S. Orth.....	Ind..	1875
"	Edward F. Beale.....	D. C.	1876
Hayes.....	John A. Kasson.....	Ia...	1877
Garfield....	William Walter Phelps.....	N. J.	1881
Arthur.....	Alphonso Taft.....	Ohio.	1882
"	John M. Francis.....	N. Y.	1884
Cleveland...	A. M. Kiely.....	Va...	1885
" ...	James Fenner Lee, ch. d'aff.	Md..	1885
" ...	Alexander R. Lawton.....	Ga...	1887
B. Harrison.	Frederick D. Grant.....	N. Y.	1889
Cleveland...	Bartlett Tripp.....	S. D.	1893
McKinley..	Charlemagne Tower.....	Pa...	1897
" ..	Addison C. Harris.....	Ind..	1899
" ..	Robert S. McCormick.....	Ill...	1901
Roosevelt...	" " "	"	1901
" ...	Bellamy Storer, amb.....	Ohio.	1902
" ...	Charles S. Francis, amb....	N. Y.	1906
Taft.....	" " "	"	1909
"	Richard C. Kerens, amb...	Mo..	1909
Wilson.....	Frederic C. Penfield, amb..	Pa...	1913

AUSTRO-HUNGARIAN ENVOYS TO THE UNITED STATES.

Emperor.	Representative.	Yr.
Ferdinand I...	Baron de Mareschal.....	1838
" ..	Chevalier Hulsemann, ch. d'aff.	1841
Franz Joseph..	" "	1841
" ..	" " min. res.	1855
" ..	Count Nicholas Giorgi min. res.	1863
" ..	Count Wydenbruck.....	1865
" ..	Baron de Frankenstein, ch. d'aff.	1867
" ..	Baron Charles de Lederer.....	1868
" ..	Baron von Schwartz Senborn...	1874
" ..	Count Ladislaus Hoyos.....	1875
" ..	Chev. E. S. von Tavera, ch. d'aff.	1877
Franz Joseph..	Baron Ernest von Mayr.....	1879
" ..	C't Lippe-Weissenfeld, ch. d'aff.	1881
" ..	Baron Ignatz von Schaeffer...	1882
" ..	C't Lippe-Weissenfeld, ch. d'aff.	1885
" ..	Chevalier E. S. von Tavera....	1887
" ..	L. Hengelmuller von Hengervar.	1895
" ..	" " " amb.	1902
" ..	Dr. K. Theodor Dumba, amb..	1912
" ..	Count Adam von Tarnow Tarnowski, amb.....	1916

Dumba was recalled in 1915. After the Treaty of Versailles the U. S. sent and received separate envoys in the cases of Austria and Hungary, A. H. Washburn being the first Minister to *Austria*, and Theo. Brentano the first to *Hungary;* the latter sent as its first Minister to the U. S. Count Laszlo Szechenyi, in 1922.

The Austrian Minister to the United States, Edgar L. G. Prochnik, was appointed in 1925.

UNITED STATES ENVOYS TO ITALY.

PRESIDENT.	Representative.	State.	Yr.
Lincoln	George P. Marsh	Vt	1861
Johnson	" " "	"	1861
Grant	" " "	"	1861
Hayes	" " "	"	1861
Garfield	" " "	"	1861
Arthur	" " "	"	1861
"	William Waldorf Astor	N. Y.	1882
Cleveland	John B. Stallo	Ohio	1885
B. Harrison	Albert G. Porter	Ind	1889
"	William Potter	Pa	1892
Cleveland	J. J. Van Alen, amb	R. I.	1893
"	Wayne MacVeagh, amb	Pa	1894
McKinley	William F. Draper, amb	Mass.	1897
McKinley	George von L. Meyer, amb	Mass.	1901
Roosevelt	" " "	"	1901
"	Henry White, amb	R. I.	1905
"	Lloyd C. Griscom, amb	Pa	1907
Taft	John G. A. Leishman, amb	"	1909
"	Thomas J. O'Brien, amb	Mich.	1911
Wilson	Thomas Nelson Page, amb	Va	1913
"	Robert U. Johnson, amb	N. Y.	1920
Harding	Richard W. Child, amb	Mass.	1921
Coolidge	" " " "	"	1921
"	Henry P. Fletcher, amb	Penn.	1924
Hoover	John W. Garrett	Md	1929

Mr. Van Alen was confirmed by the Senate but declined, and Mr. MacVeagh was appointed.

ITALIAN ENVOYS TO THE UNITED STATES.

KING.	Representative.	Yr.
V. Emmanuel	Chevalier Joseph Bertinatti	1861
"	Romeo Cantagalli, ch. d'aff	1866
"	Chevalier Marcello Cerruti	1867
"	C't Luigi Colobiano, ch. d'aff	1869
"	Count Luigi Corti	1870
"	Count Litta, ch. d'aff	1874
"	Baron Alberto Blanc	1875
Humbert	Prince Camporeale, ch. d'aff	1880
"	Baron de Fava	1881
"	Marquis Imperiali, ch. d'aff	1891
Humbert	Baron de Fava	1892
"	" " " amb	1893
V. Em'an'l III.	" " " "	1893
"	E. Mayor des Planches, amb	1901
"	Marquis C. Confalonieri, amb	1910
"	Count v Macchi di Cellere, amb	1913
"	Senator V. R. Ricci, amb	1921
"	Don Gelasio Caetani, amb	1922
"	Noble Giacomo de Martino	1925

UNITED STATES ENVOYS TO SPAIN.

PRESIDENT.	Representative.	State.	Yr.
Washington	W. Carmichael, ch. d'aff	Md	1790
"	William Short, min. res	Va	1794
"	Thomas Pinckney	S. C.	1794
"	David Humphreys	Ct	1796
Jefferson	Charles Pinckney	S. C.	1801
"	G. W. Erving, ch. d'aff	Mass.	1805
	Official relations with Spain were broken off from 1808 to 1814.		
Madison	G. W. Erving	Mass.	1814
Monroe	John Forsyth	Ga	1819
"	Hugh Nelson	Va	1823
J. Q. Adams	Alexander H. Everett	Mass.	1825
Jackson	Cornelius P. Van Ness	Vt	1829
"	A. Middleton, Jr., ch. d'aff	S. C.	1836
Van Buren	John H. Eaton	Tenn.	1837
"	Aaron Vail, ch. d'aff	N. Y.	1840
Tyler	Washington Irving	"	1842
Polk	Romulus M. Saunders	N. C.	1846
Taylor	Daniel M. Barringer	"	1849
Pierce	Pierre Soule	La	1853
"	Augustus C. Dodge	Ia	1855
Buchanan	William Preston	Ky	1858
Lincoln	Carl Schurz	Wis	1861
"	Gustavus Koerner	Ill	1862
"	H. J. Perry, ch. d'aff	N. H.	1864
"	John P. Hale	N. H.	1865
Grant	Daniel E. Sickles	N. Y.	1869
Grant	Alvey A. Adee, ch. d'aff	N. Y.	1873
"	Caleb Cushing	Mass.	1874
Hayes	James Russell Lowell	"	1877
"	Lucius Fairchild	Wis	1880
Garfield	" "	"	1880
Arthur	Hannibal Hamlin	Me	1881
"	John W. Foster	Ind	1883
Cleveland	Jabez L. M. Curry	Va	1885
"	Perry Belmont	N. Y.	1889
B. Harrison	Thomas W. Palmer	Mich.	1889
"	E. Burd Grubb	N. J.	1890
"	A. Loudon Snowden	Pa	1892
Cleveland	Hannis Taylor	Ala	1893
McKinley	Stewart L. Woodford	N. Y.	1897
	Official relations with Spain were broken off, April, 1898, to April, 1899.		
"	Bellamy Storer	Ohio	1899
Roosevelt	" "	"	1899
"	Arthur S. Hardy	N. H.	1902
"	William M. Collier	N. Y.	1906
Taft	Henry Clay Ide	Vt	1909
Wilson	Joseph E. Willard, amb	Va	1913
Harding	Cyrus E. Woods, amb	Pa	1921
"	Alexander P. Moore, amb	"	1923
Coolidge	" "	"	1923
"	Ogden H. Hammond, amb	N. J.	1925
Hoover	"	"	1929

SPANISH ENVOYS TO THE UNITED STATES.

SOVEREIGN.	Representative.	Yr.
Carlos IV	Jose Ignacio deViar, ch. d'aff	1789
"	Jose Ignacio deViar, joint ch. d'aff.	1791
"	Jose de Jaudenes, "	
"	Carlos M. de Irujo	1796
"	Valentin de Foronda, ch. d'aff	1807
	Official relations with Spain were broken off from 1808 to 1814.	
Fernan. VII	Luis de Onis	1809
"	Mateo de la Serna, ch. d'aff	1819
"	Francisco Dionisio Vives	1820
"	Joaquin de Anduaga	1821
"	F. H. Rivas y Salmon, ch. d'aff	1823
"	Francisco Tacon	1827
M. Christina	" "	1827
Isabella II	Angel Calderon de la Barca	1835
"	Pedro Alcantara Argaiz	1839
"	Fidencio Bourman, ch. d'aff	1844
"	A. Calderon de la Barca, min. res	1844
"	Jose Maria Margallon, ch. d'aff	1853
"	Leopoldo Augusto de Cueto	1854
"	Alfonso Escalante	1855
"	Gabriel Garcia y Tassara	1857
"	Facundo Goni	1867
Provis. Gov	Mauricio Lopez Roberts	1869
Amadeo I	Adm. Don Jose Polo de Bernabe	1872
Pr. Figueras	Adm. Don Jose Polo de Bernabe	1872
" Castelar	" " " " " "	1872
" Serrano	Antonio Mantilla	1874
Alfonso XII	Jose Brunetti, ch. d'aff	1878
"	Felipe Mendez de Vigo y Osorio	1879
"	Francisco Barca del Corral	1881
"	Enrique Dupuy de Lome, ch. d'aff	1883
"	Juan Valera y Alcala Galiano	1884
Alfonso XIII	Emilio de Muruaga	1886
"	Miguel Suarez Guanes	1890
"	Jose Felipe Segario, ch. d'aff	1891
"	Enrique Dupuy de Lome	1892
"	Emilio de Muruaga	1893
"	Enrique Dupuy de Lome	1896
"	Louis Polo y Bernabe	1898
	Diplomatic intercourse broken off by the war.	
"	Jose Brunetti, Duke of Arcos	1899
"	Emilio de Ojeda	1902
"	Bernardo J. de Cologan	1906
"	Ramon Pina	1907
"	Marquis of Villalobar	1909
"	Don Juan Riano y Gayangos	1913
"	Don Alejandro Padilla y Bell	1926

UNITED STATES ENVOYS TO RUSSIA.

PRESIDENT.	Representative.	State.	Yr.
Madison	John Quincy Adams	Mass.	1809
"	Levett Harris, ch. d'aff	Pa.	1814
"	William Pinkney	Md.	1816
Monroe	George W. Campbell	Tenn.	1818
"	Henry Middleton	S. C.	1820
J. Q. Adams	"	"	1820
Jackson	John Randolph	Va.	1830
"	James Buchanan	Pa.	1832
"	John R. Clay, ch. d'aff	"	1833
"	William Wilkins	"	1834
"	John R. Clay, ch. d'aff	"	1836
Van Buren	George M. Dallas	"	1837
"	W. W. Chew, ch. d'aff	"	1839
"	Churchill C. Cambreleng	N. Y.	1840
Tyler	Charles S. Todd	Ky.	1841
Polk	Ralph I. Ingersoll	Ct.	1846
"	Colin M. Ingersoll, ch. d'aff.	"	1848
"	Arthur P. Bagby	Ala.	1849
Fillmore	Neil S. Brown	Tenn.	1850
Pierce	Thomas H. Seymour	Ct.	1853
Buchanan	Francis W. Pickens	S. C.	1858
"	John Appleton	Me.	1860
Lincoln	Cassius M. Clay	Ky.	1861
"	Simon Cameron	Pa.	1862
"	Bayard Taylor	N. Y.	1862
"	Cassius M. Clay	Ky.	1863
Grant	Andrew G. Curtin	Pa.	1869
Grant	James L. Orr	S. C.	1872
"	Marshall Jewell	Ct.	1873
"	Eugene Schuyler, ch. d'aff.	N. Y.	1874
"	George H. Boker	Pa.	1875
Hayes	E. W. Stoughton	N. Y.	1878
"	Wickham Hoffman, ch. d'aff	"	1879
"	" & Garf'd	Ind.	1880
Arthur	Wickham Hoffman, ch. d'aff	N. Y.	1881
"	William H. Hunt	La.	1882
"	Alphonso Taft	Ohio	1884
Cleveland	George V. M. Lothrop	Mich.	1885
"	Lambert Tree	Ill.	1888
B. Harrison	George W. Wurts, ch. d'aff.	Pa.	1889
"	Charles Emory Smith	"	1890
"	Andrew D. White	N. Y.	1892
Cleveland	Clifton R. Breckinridge	Ark.	1894
McKinley	Ethan A. Hitchcock	Mo.	1897
"	" " " amb	"	1898
"	Charlemagne Tower, amb	Pa.	1899
Roosevelt	" " " "	"	1899
"	Robt. S. McCormick, amb	Ill.	1902
"	George von L. Meyer, amb.	Mass.	1905
"	John W. Riddle, amb	"	1907
Taft	William W. Rockhill, amb.	D. C.	1909
"	Curtis Guild, amb	Mass.	1911
"	George T. Marye	Calf.	1914
Wilson	David R. Francis, amb	Mo.	1916

RUSSIAN ENVOYS TO THE UNITED STATES.

EMPEROR.	Representative.	Yr.
Alexander I	Andre de Daschkoff, ch. d'aff	1809
"	Count Theodore de Pahlen	1810
"	Andre de Daschkoff	1811
"	Chevalier Pierra de Poletica	1819
"	George Ellisen, ch. d'aff	1822
"	Baron de Tuyll	1823
Nicholas I	Baron de Maltitz, ch. d'aff	1826
"	Baron de Krudener	1827
"	George Krehmer, ch. d'aff	1838
"	Alexander de Bodisco	1838
Alexander II	Edward de Stoeckl	1854
"	Waldemar Bodisco, ch. d'aff	1868
"	Constantine Catacazy	1869
"	Alexander Gorloff, ch. d'aff	1871
Alexander II	Baron Henri d'Offenberg	1872
"	Nicholas de Voigt, ch. d'aff	1874
"	Nicholas Shishkin	1875
"	Michel Bartholomei	1880
Alexander III	Charles de Struve	1882
"	Baron G. Schilling, ch. d'aff	1892
"	Price Cantacuzene	1893
Nicholas II	" "	1893
"	E. de Kotzebue	1896
"	Count Cassini, amb	1898
"	Baron Rosen, amb	1905
"	George Bakhmeteff, amb	1911
Post-Revol	Boris Bakhmeteff, amb	1917
U. S. S. R.	No diplomatic relations.	

IMPEACHMENTS IN UNITED STATES HISTORY.

Under the Constitution, the President, Vice President, and all civil officers of the United States are liable to impeachment for "treason, bribery, or other high crimes and misdemeanors," and, on conviction, shall be removed from office.

The House of Representatives has the sole power of impeachment.

The Senate has the sole power to try all impeachments. When sitting for that purpose they shall be on oath or affirmation.

When the President of the United States is tried, the Chief Justice of the Supreme Court shall preside.

No conviction is had except by the concurrence of two-thirds of the members present.

Judgment in cases of impeachment shall not extend further than to removal from office, and disqualification to hold and enjoy any office of honor, trust, or profit under the United States; but the person convicted "shall nevertheless be liable and subject to indictment, trial, judgment, and punishment, according to law."

Impeachments to date have been as follows:

(1) William Blount, one of the first two Senators from Tennessee, accused of treason and sedition, in having plotted to aid Great Britain in wresting Florida and the Louisiana territory from Spain. Inciting the Cherokee Indians was a part of the alleged conspiracy.

President John Adams, July 3, 1797, asked the House and Senate for an inquiry. The Senate, 25 to 1, expelled Blount, July 8, 1797. The House, Dec. 4, 1797, impeached him, and the impeachment trial began Dec. 17, 1798.

His Counsel said the Senate had lost jurisdiction when it expelled Blount. The Senate, Jan. 10, 1799, by vote of 14 to 11, agreed to that view of the case, and dismissed the impeachment.

Meantime, Blount had been elected to the State Senate of Tennessee and had been chosen (Dec. 3, 1797) president of that body.

(2) John Pickering, Judge of the District Court of the United States for the District of New Hampshire; impeached 1803 for drunkenness and disregard of the terms of the statutes; trial March 3 to March 12, 1804; vote, 19 guilty, 7 not guilty; verdict, guilty; punishment, removal from office.

(3) Samuel Chase, Associate Justice of the Supreme Court of the United States; impeached 1804 for misconduct at trials of persons charged with breach of the Sedition Law; trial Nov. 30, 1804, to March 1, 1805; vote, 9 guilty, 30 not guilty, and 15 guilty, 19 not guilty, on different counts; verdict, acquittal.

(4) James Peck, Judge of the District Court of the United States for the District of Missouri; impeached for tyrannous treatment of counsel, 1830; trial May 11 to May 30, 1830, and from Dec. 13, 1830, to Jan. 31, 1831; vote, 22 guilty, 21 not guilty, verdict, acquittal.

(5) West H. Humphreys, Judge of the District Court of the United States for the District of Tennessee, impeached 1862 for supporting the secession movement and unlawfully acting as Judge of the Confederate District Court; trial May 22 to June 26, 1862; vote, 32 guilty, 4 not guilty; verdict, guilty; punishment, removal from office.

(6) Andrew Johnson, President of the United States, impeached for usurpation of the law, corrupt use of the veto power, interference at elections and high crimes and misdemeanors; trial, March 30 to May 26, 1868; vote, guilty, 35, not guilty, 19; verdict, acquittal.

(7) William W. Belknap, Secretary of War of the United States, impeached for accepting bribes; trial, April 5 to Aug. 1, 1876; vote, guilty 5, not guilty, 25; verdict, acquittal.

(8) Charles Swayne, Judge of the District Court of the United States for the District of Florida; impeached 1905 for misconduct in office; trial Feb 6 to Feb. 27, 1905; vote, 55 guilty, 37 not guilty verdict, acquittal.

(9) Robert W. Archibald, Associate Judge of United States Commerce Court, was impeached July 11, 1912, on thirteen articles charging him with corrupt collusion with coal mine owners and railroad officials while in office. The Senate began his trial Dec. 3, 1912, and ended Jan. 13, 1913; verdict, guilty; removal from office.

(10) United States District Judge, Alston G. Dayton, Northern District of West Virginia, was impeached, June 12, 1914; proceedings abandoned March 3, 1915.

(11) George W. English, U. S. District Judge, East. Dist., Ill. The House, April 1, 1926, voted his impeachment. He resigned.

THE UNITED STATES IMMIGRATION LAW.

(The Federal Law of Aug. 3, 1882 levied a duty of 50 cents on each alien immigrant—the first head tax.)

THE QUOTA LAW.

The new United States Immigration Quota Law proclaimed in operation, as of July 1, 1929, admits yearly about 153,741 alien immigrants, as against 164,667 under the old law.

Under the new law the undesirable or ineligible aliens are largely weeded out before they start instead of after they get here.

The law relieves the great body of immigrants of detention at Ellis Island and removes many causes for delays and misfortunes after they reach American ports.

The American Consuls are directed to examine the information given on questionnaires and eliminate applicants who are feeble-minded and whose prison records make them undesirable.

The principal United States consular officer in each foreign country is designated as quota-control officer, and it is his duty to see that the quota is not exceeded. The Consular service is under the Department of State.

If an alien obtains a certificate and later changes his mind about emigrating to the United States, his place cannot be taken by another and he will be keeping some one else from coming.

REGISTRY OF ALIENS UNDER THE ACT OF MARCH 2, 1929.

The Act provides as follows:

(a) The registry of aliens at ports of entry required by section 1 of the Act of June 29, 1906, may be made as to any alien not ineligible to citizenship in whose case there is no record of admission for permanent residence, if such alien shall make a satisfactory showing to the Commissioner General of Immigration, in accordance with regulations prescribed by the Commissioner General of Immigration, with the approval of the Secretary of Labor, that he—

(1) Entered the United States prior to June 3, 1921;

(2) Has resided in the United States continuously since such entry;

(3) Is a person of good moral character; and

(4) Is not subject to deportation.

(b) For each such record of registry made as herein authorized the alien shall pay to the Commissioner General of Immigration a fee of $20.

For the purposes of the immigration laws and the naturalization laws an alien, in respect of whom a record of registry has been made as authorized by section 1 of this Act, shall be deemed to have been lawfully admitted to the United States for permanent residence as of the date of his entry.

THE JAPANESE EXCLUSION CLAUSE.

(The quotas are available only for persons born in the respective countries who are eligible to citizenship in the United States and admissible by the Immigration Law. This clause excludes Japanese, Chinese and other yellow races.)

A non-quota immigrant is:

(a) An immigrant who is the unmarried child under 21 years, or the wife, of a citizen of the U. S. or the husband of a citizen of the United States by a marriage occurring prior to June 1, 1928.

(b) An immigrant previously lawfully admitted to the United States, who is returning from a temporary visit abroad;

(c) An immigrant who was born in Canada, Newfoundland, Mexico, Cuba, Haiti, Dominican Republic, the Canal Zone, or an independent country of Central or South America, and his wife, and his unmarried children under 18 years, if accompanying or following to join him;

(d) An immigrant who continuously for at least two years immediately preceding the time of his application for admission to the U. S. has been, and who seeks to enter the U. S. solely for the purpose of, carrying on the vocation of minister, or professor and his wife, and his unmarried children under 18 years, if accompanying or following to join him;

(e) An immigrant who is a bona fide student at least 15 years of age and who seeks to enter the United States solely for the purpose of study at an accredited school; or

(f) A woman who was a citizen of the United States and who prior to September 22, 1922, lost her citizenship by reason of her marriage to an alien, but at the time of her application for an immigration visa is unmarried.

A quota immigrant is any other than a non-quota.

An alien who is not particularly specified in this act as a non-quota immigrant or a non-immigrant shall not be admitted as a non-quota immigrant or a non-immigrant by reason of relationship to any individual who is so specified or by reason of being excepted from the operation of any other law regulating or forbidding immigration.

IMMIGRATION VISAS.

Visas are issued to immigrants at $9 apiece (plus $1 for executing the application) by the United States consular officers abroad. They constitute the document which admits them to this country. Each visa contains the full details as to the immigrant's nationality, history, etc.; also a description of him, with his photograph.

A visa is good for four months, not counting the ocean trip, and it also validates a passport.

The steamship companies must keep a record of each visa they handle.

When the alien reaches the United States his visa is taken by the immigration officer at the port of arrival, who inspects the holder and, if the immigrant is acceptable, permits the person to enter and forwards the visa to the United States Department of Labor at Washington.

With the following exceptions all aliens are required to obtain from an American consular officer abroad an immigration visa before they can be admitted to the United States:

(1) A governmental official, his family, attendants, servants, and employees; (2) an alien visiting the United States temporarily as a tourist or temporarily for business or pleasure.

(3) An alien in continuous transit through the United States.

(4) An alien lawfully admitted to the United States who later goes in transit from one part of the United States to another through foreign contiguous territory.

(5) A bona fide alien seaman serving as such on a vessel arriving at a port of the United States and seeking to enter temporarily the United States solely in the pursuit of his calling as a seaman.

(6) An alien entitled to enter the United States solely to carry on trade under and in pursuance of the provisions of a present existing treaty of commerce and navigation.

(7) An alien, lawfully resident in the United States, who is returning from a temporary visit abroad and who is possessed of an unexpired return permit.

(8) (a) Aliens who have been previously lawfully admitted to the United States and who are returning from a temporary visit of not more than six months to Canada, Newfoundland, Bermuda, St. Pierre, Miquelon, Mexico, and islands included in the Bahamas and Greater Antilles groups, or such aliens who are returning from a temporary visit to any other foreign country and who are in possession of a permit to reenter the U. S. issued in accordance with the provisions of the immigration act of 1924, and (b) children born subsequent to the issuance of an immigration visa to the accompanying parent, if otherwise admissible, shall be permitted to enter the U. S. without an immigration visa.

Non-immigrant citizens of Canada, Newfoundland, Bermuda, the Bahamas, and British possessions in the Greater Antilles or British subjects domiciled therein or non-immigrant citizens of St. Pierre, or Miquelon, or French citizens domiciled therein, or non-immigrant citizens of Mexico, Cuba, Santo Domingo, or Haiti, if otherwise admissible, shall be permitted to enter the U. S. without a passport visa.

Where an immigrant arriving in the U. S. by water or arriving by water at a port designated as a U. S. port of entry for aliens in foreign contiguous territory, is in possession of and presents an immigration visa or permit to reenter which has expired, such immigrant shall be excluded unless it shall satisfactorily appear that the immigrant embarked on the vessel by which he arrives prior to the expiration of the validity of such immigration visa or permit and that he has proceeded by continuous voyage to the U. S.

An alien in the United States going abroad, for a visit may, on application, if his title is clear get for $3 from the Commissioner General of Immigration at Washington a re-entry permit.

A false statement under oath in any immigration document is punishable, on conviction, by not more than $10,000 fine or five years in prison, or both.

Steamship fines are fixed at $1,000, plus refunded fare, for each immigrant involved in attempted unlawful entry.

The 109,000 Japanese residing in the Hawaiian Islands are not affected by the exclusion provisions of the new Immigration Act, but are still subject to the restrictions of the General Immigration Act of Feb. 5, 1917. Secretary of Labor Davis ruled on July 15, 1924.

EXCLUDED CLASSES.

(1) All idiots, imbeciles, feeble-minded persons, epileptics, insane persons; persons who have had one or more attacks of insanity at any time previously; persons of constitutional psychopathic inferiority; persons with chronic alcoholism; paupers; profes-

sional beggars, vagrants, persons afflicted with tuberculosis in any form or with a loathsome or dangerous, contagious disease; persons not comprehended within any of the foregoing excluded classes who are found to be and are certified by the examining surgeon as being mentally or physically defective, such physical defect being of a nature which may affect the ability of such alien to earn a living; persons who have been convicted of or admit having committed a felony or other crime or misdemeanor involving moral turpitude; polygamists, or persons who practice polygamy or believe in or advocate the practise of polygamy.

(2) Anarchists, or persons who believe in or advocate the overthrow by force or violence of the Government of the United States or of all forms of law or who disbelieve in or are opposed to organized government, or who advocate the assassination of public officials, or who advocate or teach the unlawful destruction of property; persons who are members of or affiliated with any organization entertaining and teaching disbelief in or opposition to organized government, or who advocate or teach the duty, necessity, or propriety of the unlawfull assaulting or killing of any officer or officers, either of specific individuals or of officers generally, of the Government of the United States or of any other organized Government because of his or their official character, or who advocate or teach the unlawful destruction of property; prostitutes, or persons coming into the United States for the purpose of prostitution or for any other immoral purpose; persons who directly or indirectly procure or attempt to procure or import prostitutes or persons for the purpose of prostitution or for any other immoral purpose; persons who are supported by or receive in whole or in part the proceeds of prostitution.

(3) Persons, hereinafter called contract laborers, who have been induced, assisted, encouraged, or solicited to migrate to this country by offers or promises of employment, whether such offers or promises are true or false, or in consequence of agreements, oral, written, or printed, express or implied, to perform labor in this country of any kind, skilled or unskilled; persons who have come in consequence of advertisements for laborers printed, published, or distributed in a foreign country; persons likely to become a public charge, persons who have been excluded from admission and deported in pursuance of law, and who may again seek admission within one year from the date of such deportation, unless prior to their re-embarkation at a foreign port or their attempt to be admitted from foreign contiguous territory the Secretary of Labor shall have consented to the reapplying for admission.

Persons whose ticket or passage is paid for with the money of another, or who are assisted by others to come, unless it is affirmatively and satisfactorily shown that such persons do not belong to one of the foregoing excluded classes; persons whose ticket or passage is paid for by any corporation, association, society, municipality, or foreign Government, either directly or indirectly; stowaways, except that any such stowaway, if otherwise admissible, may be admitted in the discretion of the Secretary of Labor, all children under sixteen years of age unaccompanied by or not coming to one or both of their parents, except that any such children may, in the discretion of the Secretary of Labor, be admitted if in his opinion they are not likely to become a public charge and are otherwise eligible.

(4) Unless otherwise provided for by existing treaties, persons who are natives of islands not possessed by the United States adjacent to the continent of Asia, situate south of the twentieth parallel latitude north, west of the one hundred and sixtieth meridian of longitude east from Greenwich, and north of the tenth parallel of latitude south, or who are natives of any country, province, or dependency situate on the continent of Asia west of the one hundred and tenth meridian of longitude east from Greenwich and east of the fiftieth meridian of longitude east from Greenwich and south of the fiftieth parallel of latitude north, except that portion of said territory situate between the fiftieth and the sixty-fourth meridians of longitude east from Greenwich and the twenty-fourth and thirty-eighth parallels of latitude north, and no alien now in any way excluded from or prevented from entering the United States shall be admitted to the United States.

(5) Aliens who have been arrested and deported in pursuance of law, as distinguished from persons excluded and deported, regardless of when such deportation occurred. He cannot land even as a seaman, except to go to a hospital.

ILLITERACY.

All aliens over 16 years of age who cannot read the English language or some other language or dialect, including Hebrew or Yiddish, are excluded, with the following exceptions:

(a) Persons who are physically incapable of reading.

(b) Any admissible alien or any alien heretofore or hereafter legally admitted, or any citizen of the United States may bring in or send for his father or grandfather, over 55 years of age, his wife, his mother, his grandmother, or his unmarried or widowed daughter, who, if otherwise admissible, may be admitted whether such relative can read or not.

(c) Persons seeking admission to the United States to avoid religious persecution in the country of their last permanent residence.

(d) Persons previously residing in the United States who were lawfully admitted, resided continuously therein for five years, and return thereto within six months from the date of their departure therefrom.

(e) Persons in transit through the United States.

(f) Persons lawfully admitted and who later go in transit through foreign contiguous territory (the period an alien may remain in foreign contiguous territory while in transit under this exemption shall be limited to sixty days; an alien may leave and enter the United States at the same port and still be in transit within the meaning hereof).

(g) Exhibitors and employees of fairs and expositions authorized by Congress.

(h) Aliens whose ability to read can be readily determined by any ordinary method approved by the department may be excused from the actual taking of the test.

Skilled labor, if otherwise admissible, may be imported if labor of like kind unemployed cannot be found in this country.

The provisions of law applicable to contract labor shall not be held to exclude professional actors, artists, lecturers, singers, nurses, ministers of any religious denomination, professors for colleges or seminaries, persons belonging to any recognized learned profession, or persons employed as domestic servants.

VIOLATIONS AND PENALTIES.

Violations of the immoral-women clause are punishable, on conviction, by imprisonment up to ten years and a fine up to $5.000. Violations of the contract-labor clause are punishable, on conviction, by $1,000 fine in each case and (or) imprisonment up to two years. Violations of the Anarchist clause carry prison up to five years and fine up to $5,000. Other violations carry various penalties. It is unlawful for any person or concern engaged in bringing immigrants to give fare rebates or to solicit immigration; penalty, $300 fine in each case. The penalty for smuggling immigrants is fine up to $2,000 and prison up to five years.

Any alien who has been excluded from admission to the United States for any cause and who again seeks admission within one year from the date of such exclusion shall be excluded, unless prior to re-embarkation at a place outside of the United States or his attempt to be admitted from foreign contiguous territory the Secretary of Labor has consented to his reapplying for admission.

Any alien who, after March 4, 1929, enters the United States at any time or place other than as designated by immigration officials or who eludes or has eluded examination or inspection by immigration officials, or who obtains or has obtained entry to the United States by a willfully false or misleading representation or the willful concealment of a material fact, shall be guilty of a misdemeanor and, upon conviction, shall be punished by imprisonment for not more than one year or by a fine of not more than $1,000, or by both such fine and imprisonment.

Any alien sentenced to imprisonment shall not be deported under any provision of law until after the termination of the imprisonment.

Incoming aliens at all United States ports are examined by immigrant inspectors and are liable to examination by United States Public Health Service doctors. An alien can appeal to a board of special inquiry, and then to the Secretary of Labor whose word is final. Excluded aliens are returned at the ship's expense.

An alien certified for insanity or mental defect may appeal to a board of U. S. Public Health Service medical officers.

Aliens may be deported at any time within five years of their arrival if found guilty of crime or of having been of the excluded classes at arrival. An alien otherwise admissible may be let in by giving a cash bond that he or she will not become a public charge. The amount of cash is fixed in each case by the Secretary of Labor. It is unlawful for a ship to pay off or discharge an alien seaman in a U. S. port unless he lands merely to reship. An alien seaman unlawfully entered may be deported within three years of arrival, and this applies to any other person who got in unlawfully and who was not of the excluded classes.

Every alien who may not appear to the examining immigrant inspector at the port of arrival to be

clearly and beyond a doubt entitled to land under the provisions of this act, or any other immigration law, shall be detained for examination in relation thereto by a board of special inquiry.

Aliens excluded by a board of special inquiry, under the provisions of this act, shall be entitled to the right of appeal to the Secretary of Labor.

Effective July 1, 1928, an "immigrant" identification card is issued by consuls in the case of each "immigrant," quota and nonquota (except students), receiving a quota or nonquota immigration visa. The term "immigrant" is to be understood as defined by the Immigration Act of 1924.

PASSPORT REGULATIONS.

From and after Oct. 1, 1926, a large number of American Consular officers abroad were authorized to issue passports to American citizens abroad.

The State Department is not required by law to demand an oath of allegiance of American citizens applying for passports to travel abroad, Wilbur J. Carr, Assistant Secretary of State, notified H. Ralph Burton, general counsel for the Daughters of the American Revolution and several other patriotic societies, in a letter made public on July 23, 1929 by the Department.

Carr's letter was in defense of the State Department's decision to issue a passport to Dorothy Detzer, secretary of the Women's International League for Peace and Freedom, after she had definitely refused to accept that part of the usual oath which pledges departing citizens to "support and defend" the Constitution of the United States. Miss Detzer was permitted to take an oath to "support" the Constitution, with the promise to "defend" it omitted.

Passports will be issued by consuls only to applicants of the classes named below under the conditions described and in accordance with certain general instructions of the department:

(A). To native citizens, to whom departmental passports have been issued or who have been included in departmental passports subsequent to Jan. 3, 1918 and to native citizens who are identified by service passports issued to or including them.

(B). To native and naturalized citizens, whose registration at a consulate is valid at the time when the application for a passport is filed and has received the approval of the department.

(C). To naturalized citizens, to whom departmental passports have been issued, or who have been included in departmental passports, subsequent to Jan. 3, 1918, and provided they are able to submit evidence clearly establishing that they are in a position to rebut the presumption of expatriation prescribed by Section 2 of the Act of March 2, 1907.

(D). To citizens not included in the classes named above, in certain emergency cases.

There are still certain instances in which consuls will not be allowed to issue passports, the passports in these cases having to come from the State Department or be specifically authorized by it. The classes of persons in these cases were named as follows:

(A). Naturalized citizens against whom the presumption of having ceased to be citizens has arisen, i. e., those naturalized citizens who have resided for two years or more in the foreign State from which they came, or for five years in any other foreign State, where doubt exists as to whether they are in a position to rebut this presumption except when the registration as citizens of such persons is current and approved by the department.

(B). Women who were citizens of the United States but who, having been married to aliens after Sept. 22, 1922, may have become subject to the presumption of expatriation, unless such women desire to return to the United States for permanent residence.

(C). Persons who claim American citizenship, but who have never established their claims or whose claims are open to doubt. This class will include, among others:

1. Those persons who claim citizenship by birth in the United States and who adduce evidence in proof of their claims, the authenticity of which requires verification.

2. Those who claim citizenship by birth but who possess dual nationality and whose claims to the protection of this Government are of doubtful validity.

A consular officer will not be authorized finally to refuse to issue a passport, since such authority is vested only in the Secretary of State.

GENERAL PASSPORT REGULATIONS.

1. Authority to Issue—The Secretary of State may grant and issue passports, and cause passports to be granted, issued, and verified in foreign countries by diplomatic representatives of the United States.

2. To Whom Passports Are Issued—Section 4076 of the Revised Statutes of the United States (U. S. Comp. Stat., 1901, 2765) provides that "no passport shall be granted or issued to or verified for any other persons than those owing allegiance, whether citizens or not, to the United States." Persons who have declared their intention to become citizens are not classed as citizens.

3. By Whom Issued and Refusal to Issue—No one but the Secretary of State may grant and issue passports in the United States.

A citizen who is abroad and desires to procure a passport must apply therefore to the nearest consular officer. Applications for passports by persons in Hawaii, Porto Rico or the Philippines should be made to the chief executive of those islands.

4. Fee—A fee of $9 is required to be collected for every citizen's passport issued. That amount in currency or postal money order should accompany each application made by a citizen or person owing allegiance or entitled to the protection of the United States. Orders should be made payable to the Disbursing Clerk of the Department of State. Drafts or checks will not be accepted. No fee charged for the issue of a passport to widow, child, parent, brother or sister of an American soldier, sailor or marine buried abroad, to visit country of burial. A fee of $1 is, however, charged for executing all applications for passports.

VISA FEES ABOLISHED.

By negotiations through American diplomatic and consular offices, non-immigrant visa fees have been waived entirely as between the United States and Albania, Belgium, Costa Rica, Denmark, Estonia, Finland, Germany, Guatemala, Honduras, Iceland, Italy, Japan, Liberia, Liechtenstein, Mexico, Nicaragua, Panama, Persia, Salvador, Siam, Sweden, Switzerland.

The following countries have not abolished such visa fees but have reduced them as shown: Austria, $2; Bulgaria, $2; Chile, $4; Czechoslovia, $1; France, $2; The Netherlands, $1; Poland, $4; Spain, $1.93; Yugoslavia, $2.

5. Applications: Affidavit of Applicant—A person who is entitled to receive a passport, if within the United States, must submit a written application.

The application must be made before a clerk of a Federal court or a State court authorized to naturalize aliens, within the jurisdiction of which the application or his witness resides, and the seal of the court must be affixed, unless there is in such place an agent of the Department of State, in which case the application must be made before such agent. Passport agents are located in New York City, Chicago, Boston, Seattle, San Francisco and New Orleans.

A person applying for a passport or for a renewal of his passport or for an amendment thereto to include additional countries should state in a brief form the object or objects of his proposed trip abroad.

Passports are ordinarily issued valid for all countries.

(c) Photographs—The application must be accompanied by duplicate photographs of the applicant, on thin paper, unmounted, and not larger in size than three by three inches.

(d) Witness—The application must be supported by an affidavit of at least one credible witness, who has known the applicant at least two years.

The witness, in signing the application, should state the nature of his profession or business and his professional or business address. *No lawyer or other person will be accepted as witness to a passport application if he has received or expects to receive a fee for his services in connection therewith.* A passport issued by the Secretary of State on and after Jan. 3, 1918, to which is attached the photograph and signature of the person to whom the passport was originally issued, will be accepted in lieu of an identifying witness.

6. Native Citizen—A person born in the United States in a place where births are recorded will be required to submit a birth certificate, bearing the official seal of the certifying officer, with his application. If a birth certificate is not obtainable, the application must be supported by a baptismal certificate or an affidavit of the physician who attended the birth or affidavits of parents or other reputable persons having sufficient knowledge.

7. A Person Born Abroad Whose Father Was a Native Citizen of the United States—His application must show what his father was born in the United States, resided therein, and was a citizen at the time of the applicant's birth.

8. Naturalized Citizen—A naturalized citizen

must transmit his certificate of naturalization, or a duly certified copy of the court record thereof, with his application. It will be returned to him after inspection. He must state in his affidavit when he emigrated to this country, where he has lived since his arrival in the United States, when and before what court he was naturalized, and that he is the identical person described in the certificate of naturalization.

9. Woman's Application — She should state whether she has ever been married. A woman married to an American citizen prior to the Act of Congress approved Sept. 22, 1922, has the same citizenship as her husband unless she was, because of her race, ineligible to naturalization. If she is the wife of a native citizen of the United States, the fact should be made to appear in her application, which should be made according to the form prescribed for a native citizen, whether she was born in this country or abroad. If she is the wife of a naturalized citizen, she must transmit for inspection her husband's certificate of naturalization or a certified copy of the court record thereof, must state that she is the wife of the person described therein, and must set forth the facts of his birth, immigration, naturalization, and residence, as required in the rules governing the application of a naturalized citizen. A woman married after the passage of the Act of Congress mentioned above, does not take the citizenship of her husband and therefore she must submit evidence of her own American citizenship. The wife of an alien who was naturalized after Sept. 22, 1922, does not acquire American citizenship by virtue of her husband's naturalization. A married woman should sign her own Christian name with the family name of her husband.

10. The Child of a Naturalized Citizen Claiming Citizenship Through the Naturalization of the Parent—The applicant must state that he or she is the son or daughter, as the case may be, of the person described in the certificate of naturalization, which must be submitted for inspection, and must set forth the facts of emigration, naturalization, and residence.

11. A Resident of an Insular Possession of the United States Who Owes Allegiance to the United States—He must state that he owes allegiance to the United States and that he does not acknowledge allegiance to any other government, and must submit affidavits from at least two credible witnesses who are able to corroborate his statements as to birth, residence, and loyalty.

12. Expiration of Passport—The validity of a passport shall be limited to a period of two years: Provided, that the Secretary of State may limit the validity of a passport to a shorter period. And Provided further, that a passport may be renewed without any additional charge under regulations prescribed by the Secretary of State, and at his discretion to bona fide teachers, but the final date of expiration shall not be more than four years from the original date of issue.

A passport which was issued to a bona fide teacher less than two years prior to July 3, 1926, may be renewed so as to make it valid for a full period of four years; and passports issued on and after that date to bona fide teachers may likewise be extended at any time within four years so as to make the total period of validity four years from the date of issue.

The term "teacher" does not include persons engaged as private tutors or governesses. A new passport will be issued upon a new application.

13. Wife, Minor Children—When the applicant is accompanied by his wife and minor children who owe allegiance to the United States, one passport will suffice for all.

14. Titles—Professional and other titles will not be inserted in passports, but an applicant's name in religion, an author's nom de plume, a stage name, etc., may be included in parentheses.

15. Surrender of Old Passports—An applicant for a new passport who holds an expired or unexpired passport or passports issued on or after Jan. 3, 1918, should submit the latter to the official before whom he executed his application for a new passport.

16. Blank Forms of Application—They will be furnished by the department free of charge.

17. Address—Communications should be addressed to the Department of State, Passport Division, Washington, D. C.

Citizens of St. Pierre and Miquelon and French citizens domiciled therein, citizens of Canada, Newfoundland, Bermuda, the Bahamas and British possessions in the Greater Antilles and British subjects domiciled therein, citizens of Panama, Mexico, Cuba, Haiti and the Dominican Republic may pass in transit through the United States or enter the United States temporarily without passports or visas.

Non-Citizens embarking on a trip to Europe must present income tax receipts or certificates of exemption and secure a sailing permit issued by Internal Revenue officials.

Resident aliens who intend to come back may apply for a return permit from the Department of Labor or a non-quota visa from an American Consul abroad.

Return permits can be obtained only in the United States.

Application for such a permit is made on a special form and should be sent to the Commissioner General of Immigration at Washington, with two photographs 2½ by 3½ inches in size, with $3.

A return permit is issued for one year and may be extended for six months.

Passengers who are not in possession of a permit to re-enter but who wish to return to the United States must visit the nearest American consulate abroad and make an application for a non-quota visa to return. A fee of $10 is charged for such a visa.

Note—The passport office at New York City is in the Sub Treasury building, Wall and Nassau Sts.

Most all foreign countries require passports to be visaed by their consuls stationed in the U. S.

TRAVELERS BY AIR.

Dirigible balloon and airplane operators and passengers between the United States and foreign countries are subject to the same general laws and regulations that govern steamship and sailing vessel travel and operation.

Passports, and health examinations, and customs inquisitions, go with all of the known modes of getting across the oceans and national frontiers.

ACKNOWLEDGMENT OF DEEDS.

AN ACKNOWLEDGMENT is the act of declaring the execution of an instrument before an officer authorized to certify to such declaration. The officer certifies to the fact of such declaration, and to his knowledge of the identity of the person so declaring. Conveyances or deeds of land to be entitled to be recorded must first be acknowledged before a proper officer. Most of the States have forms of acknowledgments, which should be followed.

Acknowledgments may be taken in general by Notaries Public, Justices of the Peace, Judges or Clerks of Courts of the higher grades, Registers, Masters in Chancery, Court Commissioners, Town Clerks, Mayors and Clerks of Incorporated cities, within their respective jurisdictions.

REQUISITES TO VALID DEED.

The requisites to a valid deed are the same in general as other contracts, but the appointment of an attorney to execute a deed for another person must in general be executed with the same formalities requisite to the deed itself.

In N. Y. State, under the Common Law, a deed could be legally executed and acknowledged on Sunday. There is now nothing in the statutes to the contrary.

SEALS or their equivalent (or whatever is intended as such) are necessary in Alaska, Connecticut, Delaware, District of Columbia, Florida, Idaho, Illinois, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Hampshire, New Jersey, New York, North Carolina, Oregon, Pennsylvania, South Carolina, Vermont, Virginia, West Virginia, Wisconsin, Wyoming. In almost all the States deeds by corporations must be under seal. FORMS are prescribed or indicated by the statutes of most of the States except Connecticut, Florida, Louisiana. SEPARATE ACKNOWLEDGMENT by wife is required in Alaska, Arkansas, Delaware, District of Columbia, Florida, Georgia, Idaho, Kentucky, Louisiana, Montana, Nevada, North Carolina, Oregon, Pennsylvania, South Carolina, Tennessee, Texas. ONE WITNESS to the execution of deeds is required in District of Columbia, Maine (customary), Maryland, Nebraska, New Jersey (usual), Oklahoma, Utah, Wyoming. TWO WITNESSES to the execution of deeds are required in Arkansas, Connecticut, Florida, Georgia, Louisiana, Michigan, Minnesota, New Hampshire, Ohio, Oregon, South Carolina, Texas, Vermont, Wisconsin.

UNITED STATES NATURALIZATION LAWS.

The law of March 2. 1929. says that "no alien shall be admitted to citizenship unless (1) immediately preceding the date of his petition the alien has resided continuously within the United States for at least five years and within the county where the petitioner resided at the time of filing his petition for at least six months, (2) he has resided continuously within the United States from the date of his petition up to the time of his admission to citizenship, and (3) during all the periods referred to in this subdivision he has behaved as a person of good moral character, attached to the principles of the Constitution of the United States, and well disposed to the good order and happiness of the United States.

"At the hearing of the petition, residence in the county where the petitioner resides at the time of filing his petition, and the other qualifications required by this subdivision during such residence, shall be proved by the oral testimony of at least two credible witnesses, citizens of the United States, in addition to the affidavits required by this Act to be included in the petition.

"If the petitioner has resided in two or more places in such county and for this reason two witnesses can not be procured to testify as to all such residence, it may be proved by the oral testimony of two such witnesses for each such place of residence, in addition to the affidavits required by this Act to be included in the petition.

"At the hearing, residence within the United States but outside the county, and the other qualifications required by this subdivision during such residence shall be proved either by depositions made before a naturalization examiner or by the oral testimony of at least two such witnesses for each place of residence.

"If an individual returns to the country of his allegiance and remains therein for a continuous period of more than six months and less than one year during the period immediately preceding the date of filing the petition for citizenship for which continuous residence is required as a condition precedent to admission to citizenship, the continuity of such residence shall be presumed to be broken, but such presumption may be overcome by the presentation of satisfactory evidence that such individual had a reasonable cause for not returning to the United States prior to the expiration of such six months.

"Absence from the United States for a continuous period of one year or more during the period immediately preceding the date of filing the petition for citizenship for which continuous residence is required as a condition precedent to admission to citizenship, shall break the continuity of such residence."

No declaration or petition shall be made outside the office of the Clerk of the Court.

By an act of Congress approved Sept. 22, 1922, it is provided that after that date the citizenship status of a married woman shall no longer follow that of the husband, and that thereafter a married woman shall have the privilege of becoming naturalized on her own account.

An alien woman who marries a citizen or whose husband is naturalized after September 22, 1922, or a woman who lost her United States citizenship because of marriage before that date to an alien eligible to citizenship, may be naturalized without making a declaration of intention and after but one year's residence in the United States.

An alien woman married to an alien at the time of the passage of the above act, or who thereafter marries an alien, may become naturalized by complying with all requirements of the naturalization laws, including declaration, five years' continuous United States residence, six months continuous residence, and certificate of arrival.

The status of *single* alien women is not affected by this law, and women of this class may continue as in the past to file declarations and petitions for the purpose of becoming naturalized.

The act referred to further provides that any woman citizen who marries an alien ineligible to citizenship, shall cease to be a citizen, that no married woman whose husband is not eligible to citizenship shall be naturalized during the continuance of the marital status, and that she herself must be eligible to citizenship. Eligibility for citizenship is determined almost entirely by the question of whether the persons concerned are "white persons" or "persons of African nativity or African descent," as provided by the Revised Statutes.

No person under 18 years of age can file a declaration of intent.

A petition may not be heard until the expiration of at least ninety days after it is filed.

Judges of the United States District Courts are given authority by the act of June 8, 1926, to designate naturalization examiners to conduct preliminary hearings on petitions for naturalization and make findings and recommendations to the court.

The Naturalization Bureau is a part of the United States Department of Labor, at Washington, to which inquiries on details of the law and the regulations are to be addressed.

UNITED STATES NATURALIZATION STATISTICS.

Year (Fiscal).	Declarations.	Petitions.	Certificates.	Year (Fiscal).	Declarations.	Petitions.	Certificates.
1909	145,745	43,141	38,374	1919	391,156	128,523	89,023
1910	169,348	55,750	39,448	1920	299,076	166,760	125,711
1911	189,249	74,740	56,683	1921	303,904	177,898	163,656
1912	171,133	95,661	70,310	1922	273,511	153,170	160,979
1913	182,095	95,380	83,561	1923	296,636	158,059	137,975
1914	214,104	124,475	104,145	1924	424,540	166,947	140,340
1915	247,958	106,399	91,848	1925	277,218	162,258	152,457
1916	209,204	108,767	87,831	1926	277,539	172,232	146,239
1917	440,651	130,865	88,104	1927	258,295	240,339	195,493
1918	342,283	105,514	87,456	1928	254,588	235,328	228,006

Not included above are certificates issued to American soldiers or sailors in the World War, as follows—(1918) 63,993; (1919) 128,335; (1920) 51,-972; (1921) 17,636; (1922) 9,468; (1923) 7,109; (1924) 10,170; (1925) not separately stated; (1926) 02; (1927) 4,311; (1928) 5,149.

NO PRESIDENT FOR TWELVE HOURS?

Who is President from midnight of March 3, when the term expires, to the hour on March 4 when the President-elect takes the oath of office?

No provision of law appears to have specific application to this situation.

The Presidential Succession Act (Act of January 19, 1886, 24 Stat. L 1) has application only to the "removal, death, resignation or inability of both the President and Vice-President."

Chief Justice John Marshall, in a letter of Feb. 20, 1821, to a distinguished inquirer, said:

"I have conversed with my brethren on the subject you suggested when I had the pleasure of seeing you, and will take the liberty to communicate the result.

"As the Constitution only provides that the President shall take the oath it prescribes 'before he enter on the execution of his office,' and as the law is silent on the subject, the time seems to be in some measure at the discretion of that high officer. There is an obvious propriety in taking the oath as soon as it can conveniently be taken, and thereby shortening the interval in which the executive power is suspended.

"But some interval is inevitable. The time of the actual President will expire, and that of the President-elect commence, at twelve in the night of the 3rd of March. It has been usual to take the oath at midday on the 4th.

"Thus there has been uniformly and voluntarily an interval of twelve hours during which the executive power could not be exercised. This interval may be unavoidably prolonged. Circumstances may prevent the declaration of the person who is chosen until it shall be too late to communicate the intelligence of his election until after the 4th of March. This occurred at the first election.

"Undoubtedly, on any pressing emergency the President might take the oath in the first hour of the 4th of March, but it has never been thought necessary so to do, and he has always named such hour as he deemed most convenient.

"If any circumstance should render it unfit to take the oath on the 4th of March, and the public business would sustain no injury by its being deferred till the 5th, no impropriety is perceived in deferring it till the 5th."

COPYRIGHT LAW OF THE UNITED STATES.

The copyright law provides that the application for registration of any work "shall specify to which of the following classes the work in which copyright is claimed belongs":

(a) Books including composite and cyclopaedic works, directories, gazetteers and other compilations; (b) periodicals, including newspapers; (c) lectures, sermons, addresses, prepared for oral delivery; (d) dramatic or dramatico-musical compositions; (e) musical compositions; (f) maps; (g) works of art, models or designs for works of art; (h) reproductions of a work of art; (i) drawings or plastic works of a scientific or technical character; (j) photographs; (k) prints and pictorial illustrations; (l) motion picture photo plays; (m) motion pictures other than photo plays.

For works reproduced in copies for sale or public distribution: 1. Publish the work with the copyright notice. The notice may be in the form "Copyright, 19.... (year date of publication), by..... (name of copyright proprietor), or in the case of works specified above (f) to (k) the notice may consist of the letter C inclosed in a circle ( ) accompanied by the initials, monogram, mark or symbol of the proprietor—provided that his name shall appear on some accessible part of the copies." 2. Promptly after publication send to the Copyright Office, Library of Congress, Washington, D. C., two copies (or if the work is by a foreign citizen and is first published in a foreign country, one copy only) of the best edition of the work, with an application for registration.

In the case of books by American authors, or permanent residents of the United States, the copies deposited must be accompanied by an affidavit, under the official seal of an officer authorized to administer oaths, stating that the typesetting, printing and binding of the book have been performed within the United States. Affidavit and application forms will be supplied by the Copyright Office on request.

Books of foreign origin in a language or languages other than English are not required to be manufactured in the United States. In the case of a book in the English language published abroad before publication in this country, an *ad interim* copyright for four months from the day of the deposit of the foreign copy may be secured by depositing in the Copyright Office one complete copy of the foreign edition within sixty days after its publication abroad. If two copies of such book manufactured and published in this country are deposited for registration during the *ad interim* term, the copyright shall be extended for the full term of twenty-eight years.

For works not reproduced in copies for sale: Copyright may also be had of certain classes of works (see a, b, c, below) of which copies are not reproduced for sale, by filing in the Copyright Office an application for registration, with the statutory fee of $1, sending therewith: (a) In the case of lectures or other oral addresses or of dramatic or musical compositions, one complete manuscript or typewritten copy of the work; (b) In the case of photographs not intended for general circulation, one photographic print. (c) In the case of works of art (paintings, drawings, sculpture), or of drawings or plastic works of a scientific or technical character, one photograph or other identifying production of the work. In the case of a motion picture photo-play, a title and description and one print taken from each scene or act. In case of a motion picture other than a photo-play, a title and description with not less than two prints to be taken from different sections of a complete motion picture. In all these cases, if the work is later reproduced in copies for sale, two copies must then be deposited with another application and fee

By an amendatory Act of Congress effective July 1, 1928, the statutory fee for registration of a published work subject to copyright was increased to $2.

This includes the Copyright Office certificate under seal.

For registration of a published photograph where a certificate is not desired the fee is $1.

For dramas, music, lectures and works of art not reproduced in copies for sale (i. e., unpublished) the registration fee is $1 as heretofore.

For registration of renewal of copyright, $1.

For recording assignments $2 for each Copyright Office record-book page or fraction thereof over one-half page.

Copyright notices in books must be placed on the title page or on the page immediately following.

At Rome, June 2, 1928, delegates of 30 nations representing more than 1,000,000,000 inhabitants signed a proposed international copyright convention, to be submitted to the parliaments of each country for ratification.

This law will form the basis of copyright legislation in countries belonging to the Copyright Union, which are bound by a mutual agreement whereby a work copyright in one is automatically copyright in all others.

The law accepted unanimously by the delegates of all the nations represented, provides what is known as "automatic copyright"; that is to say, the work of authors or musicians will be copyright without need of further formalities from the very moment it is set down on paper.

Each country is left free to support a copyright office where works can be registered, merely for convenience in establishing priority.

The original term of copyright under existing U. S. law runs for twenty-eight years. Within one year prior to the expiration of the original term, the author, if living, or the widow or widower of the author, or the children of the author if he be not living; or if none of these be living, then the author's executors, or in the absence of a will the author's next of kin, may secure a renewal for a further term of twenty-eight years, making fifty-six years in all In case of composite works, if the proprietor secured the original copyrights, he may also secure the renewal.

Copyrights are assignable.

Copyright is not secured in foreign countries by action in the Copyright Office, but only by complying with the legislation of such countries.

Copyright in foreign countries has no effect in the United States.

Copyright in the United States may be secured for works of foreign authors published in foreign countries on compliance with the American copyright law including publication with the copyright notice and deposit of a copy for registration here.

Copyright relations have been established by proclamation of the President with Austria, Belgium, Chile, Costa Rica, Cuba, Czechoslovakia, Denmark, Finland, France, Germany, Great Britain and the British possessions, Italy, Luxemburg, Mexico, Netherlands and possessions, Norway, Poland, Portugal, Roumania, Siam, Spain, Sweden, Switzerland, Tunis.

Copyright proclamations have been issued, securing copyright control of mechanical musical reproduction in the U. S. to citizens or subjects of Australia, Austria, Belgium, Canada, Chile, Cuba, Denmark, Finland, France, Germany, Great Britain, Italy, Luxemburg, Netherlands, New Zealand, Norway, South Africa, Sweden and Switzerland. The convention with Hungary and the proclamations in regard to Czechoslovakia, Poland, and Roumania include such protection.

Copyright treaties have also been entered into with China, Japan and Hungary (the latter in effect on Oct. 16, 1912). The Copyright Convention of Mexico of 1902 was ratified by the United States and became effective from July 1, 1908, as between the United States and Costa Rica, Guatemala, Honduras, Nicaragua and Salvador. The Pan-American Copyright Convention signed at Buenos Ayres in 1910 was proclaimed July 16, 1914, and is effective as between the United States and Bolivia, Brazil, Costa Rica, Dominican Republic, Ecuador, Guatemala, Haiti, Honduras, Nicaragua, Panama, Paraguay and Uruguay.

TRADE-MARK LAW, SUMMARY OF.

A trade mark, under the Act of Feb. 20, 1905, may be defined as an arbitrary word or symbol actually used on articles of merchandise to indicate where they come from, that is, who makes them, or who deals in them.

A trade-mark which has been so used in commerce among the several States, or with foreign nations, or with Indian tribes, may be registered in the Patent Office by any person, firm, corporation, or association owning such mark.

No trade-mark is registerable under the Act which is merely a geographical name or term, or which consists merely in a surname firm name, or corporation name not distinctively displayed, or merely in words or devices descriptive of the goods upon which it is used.

If the owner of a trade-mark which is not registerable under the Act, has had bona fide trade-mark use thereof for one year, such trade-mark may be registered under the provisions of the Act of March 19, 1920.

A registration under the Act of March 19, 1920, is not prima facie evidence of ownership.

The records of the Patent Office pertaining to registered trade-marks are open to public inspection and may be examined by the applicant or any person he may desire to assist him.

In order to identify any particular trade-mark

TRADE-MARK LAW—SUMMARY OF (Continued)

registered in the Patent Office, the registry number, or the date of registration and the name of registrant should be given.

Most of the States have their own trade-mark laws.

The United States Constitution does not contain any direct reference to trade-marks, and the power of Congress to legislate on the subject has been questioned. Doubt has been expressed as to the applicability of the so-called "commerce clause" of the Constitution.

It is contended that only an amendment to the Constitution can give Congress power over trade-marks.

A trade-mark is not subject to commerce. A trade-mark is a contract against fraud and deceit and a contract cannot be an article of commerce. This was decided in the Insurance cases in the U. S. Supreme Court.

A trade-mark is not an article of merchandise. A trade-mark is property, but it is such property that its rights can only rest upon the laws of the several states and depend upon them for protection. This latter statement is in substance from a decision of the Supreme Court in the Rectanus case.

In the Tea Rose case in that tribunal Justice Holmes stated that the States can deal, by statute, with trade-marks.

"The registration and protection of trade-marks within the several States must under the Constitution be left to be provided for by the State." (Report of Thomas Jefferson, Secretary of State, to the House of Representatives, Second Congress).

In Feb., 1929, the Pan-American Trade-Mark Conference, at Washington, signed a treaty for the protection of trade-marks among American States and a protocol for the establishment of an Inter-American Trade-Mark Bureau.

Among its main provisions are:

1. The Contracting States to grant to the nationals of other Contracting States, the same rights and remedies which their laws extend to their own nationals.

2. Every trade-mark duly registered or legally protected in one of the Contracting States, shall be admitted to registration or deposit and legally protected in the other Contracting States.

3. Extension to the owner of a trade-mark protected in one of the Contracting States, the right to oppose the use, registration or deposit of an unfair mark in any of the other States.

4. Prohibition of the use or adoption of a trade or commercial name identical with or deceptively similar to one legally adopted and previously used by another engaged in the same business in any of the Contracting States.

WILLS.

A Will or Testament is a final disposition of a person's property, to take effect after his death.

A codicil is an addition or alteration in such disposition.

A will, or codicil, may be signed any day, including Sundays and legal holidays.

All persons are competent to make a will except idiots, persons of unsound mind, and infants.

In many States a will of an unmarried woman is deemed revoked by her subsequent marriage.

A nuncupative or unwritten will is one made orally by a soldier in active service, or by a mariner while at sea.

In most of the States a will must be in writing, signed by the testator, or by some person in his presence, and by his direction, and attested by two (in some states three) witnesses, who must subscribe their names thereto in the presence of the testator.

Wills are of two general types.

The first provides for outright distribution of an estate.

The second provides for deferred distribution of part or all of an estate until conditions are more favorable.

The first type should provide for the appointment of an executor; the second, for an executor and a trustee.

An executor serves only long enough to close out an estate by legal process and turn it over to the beneficiaries or the trustee as directed in the will.

A trustee, after receiving part or all of an estate from the executor, holds and manages it until such time as the will directs final distribution.

The same person, or trust company, can act both as trustee and executor.

It formerly was the custom to give the widow a share of the estate and let the children have the rest; but latterly it is more and more the practice to give the widow a life income from part or all of the estate with the stipulation that if the income is not sufficient for her needs she is to receive such payments out of the principal as may be required.

The will often directs that at the widow's death the estate be divided into shares for the children or beneficiaries; and paid outright, or held in trust.

Unless the widow is experienced in business or finance, and has been in close contact with her husband's affairs, the trust plan has advantages, it is claimed, inasmuch as it relieves her of all problems of investment and management.

Insurance officials state that 90 per cent of all life insurance money that is paid out is dissipated within 7 years, and that a large part of the billion dollar list of worthless securities marketed every year in the United States is bought with money left to widows to invest.

Money or other property is now, more than formerly, left in trust for children, especially for such as are young, improvident, or incapable.

Funds may be left to charity outright, or in trust.

It is the duty of an executor to tally and appraise the estate, pay all taxes and legal claims, sell or liquidate if the will so provides, distribute the property, and make a final report to the court.

If personal effects—clothing, furniture, paintings, books, heirlooms, jewelry, automobiles, etc.—are not disposed of by will, they become part of the general estate and may have to be sold in liquidation.

Real estate given outright in a will does not pass through the executor's hands, the will in such a case operating as a deed.

It should be stated in the will whether inheritance taxes are to be paid out of the general estate or deducted from the individual legacies.

An executor and trustee can be given, in the will, the right to join in any agreement of merger, readjustment, exchange, or consolidation affecting the securities of the estate.

An executor and a trustee can be given, in the will, specific authority to sell, lease, and mortgage real estate: he can be instructed to continue as well as to liquidate a business.

A dower right is a widow's right to receive during her lifetime one-third of all the rents and revenues of the husband's lands.

Dower and courtesy rights were abolished in N. Y. State under a law of 1929. Husband and wife now have equal inheritance rights. Not over one-half of an estate can be devised by the owner to charity.

Debts are a prior lien on the estate under the law of New York and most of the states.

In general, throughout the United States, a person may by will dispose of personalty, at 18 years, and of realty at 21 years.

LINCOLN'S GETTYSBURG SPEECH.

(*Address at the Dedication of Gettysburg Cemetery, November* 19, 1863.)

Fourscore and seven years ago our fathers brought forth on this continent a new nation, conceived in liberty and dedicated to the proposition that all men are created equal.

Now we are engaged in a great civil war, testing whether that nation or any nation so conceived and so dedicated, can long endure. We are met on a great battlefield of that war. We have come to dedicate a portion of that field, as a final resting-place of those who here gave their lives that that nation might live. It is altogether fitting and proper that we should do this.

But, in a larger sense, we cannot dedicate—we cannot consecrate—we cannot hallow—this ground. The brave men, living and dead, who struggled here, have consecrated it, far above our poor power to add or detract. The world will little note, nor long remember, what we say here, but it can never forget what they did here. It is for us the living, rather, to be dedicated here to the unfinished work which they who fought here have thus far so nobly advanced. It is rather for us to be here dedicated to the great task remaining before us—that from these honored dead we take increased devotion to that cause for which they gave the last full measure of devotion—that we here highly resolve that these dead shall not have died in vain—that this nation, under God, shall have a new birth of freedom—and that government of the people, by the people for the people shall not perish from the earth. (Version of the Address as revised by Lincoln and printed in "Autographs of our Country's Authors," Baltimore, 1864.)

UNITED STATES ANTI-TRUST ACTS.

SHERMAN, CLAYTON AND WEBB EXPORT ACTS.

The so-called Sherman Act, in effect on and after July 2, 1890, includes the following provisions—

"Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is hereby declared to be illegal.

"Every person who shall make any such contract, or engage in any such combination or conspiracy shall be deemed guilty of a misdemeanor, and on conviction thereof shall be punished by a fine not exceeding $5,000, or by imprisonment not exceeding one year, or by both said punishments, in the discretion of the Court.

"Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a misdemeanor, and on conviction thereof shall be punished by a fine not exceeding $5,000, or by imprisonment not exceeding one year, or by both said punishments, in the discretion of the Court.

"Every contract, combination in form of trust or otherwise, or conspiracy, in restraint of trade or commerce in any Territory of the United States, or the District of Columbia, or in restraint of trade or commerce between any such Territory and another, or between any such Territory or Territories and State or States or the District of Columbia or with foreign nations, or between the District of Columbia and any State or States or foreign nations, is hereby declared illegal.

"Every person who shall make any such contract, or engage in any such combination or conspiracy, shall be deemed guilty of a misdemeanor, and on conviction thereof shall be punished by a fine not exceeding $5,000, or by imprisonment not exceeding one year, or by both said punishments, in the discretion of the Court.

"Any property owned under any contract or by any combination, or pursuant to any conspiracy (and being the subject thereof) mentioned in Section 1 of this act, and being in the course of transportation from one State to another, or to a foreign country, shall be forfeited to the United States, and may be seized and condemned by like proceedings as those provided by law for the forfeiture, seizure and condemnation of property imported into the United States contrary to law.

"Any person who shall be injured in his business or property by any other person or corporation by reason of anything forbidden or declared to be unlawful by this act may sue therefor in any Circuit Court of the United States in the district in which the defendant resides or is found, without respect to the amount in controversy, and shall recover threefold the damages by him sustained, and the costs of suit, including a reasonable attorney's fee.

"That the word 'person' or 'persons' wherever used in this act shall be deemed to include corporations and associations existing under or authorized by the laws of either the United States, the laws of any of the Territories, the laws of any State or the laws of any foreign country."

CLAYTON ACT.

The Clayton Act (in effect Oct. 15, 1914, and amended as of May 15, 1916 and May 26, 1920) was intended to supplement the Sherman Law.

Section 2 of the Clayton Act says:

"It shall be unlawful for any person engaged in commerce, in the course of such commerce, either directly or indirectly, to discriminate in price between different purchasers of commodities, which commodites are sold for use, consumption, or resale within the United States or any Territory thereof or the District of Columbia or any insular possession or other place under the jurisdiction of the United States where the effect of such discrimination may be to substantially lessen competition or tend to create a monopoly in any line of commerce:

Provided, That nothing herein contained shall prevent discrimination in price between purchasers of commodities on account of differences in the grade, quality, or quantity of the commodity sold or that makes only due allowance for difference in the cost of selling or transportation or discrimination in price in the same or different communities made in good faith to meet competition:

"*And provided further*, That nothing herein contained shall prevent persons engaged in selling goods, wares, or merchandise in commerce from selecting their own customers in bona fide transactions and not in restraint of trade."

Section 3 says:

"It shall be unlawful for any person engaged in commerce, in the course of such commerce, to lease or make a sale or contract for sale of goods, wares, merchandise, machinery, supplies, or other commodities, whether patented or unpatented, for use, consumption, or resale within the United States or any Territory thereof or the District of Columbia or any insular possession or other place under the jurisdiction of the United States, or fix a price charged therefor, or discount from, or rebate upon, such price, on the condition, agreement, or understanding that the lessee or purchaser thereof shall not use or deal in the goods, wares, merchandise, machinery, supplies, or other commodities of a competitor or competitors of the lessor or seller where the effect of such lease, sale, or contract for sale or such condition, agreement, or understanding may be to substantially lessen competition or tend to create a monopoly in any line of commerce."

The U. S. Supreme Court, early in 1929, rendered what is known as the Van Camp decision as a response to two questions of law certified to it by a lower court in a suit brought against the American Can Co. by George Van Camp & Sons Co., in which it was charged that the can company had discriminated in the sale of cans and the rental of sealing machinery against Van Camp & Sons and in favor of the Van Camp Packing Co.

In its opinion the court held that the Clayton Act applies to a situation where there is discrimination by a seller against buyers.

Widespread interest was aroused because in the Mennen and National Biscuit cases lower courts had ruled that the act applied only to discrimination against sellers.

The chief general provisions of the Clayton Act are:

Violations by corporations deemed also that of individual directors, officers or agents authorizing, or doing any of acts constituting violation in whole or in part.

Injunctive relief against threatened loss provided for, and temporary injunctions without notice under stringent safeguards (giving security, prompt and early hearing, etc.).

Special provisions enacted to cover disputes between employers and employees. In general so-called "strikes" and "striking" by laboring men and unions where peaceable means and methods alone are employed cannot be enjoined.

Persons or corporations wilfully disobeying orders, decrees, etc., issued under the Sherman law may, in certain cases, be proceeded against as for criminal contempt. In such cases defendant may demand jury trial.

Punishment for contempt is not to exceed $1,000 fine, nor six months' imprisonment. These provisions do not apply to contempts committed in presence of the Court, or so near thereto as to obstruct the administration of justice.

The Sherman and Clayton acts do not apply to labor or farmers' unions not run for profit.

WEBB EXPORT TRADE ACT.

The Webb Export Trade Act, approved April 10, 1918, permitted combinations or associations of persons in the United States for the purpose of selling American goods abroad at prices which would compete with the foreign manufacturers or combinations.

FARM COOPERATIVE ACT OF FEB. 18, 1922.

(Authorizes association of producers of Agricultural Products.)

This law of Congress provides that "persons engaged in the production of agricultural products, as farmers, planters, ranchmen, dairymen, nut or fruit growers may act together in associations, corporations, or otherwise, with or without capital stock, in collectively processing, preparing for market, handling, and marketing in interstate and foreign commerce, such products of persons so engaged.

"Such associations may have marketing agencies in common; and such associations and their members may make the necessary contracts and agreements to effect such purposes:

"*Provided, however*, That such associations are operated for the mutual benefit of the members thereof, as such producers, and conform to one or both of the following requirements:

"First. That no member of the association is allowed more than one vote because of the amount of stock or membership capital he may own therein, or,

"Second. That the association does not pay dividends on stock or membership capital in excess of 8 per centum per annum. And in any case to the following:

"Third. That the association shall not deal in the products of non-members to an amount greater in value than such as are handled by it for members."

If any such association monopolizes or restrains trade in interstate or foreign commerce to such an extent that the price of any agricultural product is

unduly enhanced by reason thereof, the Secretary of Agriculture can sue and enjoin or restrain.

PACKERS AND STOCKYARDS ACT OF AUG. 15, 1921.

The act makes it unlawful for any packer to

(a) Engage in or use any unfair, unjustly discriminatory or deceptive practice or device in commerce; or

(b) Make or give, in commerce, any undue or unreasonable preference or advantage to any particular person or locality in any respect whatsoever, or subject, in commerce, any particular person or locality to any undue or unreasonable prejudice or disadvantage in any respect whatsoever; or

(c) Sell or otherwise transfer to or for any other packer, or buy or otherwise receive from or for any other packer, any article for the purpose or with the effect of apportioning the supply in commerce between any such packers, if such apportionment has the tendency or effect of restraining commerce or of creating a monopoly in commerce; or

(d) Sell or otherwise transfer to or for any other person, or buy or otherwise receive from or for any other person, any article for the purpose or with the effect of manipulating or controlling prices in commerce, or of creating a monopoly in the acquisition of, buying, selling, or dealing in, any article in commerce, or of restraining commerce; or

(e) Engage in any course of business or do any act for the purpose or with the effect of manipulating or controlling prices in commerce, or of creating a monopoly in the acquisition of, buying, selling, or dealing in, any article in commerce, or of restraining commerce; or

(f) Conspire, combine, agree, or arrange with any other person

(1) to apportion territory for carrying on business in commerce; or

(2) to apportion purchases or sales of any article in commerce; or

(3) to manipulate or control prices in commerce; or

(g) Conspire, combine, agree or arrange with any other person to do, or aid or abet the doing of, any act made unlawful by subdivision (a), (b), (c), (d), or (e).

The Secretary of Agriculture can give the packers hearings on complaints being made, and can issue orders binding on the packers. Each side can appeal to the U. S. Court, as in the case of the Federal Trade Commission.

The Secretary of Agriculture is authorized to license stockyards to do business. Violations by packers are liable to $10,000 fine and 5 years in prison. Stockyards violations are liable to $1,000 fine and 1 year in prison.

By the amendment of May 5, 1926, state bureaus for weighing livestock at stockyards may be registered by the Secretary of Agriculture as market agencies and are thus brought under the Federal Packers and Stockyards Act.

GRAIN-FUTURES ACT.

(In effect Nov. 1, 1922; held Constitutional by the U. S. Supreme Court. on April 16, 1923.)

This Act, which authorizes the Secretary of Agriculture to supervise trading in grain futures, took the place of the Futures Trading Act which the U. S. Supreme Court, in May, 1922, ruled unconstitutional.

In substance, the new law is the same as the old but the taxes are omitted. The new law says:

"It shall be unlawful for any person to deliver for transmission through the mails or in interstate commerce by telegraph, telephone, wireless, or other means of communication any offer to make or execute, or any confirmation of the execution of, or any quotation or report of the price of, any contract of sale of grain for future delivery on or subject to the rules of any board of trade in the United States, or for any person to make or execute such contract of sale, which is or may be used for (a) hedging any transaction in interstate commerce in grain or the products or by-products thereof, or (b) determining the price basis of any such transaction in interstate commerce, or (c) delivering grain sold, shipped, or received in interstate commerce for the fulfillment thereof, *except*

"(a) Where the seller is at the time of the making of such contract the owner of the actual physical property covered thereby, or is the grower thereof, or in case either party to the contract is the owner or renter of land on which the same is to be grown, or is an association of such growers, or growers of grain, or of such owners or renters of land; or

"(b) Where such contract is made by or through a member of a board of trade which has been designated by the Secretary of Agriculture as a 'contract market,' as hereinafter provided, and if such contract is evidenced by a record in writing which shows the date, the parties to such contract and their addresses, the property covered and its price, and the terms of delivery:

"Any person who shall violate provisions of this Act, or who shall fail to evidence any contract mentioned in said section by a record in writing as therein required, or who shall knowingly or carelessly deliver for transmission through the mails or in interstate commerce by telegraph, telephone, wireless, or other means of communication false or misleading or knowingly inaccurate reports concerning crop or market information or conditions that affect or tend to affect the price of grain in interstate commerce, shall be deemed guilty of a misdemeanor, and, upon conviction thereof, be fined not more than $10,000 or imprisoned for not more than one year, or both, together with the costs of prosecution."

ANTI-TRUST PROVISIONS OF RADIO ACT OF 1927-1928.

The Radio Act of Feb. 23, 1927, with its amendment of Mch. 28, 1928, includes the radio industry within the anti-trust provisions of the Sherman Act. The maximum penalty is $5,000 fine, or 5 years, or both, plus loss of or refusal of license. The statute applies to manufacturing, broadcasting or receiving.

As to the wireless, the statute says:

"No person, firm, company, or corporation now or hereafter directly or indirectly through any subsidiary, associated, or affiliated person, firm, company, corporation, or agent, or otherwise, in the business of transmitting and/or receiving for hire energy, communications, or signals by radio in accordance with the terms of the license issued under this Act, shall by purchase, lease, construction, or otherwise, directly or indirectly, acquire, own, control, or operate any cable or wire telegraph or telephone line or system between any place in any State, Territory, or possession of the United States or in the District of Columbia, and any place in any foreign country, or shall acquire, own, or control any part of the stock or other capital share of any interest in the physical property and/or other assets of any such cable, wire, telegraph, or telephone line or system, if in either case the purpose is and/or the effect thereof may be to substantially lessen competition or to restrain commerce between any place in any State, Territory, or possession of the United States or in the District of Columbia and any place in any foreign country, or unlawfully to create monopoly in any line of commerce."

COMPACT OF THE PILGRIMS OF 1620.

(Signed on board the Mayflower in Cape Cod (Provincetown) Harbor before landing.)

"In ye name of God, Amen. We whose names are underwritten, the loyall subjects of our dread soveraigne Lord, King James, by ye Grace of God, of Great Britaine, France & Ireland King, Defender of ye Faith, etc. Having undertaken, for ye glorie of God, and advancemente of ye Christian Faith and Honour of our King and countrie, a Voyage to plant ye first Colonie in ye Northerne part of Virginia, doe by these presents solemnly and mutually in ye Presence of God, and of one another, Covenant & Combine ourselves togeather into a Civill body Politick, for our better Ordering & Preservation & Furtherance of ye ends aforesaid; and by Vertue hearof to enact, constitute, and frame such just & equall lawes, ordinances, Acts, Constitutions & Offices, from Time to Time, as shall be thought most meete & convenient for ye generall good of ye Colonie, unto which we promise all due submission and obedience.

"In witnes whereof we have hereunder subscribed our Names at Cap. Codd ye 11 of November, in ye year of ye Raigne of our Soveraigne Lord King James, of England, France & Ireland ye Eighteenth, and of Scotland ye fiftie fourth Ano: Dom. 1620." John Carver, William Bradford, Edward Winslow, William Brewster, Isaac Allerton, Miles Standish, John Alden, Samuel Fuller, Christopher Martin, William Mullins, William White, Richard Warren, John Howland, Stephen Hopkins, Edward Tilley, John Tilley, Francis Cook, Thomas Rogers, Thomas Tinker, John Ringedale, Edward Fuller, John Turner, Francis Eaton, James Chilton, John Crackstone, John Billington, Moses Fletcher, John Goodman, Degory Priest, Thomas Williams, Gilbert Winslow, Edward Margeson, Peter Brown, Richard Britteridge, George Soule, Richard Clarke, Richard Gardiner, John Allerton, Thomas English, Edward Doly, Edward Leister.

(Forty-one subscribers, each one noting the number of his family, a total of 101 persons.)

THE FEDERAL STATUTES ON BANKRUPTCY.

(Extracts from the United States Bankruptcy Act of July 1, 1898, as amended by subsequent acts.)

Who May Become Bankrupts.—(*a*) Any person, except a municipal, railroad, insurance or banking corporation.

(*b*) Any natural person, except a wage-earner or a person engaged chiefly in farming or the tillage of the soil, any unincorporated company, and any moneyed, business, or commercial corporation, except a municipal, railroad, insurance, or banking corporation, owing debts to the amount of one thousand dollars or over, may be adjudged an involuntary bankrupt.

The bankruptcy of a corporation shall not release its officers, directors, or stockholders, as such, from any liability under the laws of a State or Territory or of the United States.

Duties of Bankrupts.—The bankrupt shall (1) attend the first meeting of his creditors, if directed by the court or a Judge thereof to do so, and the hearing upon his application for a discharge, if filed; (2) comply with all lawful orders of the court; (3) examine the correctness of all proofs of claims filed against his estate; (4) execute and deliver such papers as shall be ordered by the court; (5) execute to his trustee transfers of all his property in foreign countries; (6) immediately inform his trustee of any attempt, by his creditors or other persons, to evade the provisions of this act, coming to his knowledge; (7) in case of any person having to his knowledge proved a false claim against his estate, disclose that fact immediately to his trustee; (8) prepare, make oath to, and file in court within ten days after adjudication if an involuntary bankrupt, and within ten days after the filing of a petition if a voluntary bankrupt, unless in either case further time is granted, a schedule of his property, showing the amount and kind of property, the location thereof, its money value, in detail, and a list of his creditors, showing their residences, if known (if unknown that fact to be stated), the amount due each of them, the consideration thereof, the security held by them, if any, and a claim for such exemptions as he may be entitled to, all in triplicate, one copy of each for the clerk, one for the referee, and one for the trustee; and (9) when present at the first meeting of his creditors, and at such other times as the court shall order, submit to an examination concerning the conducting of his business, the cause of his bankruptcy, his dealings with his creditors and other persons, the amount, kind, and whereabouts of his property, and, in addition, all matters which may affect the administration and settlement of his estate; but no testimony given by him shall be offered in evidence against him in any criminal proceedings, (as amended May 27, 1926).

Debts Which May Be Proved.—Debts of the bankrupt may be proved and allowed against his estate which are (1) a fixed liability as evidenced by a judgment or an instrument in writing, absolutely owing at the time of the filing of the petition against him, whether then payable or not, with any interest thereon which would have been recoverable at that date, or with a rebate of interest upon such as were not then payable and did not bear interest; (2) due as costs taxable against an involuntary bankrupt who was at the time of the filing of the petition against him plaintiff in a cause of action which would pass to the trustee and which the trustee declines to prosecute after notice; (3) founded upon a claim for taxable costs incurred in good faith by a creditor before the filing of the petition in an action to recover a provable debt; (4) founded upon an open account, or upon a contract express or implied; and (5) founded upon provable debts reduced to judgments after the filing of the petition and before the consideration of the bankrupt's application for a discharge, less costs incurred and interest accrued after the filing of the petition and up to the time of the entry of such judgments.

Unliquidated claims against the bankrupt may, pursuant to applications to the court, be liquidated in such manner as it shall direct, and may thereafter be proved and allowed against his estate.

Debts Not Affected By Discharge.—A discharge in bankruptcy shall release a bankrupt from all of his provable debts, except such as (first) are due as a tax levied by the United States, the State, county, district, or municipality in which he resides; (second) are liabilities for obtaining property by false pretenses or false representation, or for wilful and malicious injuries to the person or property of another, or for alimony due or to become due, or for maintenance or support of wife or child, or for seduction of an unmarried female, or for breach of promise of marriage accompanied by seduction, or for criminal conversation; (third) have not been duly scheduled in time for proof and allowance, with the name of the creditor, if known to the bankrupt, unless such creditor had notice or actual knowledge of the proceedings in bankruptcy; or (fourth) were created by his fraud, embezzlement, misappropriation, or defalcation while acting as an officer or in any fiduciary capacity; or (fifth) are for wages due to workmen, clerks, traveling or city salesmen, or servants, which have been earned within three months before the date of commencement of the proceedings in bankruptcy; or (sixth) are due for moneys of an employee received or retained by his employer to secure the faithful performance by such employee of the terms of a contract of employment (As amended by Act of Jan. 7, 1922.)

SUMMARY OF THE 1926 AMENDMENTS.

The amended bankruptcy law, in effect Aug. 27, 1926 enlarges the scope of the statute and closes many loopholes.

Concealment by officers and agents of any person or corporation subsequent to bankruptcy, or in contemplation of that act, becomes a new penal offense.

Indictment under the new law for this and other offenses may be found within three years, instead of one, from the time of adjudication.

One of the far-reaching provisions of the new law, according to Max Isaac, editor of The American Bankruptcy Review, relates to the payment of taxes assessed against realty belonging to bankrupts.

It is now provided that "no order shall be made for the payment of a tax assessed against real estate of a bankrupt in excess of the value of the interest of the bankrupt estate therein, as determined by the court."

The word "corporation" has been defined so as to include, beyond question, commercial or business trusts.

A new act of bankruptcy has been created under which a person or a corporation who, while insolvent, permits a lien to be created upon his property, and who does not discharge or vacate such lien within thirty days from the date it was so created, may be adjudged bankrupt.

Two of the existing acts of bankruptcy have been amended, under one of which a person may be adjudged bankrupt if a receiver for his effects is appointed while he is insolvent, regardless of whether insolvency was or was not alleged in the application for the receiver.

An important change in the present law is in permitting, under the new law, voluntary bankrupts to file their schedules within ten days after adjudication in the same manner as the act heretofore provided with respect to involuntary bankrupts.

In the future the courts may, under the new law, require indemnity bonds from those bankrupts who submit composition terms to their creditors, and who desire to have their businesses operated pending the acceptance or rejection of such terms.

Financial statements as a basis for obtaining money or property need not now be given directly or published "in any manner whatsoever."

The fraudulent transfer of property within twelve months instead of four months, and the obtaining of a discharge within six years' upon a creditors' petition, as well as upon voluntary petition, are grounds for denying a discharge.

To these have been added a new ground, the failure to explain satisfactorily any losses or deficiency of assets.

The maximum term of imprisonment upon conviction of any of the offenses set forth in the act has been extended from two to five years.

Concealment of property may now be made by persons other than the bankrupts, and may be from a receiver, United States marshal "or other officer of the court charged with the control or custody of property, or from creditors in composition cases."

The time for proving debts has been reduced from twelve to six months.

Wages, heretofore following taxes in the schedule of priorities, now have preference over taxes, and the amount which each "workman, clerk, traveling or city salesman or servant" may claim for services rendered within three months prior to the bankruptcy has been increased from $300 to $600.

Notwithstanding the amendment, one Federal Court has held that taxes, which are liens on property under State law, outrank wages.

Appeals must now be taken "within thirty days after the judgment, or order or other matter complained of has been rendered or entered."

PROMISSORY NOTES AND CHECKS.

Negotiable instruments, the common forms of which are promissory notes, checks, or other bills of exchange, while having the same general requisites as other contracts, have certain distinct features. The purpose of the law is to facilitate as much as possible their free passing from band to hand like currency. The assignment of an ordinary contract leaves the assignee in no different position for enforcing his rights than that of his assignor, but one who takes a negotiable instrument from a prior holder, without knowledge of any defences to it, before its maturity, and gives value for it, holds it free of any defences which might have been set up against his predecessors, except those defects that were inherent in the instrument itself.

To be negotiable an instrument must be in writing and signed by the maker (of a note) or drawer (of a bill or check).

It must contain an unconditional promise or order to pay a certain sum in money.

Must be payable on demand, or at a fixed or determinable future time.

Must be payable to order or to bearer.

An instrument is negotiated, that is completely transferred, so as to vest title in the purchaser, if payable to bearer, or indorsed simply with the name of the last holder, by mere delivery, if payable to order by the indorsement of the party to whom it is payable and delivery.

One who transfers an instrument by indorsement warrants to every subsequent holder that the instrument is genuine, that he has title to it, and that if not paid by the party primarily liable at maturity, he will pay it upon receiving due notice of non-payment.

To hold an indorser liable the holder upon its non-payment at maturity must give prompt notice of such non-payment to the indorser and that the holder looks to the indorser for payment. Such notice should be sent within twenty-four hours.

When an indorser is thus compelled to pay he may hold prior parties through whom he received the instrument liable to him by sending them prompt notice of non-payment upon receiving such notice from the holder.

The maker of a note is liable to pay it if unpaid at maturity without any notice from the holder or indorser.

Notice to one of several partners is sufficient notice to all.

When a check is certified by a bank the bank becomes primarily liable to pay it without notice of its non-payment, and when the holder of a check thus obtains its certification by the bank, the drawer of the check and previous indorsers are released from liability, and the holder looks to the bank for payment.

The drawer of a check that has been certified cannot stop payment on it at the bank after it has been certified.

As a matter of general practice checks dated on Sundays or holidays are not questioned. In the law volume, "Brady on Bank Checks" (2nd edition, page 53, paragraph 34, it is stated:

"Since it is the act of delivery that completes and gives life to a contract, a negotiable instrument delivered on a business day is valid and enforceable though dated and signed on Sunday."

A bona fide holder of a negotiable instrument, that is, a party who takes an instrument regular on its face, before its maturity, pays value for it and has no knowledge of any defences to it, is entitled to hold the party primarily liable responsible for its payment, despite any defences he may have against the party to whom he gave it, except such as rendered the instrument void in its conception.

LAW OF CONTRACTS.

A Contract is an agreement of two or more parties by which reciprocal rights and obligations are created. One party acquires a right, enforceable at law, to some act or forbearance from the other, who is under a corresponding obligation.

To the creation of a valid contract there must be:

1. Precise agreement. The offer of one party must be met by an acceptance by the other, according to the terms offered.
2. There must be a consideration.
3. The parties must have capacity to contract. The contracts of insane persons are not binding upon them. Married women are now generally permitted to contract as though single, and bind their separate property. The contracts of an infant are generally not binding upon him unless ratified after attaining his majority.
4. The party's consent must not be the result of fraud or imposition, or it may be avoided by the party imposed upon.
5. The purpose of the parties must be lawful. Agreements to defraud others, to violate statutes, or whose aim is against public policy are void.

The following contracts very generally are required to be attested by some writing:

Contracts by their terms not to be performed within a year from the making thereof.

A promise to answer for the debt, default, or miscarriage of another person.

Contracts made in consideration of marriage, except mutual promises to marry.

Promise of an executor or administrator to pay debts of deceased out of his own property.

Contracts for the creation of any interest or estate in land, with the exception of leases for a short term, generally one year.

Contracts for the sale of goods above a certain value, unless a portion of the price is paid or part of the goods delivered.

Partial performance of the contract is generally held to dispense with the necessity for a writing.

If the damages liable to result from the breaking of a contract are uncertain the parties may agree upon a sum to which either may be entitled as compensation for a breach, which will be upheld by the courts, but if the sum so fixed is not designed as a fair compensation to the party injured, but as a penalty to be inflicted, it will be disregarded.

A party is generally excused for the failure to perform what he has agreed only by the act of God or the public enemy, except in cases involving a personal element in the work to be performed, such as death or sickness of the party contracting.

INTEREST LAWS.

The contract rate means the maximum rate (except in pawnbroker's cases).

State.	Interest Rate.		State.	Interest Rate.		State.	Interest Rate.		State.	Interest Rate.	
	Legal	Contract		Legal	Contract		Legal	Contract		Legal	Contract
	Per Ct.	*Per Ct.*		*Per Ct.*	*Per Ct.*		*Per Ct.*	*Per Ct.*		*Per Ct.*	*Per Ct.*
Ala....	8	8	Ill.....	5	7	Mont...	8	10	P. Rico.	6	12
Alaska	8	12	Ind....	6	8	Neb....	7	10	R. I....	6	See note.
Ark....	6 to 10	0 to 10	Iowa...	6	8	Nev....	7	12	S. C....	7	8
Ariz...	6	10	Kan....	6	6	N. H...	6	Any rate.	S. D....	7	12
Cal....	7	12	Ky.....	6	6	N. J...	6	6	Tenn ..	6	6
Col....	8	12	La.....	5	8	N. M...	10	12	Tex....	6	10
Conn...	6	12	Maine..	6	Any rate.	N. Y...	6	6	Utah...	8	12
Del....	6	6	Md.....	6	6	N. C...	6	6	Vt.....	6	.....
D of C	6	8	Mass...	6	Any rate.	N. D...	6	10	Va.....	6	6
Fla.....	8	10	Mich...	5	7	Ohio...	6	8	Wash ..	6	12
Ga.....	7	8	Minn...	6	8	Okla...	6	10	W. Va..	6	6
Hawaii..	8	12	Miss...	6	8	Ore....	6	10	Wis....	6	10
Idaho..	7	10	Mo....	6	8	Pa.....	6	6	Wyo. ..	7	10

By charging a bonus for a loan and then putting on record the loan minus the bonus, many professional money lenders avoid the usury laws. They take advantage, also, of the pawnbroking interest rates by requiring a pledge from the borrower.

The general penalty for usury in most of the States is forfeiture of the excess interest.

The statutes of limitation of action for recovery or enforcement in civil actions on debts vary from 1 to 20 years in the different States, according to the kind of case.

The prevailing limit is 6 years on notes and open accounts.

In New York State the limitations are—on judgments, 6 years when not of record, 20 years, when of record; on notes, 6 years; on open accounts 6 years from last item on either side. A judgment ceases after 10 years to be a lien on real estate.

In New Jersey and Connecticut the statute in debt matters is 6 years.

In Illinois the statute on unwritten agreements is 5 years; on written agreements, 10 years.

ADMINISTRATION OF DECEASED PERSONS' ESTATES.

The following is a synopsis of the laws of the various States affecting the administration of the estate of a deceased person:

1. Who to Administer.—(a) If the deceased leaves a will, the duty of administration falls upon the executor. If no executor is named, or in the event of the death or refusal of the executor to act, the Court will grant administration under the will to some suitable person, generally selected from those most largely interested under the provisions of the will, such as the residuary legatees, if any. (b) If the deceased died intestate, letters of administration are granted to the following persons in practically all the States:

First—To the surviving husband or widow.

Second—To one or more of the next of kin entitled to share in the estate.

Third—If none of the above consent to act, to one of the creditors of the estate, except in localities where there is provided by law a Public Administrator, who is preferred to creditors.

In practically all the States an administrator is required to give bond for the faithful performance of his duties in double the value of the estate to be administered.

In most of the States, if so provided by the will, no bond is required of an executor, except that in some States an executor is required to give a bond to cover the probable amount of the debts of the estate, and in practically all the States, in the discretion of the Court, for cause shown, an executor may be required to give a bond.

2. Claims of Creditors.—The procedure in the several States in presenting creditors' claims against the estate varies very considerably. In the majority of the States the executor or administrator is required promptly to give public notice to creditors to present their claims to him, and the creditors are required so to present their claims supported by an affidavit that the same are justly due and owing from the estate, above any offsets or counter claims, within a period limited generally to six months or a year. The law of each State should be consulted for more specific details. Most of the States direct a final closing of the estate by the executor or administrator within a year or eighteen months after his appointment, though the time limit may be extended by the Probate Court if conditions require it.

3. The following table contains an analysis of the laws of the several States, covering:

(1) The inheritance or succession tax upon property received either by intestate laws, last will, or by gift or transfer, designed to take effect at death, excepting legacies for religious, charitable or educational purposes, which are tax exempt in most of the States. In the great majority of the States no distinction as to tax is made between real estate and personal property.

(2) The various classes of estate obligations given priority over other claims in case of the insolvency of the estate.

NOTE—*Tax* when used below means Inheritance Tax, and *Obligations* means Preferred Obligations.

Alabama—*Tax*—None. *Obligations*—Funeral expenses, administration expenses, expenses of last sickness, taxes, wages of servants or employees' any, other debts.

Alaska—*Tax*—Primary rates: On amount up to $15,000; to wife or lineal issue, 1%; to husband or lineal ancestor, 1½%; to brother or sister or descendant of such, wife or widow of son, or husband of daughter, 3%; brother or sister of father or mother, or descendant of such, 4%; other collaterals, or strangers, or body politic or corporate, 5%. On amounts $15,000 to $30,000, double primary rates; $30,000 to $50,000, 2½ times; $50,000 to $100,000, 3 times; over $100,000, 3½ times primary rates. Exemptions, to widow, husband, lineal issue (including adopted children), $10,000; to lineal ancestors, $3,000; to collaterals, $1,000; charitable transfers to hospitals, schools, etc., $2,500. *Obligations*—Funeral expenses, administration expenses, expenses of last sickness, taxes, wages of servants or employees.

Arizona—Husband and wife, lineal issue, lineal ancestor, adopted or acknowledged child; exempt, widow, $10,000; others, $2,000; tax on first $25,000, 1%; to $50,000, 2%; to $100,000, 3%; to $500,000, 4%; over $500,000, 5%. 2d Group—Brother, sister, descendants of, wife or widow of son, or husband of daughter, exempt, $500; rates: 2%, 4%, 6%, 8% and 10%. 3d—Brother or sister of father or mother or descendants of such—exempt, $250; rates: 3%, 6%, 9%, 12% and 15%. 4th—Brother or sister of grandfather or grandmother or descendants of such, exempt, $150; rates: 4%, 8%, 12%, 16% and 20%. 5th—Any other degree of consanguinity or stranger in blood, or a body politic or corporate, exempt $100; rates: 5%, 10%. 15%, 20% and 25%.

Arkansas—*Tax*—On amounts not exceeding $5,000 the rate is 1% to parents, husband or wife, child or adopted child, lineal descendant, son-in-law or daughter-in-law. Brother or sister including half-blood, 2%. To all others the rate on the same amount is 4%. $3,000 passing to widow or minor child and $1,000 passing to the other immediate relatives mentioned is exempt. The exemption to others more remote is $500. On amounts in excess of $5,000 the primary rates (1%, 2% and 4% respectively) are increased as follows: From $5,000 to $10,000, twice the primary rates; from $10,000 to $25,000, 3 times the primary rates; from $25,000 to $50,000, 4 times; $50,000 to $75,000, 5 times the primary rate; from $75,000 to $100,000, 6 times: $100,000 to $200,000, 7 times; $200,000 to $500,000, 8 times; $500,000 to $1,000,000, 9 times; over $1,000,000, 10 times. *Obligations*—Funeral expenses, expenses of last sickness, wages of servants, judgments which are liens on land of deceased· all debts due by estate, including taxes, cost of administration, etc.· Federal estate tax.

California—*Tax*, and exemptions—Minor child: exemption $24,000., $1,000 at 1%· $25,000 to $50,000 at 2%; $50,000 to $100,000 at 4%; $100,000 to $200,000 at 7%; $200,000 to $250,000 at 9%; all in excess of $500,000 at 10%.

Husband, his descendants, descendants of a wife, ancestors, adopted children or the issue thereof: $10,000 exempt; $15,000 at 1%; $25,000 to $50,000 at 2%; $50,000 to $100,000 at 4%; $100,000 to $200,000 at 7%; $200,000 to $500,000 at 9%; all in excess of $500,000 at 10%.

Widow: $50,000 exempt· $50,000 to $100,000 at 4%· $100,000 to $250,000 at 6%· $200,000 to $300,000 at 7%; all in excess of $300,000 at 8%.

Property received by any one belonging to the above classes from a member of the same class who died within five years and having paid a tax thereon is exempt from further tax.

Brothers, sisters, or their descendants, or to a son-in-law or daughter-in-law: $5,000 exempt; $20,000 at 3%; $25,000 to $50,000 at 6%; $50,000 to $100,000 at 9%; all in excess of $100,000 at 12%.

Uncles, aunts, or their descendants: $1,000 exempt; $24,000 at 4%; $25,000 to $50,000 at 8%; $50,000 to $100,000 at 10%; all in excess of $100,000 at 12%.

All others more remote in blood: $500 exempt; $24,500 at 5%; $25,000 to $50,000 at 10%; all in excess of $50,000 at 12%.

The provision taxing intangibles belonging to non-resident decedents at the flat rate of 2% has been repealed.

In addition to the above exemptions all community property passing to the husband on the death of the wife is exempt and one-half of the community property passing to the wife on the death of the husband is exempt.

Obligations—Funeral expenses, expenses of last sickness, wages due within 60 days, debts preferred by U. S. laws· judgments, mortgages and other liens.

Colorado—*Tax*—The exemptions are—$20,000 for the widow; $10,000 for husband, child, adopted child, or any lineal descendant; $2,000 for wife or widow of son, widower of daughter, grandparent, brother, sister, mutually acknowledged child; $500 for all others. The tax ranges from 2 per cent to 16 per cent, according to the degree of relationship and the size of the inheritance. *Obligations*—Moneys held in a fiduciary capacity, reasonable administration expenses, expenses for funeral and last sickness, allowances to widow and orphans.

Connecticut—*Tax*—The net estate of any resident of this State passing to any parent, grandparent, husband, wife, lineal descendant, adopted child, adoptive parent and lineal descendant of any adopted child, in excess of ten thousand dollars in value to and including twenty-five thousand dollars in value, shall be liable to a tax of 1% thereof; the tax on the amount passing to relatives of this class in excess of twenty-five thousand dollars to and including one hundred thousand dollars, shall be 2% thereof; on the amount in excess of two hundred thousand dollars 3% thereof; and on the amount in excess of two hundred thousand dollars, 4% thereof. *Deductions*—The net estate for taxation purposes of a resident decedent shall be ascertained by adding to the appraised value of the inventoried estate all gains

made in reducing to possession choses in action, including notes and mortgages but not including corporate or governmental stocks or bonds, nor including income accruing after death; and *deducting* therefrom: debts constituting lawful claims against the estate; losses incurred in the reduction to possession of choses in action, including notes and mortgages, but not including corporate or governmental stocks or bonds, nor including income accrued after death; unpaid taxes, (a) on real property within this State which were a lien at the date of decedent's death, (b) on personal property of the decedent which constituted a personal obligation or were a lien at the date of death; (c) unpaid income taxes, upon the income of the decedent accrued to the date of death; inheritance, succession, estate or transfer taxes, paid or payable to other States, territories, the District of Columbia, foreign countries or governmental subdivisions thereof with respect to intangible personal property, and federal estate taxes; any tax on untaxed property assessed by this State, against the estate of the decedent; special assessments which at the date of death, were a lien on real property of the decedent situated within this State; funeral expenses and all amounts actually expended or to be expended for a head-stone or memorial or for the care of any lot in which the decedent is buried; reasonable compensation of executors, administrators and of trustees and reasonable attorneys' fees; any allowance made and paid during the settlement of the estate for the support of the widow, dependent minor children, including legally adopted children, of the decedent or dependent children incapable of self-support because mentally or physically defective, receiving support mainly from the decedent at the time of his death, provided that no such deduction shall be made for any such allowance beyond the expiration of twelve months after the date of decedent's death; the amount at the date of decedent's death of all unpaid mortgages upon real or personal property situated within this State, which mortgages were not deducted in the appraisal of the property mortgaged; expenses of administration except as specially provided in section 11 of the law.

Delaware—*Tax*—To grandparents, parents, child or descendant, son- or daughter-in-law, or adopted child, $3,000 exempt; to husband or wife, $20,000 exemption. Rates on excess, 1% up to $50,000; 2%, $50,000 to $100,000; 3%, $100,000 to $200,000; 4% above $200,000. To brother or sister, uncle, aunt, great-uncle, great-aunt or their descendants, $1,000 exempt. Rates on excess, 2% up to $25,000; 3%, $25,000 to $100,000; 4%, $100,000 to $200,000; 5% above $200,000. To others more remote, 5% up to $25,000; 6%, $25,000 to $100,000; 7%, $100,000 to $200,000; 8% above $200,000. *Exemptions*—Any property or estate or interest therein passing to or for the use of, or in trust for, charitable, educational, historical or religious societies or institutions, or cities or towns for public improvement or to school districts or library commission. *Obligations*—Funeral expenses, expenses of last sickness; wages to servants and laborers, rent (not over one year), judgments, obligations of record, obligations under seal, contracts for payment of money or delivery of goods.

District of Columbia—*Tax*—None (see also United States, end of table. *Obligations*—Judgment or decree of Court, funeral expenses, other debts.

Florida—*Tax*—None. The voters in 1924 amended the State Constitution to prohibit inheritance or income taxes. *Obligations*—Administration expenses, funeral expenses, expenses of last sickness, judgments and debts due to State, mortgages, mechanics' liens, material men's laborers', employees' and other liens; all other debts without distinction or rank.

Georgia—*Tax*—Eighty per cent of the amount due as Federal Inheritance Tax. If the estate is not subject to the Federal Tax, no tax is assessed by the State. *Obligations*—Year's support of family, expenses of funeral and last sickness; administration expenses, taxes, fiduciary obligations, judgments, mortgages and other liens, rent, liquidated demands, open accounts.

Idaho—(See note under New York)—*Tax*—Tax on estates less than $25,000 at following rates: To husband or wife, lineal issue or ancestor, adopted child or its issue, 1%; exempt to widow or minor child, $10,000; to others of this class, exempt $4,000. To brother or sister, or their descendants, or wife or widow of son, or husband of daughter, 2%; exempt $2,000. To uncles, aunts or descendants, 3%; exempt, $1,000. To others, 5%; exempt $500. The tax in the case of husband, wife, lineal issue, rises to 10 per cent, according to the value of the inheritance, and to others the rates range from 2% to 20%. *Obligations*—Funeral expenses, expenses of last sickness, debts preferred by U. S. laws, judgments and mortgages.

Illinois—*Tax*—Class A, father, mother, lineal ancestor, husband, wife, child, adopted or mutually acknowledged child, brother, sister, wife or widow of son, husband of daughter, lineal descendant—in excess of exemption—to $50,000, 2%; $50,000 to $150,000, 4%; to $250,000, 6%; to $500,000, 10%; over $500,000, 14%. Class B, uncle, aunt, niece, nephew or lineal descendant of same, in excess of exemption—to $20,000, 6%; to $70,000, 8%; to $170,000, 12%; over $170,000, 16%. Class C, all others except Class D, which consists of gifts for hospitals, religious, educational, Bible, missionary, tract, scientific, benevolent or charitable purposes within the State, and which are entirely exempt—in excess of exemption—to $20,000, 10%; to $50,000, 12%; $50,000 to $100,000, 16%; to $150,000, 20%; to $250,000, 24%; over $250,000, 30%. *Exemptions*—Class A, $20,000, except to brother and sister, $10,000; Class B, exemption is $500; Class C, $100. *Deductions*—funeral and administration expenses, executors' and trustees' commissions, and property, estate and inheritance taxes which have become a lien.

Indiana (See note under New York)—*Tax* is on the excess above exemption, three classes. First includes husband, wife, lineal ancestor, lineal descendant, legally adopted child or child to whom the transferer for not less than ten years stood in the mutually acknowledged relationship of parent. Second, brother, sister or a descendant of a brother or sister, wife or widow of a son or husband of a daughter. Third, all others. Amount of tax runs from 1% to 10% on the first class; from 5% to 15% on the second class; from 7% to 20% on the third class. Exemptions are in the first class, wife $25,000, children of decedent under twenty-one years $10,000, others $5,000. Second class exemption is $500. Third class $100. Order of payment of obligations—costs of administration, widow's statutory allowance, attorney's fees, expense of last sickness, burial expenses, taxes, all claims due at death.

Iowa—*Tax*—Direct inheritance—Over exemption graduated tax: 1% on any amount in excess of $15,000 and up to $30,000; $30,000 to $45,000, 1½%; $45,000 to $60,000, 2%; $60,000 to $90,000, 2½%; $90,000 to $120,000, 3%; $120,000 to $180,000, 4%; $180,000 to $240,000, 5%; $240,000 to $300,000, 6%; on all sums in excess of $300,000, 7%. *Exemptions*—Husband or wife, one-third of net estate plus $15,000; each direct heir, $15,000. *Obligations*—Debts preferred by U. S. laws, public rates and taxes, wages within 90 days of death, claims filed within six months after notice. There is an exemption of $1,000 to each collateral heir or beneficiary.

Kansas—*Tax*—To husband, wife, lineal ancestor lineal descendant, wife or widow of same: On first $25,000, 1%; on second $25,000, 2%; on next $50,000, 3%; on next $400,000, 4%; on all over $500,000, 5% (except in case of wife of decedent one-half of above rates). To brothers and sisters, on first $25,000, 3%; on second $25,000, 5%; on next $50,000, 7½%; on next $400,000, 10%; on all over $500,000, 12½%. To relatives of all degrees other than as above, and to strangers, on first $25,000, 5%; on second $25,000, 7½%; on next $50,000, 10%; on next $400,000, 12½%; on all over $500,000, 15%. *Obligations*—Funeral expenses, expenses of the last sickness, wages of servants and demands for medicines and medical attendance during the last sickness of the deceased and the expenses of administration, debts due to State, judgments, all demands presented within one year after letters of administration. Exemptions to wife, $75,000; to others of Class A, $15,000; to each member of Class B, $5,000. Taxes are on excess over exemption.

Kentucky—*Tax*—Three classes: A—Husband, wife lineal ancestor, lineal descendant, adopted child mutually acknowledged child, step-child, daughter-in-law, son-in-law, or any lineal issue of such adopted or mutually acknowledged child or step-child; B—Brother, sister, brother-in-law, sister-in-law, nephew, neice, or lineal descendant of the wife or widow of a nephew, or husband of a niece, niece-in-law, newphew-in-law, or uncle and aunt; religious, charitable, educational and State institutions within U. S. but not within this State. C—Persons or corporations not included in A or B, and any person or corporation not exempted as bona fide charitable, educa-

tional or religious. Amount of tax runs from 1% to 16% on Class A; from 2% to 16% on Class B; from 6% to 16% on Class C—Up to $25,000, excess of value over $25,000 to $50,000; to $100,000; to $250,000; to $500,000, over $500,000 etc. *Exemptions*—Wife $20,000, all other persons in Class A $5,000 except persons under 21 years of age, $10,000 brothers, sisters, brothers in law and sisters-in-law, uncles and aunts, $2,000, all other persons or corporations, $500. Exemptions are to be taken out of the first $25,000. *Obligations*—In calculating the value of the distributive shares the following deductions shall be allowed and no others—Debt of the decedent, taxes accrued and unpaid, death duties paid to foreign countries, estate and inheritance taxes paid to other State, Federal estate taxes, drainage, street or other special assignments due and unpaid and constituting liens; funeral and burial expenses (including monument up to $500), commission of executors and administrators actually allowed and paid, cost of administration including reasonable attorney's fees, certain transfers made to persons of Class A by a decedent of Class A to any person of that class within two years, on which transfer tax was paid.

Louisiana—*Tax*—To direct descendant by blood or affinity, ascendant or surviving spouse in excess of $5,000, $5,000 to $20,000, 2%; over $20,000, 3%. To a collateral relation (including brothers or sisters by affinity), in excess of $1,000, on amount in excess of $1,000, $1,000 to $20,000, 5%; in excess of $20,000, 7%. To a stranger, in excess of $500, on amount in excess of $500, up to $5,000, 5%; in excess of $5,000, 10%. *Exemptions*—To direct descendant, ascendant or surviving spouse, $5,000; to collateral relations, $1,000; to a stranger, $500. All legacies and donations to charitable, religious or educational institutions located in State entirely exempt. *Obligations*—Funeral expenses, legal expenses, expenses of last sickness, servants' wages within one year, salaries, clerks.

Maine—*Tax*—To ancestors, parents, husband, wife, descendants, adopted child, adoptive parent, wife of son, husband of daughter, the rates are as follows: Up to $50,000, 1%; $50,000 to $100,000, 1½%; above $100,000, 2%; $10,000 exempt to parents, husband, wife, child, adopted child, or adoptive parent. To brother, sister, uncle, aunt, nephew, niece or cousin, the rates on the above amounts are 4%, 4½% and 5%; $500 exempt. To others, rates on the same amounts are 5%, 6% and 7%; same exemption. The Maine law takes advantage of the 80 per cent credit allowed under the Federal Tax Law. *Obligations*—Funeral and administration expenses; allowance to husband, widow or children; expenses of last sickness; debts preferred under U. S. laws; taxes.

Maryland—*Tax*—Exempt to parents, husband or wife, children, or lineal descendants; to others, 5% on the distributive share providing the estate of the decedent is $500 or more. *Obligations*—Taxes, funeral expenses, arrears of rent, judgments or decrees of court.

Massachusetts—*Tax*—An exemption of $10,000 is allowed husband, wife, father, mother, child, adopted child, adoptive parent, grandchild. The rate of tax on such is 1% to $25,000; 2% thence to $50,000; 4% to $250,000; and so on up to 7% on excess over $1,000,000. The rates for other classes of heirs range from 1% to 12%. Tax reductions are granted on account of Federal inheritance taxes. *Obligations*—Funeral bills, expenses of last sickness, charges of administration—these 3 preferred and not affected by insolvency; debts preferred by U. S. laws, public rates and taxes, wages not over $100, debts for necessaries furnished within six months not exceeding $100, all other creditors.

Michigan—*Four rates*—1. Beneficiaries, grandfather, grandmother, father, mother, husband, wife, child, brother, sister, wife or widow of son or husband of daughter, adopted and mutually acknowledged child, provided such relationship began at or before child's 17th birthday and continued until death of such decedent, granter, etc., or any lineal descendant exempt up to $5,000: wife up to $30,000, with an additional $5,000 for each minor child to whom no property is transferred. 2. Inheritance tax is on totals including exemptions up to $50,000, 1%; on first $50,000 above exemption, 1%; thence up to $250,000, 2%; up to $500,000, 4%; up to $750,000, 6%; in excess of $750,000, 8%, provided that portion of the property so transferred which consists of real estate shall be taxed at ¾ the rates specified. 3. In other cases except as in 4, up to $50,000, 5%; over $50,000, up to $500,000, 10%; in excess of $500,000, 15%. 4. Non resident aliens who are not lineal heirs or any corporation not chartered by U. S. or any state, are taxable at 25%. Where Federal treaties conflict this provision is abrogated.

Minnesota—*Tax*—In estates of persons who died prior to April 20, 1905, there was no tax; in estates of persons dying on or after April 20, 1905, and before July 1, 1911, rates and exemptions are fixed by Chap. 288, Laws of 1905; in estates of persons dying on or after July 1, 1911, to and including April 23, 1919, rates and exemptions are fixed by Section 2a, 2b and 2c as set forth in Section 2272, General Statutes of 1913; in estates of persons dying on or after April 24, 1919.—Seven classes of beneficiaries: 1, wife, adopted children and lineal issue; 2, husband, or mutually acknowledged child and issue; 3, lineal ancestor (father, mother, grandfather, etc.); 4, brother or sister, half-brother or half-sister, nephews, nieces, daughters-in-law, sons-in-law; 5, uncles, aunts, cousins, second cousins, etc.; 6, State of Minnesota or any political division for public purposes, religious, charitable, scientific, educational bodies, cemeteries, etc.—all within the State, totally exempt. 7, Kindred other than those mentioned, strangers to blood of decedent. Exemptions of $10,000 in Classes 1, 2 and $3,000 on class 3 on excess up to $100,000, 1% to 4½%; over $100,000, 4% to 6%; 4, exemptions of $1,000: on excess up to $100,000, 3% to 9%; over $100,000, 12%; 5, exemptions of $250 up to $100,000, 4% to 12%; over $100,000, 16%. 6, All exempt. 7, Exemption of $100: up to $100,000, 5% to 15%; over $100,000, 20%. *Obligations*—Administration expenses, funeral expenses, expenses of last sickness, debts preferred by U. S. laws, taxes.

Mississippi—*Tax*—By the 1928 law the tax on the net estate of a decedent ranges from four-fifths of 1 per cent for estates not in excess of $50,000, to 16 per cent of the amount by which the net estate exceeds $10,000,000. For the purposes of the tax the value of the net estate shall be determined in the case of a resident by deducting $100,000 from the value of the gross estate. *Obligations*—Funeral expenses, expenses of administration, support of widow as fixed by Chancery Court, all debts.

Missouri—*Tax*—To husband, wife, lineal descendant, adopted child or descendant, illegitimate child, up to $20,000, 1%; to $40,000, 2%; to $80,000, 3%; to $200,000, 4%; to $400,000, 5%; in excess of $400,000, 6%. To brother, sister or descendants, son-in-law, daughter-in-law, aunt, uncle or descendants, 3%, 6%, etc., over $400,000, 18%. To brother or sister of grandparents or descendants, 4%, 8%, etc., over $400,000, 24%. To all others, including foreign, charitable and religious bequests, 5%, 10%, etc., over $400,000, 30%. Exemptions, husband or wife, $20,000; plus the value of a child's share in the entire net estate; insane or blind lineal descendants, $15,000; lineal ancestor, lineal descendant, adopted child or its descendant or illegitimate child, $5,000; brother, sister or descendants, son-in-law, daughter-in-law, $500; aunt, uncle or their descendants, $250; brother or sister of grandparents or their descendants, $100; others of less than $100 not taxed. *Obligations*—Funeral expenses, expenses of last sickness, wages of servants, tombstone, taxes and public debts, judgments, all demands presented within six months after letters, all demands exhibited after six months and before one year.

Montana—*Tax*—Widow, exemption $17,500, rate on 1st $25,000, less exemptions, 1%; on next $25,000, 2%; on next $50,000, 3%; on balance, 4%. Husband, exemption, $5,000; lineal ancestor or descendant, adopted child or lineal issue of adopted child—exemption, $2,000—rates over exemption same as for widow. Brother or sister or descendant, son's wife or daughter's husband, exempt, $500—rates, 2%, 4%, 6% and 8%. Uncle, aunt or first cousin, no exemption; rates, 3%, 6%, 9% and 12%. The tax on estates of the net value of $1,000,000 or more ranges from 6 2/5% to 16%, according to the amount of the appraisal. All property transferred to the State or any of its institutions, or to municipal corporations within the state for strictly county, city, town, or municipal purposes, or to corporations or voluntary associations of this state organized under its laws solely for religious charitable, educational or other public purposes, which shall use the property so transferred exclusively for the purpose of their organization within the State, is exempt. *Deductions*—Debts owing at death, funeral expenses and last illness, State, county and municipal taxes, which are fixed in amount and owing by decedent at time of death; expenses of administration, including fees and commissions.

Nebraska—*Inheritance tax*—Father, mother, husband, wife, child, brother, sister, wife or widow of the son, or husband of the daughter, 1% over exemption of $10,000 each; uncle, aunt, niece, nephew or other lineal descendants of same, 4% over exemption of $2,000; in all other cases a graduated tax up to $5,000, from 4%; on all the excess over $5,000 to $10,000, 6%; on all the excess over $10,000 and not exceeding $20,000, 8%; on all excess over $20,000 and not exceeding $50,000, 10%; on all excess over $50,000; 12%. Widow or widower entitled besides to same exemptions as applies to intestate estates.

Nevada—*Tax*—It was repealed in 1925. *Obligations*—Funeral expenses; expenses of last sickness; wages, within ninety days; debts preferred by U. S. laws; judgments and mortgages.

New Hampshire—*Tax*—All property within the jurisdiction of the state, real, or personal, and any interest therein, belonging to inhabitants of the state, and all real estate within the state, or any interest therein, belonging to persons who are not inhabitants of the state, which shall pass by will or by the laws regulating intestate succession, or by deed, grant, bargain, sale or gift, made in contemplation of death, or made or intended to take effect in possession or enjoyment at or after the death of the grantor or donor, to any person, absolutely, or in trust, except to or for the use of the father, mother, husband, wife, lineal descendant, adopted child, the lineal descendant of any adopted child, the wife or widow of a son, or the husband of a daughter, of a decedent, or to or for the use of educational, religious, cemetery, or other institutions, societies or associations of public charity in this state, or for or upon trust for any charitable purpose in the state, or for the care of cemetery lots, or to a city or town in this state for public purposes, shall be subject to a tax at five per cent of its value, for the use of the state.

This law applies to estates of all decedents dying subsequent to April 24, 1925; the non-resident transfer tax of 2% upon transfer of personal property within the jurisdiction of the State is modified by laws of 1927 to the extent of exempting estates of residents of foreign states which reciprocate. *Obligations*—Administration expense, funeral expenses and expenses of last sickness, allowance to widow, taxes on realty due at death.

Note. Inheritance taxes paid in other jurisdictions is included in expenses of administration.

New Jersey—*Tax*—Effective on and after March 11, 1922. To father, mother, husband, wife, child, grandchild, lineal descendant, adopted child and issue, 1% on any amount over $5,000 and up to $50,000, and so on up to 16% on any amount over $3,700,000. To collateral issue, 5% on any amount up to $300,000, and so on up to 16% on any amount in excess of $2,700,000. To hospitals, orphan asylums, public libraries, Bible and tract societies, religious, benevolent and charitable institutions, 5%. To State of New Jersey, municipal corporations within State or other political division thereof, entirely exempt. *Obligations*—Administration expenses, judgments, funeral expenses, medical expenses of last sickness, inheritance tax. All the debts and expenses are first deducted from estate before calculation of tax, so the tax would be payable out of the balance of the estate after payment of obligations.

The exemption to the widow, husband, child, lineal issue, is $10,000; to others, $500. The rate of tax rises to 16%, according to valuation of inheritance (except that the tax is 5% on legacies to New Jersey charities or religious institutions), property left to the State or to any New Jersey city, town, village, is entirely exempt. All gifts of paintings, books, etc., for free exhibitions within State, are entirely exempt. *Obligations*—Inheritance tax, judgments, funeral expenses, medical expenses of last sickness.

New Mexico (See note under New York)—*Tax*—To father, mother, husband, wife, lineal descendant, adopted child, on amount, over exemption, 1%; and an additional tax of 1½% on grantee or donee in conveyance taking effect upon death. To wife or widow of son, husband of daughter, lineal descendant of adopted child, brother or sister, on amount over exemption, 5%, and an additional 3% on grantee or donee in conveyance taking effect upon death. To other collateral kindred, strangers to the blood, corporations, voluntary associations or societies, in amount over exemption, 5%, and an additional tax on grantee or donee in conveyance taking effect upon death, 3%.

New York—*Tax—Residents*—1. To parents, husband or wife, child, adopted child ($5,000 exempt), and 2, to lineal descendants, other than a child ($500 exempt), 1% up to $25,000; 2% on the next $75,000; 3% on the next $100,000; 4% on all additional sums. 3. To brother, sister, wife or widow of a son, husband of a daughter or mutually acknowledged child ($500 exempt), 2% up to $25,000; 3% on the next $75,000; 4% on the next $100,000; 5% thereafter. 4. To all others ($500 exempt), 5% up to $25,000; 6% on the next $75,000; 7% on the next $100,000; 8% thereafter. (In 2, 3 and 4 above if the transfer is in excess of $500 the entire amount is taxable.) *Deductions*—(a) debts and enforcible claims, (b) funeral expenses, (c) administration expenses, (d) executors' or trustees' commissions, (e) attorneys' fees, (f) certain taxes, (g) assessments for local improvements which are a lien on the real property, (h) unpaid mortgages. *Estate Tax*—Estates of resident decedents are subject to an estate tax which equals 80% of the United States estate tax and against which are allowed the same credits as are allowed against the United States estate tax. In computing the net estate an exemption of $100,000 is allowed. The rates range from four-fifths of one per cent. of the amount of the net estate not in excess of $50,000 to 16% of the amount by which the net estate exceeds $10,000,000. The effect of the estate tax is to take full advantage of the 80% credit allowed by the United States estate tax. *Non-Residents*—1. To transferees upon transfers by will or intestate laws, 3% upon the clear market value of the New York property transferred less encumbrances upon real property and such proportion of the debts and funeral expenses of the decedent and such portion of the expenses of administering the decedent's estate as the clear market value of the real property of the decedent within this State, ascertained as aforesaid, plus the clear market value of the personal property of the decedent within this state taxable under this article bears to the total clear market value of the real property of such decedent wheresoever situated, ascertained as aforesaid, plus the total clear market value of the personal property of the decedent wheresoever situated. 2. To transferees upon taxable transfers other than by will or intestate laws, 2% upon the clear market value of the property transferred. If the transfer is by will or intestate laws, the right to any deductions, except encumbrances on real property, may be waived by the executor or administrator and a tax of 2% upon the entire value of the taxable property paid.

By a 1929 law, effective on Sep. 1, 1930, the New York Legislature amended the Decedent Estate Law, the Surrogate's Court Act, the Real Property Law, the Civil Practice Act, and the Personal Property Law, generally in relation to decedents' estates.

Among the important changes the Act eliminates all distinction between the sexes and between real and personal property in so far as the descent and distribution of property are involved; abolishes dower and curtesy; prohibits a man or woman from disinheriting the surviving spouse; prohibits a husband from disinheriting his wife through the organization of a real estate corporation to hold title to his real estate; limits to one-half, the amount of the estate which may be given to charity; and gives an executor the right to sell real estate, unless that right is expressly withheld in the will. The Act does not affect existing wills nor those made prior to September 30, 1930.

By another law, reciprocity in estate taxes on intangible personal property was agreed upon as between New York, Idaho, Indiana, New Mexico, North Carolina, South Carolina, West Virginia, and the Canadian Yukon.

Under these agreements, estates of residents of New York State who die on and after the dates of agreement will not be subject to death taxation on intangible personal property in those States and the Yukon, and similarly, estates of persons dying in those States will not be taxable in State.

This 1929 reciprocal agreement became effective with the State of Indiana on March 9, with Idaho and Yukon Territory on March 16, with North Carolina on March 19, with West Virginia on June 3, with New Mexico on June 7, and with South Carolina on Jan. 1, 1930.

The New York Statute defines "intangible" personal property to mean "incorporeal property, including money, deposits in banks, mortgages, debts, receivables, shares of stock, bonds, notes, credits, evidences of an interest in property and evidences of debt."

The N. Y. Legislature in 1928 reenacted in amended form and made retroactive to July 1, 1925 a provision which had been declared unconstitutional by the Court of Appeals, providing for taxation of transfers of non-residents. The inheritance tax percentage heretofore applicable to

estates exceeding $1,000,000 now apply to estates of over $200,000.

North Carolina (See note under New York)—*Tax*—To husband or wife, lineal issue or lineal ancestors, heirs at law, son- or daughter-at-law, stepchild, adopted child. Exempt, $10,000 to widow, $5,000 to minor child, $2,000 to others of this class. Rates on excess, 1% up to $25,000; 2%, $25,000 to $100,000; 3%, $100,000 to $250,000; 4%, $250,000 to $500,000; 5% above $500,000 to $1,000,000; 6%, $1,500,000; up to 9% above that. To brother, sister, or their descendants, 3% on the first $10,000, rising gradually to 22% on all above $3,000,000. To other inheritors more remote the rates range from 7% to 26%. *Obligations*—Debts secured by liens on property of deceased, funeral expenses, taxes, debts due U. S. or State, judgments, wages within one year, medical attendance within one year.

North Dakota—*Tax*—On the net estate the tax is 1% of all under $25,000 and rises gradually to 7% of the amount over $1,500,000. Exemptions to husband or wife, $20,000 and insurance policies; to each lineal ancestor or descendant not over $3,000; (if a minor $5,000); devises or bequest to municipal corporations for county, town or municipal purposes, or to corporations of this State, organized for religious or charitable educational purposes, entirely exempt. *Obligations*—Debts, taxes, administration costs, funeral expenses, but not over $500 for monuments.

Ohio—*Tax*—To wife or minor child, on $20,000 or part thereof, over exemptions, 1%; on next $75,000, 2%; on next $100,000, 3%; on balance, 4%. To widower, adult child, adopted child, lineal descendants, on $21,500 or part thereof, over exemptions, 1%; on next $75,000, 2%; on next $100,000, 3%; on balance, 4%. To brother, sister, niece, nephew, wife or widow of a son, husband of a daughter, or child treated as son or daughter for ten years though not legally adopted, on $24,500 or part thereof, over exemptions, 5%; on next $75,000, 6%; on next $100,000, 7%; on balance, 8%. To other persons, institutions or corporations, on $25,000 or part thereof, 7%; on next $75,000, 8%; on next $100,000, 9%; on balance, 10%. *Exemptions*—To wife or minor child, $5,000; to father, mother, husband, adult child, adopted child, or lineal descendants, $3,500; to brother, sister, nephew, niece, wife or widow of son, husband of daughter, "or any child to whom the decedent for not less than ten years prior to the succession stood in the mutual acknowledged relation of parent," $500. *Preferred obligations*—Administration, funeral and last sickness expenses, allowance to widow and children for twelve months, debts, taxes.

Oklahoma—*Tax*—Ranges from 1% to 16% on the valuations above the exemptions, which latter are: $15,000 to the widow; $10,000 to children; $5,000 to husband, father, mother, grandchildren; $1,000 to brothers, sisters, daughters-in-law, son-in-law; $500 to other relatives. The tax rate for the wife is 1% up to $25,000; 2% to $50,000; 3% to $100,000; 4% to $700,000; etc. *Obligations*—Funeral expenses, expenses of last sickness, support of family for ninety days, taxes to U. S. or State, debts preferred by U. S. or State laws, judgments or mortgages, other claims presented within six months.

Oregon—*Tax*—To grandfather, grandmother, father, mother, husband, wife, child or stepchild, or any lineal descendant (exemption $1,000), $10,000 to $25,000, 1%; $25,000 to $50,000, 1½%; $50,000 to $100,000, 2%; $100,000 to $300,000, 3%; $300,000 to $500,000, 5%; $500,000 to $1,000,000, 7%; over $1,000,000, 10%. To brother, sister, uncle, aunt, niece, nephew, or lineal descendant (exemption $1,000), additional tax, $1,000 to $3,000, 1%; $3,000 to $5,000, 2%; $5,000 to $10,000, 4%; $10,000 to $30,000, 7%; $30,000 to $50,000, 10%; over $50,000, 15%. Additional tax in all other cases (no exemption) up to $500, 2%; $500 to $1,000, 4%; $1,000 to $2,000, 6%; $2,000 to $4,000, 8%; $4,000 to $10,000, 10%; $10,000 to $25,000, 15%; $25,000 to $50,000, 20%; over $50,000, 25%. Effective on and after May 29, 1919. *Deductions*—Expenses of administration, funeral expenses, U. S. taxes, expenses of last sickness, State and local taxes, debts preferred by U. S. laws, debts secured by liens and property set apart to the widow, husband or surviving children. Intangible personal property of a non-resident decedent, upon which an inheritance tax is imposed by Oregon Laws, shall not be subject to the tax so imposed if a like exemption is made by the laws of the State or Country of decedent's residence in favor of residents of the State of Oregon.

Pennsylvania—*Tax*—Transfer Inheritance Tax Act of 1919, imposing a tax on value of estate passing to direct and collateral heirs. To father, mother, husband, wife, children, lineal descendants, legally adopted children, step-children or the wife or widow of a deceased son, or from the mother of an illegitimate child, 2%; to all others, 10%; the only exemption allowed is the widow's exemption of $500, under a separate act. *Deductions*—Funeral and last sickness expenses and expenses of administration.

Rhode Island—*Tax*—Estates under $10,000 tax exempt (above said sum a general tax of 1% is imposed in addition to the rates specified below). To grandparents, parents, husband or wife, child, or descendant, adopted child, brother, sister, nephew, niece, son-in-law, or daughter-in-law, $25,000 is exempt. Rates on excess are: ½% below $50,000; 1%, $50,000 to $250,000; 1½%, $250,000 to $500,000; 2%, $500,000 to $750,000; 2½%, $750,000 to $1,000,000; 3% above $1,000,000. To others more remote, $1000, is exempt, and rates on excess are: 5% up to $50,000; 6%, $50,000 to $250,000; 7%, $250,000 to $1,000,000; 8% above $1,000,000. *Obligations*—Funeral expenses, expenses of last sickness, debts due U. S., State and town taxes, wages up to $100, other claims presented within six months, all other debts. If property insufficient to pay all debts of any class, creditors of that class shall be paid ratably, and no payment shall be made to creditors of any class until all of preceding class or classes have been paid in full.

South Carolina (See note under New York)—*Tax*—To husband, wife, minor child, minor grandchild, adult child, adult grandchildren, father or mother, on amount in excess of exemption; up to $20,000, 1%; $20,000 to $40,000, 2%; $40,000 to $80,000, 3%; $80,000 to $150,000, 4%; $150,000 to $300,000, 5%; in excess of $300,000, 6%. To lineal ancestor, lineal descendant (other than above), brother, sister, uncle, aunt, niece, nephew, wife or widow of son, or husband of daughter, on amount in excess of exemption, up to $20,000, 2%; to $40,000, 3%; to $80,000, 4%; to $150,000, 5%; to $300,000, 6%; over $300,000, 7%. To any other beneficiary, double above rates, viz., 4%, 6%, 8%, 10%, 12% and 14%. *Exemptions*—Husband or wife, $10,000; minor child, $7,500; adult child, father or mother, $5,000; lineal ancestor or descendant, brother, sister, uncle, aunt, etc., $500; any other beneficiary, $200. Devises or bequests for educational, religious, or public charities in this State, or for city or town for public purposes, entirely exempt. Act of Feb. 23, 1922. *Obligations*—Funeral, last sickness, probate and administration expenses, debts due to public, judgments, mortgages and executions, rent, bonds, contract debts.

South Dakota—*Tax*—Primary rates: To wife or lineal issue, up to $15,000 on excess after deducting exemptions from $15,000, 1%; to husband, lineal ancestor of decedent or any child legally adopted, or mutually acknowledged for not less than ten years or lineal issue of such, 2%; to brother or sister, or descendant, a wife or widow of a son or husband of a daughter, 3%. To brother or sister of father or mother, or a descendant of a brother or sister of the father or mother of decedent, 4%; to any person or persons in any other degree than as above, or strangers, or a body politic or corporate, 5%. Over $15,000 and up to $50,000, two times the primary rate; $50,000 to $100,000, 3 times; in excess of $100,000, 4 times the primary rate. *Exemptions*—All property transferred to public corporations within the State for strictly county, township, school or municipal purposes, property of clear value of $10,000 transferred to widow or husband of decedent, each lineal issue, or adopted or mutually acknowledged children and issue of such, lineal ancestors of decedent, exemption, $3,000; $500 exemption to brother or sister of decedent, or descendants of such, wife or widow of son or husband of daughter; $200 exemption to brother or sister of father or mother or descendants of such; $100 exemption to others. Entire exemption to hospitals, colleges, churches, etc., and charitable institutions, deductions to be made of amounts received from outside the State. *Obligations*—Funeral expenses, expenses of last sickness, wages for 60 days, debts preferred by U. S. laws, all other claims against the estate except that debts secured by liens have preference, according to priority, on any specific property.

Tennessee—*Tax*—To husband, wife or direct descendants, child adopted in conformity with laws of State, or ascendants of person making transfer, from $10,000 to $25,000, 1%; on next $25,000, or any part thereof, 1½%; on next

$50,000, 2%; on next $400,000, 3%; on $500,000 and all over that sum, 5%. To all others from $1,000 to $50,000, 5%; on next $50,000, 6%; on next $50,000, 7%; on next $50,000, 8%; on next $50,000, 9%; 10% on $250,000 and all over that sum. *Exemptions*—Property of intestate, testator or grantor when clear market value is less than $1,000. Property of clear market value of less than $10,000, transferred to wife, direct descendants and ascendants, or either of them, of person from whom transfer is made, the estate to be treated as a whole. All property transferred to municipal corporations for strictly municipal purposes. Property devised or transferred to any church for purely religious purposes, to any school or college for purely educational purposes, to any hospital or bona-fide charitable institution. *Obligations*—Transfer and inheritance taxes are included as debts in settlement of estate.

Texas—*Tax*—On property to or for use of husband or wife, direct lineal descendants or ascendants of decedent, or to legally adopted child, or to husband of daughter, or wife of son, an exemption of $25,000 and a graduated tax of 1% to 6%. If to religious, educational or charitable organizations in State, bequest to be used within State, all is exempt. If the devise is to a governmental unit, National or State, it is the same as to husband or wife. To brother or sister of decedent or lineal descendant of such, in excess of $10,000, a graduated tax from 3% up to (for over $1,000,000) 10%. To uncle or aunt of decedent or descendant of such, in excess of $1,000, a graduated tax from 4% to (for over $1,000,000) 15%. To any other person within or without this State, or to any religious, educational or charitable organization located without the State, a graduated tax of from 5% to (for over $1,000,000) 20%. *Obligations*—Funeral and last sickness expenses, administration expenses, debts secured by mortgage or other debts presented within twelve months, and debts presented after twelve months.

Utah—*Tax*—$10,000 of each estate exempt; tax 3%, $10,000 to $25,000; 5% above $25,000. *Obligations*—1(Funeral expenses the only preferred obligations. The term "debts" shall include local or State taxes due at time of death, court costs, statutory fees of executors, administrators or trustees.

Vermont—*Tax*—To husband, wife, child, father, mother or grandchild, wife or widow of a son or husband of a daughter, child adopted during minority, stepchild or other lineal descendant, no tax unless legacy or share exceeds $10,000; between $10,000 and $25,000, 1%; between $25,000 and $50,000, 2%; between $50,000 and $250,000, 4%; over $250,000, 5%. To all others, 5%. Exemptions, devises or bequests for charitable, religious or educational societies or institutions, cemetery purposes created or existing under laws of this State, to a Bishop in his ecclesiastical capacity for religious uses in this State. *Obligations*—Funeral expenses, taxes, debts due to State, debts due to U. S. These claims are to be paid first without being allowed by commissioners. Expenses of last illness and wages due within 3 months, not over $50, to be allowed if approved by commissioners. A headstone to cost not over $25 is permitted to an insolvent estate.

Virginia—*Tax*—The State inheritance tax law was amended in 1926 to correspond to the rates in the Federal Revenue Act of 1926, by providing as follows: "The minimum tax imposed and collectible by this Commonwealth upon the transfer at death of the estates of resident decedents shall in no case be less than the credit allowed by the act of Congress, known as the Revenue Act of 1926, which credit is allowed by the said act on account of estate, inheritance, legacy or succession taxes actually paid to any State or territory or the District of Columbia in respect of any property included in the gross estate. Such minimum inheritance tax imposed by this State, which is hereby imposed by this act, shall, in no case be less than 80% of the tax imposed by the said act of Congress."

The rate of inheritance tax to husband, wife, lineal ancestor, or lineal descendant (exemption, $10,000) is 1% on up to $40,000 of the devise, and rises to 5% on the excess over $1,000,000. Brother, sister, nephew, or niece, get $4,000 exemption and the rates vary from 2% to 10%. Other beneficiaries get $1,000 exemption each, and the rates vary from 5% to 15%. *Obligations*—Expenses of last illness and funeral, debts due U. S., debts due Va., taxes and levies prior to death, debts due as legal trustee, guardian, etc., all other demands except voluntary obligations.

Washington—*Tax*—To survivor and to father or mother. The rate of tax in this class of heirs ranges from 1% to 5%; in the case of other heirs, from 3% to 25% according to amount of inheritance and degree of relationship. *Obligations*—Funeral expenses, expenses of last sickness, debts preferred by U. S. laws, wages within 60 days, taxes, judgments and mortgages which are liens on land.

West Virginia (See note under New York)—*Tax*—To wife, husband, child or children of deceased child, or father or mother of decedent, not exceeding $50,000, 2%. To brother or sister of decedent (not including those of half blood), 4%. To those further removed in relationship from decedent than brother or sister, 7%. To those of no blood relationship, strangers, institutions, corporate or otherwise, except eleemosynart institutions hereinafter exempt, 9% of market value of such interest in such property. The tax rates range from 2% to 9% on the first $50,000, and thence rise to 5% to 9½%, according to the degree of relationship and the size of the inheritance. *Exemptions*—Property transferred to person or corporation for educational, literary, scientific, religious or charitable purposes, or to State, county or municipal corporation for public purposes, used exclusively in this State. To widow, $15,000; to wife, husband, child, children of deceased child, father or mother of decedent, $10,000, except that exemption to children of child shall be per stirpes not per capita. *Obligations*—Funeral and administration expenses, debts owing to U. S., taxes, fiduciary obligations.

Wisconsin—*Tax*—Tax of 2% to husband, wife, lineal descendants, lineal ancestors, adopted child, and lineal issue thereof. To brothers, sisters and their descendants, wife or widow of son, or husband of daughter, 4%. To uncles, aunts or their descendants, 6%. To all others, 8%. When the estate is above $25,000 the above rates are multiplied as follows: $25,000 to $50,000, 2 times on excess; $50,000 to $100,000, 3 times on excess; $100,000 to $500,000, 4 times on excess; above $500,000, 5 times on excess. But no such tax, however, shall exceed 15% of the property transferred to any beneficiary. *Exemptions*—$15,000 to widow, $2,000 to lineal descendants or ancestors and husband, and lesser amount to other relatives, down to $100 exemptions to strangers in blood. *Obligations*—Last sickness and funeral expenses; debts.

Wyoming—*Tax*—Class A. Husband, wife, parent, child, adopted child or adopted parent, brother or sister—exempt, $10,000; over exemption 2%. Class B. grandparent, grandchild, half-brother, half-sister, exemption $5,000; over exemption, 4%. Class C. All other excepting class D—no exemptions, 6%. Class D—Gifts for state, municipal, charitable, educational or religious purposes or to any institution for use in the preservation of wild fowls or game, entirely exempt.

United States—(See Federal Estate Tax.)

DISTRIBUTION OF INTESTATE'S PERSONAL ESTATE.

In many of the States the widow and children are entitled to receive a small portion of the estate, generally varying from $100 to $500, before the claims of creditors are paid. Aside from such exempt portion of the estate, the property to be distributed to widow or relatives is that remaining after all creditors' claims have been satisfied.

In all States where the deceased leaves a child or children, or descendants of any deceased child and no widow, the children or descendants take the entire estate, to the exclusion of all other relatives. The children take equal shares, and in most States the descendants of a deceased child together take the share of the parent, except where the descendants are all in equal degree to the deceased (all grandchildren, no children surviving), when they share equally and do not take their proportionate share of their parents' interest.

In most if not all of the States, the widow of a man who died without having made a will inherits one-third of the realty and one-half of the personalty, in all cases in which she is not the sole blood heir.

The statutes covering inheritance of intestate estates vary in almost every State as to the rights of the several heirs. The safest course is to communicate with the Surrogate's or Orphans' Probate Court in the county where the estate lies.

MARRIAGEABLE AGE IN THE UNITED STATES.

The following table shows, by states, the marriageable age for both males and females with and without consent of parents or guardians.

States.	With Consent.		Without Consent.		States	With Consent.		Without Consent.		States.	With Consent.		Without Consent.	
	Men.	Women.	Men.	Women.		Men.	Women.	Men.	Women.		Men.	Women.	Men.	Women
Ala.	21	18	21	18	Maine	No te.		21	18	Okla.	18	15	21	18
Ariz.	18	16	21	18	Md.	14	12	21	18	Ore.	18	16	21	18
Ark.	17	14	21	18	Mass.	18	16	21	18	Pa.	16	16	21	21
Cal.	18	16	21	18	Mich.	18	16	18	18	R. I.	18	18	21	21
Col.	No te.		21	18	Minn.	18	15	18	16	S. C.	18	14	18	18
Conn.	16	16	21	21	Miss.	21	18	21	18	S. D.	18	15	21	21
Del.	18	16	21	18	Mo.	15	15	21	21	Tenn.	16	16	16	16
D. of C.	16	14	21	18	Mont.	18	16	21	21	Texas.	16	14	21	18
Fla.	No te.		21	21	Nebr.	21	18	21	18	Utah.	16	14	21	18
Ga.	17	14	17	18	Nev.	18	16	21	18	Vt.	16	14	21	18
Idaho.	No te.		18	18	N. H.	14	13	20	18	Va.	14	21	21	21
Illinois.	18	16	21	18	N. J.	No te.		21	18	Wash.	Note.	16	21	18
Ind.	21	18	18	16	N. M.	18	16	21	18	W. Va.	19	17	21	21
Iowa.	16	14	21	18	N. Y.	16	14	21	18	Wis.	18	15	21	18
Kan.	18	16	21	18	N. C.	16	14	16	16	Wyo.	18	16	21	21
Ky.	16	14	21	21	N. D.	18	15	21	18	P. R.	18	16	21	21
La.	14	12	14	12	Ohio.	18	16	21	21	Hawaii.	18	15	20	18

Note. In Colorado, Idaho, New Jersey, and some other states the law does not specifically fix the minimum age for marriage with consent of parents or guardians. In such cases the old English Common Law presumably prevails—14 years for a male, 12 years for a female. In several of the states a child can be disinherited by law for marrying below the legal age without parental consent.

Although the New Hampshire law fixes the age of consent at 20 for males and 18 for females, another section of the statute says: "No male below the age of 14 years and no female below the age of 13 years shall be capable of contracting a valid marriage." Marriages below the age of consent, but not below the 14-13 limit, can be made with the permission of a justice of the superior court or a judge of probate, on the application of parent or guardian.

MARRIAGE AND DIVORCE LAWS.

Marriage Licenses—A license of some kind is required in every State and Territory, and marriage in the United States is now universally on a civil-contract basis. But religious ceremonies are authorized in all the States, provided there is a license to wed. In New York State a marriage may be solemnized by a leader of the Ethical Culture Society of Manhattan or Brooklyn.

No delay in issuing a license, or in marrying under a license as soon as issued, is experienced, so far as the law is concerned, in Alabama, Arizona, Arkansas, Colorado, District of Columbia, Idaho, Illinois, Iowa, Kansas, Kentucky, Louisiana, Minnesota, Mississippi, Montana, Nevada, New York, North Carolina, Ohio, Oregon, Tennessee, Utah, Virginia, Washington, or Wyoming. In Texas, 3 days notice of intent to marry is required.

In New York State, a marriage certificate must be filed within 5 days, and all under 21 who wish to marry must present birth certificates or other proof of age. They can be married at the City Chapel, N. Y. City, only by a judge of a court of record.

In New York State, also, it is required, under a 1929 law that a woman who is 14 but not 16 years of age, must have the consent of a judge of the Children's Court in her jurisdiction (in addition to consent of parent or guardian) before she can marry.

A delay of 5 days is required by the statutes in Connecticut, Georgia, Maine, Massachusetts, Michigan, New Hampshire, Rhode Island, Vermont, and Wisconsin.

In Georgia and in North Carolina, this now applies only to minors.

But, in the 5-day states, a judge of a Probate or other court has power to authorize an immediate marriage, on an affidavit of necessity. This is true, in fact, of almost every state, no matter what ordinary delays the law stipulates.

Other states with waiting periods are—California, 3 days; Delaware, 24 hours for residents, 96 hours for non-residents; Florida, none, if the woman is a resident of the state; Indiana, 30 days if the woman is a non-resident; Maryland, 3 Sundays, for banns, if a church ceremony; New Jersey, 2 days; North Dakota, one year in the state, six months in the county; West Virginia, 30 days, and 7 days for a license.

EUGENICS AND MISCEGENATION.

Throughout the South and Southwest and in Delaware and some of the other states, marriage between whites and Negroes is unlawful; and marriage between whites and Indians is still forbidden in several southern and southwestern states.

In Georgia, marriage is by law forbidden between whites and negroes and between the white and yellow races. By negro, in the Georgia law, is meant "any trace of negro blood."

New York and about half of the states now put marriage on a eugenic basis, by requiring proof that the blood of both the man and the woman is free from venereal infection.

Texas, by a 1929 law, requires a health certificate. This is true in New Hampshire. Formerly, in Delaware, only the legislature could grant divorce.

In N. Y. State, by a law of 1926, before a marriage license is issued, the town or city clerk shall require from the prospective bride and groom a statement in the following words: "I have not to my knowledge been infected with any venereal disease, or if I have been so infected within five years I have had a laboratory test within that period which shows that I am now free from infection from any such disease."

Common-law marriages of a year or more duration, without either license or ceremony, are now validated by the courts in practically all the states, on proper proof, and where children or property are involved.

A 1926 law of N. Y. State authorizes a written contract of marriage signed by both parties and at least two witnesses who shall subscribe the same, stating the place of residence of each of the parties and witnesses and the date and place of marriage, and acknowledged by the parties and witnesses in the manner required for the acknowledgment of a conveyance of real estate to entitle the same to be recorded, *provided, however*, that all of such contracts of marriage must in order to be valid be acknowledged before a judge of a court of record.

Such contract shall be recorded within thirty days after its execution in the office of the State Department of Health, and a copy thereof shall be filed within thirty days after its execution in the office of the clerk of the county in which the marriage was solemnized.

SUMMARY OF THE DIVORCE LAWS OF THE STATES.

Below is a summary of the divorce laws of the States. The primary cause, everywhere, is adultery. Other primary causes are impotency (often styled physical incapacity), insanity, and cruelty; and conviction of felony since the marriage.

In South Carolina the law does not allow divorce for any cause.

There is a general similarity between the causes in the States.

All of the states make a distinction between divorce, and separation.

In every state, too, marriages can be dissolved not only by divorce but by annulment.

The primary cause for annulment is fraud of some kind, manifested in concealment by one or the other party of a condition which, would have barred the marriage, such as insanity, impotency, blood infection, conviction of felony, prior undissolved marriage, and so forth.

The New York State Legislature in 1923 passed an act, signed by the Governor May 21 and in immediate effect, amending the Marriage Law as follows:

Conditions attached to maintenance of action to annul a marriage. An action to annul a marriage may be maintained in either of the following cases:

1. Where both parties are residents of the State when the action is commenced.

2. Where the parties were married within the State and the plaintiff is a resident thereof when the action is commenced.

3. Where the parties, having been married without the State, have become residents of the State, and have continued to be residents thereof at least one year; and the plaintiff is such a resident when the action is commenced.

Figures in parentheses after each State show number of years residence required before divorce action can be begun.

Causes means causes for absolute divorce *in addition to adultery.*

Alabama—(1-3). *Causes.* Abandonment 2 years, crime against nature, habitual drunkenness, violence, pregnancy of wife by other than husband at marriage, physical incapacity, imprisonment for 2 years for felony, confinement in insane asylum for 20 years, provided insanity is incurable; if husband becomes addicted to cocaine, morphine or similar drugs. New ground for divorce: To the wife, when the wife without support from the husband for 2 years preceding the filing of the bill has lived separate and apart from the bed and board of the husband for 5 years next preceding the filing of the bill and she has actually resided in this State during all of said period.

Alaska—(2). *Causes.* Felony, physical incapacity, desertion 1 year, cruelty, habitual drunkenness, wilful neglect of husband for 12 months to provide for wife (he being of ability to do so).

Arizona—(1). *Causes.* Felony, physical incapacity before marriage, desertion 1 year, excesses, cruelty, neglect to provide 1 year, pregnancy of wife by other than husband at marriage, conviction of felony prior to marriage unknown to other party, habitual drunkenness.

Arkansas—(1). *Causes.* Desertion 1 year, felony, habitual drunkenness 1 year, cruelty, former marriage existing, physical incapacity.

California—(1). *Causes.* Cruelty, desertion 1 year, neglect 1 year, habitual drunkenness 1 year, felony. A wife, as well as a husband, may be compelled to pay alimony.

Colorado—(1). *Causes.* Insanity, desertion 1 year physical incapacity, cruelty, failure to provide 1 year, habitual drunkenness or drug fiend 1 year, felony, former marriage existing. By a 1925 law no decree of divorce is granted until 6 months after the trial.

Connecticut—(1). *Causes.* Adultery, fraudulent contract, wilful desertion 3 years, with total neglect of duty, habitual intemperance, intolerable cruelty, sentence to imprisonment for life, infamous crime involving violation of conjugal duty and punishable by imprisonment in State prison, 7 years' absence without being heard from. Where both husband and wife are residents, if either has become incurably insane and has been legally confined in a hospital or asylum for at least 5 years next preceding date of bringing complaint, divorce may be granted.

Delaware—(1). *Causes for absolute divorce.* Desertion 2 years, habitual drunkenness for 2 years, extreme cruelty such as to endanger life or health of either party, bigamy, "conviction and sentence for crime" followed by a continuous imprisonment for at least 2 years— "When at the time the cause of action arose, either party was a bona-fide resident of the State, and has continued so to be down to the time of the commencement of the action; except that no action for absolute divorce shall be commenced for any cause other than adultery, or bigamy, unless one of the parties has been for the 2 years next preceding the commencement of the action a bona-fide resident of this State."

District of Columbia—(3). *Causes.* Marriages may be annulled for former existing marriage, lunacy, fraud, coercion, physical incapacity and want of age at time of marriage. Absolute divorce granted only for adultery.

Florida—(2). *Causes.* Cruelty, violent temper, habitual drunkenness, physical incapacity, desertion 1 year, former marriage existing, relationship within prohibited degrees.

Georgia—(1). *Causes.* Mental and physical incapacity, desertion 3 years, felony, cruelty, force, duress, or fraud in obtaining marriage; pregnancy of wife by other than husband at marriage, relationship within prohibited degrees.

Hawaii—(2). *Causes.* Desertion 6 months; imprisonment for life or more than 7 years; nonsupport for 60 days; incurable insanity (3 years or more); felony, leprosy, cruelty, habitual drunkenness.

Idaho—(12 months). *Causes.* Cruelty, desertion 1 year, neglect 1 year, habitual drunkenness 1 year, felony, insanity.

Illinois—(1). *Causes.* Desertion 2 years, habitual drunkenness 2 years, former existing marriage, cruelty, felony, physical incapacity, attempt on life of other party, infection of other with communicable venereal disease.

Indiana—(2). *Causes.* Abandonment 2 years, cruelty, habitual drunkenness, failure to provide 2 years, felony, physical incapacity.

The Legislative Bureau of Indiana, by a 1925 law, is required to keep marriage and divorce statistics.

Iowa—(1). *Causes.* Desertion 2 years; felony, insanity or feeble-mindedness, habitual drunkenness, cruelty, pregnancy of wife by other than husband at marriage, unless husband has illegitimate child or children living of which wife did not know at time of marriage. The marriage may be annulled for the following causes existing at the time of the marriage: Insanity, physical incapacity, former existing marriage.

Kansas—(1). *Causes.* 1, when either of the parties had a former husband or wife living at the time of the subsequent marriage; 2, abandonment for one year; 3, adultery; 4, impotency; 5, when the wife at the time of the marriage was pregnant by another than her husband; 6, extreme cruelty; 7, fraudulent contract; 8, habitual drunkenness; 9, gross neglect of duty; 10, the conviction of a felony and imprisonment therefor subsequent to the marriage.

Kentucky—(1). *Causes.* Separation 5 years, desertion 1 year, felony, physical incapacity, loathsome disease, habitual drunkenness 1 year, cruel and inhuman treatment, force, fraud or duress in obtaining marriage, joining religious sect believing marriage unlawful, pregnancy of wife by other than husband at marriage or subsequent unchaste behavior.

Louisiana—(1). *Causes.* Condemnation to infamous punishment, 7 years' separation, absence of reconciliation for 1 year after a judgment of separation, separation from bed and board may be granted for habitual intemperance, excesses, cruel treatment or outrages, public defamation, abandonment, attempt by one spouse on life of the other, when fugitive from justice on charge of infamous crime.

Maine—(1). *Causes.* Cruelty, desertion 3 years, physical incapacity, habits of intoxication by liquors, opium or other drugs, neglect to provide.

Maryland—(2). *Causes.* 1. Impotence of either party before marriage. 2. Any cause which renders a marriage null and void. 3. Adultery. 4. Abandonment for 3 years. 5. Unchastity of wife before marriage.

Massachusetts—(3). *Causes.* Adultery, impotence, 3 years' desertion, gross and confirmed habits of intoxication caused by voluntary and excessive use of intoxicating liquor, opium or other drugs, cruel and abusive treatment, or on wife's libel, if husband being of sufficient ability, grossly or wantonly and cruelly refuses or neglects to provide suitable maintenance for her.

Michigan—(1). *Causes.* Felony, desertion 2 years, habitual drunkenness, physical incapacity, and in the discretion of the Court for cruelty or neglect to provide.

Minnesota—(1). *Causes.* Desertion 1 year, habitual drunkenness 1 year, cruelty, physical incapacity, sentence for felony, incurable insanity.

Mississippi—(1). *Causes.* Adultery, felony, desertion 2 years, consanguinity, physical incapacity, habitual drunkenness by liquor, opium or other drugs, cruelty, insanity at time of marriage, former existing marriage, pregnancy of wife by other than husband at marriage.

Missouri—(1). *Causes.* Felony, absence 1 year, habitual drunkenness 1 year, cruelty, indignities, vagrancy, former existing marriage, physical incapacity, conviction of felony prior to marriage unknown to other party, wife pregnant by other than husband at marriage.

Montana—(1). *Causes.* Adultery, action must be commenced within 2 years after discovery by injured party, extreme cruelty by inflicting grievous mental suffering for 1 year, 1 year's wilful desertion, 1 year of wilful neglect, 1 year of habitual intemperance, conviction of felony. Action must be commenced within 2 years after final judgment and sentence.

Nebraska—(1). *Causes.* Abandonment 2 years, habitual drunkenness, physical incapacity, felony, failure to support 2 years, cruelty, imprisonment for more than 3 years.

Nebraska, by a 1925 law, forbids a suit for divorce until 6 months after the notice of a suit was served.

Nevada—(3 months). *Causes.* Wilful desertion 1 year, conviction of felony or infamous crime, habitual gross drunkenness contracted since marriage, impotency at the time of the marriage continuing to the time of the divorce, extreme cruelty, neglect to provide 1 year, insanity for 2 years.

New Hampshire—Residence of 3 years required when action brought for desertion; for other causes but one year required. *Grounds for divorce are* impotency, adultery, extreme cruelty of either party, and treatment injuring the health or endangering the reason, conviction of either party of crime and actual imprisonment for more than a year, desertion for three years and drunkenness for three years, membership in a religious sect or society which professes to believe the marriage relations unlawful, coupled with refusal to cohabit for six months.

There are other causes but they would be included in desertion for a period of three years.

New Hampshire is a common-law state and any grounds which would be fraud would be a ground for divorce; and impotency must have existed before marriage, operating as a fraud. Desertion and drunkenness must have existed for three years. The other causes are understood to be a year because it is necessary for a year's residence to precede a commencement of any action.

New Jersey—(2). *Causes.* Desertion 2 years, extreme cruelty to either of the parties, whether the acts of cruelty were committed prior to or after the passage of this act (1923); provided that no petition for divorce shall be filed until after 6 months from the date of the last act of cruelty complained of. No divorce may be obtained on grounds arising in another State unless they constituted ground for divorce in the State where they arose.

A decree nisi becomes absolute after 3 months, under a 1927 amendment to the divorce law.

New Mexico—(1). *Causes.* Abandonment, cruelty, non-support, habitual drunkenness, felony, impotency, pregnancy of wife by other than husband at marriage, habitual drunkenness, conviction of felony and imprisonment therefor.

New York—(1). *Causes.* Adultery, incurable insanity, abandonment or absence for 5 successive years with proof of diligent but unavailing search, and consequent presumption of death. The marriage may be annulled for such causes as rendered the relationship void at its inception.

North Carolina—(2). *Causes.* Adultery by either party, pregnancy of wife by other than husband at marriage, physical incapacity, husband and wife living apart for 5 successive years, plaintiff in suit residing in State for that period.

North Dakota—(1). *Causes.* Adultery, extreme cruelty, desertion 1 year, neglect 1 year, habitual intemperance 1 year, conviction of felony. Insanity, party having been inmate of State institution for 5 years; no divorce for insanity to be granted until after thorough examination by committee, all of whom must agree insanity is incurable.

Ohio—(1). *Causes.* That either party had a husband or wife living at the time of the marriage from which the divorce is sought, wilful absence of either party from the other for 3 years, adultery, impotency, extreme cruelty, fraudulent contract, any gross neglect of duty, habitual drunkenness for 3 years, the imprisonment of either party in a penitentiary under sentence thereto. The petition for divorce under this clause must be filed during the imprisonment of the adverse party. The procurement of a divorce without this State, by a husband or wife, by virtue of which the party who procured it is released from the obligations of the marriage, while they remain binding upon the other party.

Oklahoma—(1). *Causes.* The district court may grant a divorce for any of the following causes: 1, when either of the parties had a former husband or wife living at the time of the subsequent marriage; 2, abandonment for one year; 3, adultery; 4, impotency; 5, when the wife, at the time of marriage, was pregnant by another than her husband; 6, extreme cruelty; 7, fraudulent contract; 8, habitual drunkenness; 9, gross neglect of duty; 10, conviction of a felony, and imprisonment in the penitentiary therefor, subsequent to the marriage.

Oklahoma, by a 1925 law makes it bigamous to remarry within 6 months after a divorce decree.

Oregon—(1). *Causes.* Conviction of felony, habitual gross drunkenness contracted since marriage and continuing 1 year, impotency existing at the time of the marriage and continuing to the commencement of the suit, wilful desertion 1 year, cruelty or personal indignities rendering life burdensome, permanent insanity.

Pennsylvania—(1). *Causes.* Physical incapacity, bigamy, adultery, desertion for two years, cruelty, procurement by fraud, conviction of felony, marriage within prohibited degree of consanguinity, permanent insanity.

A 1927 law authorizes a woman who gets a divorce to sell and mortgage her realty without the husband's joinder.

Porto Rico—(1). *Causes.* Adultery, felony, habitual drunkenness or continued and excessive use of opium, morphine, or any other narcotic; cruel treatment or grave injury; abandonment for more than 1 year; absolute, perpetual and incurable impotence occurred after marriage; attempt to corrupt sons or prostitute daughters; proposal of husband to prostitute wife.

Rhode Island—(2). *Causes.* Impotency, extreme cruelty, wilful desertion for 5 years of either of the parties, or for such desertion for a shorter period of time, in the discretion of the Court; continued drunkenness, or the habitual, excessive and intemperate use of opium, morphine or chloral, neglect and refusal for the period of at least 1 year next before the filing of the petition on the part of the husband to provide necessaries (or the subsistence of his wife (the husband being of sufficient ability), and for any other gross misbehavior and wickedness.

South Carolina—No divorces granted.

South Dakota—(1). *Causes.* Cruelty, desertion 1 year, neglect 1 year, habitual drunkenness 1 year, felony, insanity 5 years. The marriage may be annulled for the following causes existing at the time of the marriage: Want of age, former existing marriage, insanity, physical incapacity, force or fraud inducing marriage.

Tennessee—(2). *Causes.* Former existing marriage, desertion 2 years, felony, physical incapacity, attempt on life of other party, refusal of wife to live with husband in the State and absenting herself 2 years, pregnancy of wife by other than husband at marriage; cruelty, indignities, habitual drunkenness, habit contracted after marriage.

Texas—(1). *Causes.* Abandonment 3 years, physical incapacity, cruelty, excess or outrages rendering life together insupportable, felony, living apart without cohabitation 10 years.

Utah—(1). *Causes.* Desertion 1 year, physical incapacity, habitual drunkenness, felony, cruelty, incurable insanity.

Vermont—(2). *Causes.* Imprisonment 3 years, intolerable severity, desertion 3 years, neglect by husband to provide, absence 7 years without being heard from. Upon the dissolution of a marriage by a divorce or decree of nullity for any cause except that of adultery committed by the wife, the wife shall be entitled to the immediate possession of her real estate.

Virginia—(1). *Causes.* Adultery, felony, desertion 3 years, fugitive from justice 2 years, pregnancy of wife by other than husband at marriage, wife a prostitute, or either party convicted of felony before marriage unknown to other, physical incapacity.

Washington—(1). *Causes.* When consent to marriage was obtained by force or fraud and there has been no subsequent voluntary cohabitation, for adultery on part of wife or husband when unforgiven, and application is made within 1 year after it shall have become known; impotency, abandonment for 1 year; cruel treatment of either party by other, or personal indignities rendering life burdensome; habitual drunkenness of either party, or neglect or refusal of husband to make suitable provision; imprisonment in State penal institution; 5 years' separation; in case of incurable chronic mania or dementia for 5 years or more, while under confinement by order of a court of record, Court may in its discretion grant a divorce.

West Virginia—(1). *Causes.* Desertion 3 years, felony, physical incapacity, pregnancy of wife by other than husband at marriage, husband a licentious character or wife a prostitute unknown to other party, either party convicted of felony before marriage unknown to other.

Wisconsin—(2). *Causes.* Felony (imprisonment 3 years), desertion 1 year, cruelty, impotency, habitual drunkenness 1 year, separation 5 years. In the discretion of the Court for cruelty or neglect to provide.

Wyoming—(1). *Causes.* Felony, desertion 1 year, habitual drunkenness, cruelty, neglect to provide 1 year, husband a vagrant, physical incapacity, indignities rendering condition intolerable, pregnancy of wife by other than husband at marriage, either party convicted of felony before marriage unknown to other.

CRIMES AND PENALTIES.

PENALTIES FOR MURDER IN THE UNITED STATES.

State.	Penalty.	State.	Penalty.	State.	Penalty.
Alabama	Electrocution	Maine	Life Imprisonment	Oklahoma	Electrocution
Arizona	Hanging	Maryland	Hanging	Oregon	Hanging
Arkansas	Electrocution	Mass.	Electrocution	Pennsylvania	Electrocution
California	Hanging	Michigan	Life Imprisonment	Rhode Island	Life Imprisonment
Colorado	Hanging	Minnesota	Life Imprisonment	So. Carolina	Electrocution
Connecticut	Hanging	Mississippi	Hanging	So. Dakota	Life Imprisonment
Delaware	Hanging	Missouri	Hanging	Tennessee	Electrocution
Dist. of Col.	Electrocution	Montana	Hanging	Texas	Electrocution
Florida	Electrocution	Nebraska	Electrocution	Utah	Hanging or Shooting
Georgia	Electrocution	Nevada	Lethal Gas	Vermont	Electrocution
Idaho	Hanging	N. H.	Hanging	Virginia	Electrocution
Illinois	Electrocution	New Jersey	Electrocution	Washington	Hanging
Indiana	Electrocution	New Mexico	Hanging	W. Virginia	Hanging
Iowa	Hanging	New York	Electrocution	Wisconsin	Life Imprisonment
Kansas	Life Imprisonment	N. Carolina	Electrocution	Wyoming	Hanging
Kentucky	Electrocution	No. Dakota	Life Imprisonment	U. S. (Fed. Gov't.)	Hanging
Louisiana	Hanging	Ohio	Electrocution		

In North Dakota, Rhode Island, and some other states where life imprisonment is the only penalty for murder, death by hanging is inflicted if a person kills somebody else while serving a life term.

In some of the capital-punishment states the jury has the right to fix the penalty at life imprisonment, by urging mercy.

In Kentucky, the death penalty in case of rape is inflicted by hanging.

While the penalties for homicide are not precisely uniform throughout the various States of the Union, except for the continuance or the abolishment of capital punishment, they are similar.

With regard to other serious crimes, likewise, differences are more seeming than real. Felonies, such as manslaughter, arson, burglary, robbery and larceny, are in some States subdivided into degrees, first, second, third and even fourth; while in others there is a single general classification.

Where there is no subdivision into degrees, however, the modifying of penalties by reason of attending circumstances results in the same effect as though there were degrees.

In New York and in several other states laws are now in effect which provide longer and longer terms of imprisonment for second, third, or fourth or more convictions of felonies. The general effect is to shut professional criminals up for life.

In order to tighten still further the Baumes code the New York Legislature, in 1929, passed a law under which the statute of limitations stops running as soon as an indictment has been returned or any information filed until the case has been settled upon its merits. The measure also provides that when an indictment is set aside or dismissed during which the prosecution was pending, the time shall not be computed as part of the limitation. Under the old law, criminals indicted were not apprehended until after the statute of limitations expired, and then were immune from prosecution.

CRIMES AGAINST THE UNITED STATES.

Whoever, owing allegiance to the United States, levies war against them, or adheres to their enemies, giving them aid and comfort, is guilty of **treason.** The penalty upon conviction is imprisonment for not less than 5 years, fine of not less than $10,000, or death.

Misprision of treason consists in general of having knowledge of, concealing and not disclosing the treason of others. The penalty is imprisonment for not more than 7 years, and fine of not more than $1,000; or both fine and imprisonment.

Rebellion or insurrection is the inciting, setting on foot, assisting or engaging in armed resistance to the execution of the laws by two or more. The penalty on conviction is imprisonment for not more than ten years, fine of not more than $10,000, or both.

When two or more persons co-operate in committing any offense against the laws of the United States it is the crime of **conspiracy,** punishable by $10,000 fine or three years' imprisonment, or both. The Supreme Court has decided that to co-operate in violating any law of the United States, or encouraging or inciting or doing anything to cause the violation of such law, is "an offense against the United States" and, therefore, is the crime of conspiracy.

Offenses against the **mails** fall into two general classes: one, the misuse of the mails for immoral or fraudulent purposes, the other, robbing the mails, penalties vary with the nature of the particular offense.

FELONIES AND MISDEMEANORS.

Regarding the distinction between felonies and misdemeanors, Joab H. Banton, District Attorney of the County of New York, has given the Almanac the following statement:

"Under the Federal Penal Code, a felony is an offense 'which may be punished by death, or imprisonment for a term exceeding one year.'

"Under the Penal Law of this State, a felony is a crime 'which is or may be punishable by (1) death; or (2) imprisonment in a State prison.'

"Under our Penal Law, no crime is punishable by imprisonment in a State prison, unless the punishment inflicted is imprisonment for a term of one year or more. Therefore, if the offense is punishable by imprisonment for a term of one year or more, it is a felony.

"The term 'misdemeanor' is used in contradistinction to felony; the term 'felony' comprising the more serious offenses and the term 'misdemeanor' what are deemed to be minor trespasses. If the offense is not a felony, it is a misdemeanor.

"Moreover, what may be a felony in one jurisdiction (as e.g. under the Federal law) may be a misdemeanor in another (as e.g. under the State law).

"This, obviously, is because the Federal Penal Code is enacted by Congress, and the State Penal Law by our Legislature. And what may be regarded by one as a serious offense, may be regarded by the other as a mere trespass. Indeed, an offense may be a crime under the Federal law and not under the State law, and vice versa.

"Hence, to determine whether a particular act is a crime or not, and, if a crime, whether a felony or a misdemeanor, recourse must be had to the laws of the particular jurisdiction. If the crime is punishable as hereinbefore prescribed, it is a felony; otherwise not. Punishability is the test."

CRIMES UNDER STATE PENAL CODES.

Murder in the First Degree may be generally defined to be the unlawful, intentional and premeditated killing of a human being, or such a killing resulting from the commission or attempt to commit one of the graver crimes, such as arson, burglary, rape or robbery.

The penalties for murder in the first degree are shown in the table at the head of this page.

Murder in the Second Degree is such a killing without premeditation, or resulting from the attempt to commit some lesser crime.

Murder in the second degree is punished in the Federal Code by imprisonment for not less than 10 years to life.

In the states which have no death penalty, murder in the second degree is usually also punished by life imprisonment. In some states, such as Delaware, North Carolina, and North Dakota, the sentence may cover 30 years.

The minimum sentence may be as low as 1 year in Delaware, Ohio, and Vermont, and 5 years in West Virginia.

Manslaughter may be defined as a killing either unintentionally resulting from the careless or unlawful doing of some otherwise lawful act or from the commission of some unlawful act of comparatively trivial character or intentionally in the heat of passion and without premeditation.

What is said above as to punishment of murder in the second degree applies also to manslaughter. The penalty may range from 1 to 20 years.

Assault with Intent to Kill—Under Federal Statutes, assault with intent to kill or to commit a rape is punishable by imprisonment for not more than 20 years, while assault with intent to commit a felony other than murder or rape is punishable by not more than 5 years' imprisonment and a fine of not over $3,000.

Assault with intent to kill carries sentences varying from 3 months to 1 year in South Carolina, to 1½ years to death in Maryland, or 1 year to life in Oregon.

There is no uniformity in the penalties. The limit in New Mexico is 5 years; in Pennsylvania, 7 years; in West Virginia, 5 years.

Generally speaking, it depends on the weapon used and the ferocity of the attack.

Rape—In Federal Courts, rape is punishable with death by hanging.

Rape is liable in every state in the South and Southwest to punishment by death, but in practically all of these states a recommendation by the jury can soften the sentence to life imprisonment.

The minimum penalty in Alabama is 10 years; in Colorado, 1 year; in Idaho, 5 years; in Illinois, Indiana, Maine, North Dakota, Ohio, and Wyoming, 1 year.

Life imprisonment is the maximum in Colorado, Idaho, Illinois, Indiana, Nebraska, New Mexico, Ohio, Oregon, Rhode Island, and Wyoming.

Arson—where classified in degrees—though the number and exact definitions of degrees vary greatly—is in general classified with reference to two conditions, first, the character of the building burned, whether a dwelling house or structure likely to contain a human being; and, second, whether the crime is committed by day or night. Thus the most serious offense is the burning of an inhabited dwelling by night, and the least serious, the burning of an uninhabited structure by day. Often intermediate degrees are recognized, such as burning a dwelling by day or an uninhabited building by night. The Federal Statutes for arson in the first degree impose a penalty of not more than 20 years, and for the second degree, not more than 20 years and a fine of not more than $5,000.

Arson may bring the death penalty in Alabama, Delaware, Illinois, North Carolina, South Carolina, and Virginia. Life imprisonment or its 20-year equivalent, may result in Idaho, Illinois, Maine, Maryland, New Hampshire, New York, Ohio, Oregon, Pennsylvania, Rhode Island, Tennessee, Vermont, West Virginia, and Wyoming.

Where death results, arson becomes murder and is tried as such.

Burglary—The classification of burglary or housebreaking depends on substantially the same elements as those of arson; namely, the building entered, whether a dwelling or other building, and whether the offense was committed by day or night.

Burglary, robbery, and grand larceny, are to some extent interchangeable names and crimes, and carry penalties which range, in many grades, from 1 year to life imprisonment. As in the case of assault with intent to kill, the severity of the punishment as fixed by statute depends on whether the offender is armed, and how armed; and whether the crime is done by day or night; in a building, occupied or unoccupied; or on the street; with or without threat or force.

Burglary may fetch a sentence of death in North Carolina, or life imprisonment, or its 20-year equivalent, in Alabama, Delaware, Georgia, Illinois, Indiana, Maine, Minnesota, New Hampshire, Ohio, Rhode Island, South Carolina, and Utah.

Life imprisonment, under the Baumes and like laws may result in New York and several other states, in case of prior felony convictions.

Robbery may be punished by death in Alabama, and Virginia; and by a life term in Arkansas, Georgia, Idaho, Illinois, Indiana, Maine, Minnesota, New Hampshire, Ohio, Oregon, Rhode Island, South Dakota, and West Virginia.

In New York State 15 years is the ordinary maximum for a first offender; the same in case of burglary.

Robbery may be generally defined as the theft of property from the person or immediate presence of the victim, accomplished by force or fear. Where degrees of robbery are recognized, the distinction is generally determined by whether the thief be armed or unarmed, though some States also distinguish the second from the first degree, where the theft is accomplished by means of threats of future rather than immediate injury. Federal Statutes fix the penalty for robbery at not more than 15 years.

Grand Larceny is simply theft of property above a fixed value, generally $25 to $50—more States also classify as grand larceny theft of property from the person of the victim, irrespective of value, though, of course, accomplished without the force or fear which constitutes the crime of robbery. In the Federal Courts, grand larceny is punishable by not more than 10 years' imprisonment and a fine of not more than $10,000.

Grand larceny carries penalties of 1 to 15 years, taking no account of Baumes laws, the maximum being in the State of Washington. In general the maximum penalty is 7 to 10 years.

Forgery in general means the false making, imitating or counterfeiting or alteration of a genuine signature or written instrument. There are numerous Federal Statutes defining and imposing penalties for alteration of public records and documents. These do not come within the purview of this synopsis, being no one general classification. Counterfeiting is punished by imprisonment of not more than 15 years and a fine of not more than $5,000.

The penalties for forgery under the laws of the states average around four years.

Bigamy—A person who, having a husband or wife living, marries another, is guilty of bigamy. Under Federal Statutes, polygamy (or bigamy) in the Territories is punished by imprisonment for not more than 5 years and a fine of not more than $500. Five years' imprisonment is the most general maximum penalty in the States for bigamy and fines are quite commonly imposed.

In Arkansas the maximum penalty is 7 years; also in Nebraska, New Mexico, and Ohio; it is 6 years, in Delaware; it is 8 years, in Virginia; 10 years, in Mississippi and North Carolina; 21 years, in Tennessee; 2 years, in Colorado and Pennsylvania; 3 years, in Montana; 4 years, in Oregon.

Perjury under the various State codes usually means false testimony on a material point given in an action or proceeding at law.

Perjury may bring a life or 20-year sentence in Alabama, Maine, New York, Rhode Island and South Dakota, if committed in testifying in a case where the defendant at the trial is liable to a life sentence.

In Texas, perjury in a capital case may be punished by death.

In general the maximum penalties range from 10 to 14 years.

The minimum penalty is 1 year in all the states.

WOMEN ON JURIES.

Women are eligible to serve on juries in Arkansas, California, Delaware, District of Columbia, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Michigan, Minnesota, Mississippi, Nevada, New Jersey, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, Washington and Wisconsin.

In Delaware, though eligible, they have rarely served.

In Utah they are eligible, but are exempt, and hence are not called for service.

In Louisiana the women are not drawn for jury service unless they have filed with the court voluntary offer to serve.

Women do not serve in either criminal or civil juries in Alabama, Arizona, Connecticut, Florida, Idaho, Illinois, Maryland, Massachusetts, Missouri, Montana, New Mexico, New York, Oklahoma, South Carolina, South Dakota, Tennessee, Texas, Vermont, Virginia, West Virginia or Wyoming.

In Idaho women served on juries until the Court ruled the enabling act unconstitutional.

Court decisions to the effect that women are ineligible, under the existing statutes, for jury service, have been rendered in Idaho, and Virginia.

COMPOSITION OF JURIES.

Juries in criminal cases involving anything more serious than petty misdemeanors consist of 12 persons, no more no less; and the verdict, to count, must be unanimous.

In Nevada, in protracted felony cases one or more alternative jurors may be selected to sit with the twelve, to take the place of any juror who may be incapacitated during the trial.

In some states, but not in New York, most of the petty cases in police or magistrates' courts are tried by less than 12 jury men.

In petty civil cases, and in equity suits, the jury may, by consent, consist of less than 12 persons.

WHEN A WARRANT CAN BE SERVED.

Section 170 of the N. Y. State Code of Criminal Procedure is as follows: "If the crime charged be a felony the arrest may be made on any day, and at any time of the day or during any night.

"If it be a misdemeanor, the arrest cannot be made on Sunday, or at night, unless by direction of the Magistrate endorsed upon the warrant."

Section 801 of the Code of Criminal Procedure deals with the service of a Search Warrant and is as follows: "The Magistrate must insert a direction in the warrant, that it be served in the daytime, unless the affidavit be positive that the property is on the person, or in the place to be searched, in which case he may insert a direction that it be served at any time of the day or night."

Section 802 of the Code of Criminal Procedure provides that in the City and County of New York a search warrant must be executed within five days after its date; in any other county, within ten days.

STATUTES OF LIMITATIONS IN CRIMINAL CASES.

There is no general statute of limitations applicable to criminal prosecutions in all the States of the Union. In each jurisdiction the matter is regulated by local statutes. Below are given the New York and Federal statutes:

NEW YORK.

In New York, the provisions in limiting the time for commencing prosecutions are contained in Sections 141 to 144, inclusive, of the Code of Criminal Procedure. These sections read as follows:

"There is no limitation of time within which a prosecution for murder must be commenced. It may be commenced at any time after the death of the person killed. (Section 141.)

"An indictment for a felony, other than murder, must be found within five years after its commission, except where a less time is prescribed by statute. And an indictment for a misdemeanor must be found within two years after its commission. (Section 142.)

"If, when the crime is committed, the defendant be out of the State, the indictment may be found within the term herein limited after his coming within the State; and no time during which the defendant is not an inhabitant of, or usually resident within, the State, or usually in personal attendance upon business or employment within the State, is part of the limitation. (Section 143.)

"An indictment is found, within the meaning of the last three sections, when it is duly presented by the Grand Jury in open court, and there received and filed." (Section 144.)

UNITED STATES.

"No person shall be prosecuted, tried, or punished for treason or other capital offense, wilful murder excepted, unless the indictment is found within three years next after such treason or capital offense is done or committed. (R. S. §1043.)

"No person shall be prosecuted, tried or punished for any offense, not capital, except as provided in section one thousand and forty-six, unless the indictment is found or the information is instituted within three years next after such offense shall have been committed. But this act shall not have effect to authorize the prosecution, trial or punishment for any offense barred by the provisions of existing laws. (R. S. § 1044, amended, April 13, 1876, c. 56, 19 Stat. 32.)

"Nothing in the two preceding sections shall extend to any person fleeing from justice. (R. S. § 1045.)

"No person shall be prosecuted, tried, or punished for any crime arising under the slave-trade laws of the United States, unless the indictment is found or the information is instituted within five years next after the committing of such crime. (R. S. § 1046.)

INTERNAL REVENUE PROSECUTIONS.

(From the Revenue Act of 1928.)

Sec. 1110. (a) The Act entitled "An Act to limit the time within which prosecutions may be instituted against persons charged with violating internal revenue laws," approved July 5, 1884, as amended, is reenacted without change, as follows:

"That no person shall be prosecuted, tried, or punished for any of the various offenses arising under the internal revenue laws of the United States unless the indictment is found or the information instituted within three years next after the commission of the offense: Provided,

"That for offenses involving the defrauding or attempting to defraud the United States or any agency thereof, whether by conspiracy or not, and in any manner, the period of limitation shall be six years, but this proviso shall not apply to acts, offenses, or transactions which were barred by law at the time of the enactment of the Revenue Act of 1924:

"Provided further, That the time during which the person committing the offense is absent from the district wherein the same is committed shall not be taken as any part of the time limited by law for the commencement of such proceedings:

"Provided further, That the provisions of this Act shall not apply to offenses committed prior to its passage:

"Provided further, That where a complaint shall be instituted before a commissioner of the United States within the period above limited, the time shall be extended until the discharge of the grand jury at its next session within the district:

"And provided further, That this Act shall not apply to offenses committed by officers of the United States."

"(b) Any prosecution or proceeding under an indictment found or information instituted prior to the enactment of the Revenue Act of 1921 shall not be affected in any manner by this section, nor by the amendment by the Revenue Act of 1921 of such Act of July 5, 1884, but such prosecution or proceeding shall be subject to the limitations imposed by law prior to the enactment of the Revenue Act of 1921."

ARREST IN CIVIL ACTION.

While imprisonment for debt as it formerly existed in English and American law, by which a debtor might be arrested and imprisoned for mere inability to pay his creditor, no longer exists in the United States, the statutes of the majority of the States provide for the arrest of a defendant in a civil action under varying conditions. A large number of States determine the right of arrest by the character of the claim on which suit is brought, allowing in it actions for fraud or the injuries known in the law as "torts," such as an injury to the person or property, conversion or embezzlement, libel, slander, or the like.

In the following States no civil arrest is allowed: Arizona, District of Columbia, Florida, Maryland, Minnesota, Mississippi, Missouri, Nebraska, New Mexico, Tennessee, and Texas.

In the following States the right to arrest depends upon the nature of claim in suit: In actions for fraud or torts, Connecticut; for fraud, libel, slander, or violent injury to person or property, Delaware; for fraud only, Iowa and Kansas; only after verdict of jury, finding malice, fraud, or wilful deceit, Colorado; for torts, breach of promise to marry, misconduct or embezzlement in office or professional capacity, Michigan, Pennsylvania, and New York (also for fine or penalty or to recover property concealed from Sheriff).

In the following States arrest is only allowed against a defendant about to remove from State or about to conceal, transfer, or remove his property to avoid plaintiff's claim or defraud creditors, irrespective of the nature of the claim: Indiana, Kentucky, Louisiana, New Hampshire, Utah, Virginia. In New Hampshire tax collector may also arrest person for non-payment of poll tax if not sufficient property upon which to make distress.

In the following States arrest is allowed in contract actions where the defendant is about to depart from the State or conceal or remove his property, and also in actions for fraud or torts of various kinds, though the provisions are not identical: Arkansas (fraud only), California, Idaho, Illinois, Maine, Massachusetts, Montana, Nevada, New Jersey, North Carolina, North Dakota, Oregon, South Carolina, South Dakota, Vermont, Washington, West Virginia (fraud only), Wisconsin.

SAYINGS BY GEORGE WASHINGTON.

Our Constitution enjoins that the will of the majority shall prevail.

No man can with propriety or good conscience correct others for a fault he is guilty of himself.

Virtue or morality is a necessary spring of popular government.

Truth will ultimately prevail where there is pains taken to bring it to light.

Teach the people themselves to know and to value their own rights.

The propitious smiles of Heaven can never be expected on a nation that disregards the eternal rules of order and right which Heaven itself has ordained.

The very idea of the power and right of the people to establish government presupposes the duty of every individual to obey the established government.

Every attempt to alienate any portion of our country from the rest should be indignantly frowned upon.

Let us impart all the blessings we possess, or ask for ourselves, to the whole family of mankind.

My public and private sentiments are at all times alike.

Postal Information.

(As of the act of Congress of May 29, 1928, effective July 1, 1928.)

DOMESTIC POSTAGE RATES.

First-Class: Letters and written and sealed matter, 2 cents for each ounce.

Government postal cards, 1 cent each.

Private mailing or post cards, 1 cent each.

Special delivery rates on first-class matter are—10 cents, up to 2 lbs.; 20 cents, 2 lbs. to 10 lbs.; 25 cents on matter weighing over 10 lbs.

Second-Class: Newspapers, magazines, and other periodicals containing notice of second-class entry. When sent by others than the publishers or news agent, 1 cent for each two ounces or fraction thereof.

Third-Class (limit, 8 ounces): Circulars and other miscellaneous printed matter, also merchandise, 1½ cents for each 2 ounces.

Special delivery rates on *other than first-class matter*—15 cents up to 2 lbs.; 25 cents, 2 lbs. to 10 lbs.; 35 cents on all matter weighing over 10 lbs.

Books (including catalogs) of 24 pages or more, seeds, cuttings, bulbs, roots, scions, and plants, 1 cent for each 2 ounces.

Bulk lots of identical pieces may be mailed in quantities of not less than 20 pounds or 200 pieces at pound rates with a minimum charge of one cent a piece, such rates being eight cents a pound or fraction thereof for books and catalogs having 24 pages or more, seeds and plants, and twelve cents a pound or fraction thereof for all other third-class matter.

Fourth-Class (over 8 ounces): Merchandise, books, printed matter, and all other mailable matter not in first or second class—

Zones, Miles.	1st Lb.	Additional Pounds.
Local.....	7	1 cent each 2 pounds.
1—up to 50....	7	1 cent each pound.
2—50 to 150...	7	1 cent each pound.
3—150 to 300...	8	2 cents each pound.
4—300 to 600...	8	4 cents each pound.
5—600 to 1,000.	9	6 cents each pound.
6—1,000 to 1,400	10	8 cents each pound.
7—1,400 to 1,800	12	10 cents each pound.
8—over 1,800...	13	12 cents each pound.

The rate on fourth-class matter between any point in the United States and any point in the Hawaiian Islands, and any point in Alaska, and between any two points in Alaska, is 13 cents for the first pound and 12 cents for each additional pound or fraction thereof.

These rates also apply to parcels mailed in the United States for delivery in the Canal Zone, and to parcels between the Philippine Islands and the United States or its possessions.

The limit of size is 84 inches in girth and length combined.

A special rate of postage is provided for library books, consisting wholly of reading matter and containing no advertising matter other than incidental announcements of books, mailed to readers by public libraries, organizations or associations not organized for profit and when returned by the readers, such rate being 3 cents for the first pound and 1 cent for each additional pound to any point within the first, second, or third zones, or within the State in which mailed.

The special handling postage charge on fourth-class matter is graduated according to the weights of the parcels, namely, 10 cents for parcels weighing not more than two pounds, 15 cents for parcels weighing more than two pounds but not exceeding ten pounds, and 20 cents for parcels weighing more than ten pounds.

Payment of the special handling postage charge entitles the parcel to receive the same expeditious handling, transportation and delivery accorded to mail matter of the first class but does not include special delivery at the office of address.

Airplane (air mail) rates—*Domestic*—The rate of postage on mail carried by airplane is 5 cents for the first ounce, or fraction thereof, and 10 cents for each additional ounce, or fraction thereof, regardless of distance, *except* when sent to Porto Rico or the Canal Zone. The rate between Porto Rico and the United States is 10 cents for each half ounce or fraction; the rate between the United States or Porto Rico and the Canal Zone is 25 cents for each half ounce or fraction. Such postage includes the transportation of the mail to and from the air mail routes.

Special airplane stamps issued for the payment of postage on air mail or ordinary postage stamps may be used. All mail intended to be carried by airplane should be plainly marked in the space immediately below the stamps and above the address "Via air mail."

The postage on all air mail should be fully prepaid in order to expedite its handling.

Any mailable matter, except that liable to damage from freezing, may be sent by mail at the above rate of postage, including sealed parcels not exceeding 50 pounds in weight and not exceeding 84 inches in length and girth combined.

Foreign—Same as domestic air mail rate for those countries having 2-cent postal conventions with the United States; for all other countries, 3 cents in addition to air mail rate.

Registry, Insurance, and C. O. D. services for airplane mail—Any matter, domestic or international, acceptable for transmission as registered, insured, or C. O. D. mail, may be sent by air mail service upon payment of the prescribed registry, insurance, or C. O. D. fee in addition to the required air mail postage.

Special Delivery—The use of special delivery stamps in addition to the Air Mail postage will insure prompt delivery at office of address. Any information concerning contract air mail routes may be obtained from the postmaster.

Registered Mail—The registry fees on both domestic and foreign mail must be prepaid by stamps affixed in addition to the regular postage.

The registry fees for domestic registered mail are—when contents are valued at $1 to $50, 15 cents; over $50, to $100, 20 cts.; over $100 to $200, 30 cts.; over $200, to $300, 40 cents; over $300, to $400, 50 cts.; over $400, to $500, 60 cts.; over $500, to $600, 70 cts.; over $600, to $700, 80 cts.; over $700, to $800, 90 cts.; over $800, to $1,000, 100 cts.

Mail matter without intrinsic value for which no indemnity is provided may be registered at the minimum fee of 15 cents.

For all articles of whatever class addressed to foreign countries, 15 cts., except registered parcel post packages for certain countries, concerning which consult postmaster. International indemnity for the total loss (cover and contents) of a *Postal Union* registered article is limited to $9.65 (50 francs), except for registered mail exchanged with Canada, Newfoundland and Labrador, which is limited to $25.

A charge of 5 cents is collected from the sender, in addition to the postage and registry fee, for a return receipt for a *Postal Union* registered article requested at the time of mailing. Consult postmaster as to fees chargeable for return receipts for registered international *parcel post* packages.

A charge of 10 cents is made for an inquiry as to the disposal of any registered article addressed to a foreign country unless the sender has failed to receive a return receipt for which he paid the required fee, and the same charge is made for other inquiries or complaints in connection with such mail, when the inquiries or complaints require written investigation or tracing by the Postal Service, unless the sender is able to show that a prima facie loss or other irregularity has occurred through fault of the Postal Service.

Any mailable articles, except unsealed fourth-class matter (parcel post) for domestic destinations, may be registered.

Mailable second and third class matter, valued at over $100, upon which a registry fee in excess of 20 cents is paid, must be sealed and first class postage paid thereon.

Domestic parcels containing fourth-class matter may also be registered if sealed and the required fee, and postage at the first class rate, are paid.

Return receipts for domestic registered mail, showing delivery, may be obtained upon request and payment of a fee of 3 cents for each receipt.

Letters, prints, samples of merchandise and commercial papers may be registered to practically all foreign countries.

International parcel post mail may be registered to some, but not all, foreign countries. In the case of a few foreign countries only indemnity ranging from $9.65 to $100 is paid for the loss, rifling or damage of international parcel post articles.

Insured Mail—Domestic third and fourth-class matter, mailed at or addressed to any post office in the United States or its possessions (except parcels mailed in the Philippine Islands), or on or to United States naval vessels, may be insured against loss, rifling, or damage in an amount equivalent to its value or the cost of repairs, but not to exceed $5, upon payment of a fee of 5 cents, $25 for 8 cents, $50 for 10 cents, or $100 for 25 cents, in addition to the postage, both fee and postage to be prepaid.

Return receipts for domestic insured parcels, showing delivery, may be obtained upon request and payment of a fee of 3 cents for each receipt.

Insured International Mail—International insurance service is provided for Canada, Newfoundland, Labrador, Great Britain, the Irish Free State and Northern Ireland, the Netherlands, and Portu-

gal, including Madeira and the Azores.

Canada and Newfoundland—Mailable merchandise and printed matter designated as third and fourth-class matter and Postal Union "prints" addressed to Canada or Newfoundland may be insured for the same fees and under the same conditions in so far as applicable, including payment of indemnity, as apply to domestic mail of these classes. Third-class or "printed matter" may be registered, if desired, but fourth-class parcels of general merchandise may be registered only when sealed and postage is paid at letter rate.

Senders' return receipts are not obtained for insured parcels addressed to Canada, but may be obtained for insured parcels addressed to Newfoundland by payment of a fee of 5 cents, in addition to postage and insurance fee, when requested at the time of mailing; when requested subsequent to the time of mailing, a charge of 10 cents is made.

A charge of 10 cents is made for an inquiry as to the disposal of an insured article addressed to Canada or Newfoundland.

Certain articles of considerable intrinsic value, usually of small size, such as jewelry, coins, precious stones, etc., cannot be insured, but may be registered when sealed and prepaid at the letter rate of postage in addition to the registry fee.

Great Britain and Northern Ireland and the Irish Free State—International parcel post packages for Great Britain and Northern Ireland and the Irish Free State may not be registered but may be insured when sealed and prepaid at the ordinary parcel post rates of postage for the following insurance fees in addition to the postage, within the limits of indemnity prescribed for the fees received. *Fees*—15 cts. on $10 indemnity; 20 cts. on $25; 30 cts. on $50; 50 cts. on $100.

Return receipts for insured parcels addressed to foreign countries except Canada will be furnished only upon request therefor by the sender and upon payment of a fee of 5 cents for each receipt. A fee of 10 cents is charged for return receipts requested subsequent to mailing.

Collect-on-Delivery International Mail—Registered international parcel post packages, registered Postal Union samples of merchandise, and all matter of the third class mailed under domestic classification, and all internation "Prints" within the prescribed limits of weight may be sent collect on delivery between any money order post office in the United States (including Alaska, Hawaii, Porto Rico, Guam, Tutuila, and Virgin Islands of the United States, but excluding the Canal Zone and Philippine Islands) and any money order post office in Mexico.

Domestic C. O. D. Mail—Domestic third and fourth-class matter, and sealed domestic mail matter of any class bearing postage at the first-class rate, may be sent C. O. D. between money order offices of the United States and its possessions, but not to or from the Philippines, the Canal Zone, or United States naval vessels on payment of a fee of 12 cents when the amount to be remitted does not exceed $10; on payment of a fee of 15 cents when the amount to be remitted does not exceed $50, or upon payment of a fee of 25 cents when the amount to be remitted does not exceed $100. Such parcels are insured against loss, rifling or damage in an amount equivalent to the actual value or the cost of repairs, but not to exceed $10, $50, or $100, according to whether a 12, 15, or 25 cent fee was paid.

Domestic C. O. D. mail, sealed, first-class, may be registered. The fees on domestic registered C. O. D. mail range from 25 cents to $1.20, according to amount to be collected or amount of indemnity desired.

Money Orders—The maximum is $100, but there is no limit to the number that can be issued in one day to the same remitter. The fees for domestic orders are: $0.01 to $2.50, 5 cents; $2.51 to $5, 7 cents; $5.01 to $10, 10 cents; $10.01 to $20, 12 cents; $20.01 to $40, 15 cents; $40.01 to $60, 18 cents; $60.01 to $80, 20 cents; $80.01 to $100, 22 cents.

International money orders cost 10 cents for $10.00 or less, and 10 cents extra on each additional $10 up to $1 for $100. Domestic money orders are payable within 30 days at any United States post office (continental); after that, only at the office designated.

Unmailable matter—Includes not only all legitimate matter not conforming to the rules as to legibility of address, size of package or certificates of inspection, but also pistols, revolvers, or other firearms that can be concealed on the person; and game, etc., killed out of season, poisons, explosive or inflammable articles, or bad smelling; all spirituous and malt liquors; all liquor advertisements to or from Prohibition localities, indecent matter, written or otherwise; dunning postals and lottery, endless chain and fraud matter. In addition, sealed mailed to a *foreign country*, except it be obviously letters, cannot be sent, nor can publications in violation of the copyright laws of the country of destination.

Postal Savings—One dollar will open an interest-bearing account. Any person ten years old or over may start an account. A married woman may deposit in her own name. Any number of dollars may be deposited, and at any time, until the balance to the credit of a depositor amounts to $2,500.

FOREIGN POSTAGE RATES.

Letter Rates—2 cents an ounce or fraction thereof, to the following countries:

Alhucemas Island, Andorra, Anguilla, Antigua, Argentina, Aruba, Bahamas, Barbados, Barbuda, Balearic Islands, Bermuda.

Bolivia, Bonaire, Brazil, British Guiana, British Honduras, Calcos Islands, Canada, Canary Islands, Cayman Islands, Ceuta, Chile.

Colombia, Cook Islands, Costa Rica, Cuba, Curacao, Dominica, Dominican Republic, Dutch West Indies, Ecuador.

England, Grenada, Grenadines, Guatemala, Hayti, Republic of Honduras, Northern Ireland, Irish Free State, Jamaica, Labrador (see Newfoundland), Leeward Islands, Melilla.

Mexico, Montserrat, Nevis, Netherland West Indies, Newfoundland, New Zealand, Nicaragua, Panama, Paraguay, Penon de Velez de la Gomera.

Peru, Redonda, Saba, St. Christopher, St. Eustatius, St. Kitts, St. Lucia, Dutch part of St. Martins, St. Vincent, El Salvador, Western (British) Samoa.

Scotland, Spain and its colonies, Tangier, Tobago, Trinidad, Turks Island, Uruguay, Venezuela, (British) Virgin Islands, Wales, Windward Islands.

Members of the United States Navy in foreign waters, when addressed care of postmaster at New York, San Francisco or Seattle.

The rate to all other foreign countries and places in foreign countries for letters is 5 cents for the first ounce or fraction thereof, and 3 cents for each additional ounce or fraction thereof.

Weight limit: 4 pounds 6 ounces, except that o tCanada and Newfoundland it is 66 pounds including the weight of the sack.

Maximum dimensions: 18 inches in any direction, except when in the form of a roll they are 30 inches in length and 4 inches in diameter.

Post cards—Single post cards for any foreign destination specially named above, 2 cents. Single post cards for all other foreign destinations, 3 cents. *Maximum dimensions:* 6 by 4¼ inches. *Minimum dimensions:* 4 by 2¾ inches. Each half of a double or reply-paid post card must be fully prepaid the rate applicable to a single card.

Printed matter (including second-class matter, except when mailed by publishers or registered news agents to certain countries)—For all foreign destinations, 1 cent each 2 ounces or fraction. *Limit of weight:* 4 pounds 6 ounces in general and 6 pounds 9 ounces for single volumes of printed books, except in the case of certain countries. *Maximum dimensions:* 18 inches in any direction, except when in the orm of a roll they are 30 by 4 inches for most countries and 40 by 6 inches for certain countries.

Samples of merchandise—For all foreign destinations, 1 cent each 2 ounces or fraction, with a minimum charge of 2 cents. *Limit of weight:* 18 ounces. *Maximum dimensions:* 18 inches in length, 8 inches in width, and 4 inches in thickness, except when in the form of a roll they are 18 by 6 inches.

Commercial papers—For all foreign destinations, 1 cent each 2 ounces or fraction, with a minimum charge of 5 cents. *Limit of weight and maximum dimensions:* Same as for printed matter.

Merchandise—Packages of merchandise, except as next below, weighing 8 ounces or less, for Argentina, Bolivia, Brazil, Canada, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, Guatemala, Republic of Honduras, Mexico, Newfoundland, Panama, Paraguay, Peru, El Salvador, Spain, and Uruguay, 1½ cents for each 2 ounces or fraction thereof. (This is not parcel post and must not nave a customs declaration attached.)

Packages of merchandise consisting of seeds, scions, plants, cuttings, bulbs, and roots, weighing 8 ounces or less, for Argentina, Bolivia, Brazil, Canada, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, Guatemala, Republic of Honduras, Mexico, Newfoundland, Panama, Paraguay, Peru, El Salvador, Spain, andUruguay, 1 cent each 2 ounces or fraction thereof. (This is not parcel post and must not have a customs declaration attached.)

Registration fee—For all foreign destinations, 15 cents in addition to postage. When a *return receipt* is requested at the time of mailing, there is an additional charge of 5 cents therefor, and a charge of 10 cents when requested after mailing.

UNITED STATES POSTAL STATISTICS.

Year (Fiscal).	Cost of City Delivery.	Post Offices.	Extent of Post Routes.	Paid as Compensation of Postmasters.	Gross Revenue of Department.	Gross Expenditure of Department.	Ordinary Postage Stamps Issued.
	Dollars.	*Number.*	*Miles.*	*Dollars.*	*Dollars.*	*Dollars.*	*Number.*
1830	.....	8,450	115,176	595,234	1,919,314	1,932,708	.....
1840	.....	13,468	155,739	1,028,925	4,543,522	4,718,236	.....
1850	.....	18,417	178,672	1,549,376	5,499,985	5,212,953	1,540,545
1855	.....	24,410	227,908	2,135,335	6,642,136	9,968,342	72,377,300
1860	.....	28,498	240,594	2,552,868	8,518,067	19,170,610	216,370,660
1870	1,230,079	28,492	231,232	4,673,466	19,772,221	23,998,837	468,118,445
1880	2,363,693	42,989	343,888	7,708,407	33,315,479	36,542,804	875,681,970
1890	7,976,202	62,401	427,990	13,753,096	60,882,098	66,259,548	2,219,737,060
1900	14,512,190	76,688	500,989	19,112,097	102,354,579	107,740,267	3,998,544,564
1901	15,752,600	76,945	511,808	19,949,515	111,631,193	115,554,921	4,239,273,696
1902	17,123,310	75,924	507,540	20,783,919	121,848,047	124,785,697	4,621,285,723
1903	19,337,986	74,169	506,268	21,631,724	134,224,443	138,784,487	5,270,549,115
1904	20,561,208	71,131	496,818	22,273,343	143,582,624	152,362,116	5,330,886,845
1905	20,919,078	68,131	486,805	22,743,342	152,826,585	167,399,169	5,751,017,915
1906	21,980,632	65,600	478,711	23,544,585	167,932,782	178,449,778	6,284,450,495
1907	23,170,203	62,659	463,406	24,575,696	183,585,005	190,238,288	7,061,036,615
1908	26,258,039	61,158	450,738	25,599,397	191,478,663	208,351,886	7,651,400,405
1909	29,738,123	60,144	448,618	26,569,892	203,562,383	221,004,102	8,731,875,393
1910	31,683,591	59,580	447,998	27,521,040	224,128,658	229,977,224	9,067,164,886
1911	32,970,451	59,237	435,388	28,284,964	237,879,824	237,648,926	10,046,068,728
1912	34,152,518	58,729	436,469	28,647,726	246,744,016	248,525,450	9,928,263,748
1913	36,600,544	58,020	436,293	29,126,662	266,619,525	262,067,541	10,962,358,748
1914	40,398,621	56,810	435,597	29,954,209	287,934,566	283,543,769	11,112,254,281
1915	42,458,003	56,380	433,334	30,376,379	287,248,165	298,546,026	11,226,386,415
1916	43,136,818	55,934	444,279	31,086,525	312,057,689	306,204,033	11,671,842,200
1917	48,047,712	55,418	479,487	31,899,350	329,726,116	319,838,718	12,451,522,177
1918	49,995,450	54,345	465,371	31,394,556	388,975,962	324,833,728	13,065,784,852
1919	59,527,296	53,084	455,439	33,586,611	436,239,126	362,497,635	15,020,470,168
1920	74,932,540	52,638	433,668	40,108,080	437,150,212	454,322,609	13,212,790,333
1921	87,830,428	52,168	434,349	42,681,434	463,491,294	620,693,675	13,869,934,907
1922	89,908,118	51,947	454,901	43,699,508	484,853,541	545,668,941	14,261,948,813
1923	93,804,059	51,613	460,171	44,007,819	532,827,925	556,893,129	15,478,095,130
1924	97,892,158	51,268	464,441	45,110,155	572,948,778	587,412,755	15,954,470,462
1925	110,356,970	50,957	464,269	47,359,658	599,591,477	639,281,648	17,386,555,506
1926	126,218,743	50,601	470,779	49,645,755	659,819,801	679,704,053	16,333,410,317
1927	132,005,384	50,268	477,839	50,549,896	683,121,989	714,577,492	15,999,701,194
1928	136,527,846	49,944	488,805	50,556,365	693,633,921	725,699,766	16,676,492,729

Total on deposit at the close of each fiscal year since the Postal Savings System was established.

1911	$677,145	1915	$65,684,708	1919	$167,323,260	1923	$131,671,300	1926	$134,178,558
1912	20,237,084	1916	86,019,885	1920	157,276,322	1924	132,655,147	1927	147,359,254
1913	33,818,870	1917	131,954,696	1921	152,389,903	1925	132,173,211	1928	152,143,349
1914	43,444,271	1918	148,471,499	1922	137,736,439				

POSTAL RECEIPTS AT BIG CITIES.

Year. (Fiscal)	New York.	Chicago.	Philadelphia.	Boston.	St. Louis.	Kansas City.	Detroit.	Brooklyn.
1900	$9,479,717	$6,627,281	$3,396,616	$3,190,658	$1,931,856	$765,139	$765,139	$1,430,788
1901	10,384,445	7,725,782	3,660,353	3,368,864	2,151,483	811,190	829,392	1,500,842
1902	11,671,358	8,598,656	4,148,703	3,626,519	2,414,403	932,728	945,370	1,612,872
1903	13,013,069	9,650,962	4,386,835	3,914,813	2,987,395	1,108,592	1,087,957	1,889,723
1904	14,136,480	10,550,261	4,593,110	4,210,538	3,266,866	1,227,984	1,179,313	2,026,170
1905	15,486,137	11,680,177	4,876,913	4,528,611	3,575,079	1,319,565	1,258,985	2,016,901
1906	16,993,044	12,907,438	5,483,707	4,925,282	3,569,184	1,476,202	1,410,908	2,299,891
1907	18,567,434	13,990,835	5,858,115	5,244,748	3,906,498	1,639,588	1,608,669	2,438,229
1908	18,569,615	14,643,193	5,890,892	5,398,978	3,887,460	1,838,666	1,639,366	2,397,504
1909	19,926,306	15,786,548	6,140,593	5,785,725	4,157,285	2,000,279	1,784,028	2,451,210
1910	22,338,970	18,066,057	6,746,479	6,203,420	4,410,414	2,255,482	1,992,606	2,540,453
1911	23,900,356	19,781,438	7,230,000	6,674,795	4,615,774	2,391,455	2,248,402	2,682,225
1912	24,755,313	20,805,995	7,531,425	7,014,362	4,909,553	2,424,543	2,545,020	2,767,149
1913	27,703,974	23,595,740	8,031,233	7,741,066	5,092,442	2,643,233	2,849,867	2,936,924
1914	30,456,840	26,289,585	8,493,179	8,249,728	5,311,571	2,897,066	3,157,669	3,535,624
1915	28,834,976	23,495,729	8,484,534	8,091,523	5,158,681	3,076,383	3,292,229	3,564,517
1916	32,159,538	26,069,208	9,138,977	8,712,749	5,533,161	3,393,127	3,743,801	3,913,447
1917	34,727,028	28,167,088	9,764,917	9,113,112	5,800,689	3,668,847	4,141,111	3,975,439
1918	39,071,905	31,094,855	11,622,817	10,120,388	6,659,249	4,139,823	4,553,796	4,780,075
1919	43,893,285	35,662,256	12,871,285	10,776,713	7,422,053	5,025,492	5,001,240	5,220,101
1920	49,563,485	41,241,378	14,692,104	11,171,916	8,722,430	6,488,887	5,739,977	5,689,604
1921	52,288,880	42,209,744	15,591,469	11,560,886	8,599,507	7,014,682	5,905,089	6,026,895
1922	54,095,175	43,827,877	15,361,467	12,217,364	9,598,507	8,142,533	6,991,901	6,716,707
1923	58,745,583	50,078,720	17,058,353	13,585,887	10,906,971	8,730,255	7,831,320	7,156,423
1924	61,695,600	52,450,218	16,703,810	13,973,295	11,474,434	8,455,034	8,457,228	7,414,013
1925	65,478,107	56,078,907	17,757,085	14,739,734	12,099,496	9,425,034	10,921,774	10,039,635
1926	71,984,458	60,655,018	20,144,561	16,139,232	12,725,965	10,921,774	10,039,635	8,282,873
1927	74,443,651	61,895,230	20,432,011	17,164,354	13,659,064	11,066,859	10,782,077	8,967,189
1928	77,165,132	61,966,057	20,101,217	17,260,170	12,962,043	10,910,005	11,080,919	9,280,465

Los Angeles Postal Receipts: 1900, $259,469; 1905, $719,054; 1910, 1,476,942; 1915, $2,241,992; 1920 $4,190,661; 1925, $8,226,710; 1926, $9,089,919; 1927, $9,781,077; 1928, $10,147,823.

COST OF RAILROAD MAIL SERVICE.

Year (Fiscal)	Railways on Which Mail Was Carried	Total Yearly Mileage of Railway Mail.	Annual Cost.	Year (Fiscal)	Railways on Which Mail Was Carried	Total Yearly Mileage of Railway Mail.	Annual Cost.
	Miles.	*Miles.*	*Dollars.*		*Miles.*	*Miles.*	*Dollars.*
1920	232,358	561,827,431	90,057,610	1925	230,470	579,256,031	98,827,442
1921	232,503	561,982,489	93,550,039	1926	229,280	575,732,158	97,608,401
1922	231,081	561,189,678	91,366,108	1927	228,992	575,119,890	97,615,392
1923	231,619	574,621,534	93,267,117	1928	220,965	572,938,189	96,957,100
1924	231,021	586,081,298	97,134,960				

INCOME AND EXPENDITURES OF WATER CARRIERS.

(Figures cover all those under jurisdiction of the Interstate Commerce Commission.)

Items.	1920. *1,000 Dollars.*	1921. *1,000 Dollars.*	1922. *1,000 Dollars.*	1923. *1,000 Dollars.*	1924. *1,000 Dollars.*	1925. *1,000 Dollars.*	1926. *1,000 Dollars.*	1927. *1,000 Dollars.*	1928. *1,000 Dollars.*
Investments, Prop'y and Equipm't	145,434	152,187	156,386	173,193	187,598	184,121	194,621	199 713	206,831
Other	15 787	13,800	15,030	15,937	18,973	21,888	20,949	22,400	22,145
Operating Revenues	107,908	96,413	103,702	119,446	121,053	133,520	131,450	128,099	132,027
Operating Income	649	6,347	12,501	12,624	10,607	14,797	9,426	7,728	9,603
Net Income	305	2,686	9,125	9,128	6,462	12,425	5,236	3,479	5,676
Dividends	4,139	4,328	4,974	11,177	4,137	5,165	5,616	5,002	5,277

TELEGRAPH, CABLE, AND TELEPHONE FINANCES.

Items.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	1928.
	Miles.	*Miles.*	*Miles.*	*Miles.*	*Miles.*	*Miles.*	*Miles.*	*Miles.*
Wire Lines	1,858,173	1,874,270	1,893,869	1,945,943	2,075,332	2,055,637	2,206,839	2,316,526
	1,000	*1,000*	*1,000*	*1,000*	*1,000*	*1,000*	*1,000*	*1,000*
Investments:	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dol ars.*	*Dollars.*	*Dollars.*	*Dollars.*
Plant and Equipment	270,976	279,402	288,481	307,143	321,687	338,794	379,514	396,609
Other	20,549	19,907	27,001	27,565	28,191	27,017	27,434	32,190
Operating Revenues	136,663	138,190	144,610	146,176	162,693	165,831	170,843	177,019
Operating Income	18,867	22,894	21,025	20,229	23,204	21,767	25,714	26,335
Net Income	13,311	18,138	16,656	15,805	18,854	16,806	21,046	21,662
Dividends	9,078	13,960	9,309	9,386	9,066	10,750	11,618	11,680

The submarine telegraph cables laid throughout the seas vary considerably in length, the coastal cables being shorter than those which cross the oceans.

The world's four longest cables are:

(1) the British Pacific cable, Vancouver (B. C.) to Fanning Island (North Pacific Ocean), 3,458 nautical miles;

(2) French Company's cable, Brest (France) to Cape Cod (Mass.), 3,176 nautical miles;

(3) Western Telegraph Company's cable, Island of Ascension (South Atlantic Ocean) to Buenos Aires, 3,144 nautical miles;

(4) Commercial Pacific Cable Company's cable, Midway Islands to Guam (North Pacific Ocean), 2,607 nautical miles.

TELEPHONE COMPANIES.

Items.	1922.	1923.	1924.	1925.	1926.	1927.	1928.
	Miles.	*Miles.*	*Miles.*	*Miles.*	*Miles.*	*Miles.*	*Miles.*
Wire Lines	35,474,833	38,614,930	44,066,215	49,772,952	56,020,954	62,096,369	67,789,702
	1,000	*1,000*	*1,000*	*1,000*	*1,000*	*1,000*	*1,000*
Investments:	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
Plant and Equipment	2,019,726	2,198,446	2,501,828	2,790,056	3,101,797	3,367,860	3,666,739
Other	1,223,639	1,354,596	1,491,939	1,633,124	1,744,637	1,953,742	2,030,651
Operating Revenues	634,134	671,135	720,826	818,218	907,564	979,414	1,068,478
Operating Income	133,505	142,368	156,713	193,599	219,508	235,047	260,641
Net Income	144,194	162,288	177,077	217,562	252,565	319,767	315,344
Dividends	116,406	135,208	150,815	171,397	194,056	215,528	239,473

THE SUN.

(By Dr. Henry B. Hedrick, Washington, D. C.)

The sun is the nearest of the stars, and to the earth the most important. It is a ball of fire, radiating the heat and light which make life possible. Compared with the other stars, the sun is only of medium size, but in comparison with the earth and the other planets, it is enormous.

The diameter of the sun is 864,100 miles, or 109.1 times the diameter of the earth. If we represent the sun as a globe two feet in diameter, the earth on the same scale would be the size of a small pea.

The average distance of the sun from the earth is 92,897,400 miles. A railroad train running 60 miles an hour would require 175 years to travel this distance.

Light from the sun reaches us in 499 seconds.

The density of the sun, found by dividing the mass by the volume, is about one and a half times that of water.

The average solar temperature has been estimated to be in the neighborhood of 1200° F.

If the light of the sun is allowed to fall on an instrument called a spectroscope, it will be found to form a continuous bright spectrum composed of all the colors of the rainbow, crossed by dark lines.

It has thus been learned that most of the elements found on the earth, iron, sodium, copper, etc., are also in the sun.

The outer layer of the sun's atmosphere is composed chiefly of hydrogen and helium.

The most interesting feature of the sun's surface is the occurrence of sun spots. These are dark, cloud-like regions, varying in size from 500 miles diameter to 50,000 miles, some of them being large enough to be visible to the naked eye, protected by smoked glasses.

The duration of a spot is short, usually from one to four days.

The number of spots varies greatly from year to year, and shows a fairly regular periodicity of about eleven years.

That the influence of the sun spots is felt on the earth is shown by the marked relation between the appearance of these spots and the variation of terrestial magnetism, manifest by the occurrence of magnetic storms, and displays of the aurora borealis.

The solar system, which consists of the sun and the heavenly bodies revolving around it, such as the earth and the other planets, the meteors, and the comets, occupies but an infinitesimal part of the universe. Although light from the sun reaches us in 499 seconds, it requires 4 3/10 years for light to reach us from the next nearest star.

THE STOVE ASKS THE SUN A QUESTION.

If the sun is radiating real heat, why is it that it grows colder and colder the higher up an aviator rises and the nearer to the sun he goes?

For example, on May 26, 1929, at Dessau, Germany, Willi Neunhofen, a Junker's flier, soared to a height of about 41,795 feet (12,739 meters). it was 80 degrees above zero, Fahrenheit, in the shade, when he took off, and it was 76 degrees below zero at the top of his climb. He nearly froze to death.

There are snow-capped mountains at the Equator. Commenting on low degrees of temperature at high altitudes, Prof. R. G. Aiken, Associate Director of the Lick Observatory, Mt. Hamilton, Calif., says:

"The Sun is 93,000,000 miles distant. Therefore, an ascent of four miles above the surface of the earth will make an insignificant difference in the amount of heat actually received from the sun.

"Further, the earth's atmosphere is practically transparent, and, therefore, nearly all the heat from the sun will pass through it to the earth's surface. This heat, falling upon the earth's surface, and reflected back into the earth's atmosphere, warms the lower levels more than the higher ones.

"This is the substance of the reason for the effect we actually find.

"In different parts of the earth's surface the reaction between the surface and the heat received from the sun varies because of differences in the surface configuration.

"There is no question at all as to the fact that the sun's radiation is a real thing."

LIFE INSURANCE IN FORCE IN THE UNITED STATES.

(1919-1928 from The Insurance Year-Book of The Spectator Company, N. Y.)

Year—(Cal.)	Ordinary Policies.		Industrial Policies.		All Policies	
		Dollars.		*Dollars.*		*Dollars.*
1900	3,176,051	7,093,152,380	11,219,296	1,468,928,342	14,395,347	8,562,080,722
1901	3,693,702	7,952,989,395	12,337,019	1,640,827,454	16,030,721	9,593,816,849
1902	4,160,088	8,701,967,912	13,448,147	1,806,894,473	17,608,235	10,508,482,385
1903	4,694,021	9,593,008,148	14,606,635	1,978,241,009	19,300,656	11,571,249,157
1904	5,507,759	10,412,078,338	15,674,384	2,135,859,103	21,182,143	12,547,937,441
1905	5,621,417	11,054,255,524	16,872,583	2,309,754,235	22,494,000	13,364,009,759
1906	5,792,956	11,253,194,077	17,841,396	2,453,616,207	23,634,352	13,706,810,284
1907	5,945,780	11,486,518,261	18,849,357	2,577,896,941	24,795,137	14,064,415,202
1908	6,164,730	11,850,032,581	19,687,675	2,668,919,696	25,852,405	14,518,952,277
1909	6,534,983	12,513,125,180	21,552,344	2,967,596,031	28,087,327	15,480,721,211
1910	6,954,119	13,227,213,168	23,044,162	3,179,489,541	29,998,281	16,406,702,709
1911	7,693,263	14,578,989,903	24,708,499	3,423,790,536	32,401,762	18,002,780,439
1912	8,159,103	15,555,901,171	26,521,665	3,684,054,893	34,680,758	19,239,956,064
1913	8,774,038	16,587,378,943	28,674,303	3,933,219,429	37,448,941	20,520,598,372
1914	9,045,081	17,425,501,137	30,537,592	4,140,151,191	39,582,673	21,565,652,328
1915	9,890,264	18,349,285,339	32,623,419	4,394,051,492	42,513,683	22,743,336,831
1916	10,698,452	19,868,270,425	34,997,474	4,767,759,910	45,695,926	24,636,030,335
1917	11,581,701	21,965,594,232	37,468,776	5,151,096,538	49,050,477	27,116,690,770
1918	12,768,019	24,167,111,902	40,453,438	5,629,956,453	53,221,457	29,797,068,355
1919	14,460,828	29,274,557,871	41,852,179	5,703,198,032	54,620,198	29,870,309,934
1920	16,694,561	35,091,538,279	49,804,808	7,189,852,248	66,499,369	42,281,390,527
1921	17,663,249	36,378,537,873	54,096,515	8,006,119,747	71,759,764	44,384,657,620
1922	18,788,173	39,557,051,825	58,283,139	8,886,519,078	77,071,312	48,443,570,903
1923	20,513,882	44,227,342,307	63,460,660	10,107,256,433	83,974,542	54,334,598,740
1924	22,082,377	49,241,424,055	68,247,642	11,343,740,085	90,330,019	60,585,164,140
1925	23,881,758	54,519,175,903	73,735,801	12,823,680,595	97,629,440	71,642,127,685
1926	25,486,973	59,031,334,698	76,404,906	14,034,819,943	101,904,893	78,492,142,287
1927	27,127,668	65,043,872,937	82,246,402	15,548,448,326	109,392,437	87,022,103,424
1928	29,133,620	70,486,443,610	85,843,734	16,685,581,197	114,994,512	95,206,314,691

Group policies (number and amount)—(1921) ($3,194,576,412); (1925) 11,181 ($4,299,271,187); 21,439 ($1,598,742,713); (1922) 25,967 ($1,847,139,277); (1923) 20,480 ($2,468,935,567); (1924) 38,312 ($6,429,742,511); (1926) 13,824 ($5,425,987,646); (1927) 18,367 ($6,034,289,884).

INCOME, PAYMENTS TO POLICYHOLDERS, ASSETS, ETC.

Year—(Cal).	Total Income.	Payments.	Assets.	Liabilities.	Surplus.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
1900	400,663,257	168,687,601	1,742,414,173	1,493,378,709	249,035,464
1901	457,965,754	192,398,489	1,910,784,985	1,640,289,306	270,495,679
1902	504,527,705	199,883,721	2,091,822,851	1,798,136,861	293,685,990
1903	553,639,900	225,842,072	2,265,221,193	1,978,823,571	286,397,622
1904	599,081,882	247,052,831	2,498,960,968	2,168,468,541	330,492,427
1905	642,058,530	264,968,883	2,706,186,867	2,372,573,020	333,613,847
1906	667,185,592	287,325,629	2,924,253,848	2,557,049,863	367,203,985
1907	678,656,595	309,696,977	3,052,732,353	2,736,329,746	316,402,607
1908	703,930,149	335,777,925	3,380,294,090	2,939,482,079	440,812,011
1909	748,027,892	360,730,904	3,643,857,971	3,170,492,711	473,365,206
1910	781,011,249	387,302,073	3,875,877,059	3,385,821,478	490,055,571
1911	836,160,804	414,268,448	4,164,491,688	3,645,906,544	518,585,144
1912	893,391,717	448,817,715	4,409,292,521	3,879,825,515	529,467,006
1913	945,586,094	469,588,123	4,658,696,337	4,136,361,869	522,334,468
1914	985,037,362	509,455,142	4,935,252,793	4,364,563,505	570,689,288
1915	1,043,083,337	544,705,320	5,190,310,353	4,648,524,264	541,786,089
1916	1,117,860,328	566,386,275	5,536,807,483	5,253,090,112	283,517,371
1917	1,249,491,387	590,183,247	5,940,622,780	5,633,681,882	306,940,898
1918	1,324,586,741	710,201,684	6,475,139,502	6,201,990,207	273,149,295
1919	1,559,982,880	738,944,337	6,758,859,104	6,432,068,398	326,790,706
1920	1,764,212,582	744,649,245	7,319,997,019	6,989,309,285	330,687,734
1921	1,951,417,924	839,967,405	7,936,496,844	7,548,158,953	388,337,891
1922	2,149,186,346	1,005,714,048	8,652,318,490	8,124,446,056	527,872,434
1923	2,427,327,961	1,088,333,350	9,454,620,793	8,901,657,846	552,962,947
1924	2,702,770,023	1,205,271,945	10,394,034,380	9,798,850,142	595,184,238
1925	3,017,800,322	1,246,169,158	11,537,614,609	10,867,474,711	670,139,898
1926	3,330,298,069	1,373,201,344	12,939,806,809	12,177,362,631	762,482,866
1927	3,673,151,439	1,499,898,657	14,391,850,583	13,550,907,637	840,9 ,7,393
1928	4,087,933,015	1,698,734,738	15,961,093,741	15,042,582,261	918,511,480

ANNUAL FIRE LOSSES IN THE UNITED STATES.

(Figures, 1875-1925, from Journal of Commerce; since, from National Board of Fire Underwriters.)

Year.	Loss.	Year.	Loss.	Year.	Loss.	Year.	Loss.
1875	$78,102,285	1889	$123,046,833	1903	$145,302,155	1916	$258,377,952
1876	64,630,600	1890	108,993,792	1904	229,198,050	1917	289,535,050
1877	68,265,800	1891	143,764,967	1905	165,221,650	1918	353,878,876
1878	64,315,900	1892	151,514,098	1906	518,611,800	1919	320,540,399
1879	77,703,700	1893	167,544,370	1907	215,084,709	1920	447,886,677
1880	74,643,400	1894	140,006,484	1908	217,885,850	1921	495,406,012
1881	81,280,900	1895	142,110,233	1909	188,705,150	1922	506,541,001
1882	84,505,024	1896	118,737,420	1910	214,003,300	1923	535,372,782
1883	100,149,228	1897	116,354,575	1911	217,004,575	1924	549,062,124
1884	110,008,611	1898	130,593,905	1912	206,438,900	1925	559,418,184
1885	102,818,796	1899	153,597,830	1913	203,763,550	1926	560,548,624
1886	104,924,750	1900	160,929,805	1914	221,439,350	1927	478,245,620
1887	120,283,055	1901	165,817,810	1915	172,033,200	1928	472,224,568
1888	110,885,665	1902	161,078,040				

Loss per capita—(1923) $4.84; (1924) $4.90; (1925) $4.85; (1926) $4.79; (1927) $4.01; (1928) $3.93.

Loss insured and uninsured in 1928 in the following cities: Los Angeles, $2,549,730; Chicago, $12,999,899; Baltimore, $1,517,943; Boston, $3,922,032; Detroit, $3,682,964.

St. Louis, $2,750,449; New York, $16,624,381; Cleveland, $2,894,513; Philadelphia, $5,355,374.

Fires cost annually in the United States about 15,000 human lives.

According to The Spectator's Insurance Year Book there are 996 concerns doing fire and marine insurance in this country. In 1928 they had assets of $2,943,936,989; their income was $1,430,189,462; losses paid were $554,318,488; dividends were $115,487,961; expenses, $486,457,119; total expenditures, $1,156,263,568.

NATIONAL WEALTH OF THE UNITED STATES.

(By the Bureau of the Census, Washington, D. C.)

Form of Wealth.	Total.				Per Cent. Increase.		
	1922.	1912.	1904.	1900.	1912 to 1922.	1904 to 1912.	1900 to 1904.
	1,000 Dolls.	*1,000 Dolls.*	*1,000 Dolls.*	*1,000 Dolls.*			
Total	320,803,862	186,299,664	107,104,194	88,517,307	72.2	73.9	21.0
Real prop. and imp. tax'd	155,908,625	96,923,406	55,510,228	46,324,839	60.9	74.6	19.8
Real prop. and imp., exempt	20,505,819	12,313,520	6,831,245	6,212,789	66.5	80.3	10.0
Livestock	5,807,104	6,238,389	4,073,792	3,306,473	6.9	53.1	23.2
Farm impl. and machinery	2,604,638	1,368,225	844,990	749,776	90.4	61.9	12.7
Manuf. mach., tools, impl	15,783,260	6,091,451	3,297,754	2,541,047	159.1	84.7	29.8
Railroads and their equip	19,950,800	16,148,532	11,244,752	9,035,732	23.5	43.6	24.4
Motor vehicles	4,567,407						
Street railways, etc	15,414,447	10,265,207	4,840,547	3,495,228	50.2	112.1	38.5
All other	80,261,762	36,950,934	20,460,886	16,851,423	117.2	80.6	21.5

Percentages in black type show *decreases*.

In the "street railways, etc." were included, in 1922—street railways, $4,877,636,000; telegraph systems, $203,896,000; telephone systems, $1,745,774,000; private rail cars (Pullman, refrigerator, etc.), $545,415,000; pipe lines (oil and gas), $500,000,000; shipping and canals, $2,951,484,000; waterworks (private-owned), $360,885,000; light and power plants (private-owned), $4,229,357.

In the "all other" class were included, in 1922—agricultural products, $5,465,796,000; manufactured products, $28,422,848,000; imported merchandise, $1,548,666,000; mining production, $730,296,000; clothing, personal adornments, furnishings, horse-drawn vehicles, and kindred personal property, $39,816,001,000; gold and silver coin and bullion, $4,278,155,000.

The Federal Trade Commission estimated the national wealth of the United States in 1922 at $353,035,862,000, and the total national income for 1922 at $62,000,000,000, increasing in 1923 to $70,000,000,000; and, in 1925, the national wealth was estimated at $380,000,000,000.

Real estate values are about 65 per cent of the total national wealth.

NATIONAL WEALTH BY STATES, IN 1922. (By the Bureau of the Census.)

State.	Total.	Realty.	Livestock.	Manuf. Mach., Tools, Impl.	Railroads and Equipment.	Motor Vehicles.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
Alabama	3,002,043,000	1,419,872,000	84,718,000	160,980,000	295,534,000	33,496,000
Arizona	1,314,291,000	815,594,000	57,658,000	36,302,000	105,831,000	13,736,000
Arkansas	2,599,617,000	1,481,157,000	74,514,000	48,928,000	278,425,000	31,302,000
California	15,031,734,000	8,360,722,000	191,108,000	438,775,000	710,573,000	317,695,000
Colorado	3,229,412,000	1,758,446,000	100,664,000	86,808,000	364,963,000	59,893,000
Connecticut	5,286,445,000	3,024,483,000	22,608,000	437,195,000	179,075,000	58,321,000
Delaware	625,765,000	328,375,000	7,238,000	52,085,000	21,910,000	8,916,000
Dist. of Col	1,697,270,000	1,274,899,000	542,000	22,097,000	21,231,000	19,996,000
Florida	2,440,491,000	1,551,713,000	38,716,000	74,181,000	233,548,000	44,106,000
Georgia	3,896,759,000	1,954,736,000	101,764,000	159,411,000	319,619,000	53,489,000
Idaho	1,533,941,000	898,175,000	70,411,000	34,723,000	159,946,000	19,934,000
Illinois	22,232,794,000	12,568,726,000	319,023,000	1,194,793,000	1,221,143,000	292,664,000
Indiana	8,829,726,000	4,654,789,000	203,370,000	473,498,000	790,208,000	176,518,000
Iowa	10,511,682,000	7,173,551,000	466,802,000	143,628,000	583,887,000	183,655,000
Kansas	6,264,058,000	3,796,474,000	218,852,000	126,266,000	666,315,000	120,422,000
Kentucky	3,582,311,000	1,864,939,000	112,000,000	97,856,000	314,731,000	57,337,000
Louisiana	3,416,860,000	1,531,235,000	65,511,000	164,146,000	264,484,000	38,439,000
Maine	2,006,531,000	1,019,946,000	32,987,000	148,362,000	119,353,000	35,044,000
Maryland	3,990,730,000	1,968,280,000	42,821,000	219,387,000	183,100,000	61,561,000
Massachusetts	12,980,839,000	7,156,110,000	35,082,000	1,046,430,000	268,013,000	146,249,000
Michigan	11,404,861,000	5,790,479,000	167,484,000	831,778,000	571,827,000	216,492,000
Minnesota	8,547,918,000	5,204,208,000	228,685,000	241,454,000	554,570,000	141,553,000
Mississippi	2,177,690,000	1,138,959,000	85,632,000	55,242,000	213,021,000	28,595,000
Missouri	9,981,409,000	5,796,306,000	248,056,000	333,027,000	612,795,000	145,789,000
Montana	2,223,189,000	1,223,935,000	98,904,000	48,928,000	318,993,000	22,308,000
Nebraska	5,320,075,000	3,530,655,000	250,865,000	86,808,000	380,413,000	95,067,000
Nevada	541,716,000	255,469,000	27,159,000	6,313,000	172,202,000	4,373,000
New Hampshire	1,374,135,000	664,968,000	16,588,000	116,796,000	104,699,000	18,280,000
New Jersey	11,794,189,000	5,850,567,000	37,872,000	999,080,000	532,263,000	133,323,000
New Mexico	851,836,000	440,772,000	47,068,000	4,735,000	207,660,000	9,184,000
New York	37,035,262,000	20,757,834,000	225,140,000	2,133,807,000	1,479,682,000	384,113,000
North Carolina	4,543,110,000	2,371,365,000	103,397,000	238,327,000	251,694,000	67,779,000
North Dakota	2,467,772,000	1,625,963,000	98,225,000	9,470,000	305,530,000	36,036,000
Ohio	18,489,552,000	10,176,297,000	248,248,000	1,330,529,000	1,009,197,000	324,733,000
Oklahoma	3,993,524,000	2,072,955,000	120,136,000	97,857,000	441,267,000	89,925,000
Oregon	3,419,459,000	2,089,511,000	75,176,000	83,651,000	365,252,000	50,373,000
Pennsylvania	28,833,745,000	14,914,123,000	203,524,000	2,193,873,000	1,902,737,000	308,136,000
Rhode Island	1,924,326,000	912,419,000	5,261,000	211,496,000	34,671,000	25,297,000
South Carolina	2,404,845,000	1,189,944,000	61,927,000	132,579,000	160,166,000	35,098,000
South Dakota	2,925,968,000	2,072,618,000	152,592,000	11,048,000	229,631,000	46,076,000
Tennessee	4,228,251,000	2,499,378,000	115,059,000	145,206,000	269,323,000	50,734,000
Texas	9,850,888,000	5,962,606,000	327,807,000	208,330,000	640,968,000	189,731,000
Utah	1,535,477,000	795,047,000	53,055,000	50,507,000	177,314,000	18,575,000
Vermont	842,040,000	395,370,000	35,296,000	47,350,000	53,953,000	16,170,000
Virginia	4,891,570,000	2,772,373,000	92,653,000	164,146,000	501,972,000	63,113,000
Washington	5,122,405,000	3,257,299,000	60,918,000	203,604,000	390,042,000	79,904,000
West Virginia	4,677,919,000	3,250,693,000	58,043,000	119,953,000	441,524,000	41,297,000
Wisconsin	7,866,081,000	4,210,354,000	256,161,000	482,967,000	396,746,000	141,083,000
Wyoming	976,239,000	589,746,000	59,682,000	28,410,000	128,700,000	11,397,000
United States	320,803,862,000	176,414,444,000	5,807,104,000	15,783,260,000	19,950,800,000	4,567,407,000

The National Industrial Conference Board has estimated U. S. national wealth as follows—(1913) $190,713,000,000; (1914) $189,823,000; (1915) $197,771,000,000; (1916) $251,761,000,000; (1917) $355,674,000,000; (1918) $395,021,000,000; (1919) $424,998,000,000; (1920) $471,030,000,000; (1921) $312,292,000,000; (1923) $335,625,000,000; (1924) $231,437,000,000; (1925) $355,177,000,000; (1926) $342,471,000,000; (1927) $336,175,000,000.

MINTS AND ASSAY OFFICES.

Mints—Philadelphia, Freas Styer, Supt.; San Francisco, Michael J. Kelly, Supt.; Denver, Frank E. Shepard, Supt.

Assay Offices—Carson City, Elbert T. Clyde, Assayer in charge; New Orleans, Leonard Magruder, Assayer in charge; New York, Niles R. Becker; Seattle, Thos. Hatheway; Helena, Mont., Wm. L. Hill; Boise, Idaho, Chas. L. Langley; Salt Lake, Utah, John L. May.

U. S. NATIONAL WEALTH, IN 1922, BY GEOGRAPHICAL DIVISIONS.

Geographical Division.	Total.	Realty.	Livestock.	Machinery.	Railroads.	Motor Vehicles.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
New England	24,414,316,000	13,173,296,000	147,822,000	2,007,629,000	759,764,000	299,461,000
Middle Atlantic	77,663,196,000	41,522,524,000	466,545,000	5,326,850,000	3,914,682,000	824,572,000
East North Central	68,823,014,000	37,400,645,000	1,194,289,000	4,313,565,000	3,989,211,000	1,151,490,000
West North Central	46,018,382,000	29,199,775,000	1,664,077,000	951,731,000	3,333,141,000	763,598,000
South Atlantic	29,168,459,000	16,662,387,000	507,101,000	1,182,166,000	2,134,773,000	395,355,000
East South Central	12,990,375,000	6,923,148,000	397,499,000	459,293,000	1,092,609,000	170,162,000
West South Central	19,860,889,000	11,047,953,000	587,968,000	519,270,000	1,625,144,000	349,397,000
Mountain	12,206,101,000	6,777,184,000	514,601,000	296,726,000	1,635,609,000	160,400,000
Pacific	23,573,598,000	13,707,532,000	327,202,000	726,030,000	1,465,867,000	447,972,000

Total U. S. national wealth in previous years—(1890) $65,037,093,000; (1880) $43,642,000,000; (1870) $24,054,818,000; (1860) $16,159,616,000; (1850) $7,135,779,000. The figures 1850-1870 cover taxable property only. The advent of motor vehicles has increased the wealth total.

NATIONAL WEALTH PER CAPITA, BY STATES, IN 1922.

(1912 Figures are in Parentheses.)

State.	Dollars Per Capita.	State.	Dollars Per Capita.	State.	Dollars Per Capita.	State.	Dollars Per Capita.
Ala.	1,244 (913)	Iowa	4,274 (3,465)	Nev.	6,998 (5,003)	S. Dak.	4,482 (2,125)
Ariz.	3,512 (2,052)	Kan.	3,493 (2,632)	N. H.	3,074 (1,513)	Tenn.	1,773 (848)
Ark.	1,439 (1,054)	Ky.	1,459 (981)	N. J.	3,524 (2,240)	Tex.	2,010 (1,561)
Cal.	4,007 (3,312)	La.	1,855 (1,158)	N. Mex.	2,299 (1,388)	Utah	3,247 (2,016)
Colo.	3,285 (2,702)	Me.	2,586 (1,351)	N. Y.	3,436 (2,694)	Vt.	2,389 (1,407)
Conn.	3,614 (2,041)	Md.	2,665 (1,694)	N. Car.	1,703 (740)	Va.	2,050 (1,140)
Del.	2,728 (1,478)	Mass.	3,243 (1,827)	N. Dak.	3,602 (3,329)	Wash.	3,600 (2,484)
Dist. of Col.	3,879 (3,418)	Mich.	2,899 (1,828)	Ohio	3,048 (1,861)	W. Va.	3,040 (1,897)
Fla.	2,358 (1,167)	Minn.	3,442 (2,529)	Okla.	1,864 (1,684)	Wis.	2,887 (1,808)
Ga.	1,306 (802)	Miss.	1,216 (667)	Ore.	4,182 (2,816)	Wyo.	4,663 (2,253)
Idaho	3,301 (1,598)	Mo.	2,903 (1,717)	Pa.	3,187 (2,036)		
Ill.	3,295 (2,663)	Mont.	3,691 (2,792)	R. I.	3,086 (1,737)	U. S.	2,918 (1,950)
Ind.	2,942 (1,954)	Neb.	4,004 (3,049)	S. C.	1,385 (811)		

U. S. per capita in prior years—(1904) $1,318, (1900) $1,165; (1890) $1,036; (1880) $870.

The figures above include all property, both taxable and exempt. In 1870 the per capita of taxable property was $624; in 1860 it was $514; and in 1858 it was $308.

THE CHIEF SOURCES OF NATIONAL INCOME.

(From a Bulletin by the Federal Trade Commission.)

Of the total estimated income in 1923, amounting to nearly $70,000,000,000, manufacturing industries contributed 24.1 billions, or 34 per cent.

Agriculture came second in 1923 with 9.4 billions, which was 13.5 per cent. of the total.

Mercantile business made the third contribution in size, which was 8.6 billions, or about one-eighth of the total.

Fourth came the personal-service businesses—hotels, barber shops, shoe-repair shops, and a host of others—which furnished 6.3 billions, or 9 per cent. of the total income.

The professions—law, medicine, engineering, etc.—made the fifth contribution in size, which was 5.2 billions of dollars, or 7.5 per cent. of the total.

The share that was sixth in magnitude was that of the steam railroads, namely, 4.6 billions of dollars, or 6.7 per cent. of the total income in 1923.

Mining and quarrying contributed 3.4 billions, or 4.9 per cent. of the total in 1923, and ranked seventh.

The construction industry's share, 1¾ billions in 1923, ranked eighth and constituted 2.5 per cent. of the total income.

Commercial banking contributed 1.4 billions of dollars, or 2 per cent. of the total income in 1923.

Of the total estimated product of industry, amounting practically to $70,000,000,000 in 1923, the employed personnel of the industries and occupations received 38.2 billions, or 55 per cent., in salaries, wages, or other remuneration for their work; capital and enterprise received the other 45 per cent. in profits, rent, and interest.

NATIONAL WEALTH OF FOREIGN COUNTRIES.

Argentina—(1916) $13,900,000,000; (1928) $15,000,000,000.

Australia—(1917) $6,000,000,000.

Austria-Hungary—(before the war) $55,000,000,000.

Belgium—(1912) $5,800,000,000; (1920) $12,000,000,000; (1928) $10,769,000,000.

Brazil—(1928) $16,000,000,000.

British Empire—(1917) $130,000,000,000. The estimate was made by a Crown Minister, in Parliament.

Canada—(1903) $6,000,000,000; (1917) $11,000,000,000; (1924) $22,195,000,000; (1927-official) $27,687,000,000—Ontario, $9,560,775,000; Quebec, $6,852,279,000; Saskatchewan, $2,998,055,000; British Columbia, $2,318,651,000; Alberta, $2,258,210,000; Manitoba, $1,925,356,000; Nova Scotia, $857,129,000; New Brunswick, $751,818,000; Prince Edward Isl., $148,493,000.

Czechoslovakia—(1928) $9,942,000,000.

Denmark—(1925, official) 22,175,000,000 gold kroner; (1900) $2,000,000,000, a gold krone or crown is worth usually about 26-27 cents; (1928) $5,360,000,000.

France—(1908) $55,000,000,000; (1912) $58,500,000,000; (1925) $60,000,000,000.

Germany—(1908) $77,800,000,000 by one estimate, $83,000,000,000 by another; (1924) 150,000,000,000 gold marks, or $40,000,000,000, according to figures published by Dr. Luther, the German Finance Minister. In the U. S. Congress in 1929 the National Wealth of Germany in 1925 was estimated at $59,500,000,000.

Holland—(1928) $8,260,000,000.

Hungary—(1924) $3,155,200,000.

India (British)—(1922, Shirras) 15,000 crores of rupees—over $45,000,000,000.

Italy—(1925, Internatl. Chamber of Commerce), $25,000,000,000; (1912), $22,000,000,000.

Japan—(1912) $11,700,000,000; (1922) $22,500,000,000; (1928) $51,017,000,000.

Mexico—(1926, official), $6,012,229,152; (1928) $6,757,000,000.

New Zealand—(1926, U. S. Dept. of Commerce), £744,609,000; (1917), $1,500,000,000.

Poland—(1928) $14,000,000,000.

Russia (in Europe)—(1924, Central Statistical Bureau, Moscow), 100,843,000,000 gold rubles—about $50,000,000,000.

South Africa—(1917) $3,000,000,000.

Spain—(1928) $42,103,000,000.

United Kingdom—(1923, Shirras), £20,000,000,000; (1912), $70,500,000,000; (1917, statement in Parliament), $80,000,000,000. The officially estimated gross income in 1928 of the inhabitants was $14,520,000,000. Multiplied by 16 this would give an estimate of $232,320,000,000 as the national wealth on a basis of capitalized income.

In a statement in the U. S. Congress in 1929, the national wealth of Great Britain in 1925 was estimated at $119,200,000,000

COMMERCIAL FAILURES IN THE UNITED STATES.

FAILURES—YEAR 1928 (Compiled by R. G. Dun & Co.)

States.	Failures.	Assets.	Liabilities.	States.	Failures.	Assets.	Liabilities.	States.	Failures.	Assets.	Liabilities.
	No.	*$1,000*	*$1,000*		*No.*	*$1,000*	*$1,000*		*No.*	*$1,000*	*$1,000*
Ala....	248	2,176	2,811	Maine..	210	1,138	2,695	Okla...	343	2,663	3,731
Ariz....	17	156	361	Md....	372	4,016	6,171	Oregon	484	3,477	7,862
Ark....	329	6,595	7,864	Mass...	1,454	8,998	33,235	Penn...	1,493	15,405	32,761
Calif...	1,953	8,403	22,334	Mich...	732	13,627	17,451	R.I....	219	672	1,980
Colo...	205	1,364	2,472	Minn...	638	2,431	5,483	S.C....	126	2,747	3,395
Conn...	529	4,900	8,509	Miss...	131	766	1,176	S. D....	43	273	458
Dela...	35	326	473	Mo....	678	7,611	16,946	Tenn...	335	3,798	5,450
D. of C.	126	3,033	5,137	Mont..	102	427	909	Texas..	537	4,546	11,129
Fla....	445	10,434	16,695	Neb....	220	846	1,784	Utah...	103	587	915
Ga....	342	3,468	5,684	Nev....	20	104	212	Vt....	60	365	804
Idaho..	72	343	1,149	N.H....	83	666	1,293	Virginia	260	2,097	4,170
Illinois.	1,497	19,369	35,739	N.J....	1,024	14,628	29,150	Wash..	584	3,614	7,541
Ind....	530	8,030	14,481	N.M....	32	167	359	W. Va..	337	5,105	8,264
Iowa...	283	2,441	3,839	N. Y....	3,832	41,065	95,194	Wis....	573	6,374	8,621
Kan....	197	2,303	3,427	N. C....	310	5,546	7,033	Wyo...	33	356	477
Ky.....	250	2,803	3,959	N. D....	41	342	566				
La.....	101	828	2,071	Ohio...	1,274	24,044	34,832	U. S....	23,842	255,477	489,560

ASSETS AND LIABILITIES OF FAILED CONCERNS.

Year.	No.	Assets.	Liabilities.	Year.	No.	Assets.	Liabilities.
1901.....	11,002	$55,455,940	$113,092,376	1915.....	22,156	$183,453,383	$302,286,148
1902.....	11,615	58,729,557	117,476,769	1916.....	16,993	113,599,026	196,212,256
1903.....	12,069	90,013,981	155,444,185	1917.....	13,855	103,464,805	182,441,371
1904.....	12,199	84,438,076	144,202,311	1918.....	9,982	101,637,798	163,019,979
1905.....	11,520	57,826,090	102,676,172	1919.....	6,451	67,037,843	113,291,237
1906.....	10,682	66,610,322	119,201,515	1920.....	8,881	195,504,114	295,121,805
1907.....	11,725	138,535,645	197,385,225	1921.....	19,652	409,038,316	627,401,883
1908.....	15,690	146,199,325	222,315,684	1922.....	23,676	413,357,995	623,896,251
1909.....	12,924	102,773,007	154,603,455	1923.....	18,718	388,382,154	539,386,806
1910.....	12,652	136,538,168	201,757,097	1924.....	20,615	337,945,199	543,225,449
1911.....	13,441	124,516,544	191,061,665	1925.....	21,214	248,666,570	443,744,272
1912.....	15,452	136,538,168	203,117,391	1926.....	21,773	202,345,485	409,232,278
1913.....	16,037	174,688,151	272,672,288	1927.....	23,146	256,739,633	520,104,268
1914.....	18,280	265,293,046	357,908,859	1928.....	23,842	255,477,569	439,559,624

BANK FAILURES IN THE UNITED STATES.

Yr.	Total.		National.		Yr.	Total.		National.		Yr.	Total.		National.	
	No.	Liab.	No.	Liab.		No.	Liab.	No.	Liab.		No.	Liab.	No.	Liab.
		$1,000.		*$1,000.*			*$1,000.*		*$1,000.*			*$1,000.*		*$1,000.*
1900	58	14,456	5	1,312	1910	119	41,097	10	4,284	1920	119	50,708	10	3,350
1901	74	13,018	9	5,666	1911	107	25,511	3	1,250	1921	494	173,027	47	28,401
1902	63	10,969	2	420	1912	79	24,219	4	8,313	1922	577	77,735	35	16,453
1903	121	29,685	12	5,735	1913	120	31,546	7	5,197	1923	578	203,739	77	36,568
1904	99	28,158	24	10,257	1914	212	56,065	19	9,606	1924	613	202,926	121	69,656
1905	78	20,227	16	4,198	1915	133	37,223	18	13,649	1925	464	164,698	103	64,209
1906	58	18,805	8	1,490	1916	50	10,396	8	1,755	1926	608	212,075	74	29,206
1907	132	233,325	12	12,533	1917	42	18,451	4	3,700	1927	394	143,449	59	24,312
1908	180	123,126	31	48,388	1918	20	5,131	0	.....	1928	372	129,650	33	26,842
1909	80	24,677	11	4,109	1919	50	16,520	4	1,850					

PERCENTAGE OF FAILURES (Compiled by the Bradstreet Co., New York).

Yr.	Concerns.	Fail's.	Pct.	Assets.	Liab.	Pct. A. to L.	Yr.	Concerns.	Fail's.	Pct.	Assets.	Liab.	Pct. A. to L.
	No.	*No.*		*$1,000*	*$1,000*			*No.*	*No.*		*$1,000*	*$1,000*	
1911	1,637,650	12,646	.77	102,000	188,100	54.2	1920	1,958,042	8,463	.43	274,100	426,300	64.3
1912	1,673,452	13,812	.82	98,500	198,900	49.5	1921	2,049,323	20,014	.97	446,600	755,700	59.0
1913	1,718,345	14,551	.84	159,000	292,300	54.3	1922	2,074,617	22,415	1.08	365,600	649,800	56.2
1914	1,749,101	16,769	.95	197,200	357,100	55.2	1923	2,136,921	19,159	.89	369,100	631,300	58.4
1915	1,770,914	19,035	1.07	160,800	284,100	56.5	1924	2,195,626	19,712	.89	419,700	694,800	60.4
1916	1,790,776	16,496	.92	86,100	175,200	49.1	1925	2,242,317	18,858	.84	261,700	479,600	54.6
1917	1,828,464	13,029	.71	84,800	166,600	50.9	1926	2,258,423	20,024	.88	379,700	655,200	57.9
1918	1,824,104	9,331	.51	69,300	137,900	50.9	1927	2,255,429	20,265	.89	385,100	654,300	58.8
1919	1,843,066	5,515	.29	55,300	115,500	47.9	1928	2,246,208	20,373	.90	279,100	518,100	53.8

BANKS SUSPENDED AND REOPENED.

(Data compiled by the Federal Reserve Board.)

Year (Cal.)	Banks suspended.			Banks reopened.			Year (Cal.)	Banks suspended.			Banks reopened.		
	No.	Capital.	Deposits.	No.	Capital.	Deposits.		No.	Capital.	Deposits.	No.	Capital.	Deposits.
		$1,000	*$1,000*		*$1,000*	*$1,000*			*$1,000*	*$1,000*		*$1,000*	*$1,000*
1921	502	22,902	198,354	60	1,918	17,493	1925	612	24,441	172,900	62	1,994	16,616
1922	354	13,743	110,721	65	4,003	35,565	1926	956	32,804	272,488	147	5,099	60,180
1923	650	21,978	188,805	36	1,506	11,567	1927	662	24,763	193,891	95	8,906	35,729
1924	777	28,373	213,444	94	2,815	22,462	1928	491	19,715	138,642	39	1,540	15,727

Of the suspended banks in 1928 in the above table, 73 were members of the Federal Reserve System, with capital of $5,175,000, and deposits of $42,240,000; 5 of them reopened.

Of the 73 member banks suspended in 1928, National banks numbered 57 (deposits of $31,619,000); State banks, 16.

Suspension of National banks in the Federal Reserve System in prior years, (deposits in parenthesis)— (1921) 51 ($21,285,000); (1922) 45 ($19,092,000); (1923) 90 ($32,904,000); (1924) 122 ($60,889,000); (1925) 118 ($58,537,000); (1926) 125 ($47,866,000); (1927) 91 ($46,581,000).

BUILDING CONSTRUCTION AND HOUSING IN THE U. S.

(Data by Bureau of Labor Statistics, Department of Labor)

NUMBER OF FAMILIES PROVIDED FOR IN NEW DWELLINGS IN 257 IDENTICAL CITIES

Year.	In 1-Fam. Dwellings.	In 2-Fam. Dwellings.	In Multi-Fam. Dw.	In All New Dwellings.	Year.	In 1-Fam. Dwellings.	In 2-Fam. Dwellings.	In Multi-Fam. Dw.	In All New Dwellings.
1921 ...	130,873	38,858	54,814	224,545	1925 ...	226,159	86,145	178,918	491,222
1922 ...	179,364	80,252	117,689	377,305	1926 ...	188,074	64,298	209,842	462,214
1923 ...	207,632	96,344	149,697	453,673	1927 ...	155,512	54,320	196,263	406,095
1924 ...	210,818	95,019	137,082	442,919	1928....	136,907	43,098	208,673	388,678

NUMBER AND COST OF NEW BUILDINGS IN 310 CITIES DURING 1928.

Kind.	No.	Est. Cost	Kind.	No.	Est. Cost.
Residential.		*Dollars.*	*Residential.*		*Dollars*
1-family dwellings	145,322	715,317,535	Factories and workshops	3,973	152,649,534
2-family dwellings	19,963	153,157,386	Public garages	3,839	70,690,699
1-fam. and 2-fam. dwellings with stores combined	2,625	26,702,412	Private garages	156,457	55,140,483
Multifamily dwellings	12,070	776,520,458	Service stations	4,520	14,913,812
Multifamily dwellings with stores combined	1,528	90,754,524	Institutions	'304	65,080,263
Hotels	235	114,928,650	Office buildings	1,353	256,101,159
Lodging houses	37	780,576	Public buildings	243	29,378,349
All others	209	35,559,169	Public works and utilities	517	38,690,950
			Schools and libraries	852	143,519,854
Total	181,989	1,913,720,710	Sheds	11,787	4,895,029
			Stables and barns	367	583,553
Nonresidential.			Stores and warehouses	13,111	211,890,765
Amusement buildings	950	84,914,600	All others	4,158	7,710,836
Churches	1,009	49,059,444	Total	203,400	1,185,219,330
			Grand Total	385,429	3,098,940,040

Of the 310 cities there were 19 which showed in 1928 expenditure of $25,000,000 or more on new buildings.

City.	Cost of New Bldgs.		Families provided for	City.	Cost of New Bldgs.		Families provided for
	All Kinds.	Dwellings			All Kinds.	Dwellings.	
	Dollars.	*Dollars.*			*Dollars.*	*Dollars.*	
Atlanta, Ga	25,119,931	9,968,489	3,170	Newark, N. J.	29,391,765	16,655,563	3,288
Baltimore	26,478,200	12,660,000	2,884	New York	849,962,931	526,470,604	109,523
Boston	47,961,432	26,867,550	6,805	Philadelphia	100,023,155	51,432,580	10,576
Chicago	315,208,908	174,749,900	34,447	Pittsburgh	35,223,329	13,270,969	2,544
Cincinnati	30,679,990	21,628,235	3,559	St. Louis	38,215,329	19,228,980	7,190
Cleveland	47,017,150	16,247,100	3,167	San Francisco	33,822,280	19,944,664	6,084
Detroit	117,458,340	66,448,106	15,929	Seattle, Wash	30,540,015	15,833,350	4,658
Houston, Tex	34,598,940	17,806,385	4,463	Washington, D. C.	50,284,426	29,601,350	4,305
Los Angeles	91,279,946	60,977,127	21,081	Yonkers, N. Y.	34,373,299	29,553,210	4,216
Milwaukee	31,764,594	19,159,269	4,965				

Buildings of every type wear out. The largest part of buildings in the United States fall in that group of construction which shows a weighted average life of not more than sixty years, according to the Copper and Brass Research Association, which points out that this group represents a present worth of approximately $142,000,000,000.

Based on a life of sixty years, one-sixtieth of this value will be used up during 1929. Fire and storm losses destroy another $500,000,000 annually. Population is increasing, the estimated gain for 1929 being 1,650,000. Housings and a complement of all other types of structures must be provided to care for this population increase. In addition, current wear and tear of buildings expressed in alteration and repair jobs sets another huge demand to be met annually by the building industry.

Assuming average percentages to apply to all buildings built during the last sixty years, the following table represents a measure of value of existing structures in the United States by classes, on Jan. 1, 1929:

Classes.	*Dollars.*
Commercial	20,450,000,000
Hospitals	3,550,000,000
Hotels	3,850,000,000
Housings	79,000,000,000
Industrial	13,750,000,000
Public	1,700,000,000
Recreational	5,400,000,000
Religious	3,650,000,000
Schools	10,650,000,000
Total	142,000,000,000

ESTIMATED BUILDING ACTIVITY FOR 1930.

Classes.	*Dollars.*
Commercial	1,189,000,000
Hospitals	229,300,000
Hotels	237,900,000
Housings	4,733,000,000
Industrial	807,000,000
Public	110,400,000
Recreational	297,300,000
Religious	212,300,000
Schools	679,800,000
Total	8,496,000,000

EMBEZZLEMENT AND FRAUD LOSSES IN THE UNITED STATES.

(Figures show amounts paid by surety companies, covering losses by thefts.)

1906	$1,603,769	1911	$2,513,514	1916	$1,866,775	1921	$8,672,024
1907	1,251,430	1912	2,236,036	1917	1,921,388	1922	9,308,503
1908	1,901,650	1913	2,123,546	1918	2,472,385	1923	10,311,258
1909	2,104,718	1914	2,008,347	1919	3,704,717	1924	12,141,011
1910	1,871,028	1915	2,128,239	1920	4,406,923		

1925	$13,033,417		
1926	14,038,009		
1927	16,746,103		
1928	16,675,359		

The New York State Baumes Commission estimates that general crime, as distinguished from financial crime, costs $13,000,000,000 a year.

Chairman William B. Joyce of the National Surety Company, estimates the yearly losses of the American public from embezzlement at $125,000,000 a year.

Principal items are—

Stock frauds, $500,000,000; merchandise frauds, $500,000,000; credit frauds, $265,000,000; robbery, theft, hold-up, $250,000,000; insurance frauds, $200,000,000; embezzlement, $125,000,000; forgery, $100,000,000; real estate, $100,000,000.

Credit frauds, stock frauds and insurance frauds cost in the neighborhood of $1,000,000,000 a year.

Add to that the toll of a dozen lesser kinds of commercial stealing, the cost of credit insurance losses indirectly due to frauds, and the total will equal the $1,308,012,533 paid as corporation income taxes to the Federal Government in 1927, he added.

Forgery losses in 1928 were estimated at $200,000,000.

TELEPHONES IN THE UNITED STATES, JANUARY 1, 1923, 1928.

State.	Telephones.		State.	Telephones.		State.	Telephones.	
	1923.	1928.		1923.	1928.		1923.	1928.
	No.	*No.*		*No.*	*No.*		*No.*	*No.*
Alabama	84,401	121,115	Maine	113,725	131,367	Okla	222,889	278,912
Arizona	24,353	33,194	Maryland	153,790	197,135	Oregon	146,847	185,171
Arkansas	99,490	118,178	Mass	687,700	867,888	Pa	1,085,651	1,393,338
California	763,638	1,205,466	Michigan	508,140	711,315	R. I.	92,766	114,944
Colorado	150,652	183,250	Minnesota	424,777	487,611	So. Car	54,078	64,616
Conn.	205,902	290,873	Mississippi	63,761	79,861	So. Dak	101,555	107,641
Delaware	23,534	28,901	Missouri	550,980	657,946	Tenn.	171,413	220,559
Dist. of Col.	102,231	144,985	Montana	55,115	59,238	Texas	462,424	614,657
Florida	79,657	162,293	Nebraska	273,500	295,274	Utah	53,261	63,106
Georgia	136,334	173,410	Nevada	10,313	12,959	Vermont	54,530	60,793
Idaho	48,745	54,822	N. H.	68,874	83,066	Virginia	155,490	183,698
Illinois	1,283,449	1,685,690	New Jersey	383,496	599,336	Wash.	238,275	299,109
Indiana	508,726	552,249	New Mex.	18,342	21,580	W. Va.	116,981	146,677
Iowa	533,347	565,533	New York	1,780,563	2,595,537	Wis.	429,949	518,461
Kansas	354,251	393,878	No. Car.	116,129	160,507	Wyoming	24,949	28,049
Kentucky	201,545	222,735	No. Dak.	77,586	86,198			
Louisiana	87,354	137,610	Ohio	962,837	1,122,036	U. S.	14,347,395	18,522,767

BELL TELEPHONE STATISTICS.

(Compiled by Chief Statistician American Telephone and Telegraph Co., N. Y. City.)

Jan. 1.	Telephones in Bell System.			Employees.	Miles of Wire.	Average Daily Messages.
	Bell Owned Telephones.	Bell Connecting Phones.	Total.			
1915	5,584,853	3,064,140	8,648,993	142,527	17,475,594	23,574,000
1916	5,968,110	3,183,111	9,151,221	156,294	18,505,545	26,003,000
1917	6,545,490	3,301,702	9,847,192	179,032	19,850,315	29,420,000
1918	7,031,530	3,444,148	10,475,678	192,364	22,610,487	31,354,000
1919	7,201,757	3,790,568	10,992,325	199,914	23,281,150	31,068,000
1920	7,739,159	4,056,588	11,795,747	209,860	24,162,999	30,453,000
1921	8,333,979	4,267,956	12,601,935	231,316	25,377,404	33,162,000
1922	8,914,155	4,466,064	13,380,219	224,283	27,819,821	35,027,000
1923	9,514,813	4,535,752	14,050,565	243,053	30,616,522	38,354,000
1924	10,406,155	4,593,946	15,000,101	271,987	34,523,842	42,792,000
1925	11,242,318	4,664,232	15,906,550	279,659	39,893,619	45,816,000
1926	12,035,224	4,685,000	16,720,224	293,095	45,473,540	48,800,000
1927	12,816,252	4,758,000	17,574,252	300,628	50,861,150	52,355,000
1928	13,726,056	4,639,430	18,365,486	308,911	56,822,895	55,196,000
1929	14,524,648	4,672,387	19,197,035	334,335	62,192,744	59,035,000

THE 25 WORDS MOST USED.

The following table compiled by experts shows, in Column A, the number of times the words in Column 1 were used among 79,390 words in 500 average telephone conversations.

In Column B is shown the number of times the words in Column 2 were used among 80,000 printed words in books, etc.

1	A	1	A	1	A	2	B	2	B	2	B
I	3,999	And	1,363	See	887	The	5,848	I	924	On	514
You	3,540	Get	1,360	Have	883	Of	3,198	For	828	Have	494
The	3,110	Will	1,305	For	823	And	2,624	Be	677	By	480
A	2,060	Of	1,190	Know	753	To	2,339	Was	671	Not	471
On	2,046	In	1,170	Don't	640	A	1,696	As	626	At	498
To	1,942	He	1,115	Do	638	In	1,693	You	620	This	458
That	1,792	We	1,100	Are	618	That	1,076	With	582	Are	434
It	1,605	They	913	Want	599	It	973	He	544	We	423
Is	1,506					Is	970				

TELEPHONE CONVERSATIONS AND TELEGRAMS.

(By the Chief Statistician, American Telephone & Telegraph Company.)

Country.	No. of Telephone Conversations.	No. of Telegrams.	Total No. of Wire Communications.	Per Cent. of Total Wire Communications		Wire Communications Per Capita.		
				Telephone Conversations.	Telegrams.	Telephone Conversations.	Telegrams.	Total.
Australia	364,195,000	17,995,000	382,190,000	95.3	4.7	59.6	3.0	62.6
Austria	476,000,000	3,707,000	479,707,000	99.2	0.8	69.5	0.5	70.0
Belgium	157,181,000	5,280,000	162,461,000	96.7	3.3	19.9	0.7	20.6
Canada	2,108,400,000	13,800,000	2,122,200,000	99.3	0.7	221.5	1.4	222.9
Czechoslovakia	213,723,000	4,919,000	218,642,000	97.8	2.2	14.8	0.3	15.1
Denmark	476,955,000	2,152,000	479,107,000	99.6	0.4	136.8	0.6	137.4
France	702,963,000	34,061,000	737,024,000	95.4	4.6	17.2	0.8	18.0
Germany	2,244,886,000	37,679,000	2,282,565,000	98.3	1.7	35.5	0.6	36.1
Gt. Britain & No. Ireland	1,300,000,000	66,912,000	1,366,912,000	95.1	4.9	28.6	1.5	30.1
Hungary(1926)	118,264,000	5,062,000	123,326,000	95.9	4.1	14.1	0.6	14.7
Japan	2,586,003,000	61,119,000	2,647,172,000	97.7	2.3	42.3	1.0	43.3
Netherlands	443,000,000	5,202,000	448,202,000	98.8	1.2	58.4	0.7	59.1
New Zealand	256,733,000	7,007,000	263,740,000	97.3	2.7	178.9	4.9	183.8
Norway	212,000,000	3,586,000	215,586,000	98.4	1.6	76.2	1.3	77.5
Sweden	696,785,000	3,981,000	700,766,000	99.4	0.6	114.6	0.6	115.2
Switzerland	176,434,000	2,948,000	179,382,000	98.4	1.6	44.3	0.8	45.1
United States	26,200,000,000	214,403,000	26,414,403,000	99.2	0.8	224.7	1.8	226.5

Telephone conversations represent completed local and toll or long distance messages.

Telegrams include inland and outgoing international messages. Figures are for 1927.

TELEPHONES IN THE WORLD, BY COUNTRIES.

Country.	Phones	Country.	Phones.	Country.	Phones.	Country.	Phones.
	No.		*No.*		*No.*		*No.*
N. America:		Peru	13,695	Irish Fr. St.	25,317	Japan	750,561
U. S.	18,522,767	Uruguay	26,934	Italy	292,867	Total	1,042,399
Can.	1,259,987	Venezuela	13,098	Jugo-Slav.	31,393	Africa:	
Cent. Am.	22,511	Total	463,810	Latvia	29,165	Egypt	40,102
Mexico	64,916	Europe:		Netherl'ds	238,602	Un. of S. A.	97,155
W. Indies:		Austria	165,231	Norway	179,484	Total	203,357
Cuba	68,828	Belgium	196,691	Poland	157,425	Oceania:	
P. Rico	13,222	Bulgaria	14,358	Portugal	24,127	Australia	442,362
Total	19,979,604	Czechoslov.	134,123	Roumania	56,024	Dut. E. I.	45,998
So. America:		Denmark	324,232	Russia	260,000	Hawaii	21,441
Argentina	232,041	Finland	108,973	Spain	141,214	N Zealand	144,552
Boltvia	2,612	France	883,406	Sweden	466,787	Philip. Isls.	19,874
Brazil	108,189	Germany	2,814,996	Switzerl'd	223,597	Total	677,727
Chile	38,573	Gt. Brit. &		Total	8,623,407		
Colombia	21,110	No. Ire.	1,633,802	Asia:			
Ecuador	4,407	Greece	8,000	Brit. India	51,838		
Paraguay	413	Hungary	120,000	China	130,000	Total World	30,990,304

In New York City, on Jan. 1, 1928, there were 1,599,915 phones; in Chicago, 903,460; in London, 578,322; in Berlin, 448,030; in Los Angeles, 333,971; in Paris, 314,541; in San Francisco, 239,155; in Toronto, 173,264; in Montreal, 161,380; in Cincinnati, 154,021; in Washington, 147,347.

SUBMARINE CABLES HERE AND ABROAD.

Company.	No. Cables.	Mileage.	Company.	No. Cables.	Mileage.
All America Cables, Inc.	46	24,894	Halifax and Bermuda Cable Co.	38	8,421
Commercial Cable Co.	26	25,088	British Imperial Cable	1	852
Commercial Pacific Cable Co.	6	10,059	Pacific Cable Board	4	6,388
Commercial Cable Co. of Cuba	2	1,553	German Atl. Cable Co.	3	1,620
Western Union Telegraph Co.	40	30,350	U. S. & Haiti Teleg. & Cable Co.	1	1,660
Fr. Cable Teleg. Co. (C.F.C.T.)	29	14,657	U. S. Military Cable (Alaska)	1	1,432
African Direct Tel. Co.	8	2,882	West African Teleg. Co.	6	1,474
Western Teleg. Co.	43	28,883	W. Indies & Panama Teleg. Co.	22	4,355
Direct W. Ind. Cable Co.	11	1,482	Italian Cable Co.	10	9,307
Eastern and So. Afric. Teleg. Co.	2	1,267	Total	443	261,041
Eastern Teleg. Co.	34	31,455			
Great Northern Teleg. Co.	110	53,962			

CANDLE-POWER OF LIGHTS IN UNITED STATES LIGHTHOUSES.

Station.	C. P.	Station.	C. P.	Station.	C. P.
White Shoal, Mich.	3,000,000	Fire Island, N. Y.	280,000	Cape Charles, Va.	130,000
Jupiter Inlet, Fla.	1,000,000	Hog Island, Va.	280,000	Cape May, N. J.	130,000
Point Sur, Calif.	1,000,000	Pensacola, Fla.	280,000	Carysfort Reef, Fla.	130,000
Point Vicente, Calif.	800,000	Whitefish Point, Mich.	270,000	Marquette, Mich.	130,000
Navesink, N. J.	710,000	Point Arguello, Calif.	250,000	Piedras Blancas, Calif.	130,000
Pigeon Point, Calif.	680,000	Kilauea Point, Hawaii	240,000	Point Conception, Calif.	130,000
Buffalo, N. Y.	620,000	Montauk Point, N. Y.	220,000	Horseshoe Range, Pa. (2 lights)	120,000
Hillsboro Inlet, Fla.	620,000	Two Harbors, Minn.	220,000	Matagorda, Tex.	120,000
Molokai, Hawaii	620,000	Point Loma, Calif.	200,000	Manitou, Mich.	120,000
Marblehead, O.	600,000	Dunkirk, N. Y.	190,100	Point Hueneme, Calif.	120,000
Cape Cod, Mass.	580,000	Grays Harbor, Wash.	180,000	Point Reyes, Calif.	120,000
Cape Elizabeth, Me.	500,000	New Castle R. R., Del.	180,000	Point Tuna, P. R.	120,000
Liston Range, Del.	420,000	Petit Manan, Me.	180,000	Presque Isle, Pa.	120,000
Point Arena, Calif.	390,000	Sandusky Bay Range	180,000	Cape Hinchinbrook	110,000
The Graves, Mass.	380,000	St. Augustine, Fla.	180,000	Cape San Blas, Fla.	110,000
Dry Tortugas, Fla.	370,000	Point Cabrillo	170,000	Moose Peak, Me.	110,000
Split Rock, Minn.	370,000	Hecata Head, Ore.	170,000	Outer Island, Wis.	110,000
Shinnecock Bay, N. Y.	350,000	Cape Spencer, Alaska	160,000	Stannard Rock, Mich.	110,000
Staten Island, N. Y.	350,000	Ship Shoal, La.	150,000	Boston, Mass.	100,000
Rock of Ages, Mich.	340,000	Ediz Hook, Wash.	150,000	Crescent City, Calif.	100,000
Cape St. Elias, Alaska	300,000	Monhegan Island, Me.	150,000	Fort Gratiot, Mich.	100,000
Cape Canaveral, Fla.	280,000	South Buffalo, N. Y.	150,000	Hunting Island, S. C.	100,000
Cape Romain, S. C.	280,000	Wind Point, Wis.	150,000	Sea Girt, N. J.	100,000
Farallon, Calif.	280,000	Chicago Harbor, Ill.	140,000		

UNITED STATES MAPS STILL SHOW BLANK SPOTS.

In the heart of the United States are uninhabited areas, some even unseen for long periods by the eye of man, the National Geographic Society points out. In the forests of north central Maine, extensive regions, for many months of the year, still know only the hunter and the trapper. In certain sections of the high Appalachians live families of isolated mountaineers whose domains are seldom visited by outsiders. The only actual blank spots in the eastern United States, however, are in the swamp regions of southern Florida.

Portions of northeastern Minnesota are virtual wildernesses; but the areas are not great. The Bad Lands of southwestern South Dakota form a sizable area, largely barren, in which only a handful of people live; and similar areas are found in northern Nebraska, and eastern Wyoming and Montana.

All along the Rocky Mountains from Canada into New Mexico are uninhabited and practically inaccessible mountain fastnesses. In Texas there are still unfamiliar areas in the "Big Bend" region, close to the Mexican Border.

The maps showing the township surveys of the United States General Land Office cover all the States west of the Mississippi, except Texas. Texas has been excepted because none of that State's area was owned by the United States before it entered the Union, and all public lands were specifically retained by the State.

Only a few relatively small desert and mountain spaces in New Mexico have not been divided into townships by Land Office surveys. One of the largest of the blank spots on the map shows up in southwestern Arizona, north of the diagonal line that marks the Mexico-Arizona boundary from the 111th meridian westward to the Colorado River. The International Boundary Commission has surveyed the actual boundary and an adjoining strip two miles wide; but to the north lies a region nearly 200 miles from east to west and from 20 to 50 miles wide that has not been mapped.

Other relatively unknown regions of considerable size (aside from Alaska, where there are extensive unexplored tracts) lie in northwestern Arizona, north of the Grand Canyon; in southern Nevada and eastern California, along the boundary between the two States; in Utah, southwest of Great Salt Lake; and in southeastern Utah. The latter region was explored in 1924 by an expedition of the National Geographic Society.

FOREIGN EXCHANGE RATES, YEARLY AVERAGES.

(In cents per unit of foreign currency; compiled by the Federal Reserve Board.)

Country.	Monetary Unit, January, 1929.	Par of Exchange.	1922.	1923.	1924.	1925.	1926.	1927.	1928.
Europe:									
Austria	Schilling	14.07	0.0097	0.0014	0.0014	14.0612	14.0740	14.0764	14.0743
Belgium	Belga	13.90	7.6829	5.2190	4.6438	4.7580	3.3721	13.9157	13.9281
Bulgaria	Lev	.72	.6883	.8837	.7281	.7317	.7210	.7235	.7207
Czechoslov'kia	Crown	.....	2.4151	2.9550	2.9542	2.9656	2.9618	2.9622	2.9625
Denmark	Krone	26.80	20.9470	18.3643	16.7228	21.1310	26.2257	26.7251	26.7426
England	Pound	486.65	442.9165	457.4825	441.7064	482.8944	485.8235	486.1024	486.6223
Finland	Markka	2.52	2.1634	2.6831	2.5076	2.5218	2.5209	2.5197	2.5173
France	Franc	3.92	8.2013	6.0811	5.2368	4.7671	3.2427	3.9240	3.9210
Germany	Reichsmark	23.82	.4323	.0020	22.9980	23.8013	23.7996	23.7638	23.8614
Greece	Drachma	1.30	3.3059	1.7141	1.7900	1.5614	1.2579	1.3173	1.3044
Hungary	Pengo	17.49	.0906	.0164	.0017	.0014	17.5612	17.4741	17.4443
Italy	Lira	5.26	4.7559	4.6016	4.3580	3.9776	3.8894	5.1560	5.2571
Netherlands	Florin	40.20	38.4975	39.1005	38.2109	40.1601	40.0984	40.1065	40.2238
Norway	Krone	26.80	17.5016	16.6710	13.9403	17.8836	22.3347	26.0477	26.6876
Poland	Zloty	11.22	.0188	.0014	19.2280	17.7432	11.1796	11.2881	11.2097
Portugal	Escudo	108.05	6.6700	4.2527	3.3850	5.0397	5.1254	5.0290	4.4675
Rumania	Leu	19.30	.6969	.4937	.4982	.4832	.4620	.6042	.6133
Russia	Chervonetz	514.60	.....	.....	.....	.....	515.0000	515.0000	515.0000
Spain	Peseta	19.30	13.4828	14.4529	13.3375	14.3443	14.8959	17.0592	16.5942
Sweden	Krona	26.80	26.1661	26.5548	26.5223	26.8479	26.7646	26.8148	26.8002
Switzerland	Franc	19.30	19.0652	18.0690	18.2228	19.3268	19.3130	19.2618	19.2596
Yugoslavia	Dinar	19.30	1.3524	1.0722	1.2818	1.7054	1.7647	1.7598	1.7598
North America:									
Canada	Dollar	100.00	98.4783	98.0352	98.7322	99.9615	99.9889	99.9720	99.9094
Cuba	Peso	100.00	99.8516	99.9508	99.9783	99.9359	99.9310	99.9675	99.9634
Mexico	Peso	49.85	48.7150	48.5465	48.5143	49.3926	48.3087	47.2049	48.1067
South America:									
Argentina	Peso	96.48	81.8166	78.5727	78.1308	91.3822	92.1497	96.2950	96.4801
Bolivia	Boliviano	36.50	.....	.....	.....	.....	34.0941	34.3913	35.3911
Brazil	Milreis	11.96	12.9486	10.2285	10.9403	12.1962	14.4357	11.8383	11.9737
Chile	Peso	12.17	12.2159	12.2423	10.5448	11.6031	12.0736	12.0652	12.1451
Colombia	Peso	97.33	.....	.....	.....	.....	98.4547	97.6879	97.6937
Ecuador	Sucre	20.00	.....	.....	.....	.....	20.0571	18.9724	19.9127
Peru	Libra	486.65	.....	.....	.....	.....	374.0965	373.7739	397.0488
Uruguay	Peso	103.42	79.3966	79.0615	82.2695	98.4009	101.4740	101.3361	102.6567
Venezuela	Bolivar	19.30	.....	.....	.....	.....	19.2565	18.9835	19.2525
Asia:									
China	Mexican dolla	45.95	54.6337	52.0153	52.3642	55.5471	49.9159	45.0315	46.4710
China	Shanghai tael	63.84	74.9281	72.0248	72.6814	75.7738	68.4214	62.0994	64.3014
China	Yuan dolla	45.45	55.6073	62.6223	52.6973	56.9066	49.9807	43.9414	46.1378
Hong Kong	Dollar	45.62	55.7126	52.8985	52.4691	56.5199	53.3290	49.2085	50.0717
India	Rupee	36.50	28.7409	31.1103	31.7835	36.2642	36.3267	36.3117	36.4663
Japan	Yen	49.85	47.8037	48.5845	41.1857	41.0362	47.1163	47.4113	46.4096
Java	Florin	40.20	.....	.....	.....	.....	40.2862	40.2377	40.2208
Straits Settle'ts	Singapore doll	56.78	50.7753	53.4984	51.2523	56.1546	56.2705	56.0476	56.2838
Turkey	Turkish pound	439.65	.....	.....	.....	.....	52.2549	51.3204	50.9987
Africa:									
Egypt	Egyptian pound	494.31	.....	.....	.....	.....	498.0954	498.3123	499.0254

In the following cases the present monetary unit with present par value was quoted for only a part of the period 1922-1928, and the averages given for earlier years are for the unit which has been superseded.

Country.	First Quoted in New York.	Previous Monetary Unit.	Par Value of Previous.
Austria	Mar. 13, 1926	Krone	20.26
Belgium	Oct. 25, 1926	Franc	19.30
Bolivia	Aug. 20, 1928	Boliviano	38.93
Brazil	Dec. 18, 1926	Milreis	32.44
Bulgaria	Nov. 22, 1928	Lev	19.30
Chile	Aug. 21, 1925	Peso	36.50
Ecuador	Mar. 19, 1927	Sucre	48.66
Finland	Dec. 21, 1925	Markka	19.30
France	June 25, 1928	Franc	19.30
Germany	Oct. 29, 1924	Mark	23.82
Greece	May 14, 1928	Drachma	19.30
Hungary	Jan. 2, 1926	Krone	20.26
India	Apr. 1, 1927	Rupee	48.66
Italy	Dec. 21, 1927	Lira	19.30
Poland	Oct. 13, 1927	Zloty	19.30

The zloty (par value 19.30 cents) superseded the Polish mark (par value 23.82 cents) May 26, 1924.

As to countries in table above which also are named below, the par of exchange represents gold value of unit in 1928 computed by multiplying silver content of unit by New York average price of silver for 1928, which was $0.58488.

RAILWAYS OF THE WORLD.

(Compiled from Official Sources by Bureau of Railway Economics, Washington, D. C.)

Country.	Yr. Ended.	Aver'ge Miles. Oper.	Passengers Carried.	Freight Carried, Short Tons.	Country.	Yr. Ended.	Aver'ge Miles Oper.	Passengers Carried.	Freight Carried, Short Tons.
Arg'tina	1926	23,756	145,000,000	50,155,000	Holland	1926	2,262	48,132,236	22,032,122
Australia	1925	24,624	370,346,170	42,543,189	India	1926	38,579	599,034,800	89,171,040
Austria	1925	3,620	127,194,455	25,282,611	Italy	1926	9,793	113,570,000	64,601,980
Belgium	1925	2,954	222,746,979	77,916,027	Japan	1926	10,579	910,912,078	101,263,777
Brazil	1925	16,136	119,170,890	24,141,196	N. Z.	1927	3,157	26,002,187	8,175,722
Bulgaria	1925	1,427	3,982,093	3,602,369	Norway	1926	2,240	22,812,732	10,938,160
Canada	1926	40,352	42,686,166	105,221,906	Poland	1926	11,914	147,897,258	68,376,987
China	1924	4,372	41,305,701	29,312,130	Siam	1926	1,604	6,006,772	1,300,318
Denmark	1927	1,569	29,561,158	6,795,554	Sweden	1925	9,653	65,738,389	42,001,307
Egypt	1927	2,302	30,027,701	8,586,695	Switzerl'd	1925	3,373	147,768,197	24,762,236
France	1926	26,086	783,760,628	325,754,466	Un. S. Afr.	1927	12,897	80,086,249	23,089,213
Germany	1926	33,142	1,819,411,751	420,937,241	U. S.	1925	249,398	901,963,145	2,463,725,307
Gr. Br.	1926	20,396	1,541,879,621	241,468,670					

Figures for Austria, Belgium, Bulgaria, China, Denmark, and Egypt cover state owned lines only. | Mileage figures for the United States cover total miles owned.

GOLD HOLDINGS OF THE WORLD.

Figures show thousands of dollars (.000 omitted); values represent par of exchange; compiled by the Federal Reserve Board, at Washington; data relates to gold of governments and central banks.

For example, figures for the United States cover only the gold of the Treasury and of the Federal Reserve Banks.

Some silver ($1,380,276) is included in Canadian figures.

Dec. 31	Total	U. S.	France	England	Germany	Argentina	Japan	Spain	Italy	Holland
1913....	4,830,867	1,290,420	678,856	170,245	278,687	256,126	64,963	92,490	265,476	60,898
1914....	5,330,366	1,206,487	802,591	428,221	498,508	241,539	64,062	110,444	269,584	83,663
1915....	6,228,538	1,706,922	967,950	389,205	581,954	238,906	68,187	166,414	263,278	172,530
1916....	6,508,838	2,193,531	652,885	402,970	599,873	265,540	113,411	241,424	223,400	236,217
1917....	7,085,304	2,520,156	639,682	422,594	572,768	288,020	229,981	379,597	206,721	280,689
1918....	6,751,114	2,655,898	664,017	523,632	538,861	304,466	225,821	430,072	202,403	277,155
1919....	6,731,317	2,524,679	694,847	583,211	259,519	336,707	349,947	472,041	200,098	256,204
1920....	7,140,872	2,434,168	689,517	762,912	260,028	473,913	551,840	474,228	204,372	255,729
1921....	7,953,777	3,221,215	690,141	763,719	237,102	472,415	610,663	484,984	210,739	243,600
1922....	8,313,539	3,505,551	708,403	751,597	227,436	472,529	605,678	487,278	217,284	233,880
1923....	8,582,773	3,833,735	709,479	754,400	111,247	466,495	600,194	487,841	215,699	233,876
1924....	8,916,427	4,090,067	710,394	757,033	180,939	443,896	585,738	489,292	218,382	202,854
1925....	8,890,560	3,985,399	710,968	703,482	287,763	450,592	575,768	489,631	218,825	178,080
1926....	9,163,109	4,083,380	711,106	735,421	436,235	450,557	561,810	493,489	220,732	166,231
1927....	9,514,293	3,977,181	954,000	741,698	444,158	529,134	541,739	502,484	239,177	160,796
1928....	9,980,646	3,746,111	1,253,500	749,767	650,127	607,353	541,218	493,900	265,732	174,692

Dec. 31	Brazil	Canada	India	Australia	Switzerland	Belgium	Sweden	Russia	Poland	Austria	Uruguay
1913.....	53,202	116,572	123,921	21,899	32,801	59,131	27,372	786,800	—	251,421	10,826
1914.....	26,601	99,126	80,127	38,932	45,922	56,619	29,088	803,400	—	213,757	13,483
1915.....	14,598	126,545	67,800	73,484	48,275	50,759	33,385	831,200	—	138,750	22,530
1916.....	14,598	131,558	78,180	78,351	66,585	50,759	49,183	758,396	—	58,759	33,251
1917.....	14,598	139,823	90,086	85,650	69,025	50,759	65,513	667,041	—	53,717	42,003
1918.....	15,571	129,761	64,231	104,143	80,041	57,145	76,532	—	—	53,074	46,718
1919.....	15,571	129,712	128,819	116,796	99,779	51,417	75,350	—	1,667	45,011	56,756
1920.....	19,464	112,605	116,249	115,336	104,780	51,438	75,516	—	2,858	11	57,307
1921.....	25,303	95,073	118,341	113,389	106,058	51,451	73,631	—	5,955	16	59,494
1922.....	27,401	146,588	118,341	116,496	103,284	51,901	73,428	2,607	9,769	9	56,807
1923.....	48,665	127,169	108,609	121,088	103,669	52,204	72,853	45,043	13,078	1,313	56,812
1924.....	53,790	151,466	108,609	121,206	97,642	52,543	63,508	73,050	19,949	1,560	56,809
1925.....	54,300	156,768	108,609	127,838	90,140	52,855	61,647	93,876	25,793	2,087	56,811
1926.....	56,325	158,105	108,609	106,975	91,050	86,214	60,162	84,605	26,677	7,388	56,819
1927.....	100,746	151,978	119,097	105,121	99,785	99,878	61,685	97,043	58,041	11,883	59,319
1928.....	148,555	113,948	123,989	108,430	102,874	125,576	63,223	91,887	69,685	23,743	68,346

Dec. 31	Java	Denmark	So. Africa	New Zealand	Czechoslov.	Norway	Rumania	Egypt	Jugoslov.	Chile	Greece	Bulgaria
1913...	10,027	19,666	39,905	25,306	—	11,892	29,242	10,381	11,194	—	4,825	10,615
1914...	12,418	24,506	43,799	27,739	—	10,290	29,714	21,750	11,034	1,330	7,527	10,615
1915...	18,804	29,833	44,772	30,092	—	13,837	36,264	35,096	12,381	1,330	11,194	11,773
1916...	28,984	42,847	34,066	36,012	—	33,027	22	29,164	12,321	1,330	11,580	13,124
1917...	37,051	46,617	30,172	39,419	—	31,193	—	19,278	12,310	9,039	12,159	12,159
1918...	51,600	52,159	33,579	39,419	—	32,691	2	16,312	12,306	23,413	10,248	12,352
1919...	69,817	60,807	35,525	38,932	—	39,590	200	16,312	12,233	24,384	10,750	7,141
1920...	88,214	60,992	50,612	37,472	4,053	39,472	329	16,807	12,352	32,893	10,769	7,141
1921...	58,728	61,192	57,911	37,472	12,545	39,475	329	16,807	14,282	34,025	10,769	7,334
1922...	61,306	61,173	50,782	38,367	20,874	39,474	7,585	16,619	12,354	34,025	5,944	7,415
1923...	62,869	56,171	51,838	38,294	22,574	39,472	24,563	16,510	13,286	34,025	7,180	7,565
1924...	53,726	56,145	52,441	37,581	31,745	39,457	26,020	16,510	13,965	34,025	7,527	7,792
1925...	73,394	56,085	43,594	37,667	30,575	39,456	26,735	16,510	14,657	34,025	7,833	7,981
1926...	79,278	56,007	36,703	38,007	30,731	39,457	27,787	16,510	16,620	10,301	8,729	8,464
1927...	71,640	48,780	40,032	38,280	29,766	39,458	29,006	18,388	17,133	7,411	9,903	9,250
1928...	68,264	46,298	39,273	35,019	34,237	39,362	30,326	17,519	17,556	7,363	7,196	9,529

The total gold holdings rose, in May, 1929, to $10,123,000,000, of which the United States Treasury and the Federal Reserve Banks held four-tenths, or $3,931,000,000; England, $795,000,000; France, $1,435,000,000, and Germany, $420,000,000.

Gold hoardings in India are not included in the above figures, because nobody has any accurate basis for estimating their total amount, which may be as much as $5,000,000,000.

Nor are gold hoardings in other countries included in the table, which is confined to gold available.

The people in every country, especially the peasants, hoard silver, so that the total thus out of circulation amounts to billions of dollars.

MANUFACTURE AND SALE OF FARM EQUIPMENT.

(U. S. Census Data—Number of Establishments Reporting: 1928, 810; 1927, 836; 1926, 839.)

Class.	Year.	Manufactured.	Sold by mfgrs.	
			In U. S.	For exp'rt.
		Dollars.	*Dollars.*	*Dollars.*
Total	1928	524,220,514	402,841,282	95,152,814
	1927	460,881,111	391,868,822	71,946,128
	1926	461,399,528	364,751,042	78,992,525
Plows and listers	1928	32,158,754	26,436,118	6,696,737
	1927	29,477,372	22,675,891	6,358,371
	1926	33,148,358	23,736,742	9,099,908
Harrows, rol's, pulv., stalk cut.	1928	14,687,293	12,869,884	2,026,430
	1927	13,867,839	12,327,240	1,444,118
	1926	15,552,934	13,546,887	1,563,048
Planting & fertilizing machin'y	1928	26,504,967	24,386,730	2,286,077
	1927	24,560,375	22,882,361	1,477,239
	1926	26,590,991	24,489,874	2,602,791
Cultivators and weeders	1928	15,864,256	16,534,167	769,288
	1927	14,296,272	13,085,460	589,470
	1926	20,311,165	17,041,640	1,090,118
Harvesting machin'y	1928	67,291,217	48,641,568	16,717,852
	1927	57,319,248	38,823,209	13,864,339
	1926	46,006,889	29,161,034	14,744,292
Haying machin'y	1928	16,057,966	13,760,108	1,499,086
	1927	15,386,759	14,849,828	1,427,438
	1926	13,950,440	12,857,788	1,891,352
Mach. for preparing crops	1928	33,465,668	25,148,776	5,987,439
	1927	32,328,555	28,947,937	5,311,005
	1926	34,126,745	27,445,596	5,802,558
Tractors	1928	191,978,126	122,281,032	47,872,608
	1927	159,530,521	131,667,221	33,142,788
	1926	145,912,489	105,001,649	31,821,849
Horse-drawn vehicles	1928	9,974,420	9,405,824	538,672
	1927	8,883,803	8,961,039	344,607
	1926	13,657,953	11,965,108	1,284,013
Barn and barnyard equipm't	1928	9,096,326	8,950,025	41,390
	1927	9,188,333	9,157,499	70,664
	1926	8,692,174	8,562,822	84,685
Miscellaneous	1928	107,141,521	94,427,050	10,687,235
	1927	96,042,034	88,491,137	7,916,089
	1926	3,449,390	92,941,902	9,007,911

FOREIGN COINS VALUED IN UNITED STATES MONEY.

(Proclaimed by the Secretary of the Treasury as of Oct. 1, 1929.)

Argentine Republic, G., Peso, ($0.9648). Currency: Paper, normally convertible at 44 per cent. of face value.

Austria, G., Schilling ($0.1407).

Belgium, G., Belga, ($0.1390). One Belga equals 5 paper francs.

Bolivia, G., Boliviano ($0.3650). 13 1-3 bolivianos equal 1 pound sterling.

Brazil, G., Milreis ($0.5462). Currency: Government paper convertible at 4,567 paper milreis to the gold milreis ($0.1196).

British Colonies in Australasia and Africa, G., Pound sterling ($4.8665).

British Honduras, G., Dollar ($1.0000).

Bulgaria, G., Lev ($0.0072).

Canada, G., Dollar ($1.00).

Chili, G., Peso ($0.1217).

China, S., Tael, Haikwan (customs) ($0.6376). The tael is a unit of weight, not a coin. The customs unit is the Haikwan tael. The values of other taels are based on their relation to the value of the Haikwan tael. The Yuan silver dollar of 100 cents is the monetary unit of the Chinese Republic; it is equivalent to .637— of the Haikwan tael. Dollar, Yuan ($0.4061), Mexican silver pesos issued under Mexican decree of Nov. 13, 1918, are of silver content approximately 41% less than the dollar here quoted; and those issued under decree of Oct. 27, 1919, contain about 51% less silver.

Colombia, G., Peso ($0.9733). Currency: Government paper and silver.

Costa Rica, G., Colon ($0.4653); 4 Colons (non gold) equal 1 U. S. dollar.

Cuba, G., Peso ($1.0000).

Denmark, G., Krone ($0.2680).

Dominican Republic, G., Dollar ($1.0000). U. S. money is principal circulating medium.

Ecuador, G., Sucre ($0.2000).

Egypt, G., Pound (100 piasters) ($4.9431). The actual standard is the British pound sterling, which is legal tender for 97½ piasters.

Estonia, G., Kroon ($0.2680).

Finland, G., Markka ($0.0252).

France, G., Franc ($0.0392.) This value was established by the law of June 24, 1928.

Germany, G., Reichsmark ($0.2382).

Great Britain, G., Pound sterling ($4.8665).

Greece, G., Drachma ($0.0130). Value established by law of May 14, 1928.

Guatemala, G., Quetzal ($1.000).

Hayti, G., Gourde ($0.2000). Currency: National bank notes redeemable on demand in American dollars.

Honduras, G., Lempira ($0.5000). Legally established but not yet actually operative.

Hungary, G., Pengo ($0.1749).

India (British), G., Rupee ($0.3650). Value established by law, effective April 1, 1927.

Indo-China, S., Piaster ($0.4128).

Italy, G., Lira ($0.0526). Value established by decree effective on Dec. 22, 1927.

Japan, G., Yen ($0.4985).

Jugo-Slavia, G., Dinar ($0.1930).

Latvia, G., Lat. ($0.1930).

Liberia, G., Dollar ($1.0000). Currency: Depreciated silver token coins.

Lithuania, G., Litas ($0.1000). Currency: notes of the Bank of Lithuania.

Mexico, G., Peso ($0.4985).

Netherlands, G., Guilder (florin), ($0.4020).

Newfoundland, G., Dollar ($1.0000).

Nicaragua, G., Cordoba ($1.0000).

Norway, G., Krone ($0.2680).

Panama, G., Balboa ($1.0000).

Paraguay, G., Peso (Argentine), ($0.9648). Currency: Depreciated Paraguayan paper currency.

Persia, S., Kran ($0.0704). Currency: Silver circulating above its metallic value. Gold coin is a commodity only, normally worth double the silver of same denomination.

Peru, G., Libra ($4.8665).

Philippine Islands, G., Peso ($0.5000).

Poland, G., Zloty ($0.1122). Value established by decree on Oct. 13, 1927.

Portugal, G., Escudo ($1.0805). Currency: Inconvertible paper

Roumania, G., Leu ($0.0060. By law of 1929).

Russia, G., Ruble ($0.5146). Pre-war unit (one Soviet chervonetz = 10 gold rubles.)

Salvador, G., Colon ($0.5000).

Siam, G. (Baht), Tical ($0.4424). Value established by law of April 15, 1928.

Spain, G., Peseta ($0.1930). Valuation is for gold peseta: currency is notes of the Bank of Spain.

Straits Settlements, G., Dollar ($0.5678).

Sweden, G., Krona ($0.2680).

Switzerland, G., Franc ($0.1930).

Turkey, G., Piaster ($0.0440). (100 piasters equal to the Turkish £.).

Uruguay, G., Peso ($1.0342). Currency: Inconvertible paper.

Venezuela, G., Bolivar ($0.1930).

G, means gold standard country; S, silver. Value in U. S. money is stated in parentheses.

JAPANESE WEIGHTS, MEASURES AND MONEYS, WITH EQUIVALENTS.

(Revised from Financial and Economic Annual of Japan, 1928.)

JAPAN.	GREAT BRITAIN.	UNITED STATES.	FRANCE.	GERMANY.
Ri	2.44030 miles	2.44029 miles	3.92727 kilometres	3.92727 kilometre
Ri (marine)	1.15152 miles	1.15151 miles	1.85318 kilometres	1.85318 kilometre
Square Ri	5.95505 sq. miles	5.95501 sq. miles	15.42347 kilometres	15.42347 quadrat-kilometre
Cho = 10 *Tan*... = 3,000 *Tsubo*	2.45064 acres	2.45062 acres	0.991735 hectares	99.17355 ar
Tsubo	3.95369 sq. yards	3.95367 sq. yards	3.30579 centiares	3.30579 quadrat-metre
Koku = 10 *To*.. = 100 *Sho* (Capacity of vessels)	4.96005 bushels	47.65389 gals. (liquid) 5.11902 bush. (dry)	1.80391 hectolitre	1.80391 hectolitre
Kwan = 1,000 *Momme*.	1-10 of one ton 8.26733 lb. (avoir.) 10.04711 lb. (troy)	1-10 of one ton 8.26733 lb. (avoir.) 10.04711 lb. (troy)	1-10 de tonne 3.75000 kilogrammes	1-10 tonne 3.75000 kilogramme
Kin = 160 *Momme*.	1.32277 lb. (avoir.) 1.60754 lb. (troy)	1.32277 lb. (avoir.) 1.60754 lb. (troy)	0.60000 kilogramme	0.60000 kilogramme
Momme	2.11644 drams 2.41131 dwts.	0.13228 oz. (avoir.) 0.12057 oz. (troy)	3.75000 grammes	3.75000 gramme
Yen = 100 *Sen*	2s. 0d. 582.	0.4984 dollar	12.7226 francs.	2.0924 mark.

The value of the yen is as follows: Prior to December, 1885, gold yen, 0.4 momme of pure gold; from January, 1886, to September, 1897, silver yen, 6.7 momme of pure silver; subsequent to October, 1897, gold yen, 0.2 momme of pure gold. The metric system was adopted in Japan by an act of April, 1921, and went into force on July 1, 1924, and is in daily use, especially in cities and in Government circles.

VALUE AND WEIGHT OF GOLD.

The unit in weighing gold is the troy ounce. A "fine" ounce means an ounce of pure gold. The mint value of gold does not fluctuate but remains constant at $20.67183462 per fine ounce. Troy measure is used in weighing gold. The grain is the same in both troy and avoirdupois measure but the ounce and the pound are not the same. The troy ounce contains 480 grains and the troy pound 5,760 grains, there being 12 ounces to the pound. The troy pound is never used in weighing gold, even when the weights of large quantities are to be computed. The avoirdupois ounce contains 437½ grains and the avoirdupois pound contains 7,000 grains, there being 16 ounces to the pound.

There is no standard bar, in the sense of the word, there being various sizes—jewelers preferring those valued at from $100 to $500.

The $10,000 bar is most frequently used for transfer purposes. It is about 3½ inches wide, 6¾ inches long, and 1¾ inches deep. The value of such a bar ranges from $10,000 to $11,000. It is the largest made.

For a gold bar valued at $50,000 (should there be such) the dimensions would be: 3½ inches wide, 6¾ inches long and 8¾ inches deep; the value $50,005.167, and the weight, 2,418.75 ounces.

A 17-inch cube of gold weighs a ton.

These dimensions are for pure gold bullion, called 1,000 fine, which is 999.99 fine, and are approximations only.

BANK CLEARINGS IN CHIEF UNITED STATES CITIES.

(Figures compiled by the New York Clearing House Association.)

Year (Cal.)	New York.	Chicago.	Philadelphia.	Boston.	Baltimore.	Pittsburgh.	San Francisco.	Los Angeles.
	1,000 Dollars.	*1,000 Dollars.*	*1,000 Dollars.*	*1,000 Dollars.*	*1,000 Dollars.*	*1,000 Dollars.*	*1,000 Dollars.*	*1,000 Dollars.*
1918.....	178,533,248	25,930,200	19,716,992	15,637,209	3,355,602	5,761,511	5,629,321	1,547,065
1919.....	235,802,634	29,685,973	22,094,588	17,902,683	4,343,446	7,276,699	7,286,339	2,339,401
1920.....	243,135,013	32,669,233	25,094,696	18,816,778	4,896,046	8,982,887	8,122,065	3,994,274
1921.....	194,331,219	25,974,692	20,445,000	14,327,564	3,745,337	6,808,206	6,629,000	4,211,196
1923.....	213,996,183	31,112,850	24,650,722	19,310,000	4,338,199	8,212,798	8,049,583	7,024,888
1924.....	249,868,180	31,653,661	25,645,243	21,315,000	5,025,330	8,036,967	8,260,700	7,193,519
1925.....	283,619,245	35,391,600	29,079,000	22,482,000	5,832,394	8,856,572	9,479,464	7,945,493
1926.....	290,354,944	34,907,100	29,258,000	25,130,000	5,953,736	9,197,686	9,799,769	8,917,424
1927.....	321,234,214	35,958,200	28,354,000	26,468,000	5,618,192	9,289,444	10,117,000	9,381,948
1928.....	391,627,476	37,842,400	29,377,000	25,837,000	5,260,042	9,452,672	11,491,200	10,825,705

Year (Cal.)	Detroit.	Cleveland.	St. Louis.	Kansas City.	New Orleans.	Minneapolis.	Cincinnati.	Louisville.
	1,000 Dollars.	*1,000 Dollars.*	*1,000 Dollars.*	*1,000 Dollars.*	*1,000 Dollars.*	*1,000 Dollars.*	*1,000 Dollars.*	*1,000 Dollars.*
1918.....	3,181,233	4,339,779	7,833,691	9,940,881	2,660,460	1,949,161	2,848,478	.....
1919.....	4,503,622	5,481,998	8,201,532	11,222,743	3,170,247	2,266,965	3,130,811	928,955
1920.....	6,104,323	6,877,387	8,294,027	11,615,142	3,315,319	4,012,206	3,596,794	1,548,436
1921.....	4,658,780	4,666,948	6,325,100	7,537,161	2,210,182	3,355,655	2,800,971	1,199,299
1923.....	6,691,595	5,549,996	7,203,700	6,881,568	2,781,108	3,677,176	3,444,728	1,551,896
1924.....	7,440,012	5,424,544	7,078,535	6,581,605	2,950,483	4,076,886	3,353,298	1,611,921
1925.....	8,430,797	5,996,668	7,626,577	7,036,500	3,169,574	4,462,950	3,709,955	1,743,589
1926.....	8,813,261	6,178,768	7,631,800	7,301,562	3,075,223	4,110,312	3,885,182	1,781,961
1927.....	8,770,134	6,457,414	7,387,457	7,254,051	3,055,793	4,094,562	3,877,325	1,379,529
1928.....	10,433,525	6,913,067	7,566,505	7,254,000	2,907,768	4,419,614	3,901,292	1,936,031

The total amount of clearings in 127 cities (including those named in above table) in 1928, calendar year, was $625,644,791,000.

TRANSACTIONS ON THE NEW YORK STOCK EXCHANGE.

Yr.	Stocks (Shares).	Bonds (Par Value).	Yr.	Stocks (Shares).	Bonds (Par Value).	Yr.	Stocks (Shares).	Bonds (Par Value).
	Number.	*Dollars.*		*Number.*	*Dollars.*		*Number.*	*Dollars.*
1909.	214,425,978	1,134,656,200	1916.	232,842,807	1,161,625,250	1923.	237,276,927	2,753,506,630
1910.	163,882,956	634,091,000	1917.	184,199,812	1,052,340,950	1924.	282,032,923	3,828,019,845
1911.	126,515,006	889,567,100	1918.	143,378,095	2,093,257,500	1925.	452,211,399	3,398,346,045
1912.	131,051,116	674,245,000	1919.	312,875,250	3,771,517,175	1926.	449,103,253	3,029,684,700
1913.	83,283,582	501,155,920	1920.	223,931,349½	3,955,036,900	1927.	576,990,875	3,321,545,600
1914.	47,889,628	468,898,100	1921.	171,439,693½	3,504,814,845	1928.	920,550,032	2,939,627,750
1915.	173,378,655	956,077,700	1922.	260,753,997	4,098,696,027			

PRICES FOR NEW YORK STOCK EXCHANGE SEATS.

Year.	High.	Low.	Year.	High.	Low.	Year.	High.	Low.	Year.	High.	Low.
1885..	$34,000	$20,000	1913...	$53,000	$37,000	1918..	$60,000	$45,000	1923...	$100,000	$76,000
1890..	22,500	17,000	1914...	55,000	34,000	1919..	110,000	60,000	1924...	101,000	76,000
1895..	20,000	17,000	1915...	74,000	38,000	1920..	115,000	85,000	1925...	150,000	99,000
1900..	47,500	37,500	1916...	76,000	60,000	1921..	100,000	77,500	1926...	175,000	133,000
1905..	85,000	72,000	1917...	77,000	45,000	1922..	100,000	86,000	1927...	305,000	170,000
1910..	94,000	65,000							1928...	595,000	290,000

1928 totaled—stocks, 230,043,682 shares; bonds, $832,264,000. Curb seats in 1928 ranged from $56,000 to $170,000. The Curb Market in 1929 became the Curb Exchange.

PRICES FOR SEATS ON THE NEW YORK COTTON EXCHANGE.

Year.	High.	Low.	Year.	High.	Low.	Year.	High.	Low.	Year.	High.	Low.
1905....	$23,500	$10,000	1911....	$15,000	$13,000	1917....	$17,200	$12,500	1923....	$32,000	$25,500
1906....	23,000	15,300	1912....	18,500	14,800	1918....	15,500	11,800	1924....	33,000	26,500
1907....	15,000	9,500	1913....	19,000	12,000	1919....	26,000	15,500	1925....	37,750	29,500
1908....	10,500	7,700	1914....	13,000	7,000	1920....	24,600	17,000	1926....	28,000	24,000
1909....	20,000	10,500	1915....	13,500	9,200	1921....	22,500	15,500	1927....	32,500	27,000
1910....	17,500	12,000	1916....	17,500	12,000	1922....	30,000	16,250	1928....	45,000	25,000

Governor Roosevelt signed at Albany, on April 9, 1929, a law amending the Act of 1871, incorporating the New York Cotton Exchange, by permitting the Exchange to eliminate the word 'cotton" from its corporate name, and extending the fields of operations of the Exchange to include trading in cotton, cotton products and by-products and the purchase or sale of stocks, bonds or other securities of foreign or domestic corporations engaged in growing, manufacturing, buying, selling or handling cotton, wool, silk, rayon, artificial silk, jute or liner textiles, made in whole or in part of any of these commodities, or manufacturing, buying, selling or handling the by-products of any of them, or conducting warehouses or compress or other plants or facilities suitable for use in connection with or for the promotion of any of said activities.

INLAND WATERWAYS CORPORATION.

(Headquarters, 1016 Munitions Building, Washington, D. C.)

Capital—$15,000,000; amount paid in by United States Government, $9,000,000. The balance is to be paid—$3,000,000 by July 1, 1930, and $3,000,000 by July 1, 1931.

Principal Officers: The Secretary of War, holder of capital stock, Stockholder and Executive Head; T. Q. Ashburn, Major General, U. S. A., Chairman, Board of Advisers and Executive; Clark C. Wren, Assistant to the Chairman of the Board; Guy Bartley, Secretary-Treasurer.

Board of Advisers: James E. Smith, 602 Chamber of Commerce Bldg., St. Louis, Mo.; Wilmer M. Jacoby, 1915 Oliver Building, Pittsburgh, Pa.; R. A. Brown, c-o R. A. Brown & Co., Birmingham, Ala.; M. J. Sanders, 1420 Hibernia Bank Building, New Orleans, La.; S. S. Thorpe, Thorpe Building, Minneapolis, Minn.; Harry E. Halliday, c-o Halliday Elevator Co., Cairo, Ill.

Line Officials: J. P. Higgins, Operating Manager, Mississippi Division, 1210 Federal Commerce Trust Building, St. Louis, and Traffic Manager for Solicitation, 1210 Federal Commerce Trust Building, St. Louis; W. M. Hough, Traffic Manager, 320 Magazine St., New Orleans.

E. V. Pickley, Operating Manager, Warrior Division, 320 Meaher Building, Mobile, Ala.

W. W. Morse, Operating Manager, Upper Mississippi Division, 523 Marquette Avenue, Minneapolis.

J. S. Brodie, Chief Engineer, 320 Magazine St., New Orleans.

F. H. Lawton, General Purchasing Agent, 320 Magazine St., New Orleans.

J. S. Powell, Comptroller, 320 Magazine St., New Orleans.

CONDITION OF MEMBERS N. Y. CLEARING HOUSE ASSOCIATION.

For the week ending Oct. 11, 1929. The figures are six-day averages. except as to capital and net profits.

Clearing House Members.	Capital	Surplus and Undivided Profits.	Net Demand Deposits Average.	Time Deposits Av'ge.	Clearing House Members.	Capital	Surolus and Undivided Profits.	Net Demand Deposits Average.	Time Deposits Av'ge.
	1,000 Dollars.	*1,000 Dollars.*	*1,000 Dollars.*	*1,000 Dollars.*		*1,000 Do'lars.*	*1,000 Dollars.*	*1,000 Dollars.*	*1,000 Dollars.*
Bk.of N.Y.&Tr.C.	6,000	14,240	63,258	10,254	Equitable Tr. Co.	46,500	45,238	471,994	50,984
Bk. of the Man. Co.	22,250	43,228	175,828	44,334	Bankers Tr. Co...	25,000	82,753	361,795	56,120
Bk. of Am. Nat. As.	35,775	38,675	167,206	58,883	TitleGuar.&Tr.C.	10,000	24,498	33,808	1,588
Nat'l. City Bank.	110,000	125,260	1024,045	204,769	Fidelity Tr. Co...	6,000	5,617	40,771	5,673
Chem.Bk.&Tr.Co.	15,000	21,317	196,863	18,314	Lawyers Tr. Co...	3,000	4,508	17,557	2,264
Guaranty Tr. Co.	90,000	198,809	764,778	112,594	N. Y. Tr. Co.....	12,500	34,047	148,536	20,373
Chat.Ph.N.B.&T.	13,500	16,212	169 559	37,611	Com.N.B.&Tr.Co.	7,000	7,886	39,351	7,145
Cen.Han.B.&Tr.C.	21,000	79,033	321,255	42,322	Har.Nat.B.&Tr.C.	1,500	2,845	33,301	5,502
CornEx.Bk.Tr.Co.	12,100	22,804	175,526	31,090	*Clearing Non-Members*				
First National Bk.	10,000	97,773	191,466	11,812					
Irving Tr. Co....	50,000	82,750	348,413	55,241	Cy.Bk.Far.Tr.Co	10,000	11,093	8,585	1,378
Continental Bk...	6,000	11,275	11,003	607	Mech.Tr.Co.,Bay.	500	832	3,080	5,555
Chase Nat'l. Bk..	105,000	136,937	711,932	74,496					
Fifth Av. Bank...	500	3,814	27,557	1,111	Totals.....	619,125	1111,444	5507,467	860,020

Net demand deposit figures include deposits in foreign branches in the cases of the National City Bank ($320,556,000); Guaranty Trust Co. ($160,-799,000); Chase National Bank ($14,870,000); Equitable Trust Co. ($149,581,000); Bankers Trust Co. ($75,129,000).

Capital and surplus of Bank of America are as of July 1, 1929; and as of Aug. 24, 1929, for the Chase National Bank; and as of October 2, 1929, for the Fidelity Trust Co.

Figures showing capital are as per official reports—as of June, 1929, for the 7 national banks, and as of September 27, 1929, for the 3 state banks and the 14 trust companies.

AGGREGATE TRUST COMPANY DEPOSITS AS OF OCTOBER 11, 1929.

The gross figures of Clearing House trust companies include items not included in the net deposits as reported to the Clearing House.

Trust Cos.	Deposits.	Trust Cos.	Deposits.	Trust Cos.	Deposits.	Trust Cos.	Deposits
Bank of N. Y..	$118,940,000	Cy. Bk. Far..	$61,630,259	Guaranty..	$1,103,734,000	Title Guar..	$46,681,300
Bankers.....	499,478,000	Corn Exch.	255,143,000	Irving.....	485,978,000		
Chemica. Bk. & Trust....	263,268,600	Equitable...	676,314,000	Lawyers Tr.	20,971,400	Total....	$3,815,250,559
		Fidelity....	53,186,000	New York..	235,926,000	Change..	—159,110,313

CONDITION OF MEMBERS N. Y. CLEARING HOUSE ASSOCIATION.

For the week ending Oct. 27, 1928. The figures are six-day averages, except as to capital and net profits.

Clearing House Members.	Capital	Surplus and Undivided Profits.	Net Demand Deposits Average.	Time Deposits Av'ge.	Clearing House Members.	Capital	Surplus and Undivided Profits.	Net Demand Deposits Average.	Time Deposits Av'ge.
	1,000 Dollars.	*1,000 Dollars.*	*1,000 Dollars.*	*1,000 Dollars.*		*1,000 Dollars.*	*1,000 Dollars.*	*1,000 Dollars.*	*1,000 Dollars.*
Bk.of N.Y.&Tr.C.	6,000	13,207	60,159	10,858	State Bk.&Tr.Co.	5,000	6,828	36,602	60,488
Bk. of Manhattan	12,500	19,418	141,670	34,765	Bankers Tr. Co...	25,000	75,541	341,174	59,938
Bk.of Am. Nat. As.	25,000	37,173	153,664	50,030	U.S.Mort.&Tr.Co.	5,000	6,385	55,161	6,952
Nat'l. City Bk....	90,000	74,502	825,430	170,893	TitleGuar.&Tr.Co.	10,000	22,922	36,739	3,157
Chemica. Nat. Bk.	6,000	20,399	129,938	8,305	Guaranty Tr. Co.	40,000	60,479	430,861	83,408
Nat. Bank of Com.	25,000	47,428	303,899	45,389	Fidelity Tr. Co...	4,000	3,681	40,716	5,350
Chat. Phen. Nat'l.	13,500	15,109	153,894	45,683	Lawyers Tr. Co...	3,000	3,975	17,679	2,367
Hanover Nat'l. Bk.	5,000	26,904	117,597	2,897	N. Y. Trust Co...	10,000	25,180	138,057	29,348
Corn Ex. Bk....	11,000	17,959	176,095	32,038	Farm. L. & Tr. Co.	10,000	22,416	107,721	22,959
National Park Bk.	10,000	25,310	127,180	9,613	Equitable Tr. Co..	30,000	27,116	324,820	46,842
First National Bk.	10,000	88,893	246,159	12,774	Colonial Bank....	1,400	3,915	29,001	7,399
Amer. Exch. Irv..	40,000	52,705	366,827	46,228	*Non-Member*				
Continental Bank.	1,000	1,492	6,870	600	Mech. Tr. Co., Bayonne.....	500	783	3,300	5,736
Chase Nat. Bank.	60,000	78,803	544,483	70,387					
Fifth Avenue Bk..	500	3,308	25,599	640					
Garfield Nat. Bk..	1,000	1,920	15,580	420	Totals.....	469,400	796,456	5059,220	883,894
Seaboard Nat. Bk.	9,000	12,734	122,336	8,430					

Net demand deposit figures include deposits in foreign branches of the National City Bank ($276,-665,000); Chase National Bank ($13,977,000); Bankers Trust Co. ($69,420,000); Guaranty-Trust Co. ($91,136,000); Farmers Loan & Trust Co., ($2,181,000); Equitable Trust Co. ($111,002,000).

CONDITION OF FEDERAL RESERVE BANKS, OCTOBER 9, 1929.

(Amounts given in millions of dollars; six ciphers omitted from each column of figures.)

FEDERAL RESERVE DISTRICT.

	Total.	Boston.	New York	Philadelph	Cleveland.	Richm'd.	Atl'nta.	Chicago.	St. Lo'is	Min'polis.	KansasC.	Dallas.	San Fran.
Loans-and investments...	22,673	1,540	8,720	1,246	2,184	682	649	3,378	701	414	697	500	1,962
Loans.....	17,269	1,205	6,714	942	1,558	524	526	2,726	545	290	489	384	1,387
On securities.....	7,687	529	3,276	491	729	201	163	1,292	242	87	130	105	443
All others.....	9,582	675	3,437	451	830	323	363	1,434	303	203	359	279	945
Investments.....	5,403	335	2,006	304	626	158	123	652	156	124	228	116	575
U. S. Govt. securities....	2,656	172	1,033	94	302	73	57	297	47	69	103	74	333
Other securities.....	2,747	163	973	210	324	85	66	355	108	55	125	42	242
Reserve with Fed. R. Bks	1,686	98	790	76	123	39	40	254	44	27	58	24	104
Cash in vault.....	248	18	71	15	30	13	10	38	7	6	12	8	20
Net demand deposits....	13,040	916	5,702	697	1,011	350	326	1,895	371	229	496	296	750
Time deposits.....	6,803	458	1,790	269	935	245	230	1,234	234	131	182	140	955
Government deposits....	209	12	64	21	25	7	14	21	3	1	3	16	22
Due from banks.....	1,126	57	158	54	87	50	78	196	62	52	120	61	150
Due to banks.....	2,748	115	938	159	191	98	110	430	125	80	205	113	185
Borrowings fr. Fed. R. Bk	612	43	86	38	68	22	41	97	34	39	32	21	90

NATIONAL BANK CAPITAL DEPOSITS AND RESOURCES.

YEAR.	B'ks.	Capital.	Deposits.	Total Resources.	YEAR.	B'ks.	Capital.	Deposits.	Total Resources.
	No.	*Dollars.*	*Dollars.*	*1,000 Dols.*		*No.*	*Dollars.*	*Dollars.*	*1,000 Dols.*
1888..	2,993	567,840,644	1,292,342,471	2,731,448	1909..	6,788	919,143,825	4,898,576,696	9,471,734
1889..	3,120	588,391,497	1,442,137,979	2,937,976	1910..	6,984	963,457,519	5,287,216,312	9,896,624
1890..	3,214	607,428,365	1,521,745,665	3,051,770	1911..	7,163	1,008,180,225	5,477,991,156	10,383,048
1891..	3,477	643,680,165	1,535,058,569	3,115,415	1912..	7,307	1,031,383,425	5,825,461,163	10,861,763
1892..	3,641	671,493,123	1,753,339,680	3,493,794	1913..	7,404	1,051,720,675	5,953,461,551	10,936,919
1893..	3,730	682,975,512	1,556,761,230	3,213,261	1914..	7,453	1,063,978,175	6,268,692,430	11,482,190
1894..	3,764	681,129,704	1,677,801,201	3,422,096	1915..	7,500	1,068,577,080	6,611,281,822	11,795,685
1895..	3,735	664,712,365	1,736,022,107	3,470,553	1916..	7,571	1,066,208,875	8,143,048,000	13,926,868
1896..	3,698	655,960,855	1,668,314,508	3,353,797	1917..	7,589	1,081,670,000	9,521,648,000	16,151,040
1897..	3,659	647,402,875	1,770,480,563	3,563,408	1918..	7,691	1,098,264,000	10,437,433,000	17,839,502
1898..	3,589	628,885,895	2,023,357,160	3,977,675	1919..	7,762	1,115,507,000	15,924,865,000	20,799,550
1899..	3,572	610,426,625	2,522,157,509	4,708,833	1920..	8,019	1,224,166,000	17,155,421,000	23,411,253
1900..	3,571	603,396,550	2,458,092,758	4,944,165	1921..	8,154	1,273,880,000	15,142,331,000	20,517,862
1901..	3,765	622,366,094	2,941,837,429	5,675,910	1922..	8,249	1,307,216,000	16,320,564,000	20,706,010
1902..	4,131	659,608,169	3,098,875,722	6,008,754	1923..	8,241	1,328,891,000	16,897,980,000	21,511,766
1903..	4,451	688,817,835	3,200,993,509	6,286,935	1924..	8,085	1,334,011,000	18,347,837,000	22,565,919
1904..	4,914	746,365,438	3,312,439,842	6,655,988	1925..	8,072	1,369,435,000	19,909,669,000	24,350,863
1905..	5,336	768,114,231	3,783,658,404	7,327,805	1926..	7,978	1,412,872,000	20,642,164,000	25,315,624
1906..	5,685	779,544,247	4,055,873,637	7,784,228	1927..	7,796	1,474,173,000	21,775,123,000	26,581,943
1907..	6,017	837,002,528	4,322,880,141	8,476,501	1928..	7,691	1,593,856,000	22,639,337,000	28,508,239
1908..	6,562	901,384,244	4,374,551,208	8,714,062	1929..	7,536	1,627,375,000	21,598,088,000	27,440,228

The development of trust operations by national banks showed continued and substantial progress throughout the nation from figures compiled as of June 29, 1929.

On that date 2,442 national banks, with a combined capital of $1,218,049,515, held permits to exercise trust powers, 1,734 of which had established trust departments and were administering 75,988 trusts, with individual trusts assets aggregating $4,237,648,633.

Seven hundred and thirty-six of these banks also were acting as trustees for bond and note issues aggregating $7,370,154,456.

Loans and discounts of national banks on June 29, 1929, totaled $14,801,130,000; United States Government securities owned, $2,803,860,000; other securities owned, $3,852,675,000; cash in vault, $298,003,000.

On June 29, 1929, surplus was $1,479,052; national bank notes outstanding, $649,452,000; certified checks outstanding, $2,548,482,000.

The deposits on that date were thus classified; demand, $10,504,268,000; time, including postal savings, $8,317,095,000; United States deposits, $228,243,000; total, $21,598,088,000.

OPERATIONS OF THE FEDERAL RESERVE BANKS.

ALL FEDERAL RESERVE BANKS.

Year. (Cal.)	Earnings. Gross.	Earnings. Net.	Dividends Paid.
	Dollars.	*Dollars.*	*Dollars.*
1915.....	2,110,107	168,828	217,463
1916.....	5,217,937	2,750,998	1,742,774
1917.....	16,128,339	9,579,607	6,801,726
1918.....	67,584,417	52,716,310	5,540,684
1919.....	102,380,583	78,367,504	5,011,832
1920.....	181,297,338	149,294,774	5,654,018
1921.....	122,864,605	82,087,225	6,119,673
1922.....	50,490,739	16,497,736	6,307,035
1923.....	50,708,566	12,711,286	6,552,717
1924.....	38,340,449	3,718,180	6,682,496
1925.....	41,800,706	9,449,066	6,915,953
1926.....	47,599,595	16,611,745	7,329,169
1927.....	43,024,484	13,048,249	7,754,539
1928.....	64,052,860	32,122,021	8,458,463

NEW YORK FEDERAL RESERVE BANK.

Year. (Cal.)	Earnings. Gross.	Earnings. Net.	Dividends Paid.
	Dollars.	*Dollars.*	*Dollars.*
1915.....	331,108	80,402	.....
1916.....	971,026	414,064	127,113
1917.....	4,929,214	3,078,481	1,942,819
1918.....	25,314,736	21,662,917	1,195,026
1919.....	35,332,412	27,959,619	1,291,047
1920.....	60,525,321	53,128,130	1,477,096
1921.....	34,704,939	26,093,832	1,608,721
1922.....	11,341,319	3,721,593	1,652,138
1923.....	11,413,183	3,043,679	1,749,239
1924.....	8,569,350	616,852	1,796,530
1925.....	10,217,174	3,103,298	1,888,196
1926.....	10,600,968	3,749,748	2,100,191
1927.....	10,647,759	3,720,601	2,327,355
1928.....	18,483,042	11,018,433	2,743,725

EARNINGS AND DIVIDENDS OF EACH FEDERAL RESERVE BANK IN 1928.

Bank.	Deposits Dec. 31, 1928.	Gross Earnings.	Net Earnings.	Dividends Paid.	Transfers to Surplus.	Franchise Tax.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
Boston	147,848,000	4,465,342	2,316,522	590,830	1,725,692	.....
New York	988,777,000	18,483,042	11,018,433	2,743,725	8,274,708	.....
Philadelphia	135,188,000	5,394,546	3,282,641	843,755	2,438,886	.....
Cleveland	185,498,000	6,250,553	3,180,715	856,843	2,323,872	.....
Richmond	66,583,000	2,857,648	1,118,960	370,683	74,828	673,449
Atlanta	65,742,000	3,578,156	1,693,985	312,259	558,425	823,301
Chicago	347,172,000	8,936,418	4,763,429	1,099,761	3,663,668	.....
St. Louis	85,555,000	2,901,925	785,159	321,855	423,011	40,293
Minneapolis	57,911,000	1,710,304	614,704	181,203	43,350	390,151
Kansas City	92,199,000	2,597,968	659,760	253,254	40,651	365,855
Dallas	72,448,000	2,119,666	713,455	258,544	163,301	291,610
San Francisco	194,765,000	4,757,292	1,974,258	625,751	1,348,507	.....
Total	2,436,207,000	64,052,860	32,122,021	8,458,463	21,078,899	2,584,659

DETAILS OF OPERATIONS OF THE 12 FEDERAL RESERVE BANKS.

	1925.	1926.	1927.	1928
Amounts Handled.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
Bills discounted	32,562,620,000	37,682,137,000	31,934,607,000	62,412,961,000
Bills purchased in open market for own ac..	2,961,170,000	3,353,326,000	4,050,867,000	4,240,669,000
Currency received and counted	11,556,980,000	12,584,960,000	12,939,578,000	13,315,551,000
Coin received and counted	467,732,000	609,359,000	791,049,000	888,621,000
Checks handled	258,611,276,000	272,945,160,000	278,399,627,000	301,703,814,000
Collection items handled:				
United States Government coupons paid	680,921,000	644,273,000	553,703,000	543,373,000
All other	6,116,958,000	6,219,361,000	6,710,317,000	7,414,440,000
U. S. securities—issues, redemptions, and exchanges by fiscal agency dept	5,578,995,000	4,971,442,000	10,803,043,000	9,002,383,000
Transfers of funds	109,430,683,000	120,909,439,000	136,383,899,000	148,749,027,000

FEDERAL AND JOINT STOCK LAND BANK LOANS.

The following table shows the total amounts loaned in the different States by Federal Land Banks and Joint Stock Land Banks from their origin up to June 30, 1929. Figures are official.

States.	Fed. Land Banks.	J. St. Land Banks.	States.	Fed. Land Banks.	J. St. Land Banks.	States.	Fed. Land Banks.	J. St. Land Banks.
	Dollars.	*Dollars.*		*Dollars.*	*Dollars.*		*Dollars.*	*Dollars.*
Ala.	50,452,420	6,909,400	Louisiana.	38,078,865	1,457,200	Ohio	31,840,000	37,568,400
Ariz.	7,530,700	4,188,600	Maine	9,141,850	.....	Oklahoma	27,918,900	7,101,400
Arkansas	31,666,210	16,139,800	Maryland	5,463,400	5,157,700	Oregon	26,689,280	14,471,350
Calif.	42,434,200	40,782,050	Mass.	5,784,805	.....	Penn.	20,782,900	11,921,910
Colorado	32,925,000	5,673,100	Mich.	32,215,300	11,986,800	R. I.	622,050	.....
Conn.	5,839,250	.....	Minn.	56,478,800	44,382,025	S. C.	22,587,960	16,714,800
Delaware	528,300	.....	Miss.	58,555,120	9,856,450	S. D.	40,342,150	17,753,175
Dist. of Col.	.....	.....	Mo.	40,967,260	36,974,710	Tenn.	31,649,200	4,093,500
Florida	9,437,070	.....	Mont.	29,566,590	2,076,400	Texas	188,136,991	103,614,421
Georgia	30,542,635	10,053,200	Nebraska.	65,144,390	37,228,590	Utah	18,334,200	852,400
Idaho	30,948,495	4,961,700	Nevada	3,081,700	819,700	Vermont.	4,918,800	.....
Illinois	61,996,605	94,229,360	N. H.	1,589,675	.....	Virginia	37,103,734	12,567,250
Indiana	57,898,407	49,370,184	N. J.	6,605,950	2,796,700	Wash.	42,850,670	2,614,500
Iowa	103,907,350	131,661,945	N. M.	13,695,800	.....	W. Vir.	9,646,950	8,364,700
Kansas	49,218,950	31,242,700	N. Y.	31,495,940	14,481,300	Wis.	38,225,500	6,222,250
Kentucky	34,095,600	15,357,800	N. C.	25,575,850	47,124,000	Wyoming	8,818,200	10,192,900
			N. D.	46,724,200	4,764,300	U. S.	1,584,548,965	882,728,770

Loans made by Federal Land Banks have numbered 493,632, by Joint Stock Land Banks, 127,271.

The Federal Land Banks, on June 30, 1929, numbered 12, and were at Springfield, Baltimore, Columbia, Louisville, New Orleans, St. Louis, St. Paul, Omaha, Wichita, Houston, Berkeley and Spokane. Their assets were $1,290,358,881, and their bond outstanding on that date totaled $1,177,201,025.

The Joint Stock Land Banks numbered 48 and had total assets of $651,347,808.

The Federal Intermediate Credit Banks had assets of $106,948,322, and had outstanding loans of $9,030,939, and discounts of $59,069,938.

SECURITIES ISSUED TO THE PUBLIC, 1919-1928.

(From Data furnished by the Commercial and Financial Chronicle.)

CORPORATE ISSUES, INCLUDING REFUNDINGS.

(Figures show thousands of dollars, except last column.)

Year.	Long Term Bonds, Notes	Short Term Is.	Preferred Stocks.	Common Stocks.	Canadian Issues.	Oth. For'n Issues.	Total Corporate Issues.
1919	606,808	513,910	793,005	753,685	45,630	26,613	2,739,653,646
1920	1,124,746	625,580	483,657	554,149	138,245	39,925	2,966,304,697
1921	1,780,261	213,241	74,928	200,211	107,115	15,150	2,390,907,811
1922	2,191,682	133,757	332,788	287,703	45,656	81,695	3,073,282,447
1923	2,249,272	180,487	406,718	329,240	43,022	24,100	3,232,840,097
1924	2,319,460	335,678	346,055	519,600	112,366	205,410	3,838,571,064
1925	2,667,256	307,986	636,812	610,084	112,261	403,710	4,738,109,691
1926	3,059,052	294,483	543,579	676,562	203,448	522,429	5,299,553,720
1927	4,465,724	302,498	1,048,285	675,475	140,862	546,892	7,304,285,076
1928	3,168,895	264,869	1,383,466	2,048,162	282,146	605,502	7,753,040,281

The refunding issues included in the above table totaled, in their full amounts, as follows—(1919), $436,325,010; (1920), $256,293,311; (1921), $567,902,960; (1922), $737,648,240; (1923), $530,343,942, (1924), $516,275,300; (1925), $637,384,524; (1926) $942,550,970; (1927) $1,928,187,260; (1928) $1,738,274,615.

OTHER ISSUES, INCLUDING REFUNDINGS.

(Figures show thousands of dollars, except last column.)

Year.	For'n Gov't Issues.	F'rm Loan B'd Issues	War Fin. B'd Issues	Municipal Issues.	Canadian, Sold Here.	U. S. Terr. & Poss.	Grand Total, Inc. Corporate
1919	439,679	110,000	200,000	691,519	93,637	11,700	4,286,188,860
1920	291,000	.....	.....	683,188	53,278	16,277	4,010,043,184
1921	379,270	121,940	.....	1,208,548	75,982	27,145	4,203,793,085
1922	431,305	386,415	.....	1,100,717	201,119	43,023	5,235,862,294
1923	242,845	392,505	.....	1,063,119	50,249	8,186	4,989,745,599
1924	778,005	179,106	.....	1,398,953	149,014	8,830	6,352,479,987
1925	645,381	188,225	.....	1,399,638	145,955	8,715	7,126,023,683
1926	514,124	131,325	.....	1,365,057	109,792	10,422	7,430,274,684
1927	777,125	179,625	.....	1,509,583	135,256	12,934	9,918,808,305
1928	651,120	63,850	.....	1,415,512	38,053	6,162	9,927,736,770

The refunding issues included in the above table totaled for both tables in their full amounts, as follows—(1919), $697,785,662; (1920), $375,213,992; (1921), $627,054,673; (1922), $931,499,496; (1923), $685,319,706; (1924), $759,300,015; (1925), $905,854,350; (1926) $1,086,140,755; (1927) $2,142,589,485; (1928) $1,877,421,537.

GROWTH OF BUILDING AND LOAN ASSOCIATIONS.

(By H. F. Cellarius, Cincinnati, Sec. of U. S. League of Local Building and Loan Associations.)

Year.	Associations.	Membership.	Total Assets.	Ave. Per Member.	Year.	Associations.	Membership.	Total Assets.	Ave. Per Member.
1900	5,356	1,495,136	$571,366,628	$382.15	1919	7,788	4,289,326	$2,126,620,390	$495.80
1910	5,869	2,169,893	931,867,175	429.45	1920	8,633	4,962,919	2,519,914,971	507.75
1911	6,099	2,332,829	1,030,687,031	441.81	1921	9,255	5,809,888	2,890,760,621	497.56
1912	6,273	2,516,936	1,137,600,648	451.98	1922	10,009	6,364,144	3,342,530,953	486.95
1913	6,429	2,836,433	1,248,479,139	440.16	1923	10,744	7,202,880	3,942,939,880	547.13
1914	6,616	3,103,935	1,357,707,900	437.41	1924	11,844	8,554,352	4,765,937,197	557.14
1915	6,806	3,334,899	1,484,205,875	445.05	1925	12,403	9,886,997	5,509,176,154	557.21
1916	7,072	3,568,432	1,598,628,136	447.98	1926	12,626	10,665,705	6,334,103,807	593.87
1917	7,269	3,838,612	1,769,142,175	460.37	1927	12,804	11,336,261	7,178,562,451	633.24
1918	7,484	4,011,401	1,898,344,346	473.23	1928	12,666	11,995,905	8,016,034,327	668.23

Building Societies, formed to enable a person to build or purchase a house by paying money periodically, began in England about 1836, when Parliament passed a regulatory act. The idea soon spread to this country.

SAVINGS BANKS IN THE CITY OF NEW YORK.

(Their condition, as reported by State Banking Dept., July 1, 1929. Cents omitted.)

Name.	Total Resources.	Due Depositors.	Deposi-tors.	Deposited in Year.	Withdrawn. in Year.	Dividends Pd. in Yr.
Bronx County.	*Dollars.*	*Dollars.*	*Number.*	*Dollars.*	*Dollars.*	*Dollars.*
Bronx Savings Bank	22,389,284	20,733,000	31,076	9,360,740	9,466,931	828,334
Dollar Savings Bank	81,299,037	72,662,565	76,665	28,497,617	29,383,143	3,014,395
Fordham Savings Bank	8,382,609	8,268,529	15,354	6,324,532	5,470,420	309,645
North Side Savings Bank	20,053,597	18,946,123	26,838	7,734,558	8,346,919	762,517
Total	132,124,529	120,610,219	149,933	51,917,499	52,667,414	4,914,893
Kings County.						
Bay Ridge Savings Bank	31,591,590	30,264,395	57,415	22,602,265	21,341,548	1,208,602
Brevoort Savings Bank	32,798,532	30,401,215	44,774	11,554,300	13,288,246	1,320,748
Brooklyn Savings Bank	107,735,717	91,475,167	75,092	23,882,566	26,546,376	4,022,098
Brownsville Savings Bank	3,345,080	3,329,337	8,644	3,487,347	2,927,067	130,124
Bushwick Savings Bank	21,496,969	19,533,971	29,102	7,265,181	6,770,615	823,917
Church Lane Savings Bank	2,059,689	2,006,530	7,872	2,019,132	1,650,351	70,297
City Savings Bank of B'klyn.	18,759,379	17,112,971	32,208	6,646,444	7,352,023	747,832
Dime Savings Bk. of B'klyn.	157,882,151	137,978,280	140,846	43,747,096	46,703,963	5,995,139
Dime Savings Bk. of W'msb'g	34,136,802	31,950,292	29,795	10,431,175	12,113,124	1,410,228
East Brooklyn Savings Bank	32,288,569	29,241,490	34,944	10,407,658	10,908,659	1,259,545
East New York Savings Bank	42,646,472	40,124,420	81,743	23,455,439	19,592,215	1,626,126
Flatbush Savings Bank	23,124,363	22,074,318	43,154	13,731,038	13,597,733	913,561
Fort Hamilton Savings Bank	9,377,308	8,996,798	24,762	7,679,054	6,706,586	340,911
Fulton Savings Bank	37,660,666	34,431,207	33,676	11,746,694	14,062,247	1,526,789
Greater N. Y. Savings Bank	46,162,481	43,787,973	69,737	18,794,849	18,821,846	1,835,739
Green Point Savings Bank	40,209,259	36,237,163	40,005	15,394,207	13,513,380	1,511,225
Hamburg Savings Bank	15,377,122	14,235,871	23,546	6,667,830	5,860,251	577,049
Home Savings Bank	4,832,534	4,716,708	7,445	2,134,026	2,130,629	195,373
Kings County Savings Bank	34,160,431	31,481,786	27,739	11,558,835	12,840,440	1,382,838
Kings Highway Savings B'k.	6,796,971	6,632,429	21,014	6,084,654	5,312,040	247,893
Lincoln Savings B'k of B'klyn	100,477,461	91,684,256	86,770	27,992,078	29,598,013	3,987,985
Navy Savings Bank	1,669,054	1,597,005	7,909	2,109,583	2,091,622	48,158
Prudential Savings Bank	22,324,405	20,840,967	37,572	9,963,031	9,734,031	883,106
Roosevelt Savings Bank	52,691,471	48,423,148	70,293	19,257,272	18,725,419	2,033,616
South Brooklyn Savings Inst.	56,366,685	49,645 661	45,763	16,080,141	17,224,197	2,158,083
Williamsburgh Savings Bank	222,554,206	198,205,312	146,032	60,062,652	61,229,483	8,585,609
Total	1,158,525,379	1,046,428,681	1,227,872	394,764,561	400,642,116	44,842,602
New York County						
American Savings Bank	12,039,758	10,979,772	23,074	4,962,447	5,560,904	455,673
B'k forS'vi'gs in the C.of N.Y.	181,431,890	158,066,809	147,657	36,263,356	38,020,736	6,761,738
Bowery Savings Bank	351,884,527	316,406,403	235,619	123,844,008	108,929,777	13,086,175
Broadway Savings Bank	16,956,541	15,050,092	23,863	5,477,219	6,179,349	627,306
Central Savings Bank	178,279,303	157,259,076	151,554	50,640,789	49,867,389	6,583,601
Citizens Savings Bank	43,575,976	39,132,616	39,085	12,733,098	12,820,755	1,642,880
Commonwealth Savings B'k.	13,729,349	12,644,265	28,768	7,346,186	6,557,022	494,826
Dry Dock Savings Institution	143,224,878	125,328,365	87,057	27,654,070	31,360,702	5,338,886
East River Savings Bank	105,094,041	94,225,003	76,459	39,974,321	39,768,419	4,115,683
Emigrant Ind. Sav. Bank	364,930,547	321,667,574	218,468	127,567,426	125,836,370	13,749,172
Empire City Savings Bank	41,002,168	37,276,926	51,845	13,801,194	14,580,930	1,524,518
Excelsior Savings Bank	29,299,018	25,470,383	26,282	7,794,052	7,775,481	1,087,804
Franklin Savings Bank	97,682,053	86,969,902	92,036	24,444,615	27,237,138	3,622,895
Greenwich Savings Bank	141,464,522	124,489,682	109,057	39,224,210	42,470,404	5,228,078
Harlem Savings Bank	83,027,532	73,045,712	63,692	17,626,153	20,368,178	3,077,531
Irving Savings Bank	34,328,076	30,998,285	26,896	9,329,551	10,963,238	1,386,762
Italian Sav. Bank of N.Y.C.	35,867,600	33,166,314	36,498	11,348,346	10,526,598	1,345,798
Maiden Lane Savings Bank	5,968,592	5,455,592	10,057	3,138,905	3,628,208	234,734
Manhattan Savings Inst.	31,359,308	28,937,324	41,002	12,611,799	12,273,321	1,166,635
Metropolitan Savings Bank	29,916,012	26,967,760	43,108	8,973,857	10,115,060	1,185,151
New York Savings Bank	80,157,684	70,106,409	46,939	16,707,114	20,936,215	3,129,918
North River Savings Bank	32,429,180	29,340,299	43,898	12,017,253	12,968,860	1,221,150
Seamen's Bank for Savings	111,100,147	96,745,439	93,114	32,126,606	33,940,608	4,040,593
Union Dime Savings Bank	130,163,694	115,312,570	153,305	41,783,454	42,372,257	4,852,666
Union Square Savings Bank	30,322,934	26,767,758	26,158	7,500,059	8,785,380	1,129,781
United States Savings Bank	40,220,281	37,240,272	46,351	16,283,968	16,070,968	1,548,039
West Side Savings Bank	14,213,411	12,701,959	16,298	5,255,911	5,075,771	516,107
Total	2,379,669,034	2,111,752,216	1,958,140	716,429,979	724,990,050	89,162,093
Queens County						
College Point Savings Bank	5,967,620	5,387,401	7,187	1,977,786	1,767,168	223,429
Flushing Savings Bank	277,908	218,591	413	226,054	8,144	681
Jamaica Savings Bank	30,468,844	28,364,358	37,782	13,415,393	11,864,960	1,142,848
Long Island City Sav. Bank	57,765,139	52,529,351	72,163	23,870,124	22,743,240	2,208,703
Queensboro Sav. Bank, J'ica.	2,106,154	2,055,435	4,380	1,805,460	1,331,615	73,481
Queens Co. Sav.Bank, Flush.	22,634,225	20,833,768	31,889	10,580,295	9,083,496	842,200
Ridgewood Savings Bank	14,343,404	13,755,824	21,276	7,573,911	6,524,705	565,000
Rock. Sav. Bank Far Rock.	933,077	873,088	2,328	512,104	604,496	34,002
Sav. Bank of Richmond Hill	8,888,044	8,516,161	17,417	5,114,245	4,540,973	336,318
Total	143,384,420	132,533,982	194,835	65,075,375	58,468,800	5,426,766
Westchester County.						
Bank for Savings of Ossining	9,156,167	8,197,001	8,066	2,264,832	2,535,200	344,195
E'chester Sav. B'k, Mt. Ver.	21,480,177	19,803,259	33,130	9,436,925	9,351,137	839,264
Greenb'gh Sav. B'k, D. Ferry	2,198,184	1,964,763	3,254	701,009	699,817	78,370
Home Sav. B'k, White Plains	11,093,695	10,120,704	19,643	4,422,970	4,001,716	404,743
Peekskill Savings Bank	8,301,859	6,964,718	8,915	1,979,846	1,998,129	296,775
People's B'k for Sav. N. Roch	2,794,219	2,533,347	7,469	1,350,384	1,502,968	91,704
People's Sav. Bank, Yonkers	23,876,909	21,342,752	23,950	5,268,325	5,911,479	907,396
Port Chester Savings Bank	13,734,269	12,579,766	15,145	3,879,951	3,944,468	540,885
Union Sav. B'k, Mamaroneck	3,049,318	2,794,755	5,047	1,230,918	1,220,074	111,846
W'chester Co. Sav. B'k, T'n.	7,429,019	6,102,000	6,756	1,171,242	1,441,201	645,642
Yonkers Savings Bank	24,381,564	21,290,977	37,871	5,048,997	5,509,723	899,684
Total	127,495,384	113,694,049	169,246	36,755,404	38,115,919	5,160,508
Total, N. Y. State	5,000,875,641	4,463,045,857	5,116,151	1,517,605,185	1,543,951,032	188,031,204

STOCK OF MONEY IN THE UNITED STATES.

MONEY IN THE TREASURY, IN THE FEDERAL RESERVE BANKS, AND IN CIRCULATION.

June 30	Total Stock of money in U. S.	Money Held in Treasury.			Money Outside of Treasury.		
		Total.	Amount held in trust against gold and silver certificates (and Treasury notes of 1890)	Reserve against U. S. notes (and Treas. notes of 1890).	Total.	In Circulation.	
						Amount	Per Capita
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Perc't.*
1900	2,366,220,306	969,492,279	684,502,535	150,000,000	2,081,230,562	2,081,230,562	27.28
1901	2,511,472,149	1,032,478,809	724,204,453	150,000,000	2,203,197,793	2,203,197,793	28.34
1902	2,593,909,680	1,097,554,958	782,759,447	150,000,000	2,279,114,169	2,279,114,169	28.81
1903	2,717,645,797	1,168,981,838	851,068,220	150,000,000	2,399,732,179	2,399,732,179	29.82
1904	2,838,022,660	1,224,812,920	939,695,854	150,000,000	2,552,905,594	2,552,905,594	31.18
1905	2,919,493,653	1,245,500,840	949,347,475	150,000,000	2,623,340,288	2,623,340,288	31.51
1906	3,109,379,635	1,330,108,772	995,419,223	150,000,000	2,774,690,086	2,774,690,086	32.77
1907	3,158,110,743	1,420,506,549	1,076,259,059	150,000,000	2,813,863,253	2,813,863,253	32.69
1908	3,423,067,787	1,597,131,693	1,253,218,854	150,000,000	3,079,154,948	3,079,154,948	35.19
1909	3,451,521,162	1,599,621,318	1,296,926,188	150,000,000	3,148,826,032	3,148,826,032	35.41
1910	3,466,855,679	1,603,186,039	1,285,013,962	150,000,000	3,148,683,602	3,148,683,602	34.84
1911	3,606,988,823	1,731,084,446	1,387,148,881	150,000,000	3,263,053,258	3,263,053,258	34.72
1912	3,701,964,792	1,782,320,070	1,415,575,588	150,000,000	3,335,220,310	3,335,220,310	34.87
1913	3,777,020,720	1,834,111,705	1,475,782,971	150,000,000	3,418,691,986	3,418,691,986	35.12
1914	3,796,456,764	1,845,575,888	1,507,178,879	150,000,000	3,458,059,755	3,458,059,755	34.92
1915	4,050,782,821	1,967,664,597	1,619,428,701	152,977,037	3,702,546,925	3,319,581,654	32.96
1916	4,541,729,710	2,356,535,766	2,057,409,391	152,979,026	4,242,603,335	3,649,258,222	35.63
1917	5,678,773,560	2,859,395,765	2,063,390,829	152,979,026	4,882,768,624	4,066,403,717	39.05
1918	6,906,237,092	2,976,250,806	1,407,694,251	152,979,026	5,337,680,537	4,481,696,916	42.33
1919	7,688,413,449	2,907,811,676	906,672,947	152,979,026	5,687,274,720	4,876,638,244	45.95
1920	8,158,495,864	2,379,663,573	704,637,755	152,979,026	6,483,470,046	5,467,588,616	51.38
1921	8,174,527,767	2,921,039,410	919,643,386	152,979,026	6,175,081,743	4,910,992,490	45.44
1922	8,276,070,257	3,515,582,704	1,000,577,605	152,979,026	5,761,065,158	4,463,172,111	40.67
1923	8,702,788,390	3,821,845,775	1,150,167,965	152,979,026	6,031,110,580	4,823,274,772	43.35
1924	8,846,541,519	4,248,437,682	1,628,138,695	152,979,026	6,226,242,532	4,849,307,433	43.03
1925	8,303,631,583	4,176,381,450	2,059,798,696	153,620,936	6,187,048,829	4,815,207,508	42.20
1926	8,428,971,329	4,210,358,026	2,139,770,428	154,188,886	6,358,383,731	4,885,266,064	42.29
1927	8,667,281,866	4,159,055,896	2,096,205,453	155,420,721	6,604,431,423	4,851,321,131	41.48
1928	8,118,090,754	3,725,649,727	1,986,761,140	156,039,088	6,379,202,167	4,796,626,257	40.52
1929	8,538,796,197	3,789,886,214	1,854,372,591	156,039,088	6,603,282,574	4,746,296,567	39.62

The form of circulation statement was revised beginning June 30, 1922, so as to include in the holdings of the Federal reserve banks and agents, and hence, in the stock of money, gold bullion and foreign gold coin held by the Federal reserve banks and agents, and to include in the holdings of the Federal reserve banks and agents, and, hence, exclude from money in circulation, all forms of money held by the Federal reserve banks and agents whether as reserve against Federal reserve notes or otherwise. The form of the circulation statement was revised beginning December 31, 1927, so as to exclude earmarked gold coin from the stock of money, and, hence, from money in circulation, and to include in the holdings of the Federal reserve banks and agents, and, hence, in the stock of money, gold coin and bullion held abroad for the account of the Federal reserve banks. These changes do not affect the figures prior to the establishment of the Federal reserve system. For the sake of comparability the figures from 1915 on, as shown on this statement, have been compiled on the basis of the revisions mentioned. Beginning on December 31, 1927, the circulation statement was also revised to include throughout minor coin (the bronze 1-cent piece and the nickel 5-cent piece). For the sake of comparability the figures from 1900 on, as shown on this statement, have been revised to include minor coin. Satisfactory data on minor coin for earlier years were not available.

Beginning on December 31, 1927, the circulation statement is dated for the end of the month instead of the beginning of the succeeding month as was the practice theretofore.

The amount of money held in trust against gold and silver certificates and Treasury notes of 1890 should be deducted from these totals before combining them with total money outside of the Treasury to arrive at the stock of money in the United States.

STOCK OF MONEY, CLASSIFIED BY KIND, AT THE END OF EACH FISCAL YEAR.

June 30	Gold coin and bullion	Silver dollars.	Subsidiary silver.	Federal reserve notes.	National bank notes.	Other and total.	Pct. of gold to total money.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	
1900	1,034,384,444	566,131,027	82,863,742	.....	309,640,444	2,366,220,306	43.71
1901	1,124,639,062	568,182,941	89,822,771	.....	353,742,187	2,511,472,149	44.78
1902	1,192,594,589	570,136,200	97,183,762	.....	356,672,091	2,593,909,680	45.98
1903	1,248,681,528	573,643,226	102,034,567	.....	413,670,650	2,717,645,797	45.95
1904	1,327,656,398	572,869,605	107,062,021	.....	449,285,095	2,838,022,660	46.78
1905	1,357,655,988	568,228,865	114,824,189	.....	495,719,806	2,919,493,653	46.50
1906	1,475,706,765	568,251,530	118,224,920	.....	561,112,360	3,109,379,635	47.46
1907	1,466,389,101	568,249,982	130,452,218	.....	603,788,690	3,158,110,743	46.43
1908	1,618,133,492	568,259,812	147,355,783	.....	698,333,917	3,423,067,787	47.27
1909	1,642,041,999	568,276,719	159,408,546	.....	689,920,074	3,451,521,162	47.57
1910	1,636,043,478	568,277,508	155,158,748	.....	713,430,733	3,466,855,679	47.19
1911	1,753,196,722	568,279,367	159,607,364	.....	728,194,508	3,606,988,823	48.61
1912	1,818,188,417	568,278,020	170,588,205	.....	745,134,992	3,701,964,792	49.11
1913	1,870,761,835	568,273,263	175,195,996	.....	759,157,906	3,777,020,720	49.53
1914	1,890,656,791	568,272,478	182,006,687	.....	750,671,899	3,797,825,099	49.78
1915	1,985,539,172	568,271,655	185,430,250	84,260,500	819,273,593	4,050,782,821	49.02
1916	2,444,635,900	568,270,000	188,856,515	176,168,450	744,174,660	4,541,729,710	53.83
1917	3,220,241,826	568,269,513	198,274,719	547,407,960	715,420,010	5,678,773,560	56.88
1918	3,162,807,999	499,515,930	231,856,580	1,847,580,445	724,205,485	6,906,237,092	45.80
1919	3,113,306,403	308,145,759	242,870,438	2,687,556,985	719,276,732	7,688,413,449	40.49
1920	2,865,482,492	268,857,494	258,855,239	3,405,877,120	719,037,730	8,158,495,864	35.12
1921	3,274,729,834	288,788,378	271,314,375	3,000,429,860	743,290,374	8,174,527,767	40.06
1922	3,784,651,712	381,174,404	271,210,886	2,555,061,660	758,202,027	8,276,070,257	45.73
1923	4,049,553,748	491,886,769	269,186,084	2,676,902,380	747,439,719	8,702,788,390	46.53
1924	4,488,390,565	503,754,851	277,614,378	2,339,048,030	778,011,779	8,846,541,519	50.74
1925	4,364,631,581	522,061,078	283,471,971	1,942,239,530	733,366,074	8,303,631,583	52.56
1926	4,447,396,937	533,491,184	288,923,000	1,995,205,700	720,669,244	8,428,971,329	52.76
1927	4,587,298,153	537,944,446	295,589,359	2,077,473,195	704,146,267	8,667,281,866	52.93
1928	4,109,162,895	539,961,701	299,010,231	2,002,810,830	699,620,652	8,118,090,754	50.62
1929	4,324,350,860	539,960,849	304,187,449	2,194,970,415	704,294,442	8,538,796,197	50.66

U. S. GOVERNMENT RECEIPTS AND EXPENDITURES.

(Official figures, covering "ordinary" receipts and disbursements.)

Year (fiscal).	Ordinary Receipts.		Ord. Expenditures.	
	Total.	Per Cap.	Total.	Per Cap.
	Dollars.	*Dols.*	*Dollars.*	*Dols.*
1789-91	4,418,913	1.12	4,269,027	1.09
1800	10,848,749	2.04	10,786,075	2.03
1810	9,384,215	1.30	8,156,510	1.13
1820	17,880,670	1.86	18,260,627	1.89
1830	24,844,116	1.93	15,143,066	1.18
1840	19,480,115	1.14	24,317,579	1.42
1850	43,603,439	1.87	39,543,492	1.70
1855	65,350,575	2.39	59,742,668	2.18
1860	56,064,608	1.78	63,130,598	2.00
1865	333,714,605	9.52	12,97,555,224	37.01
1870	411,255,477	10.64	309,653,561	8.01
1880	333,526,611	6.61	267,642,958	5.32
1890	403,080,984	6.39	318,040,711	5.04
1900	567,240,852	7.45	520,860,847	6.84
1901	587,685,338	7.56	524,616,925	6.75
1902	562,478,233	7.09	485,234,249	6.11
1903	561,880,722	6.94	517,006,127	6.38
1904	541,087,085	6.55	583,659,900	7.07
1905	544,274,685	6.46	567,278,914	6.74
1906	594,984,446	6.93	570,202,278	6.64
1907	665,860,386	7.61	579,128,842	6.62
1908	601,861,907	6.76	659,196,320	7.40
1909	604,320,498	6.66	693,743,885	7.65
1910	675,511,715	7.32	693,617,065	7.52
1911	701,832,911	7.49	691,201,512	7.38
1912	692,609,204	7.28	689,881,334	7.25
1913	724,111,230	7.50	724,511,963	7.51
1914	734,673,167	7.50	735,081,431	7.51
1915	697,910,827	7.03	760,586,802	7.66
1916	782,534,548	7.77	734,056,202	7.29
1917	1,124,324,795	11.00	1,977,681,751	19.36
1918	3,664,582,865	35.38	12,697,836,706	122.58
1919	5,152,257,136	49.07	18,522,894,705	176.40
1920	6,694,565,389	62.91	6,482,090,191	60.91
1921	5,624,932,961	51.87	5,538,209,189	51.07
1922	4,109,104,151	37.39	3,795,302,500	34.54
1923	4,007,135,481	35.88	3,697,478,020	33.10
1924	4,012,044,702	35.28	3,506,677,715	30.83
1925	3,780,148,684	32.76	3,529,643,446	30.59
1926	3,962,755,690	33.83	3,584,987,874	30.61
1927	4,129,394,441	34.81	3,493,584,519	29.45
1928	4,042,348,156	33.68	3,643,519,875	30.36
1929	4,033,250,225	33.67	3,848,463,190	32.13

"Ordinary receipts" include receipts from customs and internal revenue; payments of principal and interest on account of obligations of foreign governments and railroad securities owned by the Government; and receipts from miscellaneous sources; but do not include postal revenue or receipts from issues of securities.

Panama Canal receipts in 1929, (year ending June 30) were $28,046,704, and expenditures were $9,045,-647.

Population estimate of Government Actuary used in per capita figures.

"Expenditures chargeable against ordinary receipts" cover the operating expenditures of the Government departments and establishments, interest on the public debt, refunds of customs and internal revenue receipts, postal deficiency, expenditures on account of operations in special accounts and for investments on account of various trust funds, and public debt retirements chargeable against ordinary receipts; but do not include public debt retirements from the surplus or from the balance in the general fund.

U. S. MILITARY AND NAVAL EXPENDITURES.

Year (Fisc.)	War.	Navy.	Year (Fisc.)	War.	Navy.	Year (Fisc.)	War.	Navy.
	Dollars.	*Dollars.*		*Dollars.*	*Dollars.*		*Dollars.*	*Dollars.*
1810	2,294,324	1,654,244	1885	42,670,578	16,021,080	1908	137,746,524	118,037,097
1820	2,630,392	4,387,990	1886	34,324,153	13,907,888	1909	161,667,462	115,546,011
1830	4,767,129	3,239,429	1887	38,561,026	15,141,127	1910	155,911,706	123,173,717
1840	7,095,267	6,113,897	1888	38,522,436	16,926,438	1911	160,135,976	119,937,644
1850	9,687,025	7,904,725	1889	44,435,271	21,378,809	1912	148,795,422	135,591,956
1855	14,648,074	13,327,095	1890	44,582,838	22,006,206	1913	160,387,453	133,262,862
1860	16,472,203	11,514,650	1891	48,720,065	26,113,896	1914	173,522,804	139,682,186
1865	1,030,690,400	122,617,434	1892	46,895,456	29,174,139	1915	172,973,092	141,835,654
1870	57,655,675	21,780,230	1893	49,641,773	30,136,084	1916	164,635,577	155,029 426
1871	35,799,992	19,431,027	1894	54,567,930	31,701,294	1917	440,276,880	257,166,437
1872	35,372,157	21,249,810	1895	51,804,579	28,797,796	1918	5,684,348,624	1,368,642,794
1873	46,323,138	23,526,257	1896	50,830,921	27,147,732	1919	9,253,059,384	2,009,272,389
1874	42,313,927	30,932,587	1897	48,950,268	34,561,546	1920	1,094,834,202	629,893,116
1875	41,120,646	21,497,626	1898	91,922,000	58,823,104	1921	557,168,810	644,278,809
1876	38,070,889	18,963,310	1899	229,841,254	63,942,985	1922	393,389,739	456,338,787
1877	37,082,736	14,959,935	1900	134,774,768	55,953,078	1923	352,102,353	322,532,908
1878	32,154,148	17,365,301	1901	144,615,697	60,506,978	1924	348,629,778	332,249,137
1879	40,425,661	15,125,127	1902	112,272,216	67,803,128	1925	361,887,889	346,142,001
1880	38,116,916	13,536,985	1903	118,619,520	82,618,034	1926	355,072,226	312,743,410
1881	40,466,461	15,686,672	1904	115,035,411	102,956,102	1927	360,808,777	318,909,096
1882	43,570,494	15,032,046	1905	122,175,074	117,550,308	1928	390,540,803	331,335,492
1883	48,911,383	15,283,437	1906	117,946,692	110,474,264	1929	416,901,546	364,561,544
1884	39,429,603	17,292,601	1907	122,576,465	97,128,469			

Figures in "War" column are on a warrant basis, and, up to and including the fiscal year 1922, include expenditures for rivers and harbors, but not expenditures on account of the Panama Canal or civil expenditures under the War Department at Washington.

Beginning with the fiscal year 1923, the figures include all expenditures, civil and military, under the War Department, exclusive of Panama Canal.

Figures in "Navy" column are on a warrant basis, and, up to and including the fiscal year 1922, do not include civil expenditures under the Navy Department at Washington.

Beginning with the fiscal year 1923, the figures include all expenditures, civil and naval, under the Navy Department.

COMPTROLLER GENERAL OF THE UNITED STATES.

The Comptroller General of the United States, as head of the General Accounting Office, is charged by law with the settlement and adjustment, independently of the executive departments, of all claims and demands whatever by the Government or against it, and all accounts whatever in which the Government is concerned, either as debtor or creditor, and is vested with all powers and duties previously conferred or imposed by law upon the former Comptroller of the Treasury and the six Auditors of the Treasury Department.

He superintends the recovery of all debts finally certified by audited settlements to be due the United States, and the preservation of all accounts, with their vouchers, etc., which have been finally adjusted, and countersigns all warrants authorized by law to be signed by the Secretary of the Treasury.

It is the duty of the Comptroller General to investigate at the seat of government or elsewhere all matters relating to the receipt, disbursement, and application of public funds.

General accounting office officials—*Comptroller General*—J. R. McCarl, Neb.; *Assistant Comptroller General*—Lurtin R. Ginn, Ind.; *General Counsel*—R. L. Golze, Pa.; *Executive Officer*—J. L. Baity, Mo.; *Counsel*—Charles M. Galloway, So. Car.; *Chief Clerk*—Reed F. Martin, West Va.; *Disbursing Clerk*—Carl Collier, Ohio.

Section 302 of the Budget and Accounting Act of June 10, 1921, provides that the Comptroller General and the Assistant Comptroller General shall hold office for fifteen years and that the Comptroller General shall not be eligible for reappointment. The terms of these two officers began July 1, 1921.

PUBLIC DEBT OF THE UNITED STATES.

June 30.	Total gross debt.	Per Capita	June 30.	Total gross debt.	Per Capita	June 30.	Total gross debt.	Per Capita
	Dollars.	*Dolls.*		*Dollars.*	*Dolls.*		*Dollars.*	*Dolls.*
1853.....	59,804,661	2.36	1879.....	2,298,912,643	47.05	1904.....	1,136,259,016	13.88
1854.....	42,243,765	1.62	1880.....	2,090,903,872	41.69	1905.....	1,132,357,095	13.60
1855.....	35,588,499	1.32				1906.....	1,142,522,970	13.50
1856.....	31,974,081	1.15	1881.....	2,019,285,728	39.35	1907.....	1,147,178,193	13.33
1857.....	28,701,375	1.01	1882.....	1,856,915,644	35.37	1908.....	1,177,690,403	13.46
1858.....	44,913,424	1.53	1883.....	1,721,958,918	32.07	1909.....	1,148,315,372	12.91
1859.....	58,498,381	1.93	1884.....	1,625,307,444	29.60	1910.....	1,146,939,969	12.69
1860.....	64,843,831	2.06	1885.....	1,578,551,169	28.11			
			1886.....	1,555,659,550	27.10	1911.....	1,153,984,937	12.28
1861.....	90,582,417	2.83	1887.....	1,465,485,294	24.97	1912.....	1,193,833,505	12.48
1862.....	524,177,955	16.03	1888.....	1,384,631,656	23.09	1913.....	1,193,047,745	12.26
1863.....	1,119,773,681	33.56	1889.....	1,249,470,511	20.39	1914.....	1,188,235,400	12.00
1864.....	1,815,830,814	53.33	1890.....	1,122,396,584	17.92	1915.....	1,191,264,068	11.83
1865.....	2,677,929,012	77.07				1916.....	1,225,145,568	11.96
1866.....	2,755,763,929	77.69	1891.....	1,005,806,561	15.75	1917.....	2,975,618,585	28.57
1867.....	2,650,168,223	73.19	1892.....	968,218,841	14.88	1918.....	12,243,628,719	115.65
1868.....	2,583,446,456	69.87	1893.....	961,431,766	14.49	1919.....	25,482,034,419	240.09
1869.....	2,545,110,590	67.41	1894.....	1,016,897,817	15.04	1920.....	24,297,918,412	228.33
1870.....	2,436,453,269	63.19	1895.....	1,096,913,120	15.91			
			1896.....	1,222,729,350	17.40	1921.....	23,976,250,608	221.82
1871.....	2,322,052,141	58.70	1897.....	1,226,793,713	17.14	1922.....	22,964,079,190	209.25
1872.....	2,209,990,838	54.44	1898.....	1,232,743,063	16.90	1923.....	22,349,687,758	200.86
1873.....	2,151,210,345	51.62	1899.....	1,436,700,704	19.33	1924.....	21,251,120,427	188.59
1874.....	2,159,932,730	50.47	1900.....	1,263,416,913	16.56	1925.....	20,516,272,174	179.80
1875.....	2,156,276,649	49.06				1926.....	19,643,183,079	170.04
1876.....	2,130,845,778	47.21	1901.....	1,221,572,245	15.71	1927.....	18,510,174,266	158.28
1877.....	2,107,759,903	54.47	1902.....	1,178,031,357	14.89	1928.....	17,604,293,201	148.73
1878.....	2,159,418,315	45.37	1903.....	1,159,405,913	14.40	1929.....	16,931,088,484	141.34

The figures above as to the gross debt do not include gold, silver or currency, certificates, or Treasury notes of 1890.

The interest-bearing debt on June 30, 1928, totaled $17,317,695,096; matured debt, $45,331,660; non-interest-bearing debt, $241,263,806.

The interest bearing debt is exclusive of bonds issued to the Pacific railways, and the Navy pension fund.

The non-interest bearing debt includes old demand notes; United States notes, less the amount of the gold reserve since 1900; postal currency and fractional currency, less the amounts officially estimated to have been destroyed; and also the redemption fund held by the Treasury to retire national bank notes of national banks failed, in liquidation, and reducing circulation, which prior to 1890 was not included in the published debt statements.

INTEREST ON THE PUBLIC DEBT.

Year Fisc.	Interest.	Per Cap.	Year Fisc.	Interest.	Per Cap.	Year Fisc.	Interest.	Per Cap.	Year Fisc.	Interest.	Per Cap.
	Dollars.	*Dols.*		*Dollars.*	*Dols.*		*Dollars.*	*Dols.*		*Dollars.*	*Dols.*
1900	40,160,333	.53	1908	21,426,138	.24	1916	22,900,313	.22	1923	1,055,088,486	9.48
1901	32,342,979	.42	1909	21,303,836	.25	1917	24,742,129	.24	1924	938,740,772	8.33
1902	29,108,045	.37	1910	21,342,979	.24	1918	197,526,608	1.87	1925	882,014,950	7.73
1903	28,556,349	.35	1911	21,311,334	.23	1919	615,867,337	5.80	1926	831,469,206	7.20
1904	24,646,490	.30	1912	22,616,300	.24	1920	1,024,024,440	9.62	1927	787,793,764	6.74
1905	24,590,944	.30	1913	22,899,108	.24	1921	996,676,804	9.22	1928	731,764,476	6.18
1906	24,308,576	.29	1914	22,863,957	.23	1922	989,485,410	9.22	1929	678,330,400	5.66
1907	24,481,158	.28	1915	22,902,897	.23						

Population estimate of Government Actuary used in per capita figures. Daily Treasury statement.

APPROPRIATIONS BY CONGRESS.

(Covering 12-month period ending June 30 of year named.)

YEAR.	Ap'priations.	YEAR.	Ap'priations.	YEAR.	Ap'priations.	YEAR.	Ap'priations.
	Dollars.		*Dollars.*		*Dollars.*		*Dollars.*
1876.....	147,714,941	1906.....	489,241,777	1915.....	674,497,625	1923.....	3,951,062,084
1880.....	162,414,648	1907.....	549,434,246	1916.....	678,677,859	1924.....	4,020,488,898
1890.....	218,115,440	1908.....	555,739,444	1917.....	1,178,908,963	1925.....	3,952,587,221
1900.....	462,509,750	1909.....	627,516,247	1918.....	18,144,861,745	1926.....	4,176,000,298
1901.....	457,152,143	1910.....	648,191,676	1919.....	25,598,967,518	1927.....	4,193,326,585
1902.....	479,365,657	1911.....	663,725,795	1920.....	7,052,387,634	1928.....	4,237,559,183
1903.....	486,439,307	1912.....	634,549,561	1921.....	4,070,964,534	1929.....	4,515,252,950
1904.....	464,846,770	1913.....	617,382,178	1922.....	4,177,802,101	1930.....	4,469,023,405
1905.....	467,159,617	1914.....	684,757,276				

A large part of the appropriations made by Congress are annual appropriations, intended only to cover the running expenses of the Government during a specific fiscal year. Such appropriations can be used only to pay bills incurred during the fiscal year for which they were made, and if not required for this purpose, unless repealed before being entered on the books, are carried to the surplus funds at the end of the third fiscal year.

Appropriations for rivers and harbors work, lighthouses and public buildings are by law exempted from the fiscal year limitation, and are available until expended, as are also other appropriations when expressly exempted by law.

In the case of these appropriations the amount that can be expended during any one fiscal year is sometimes limited. If not limited the appropriation can all be used in one year or spread over a period of years according to the nature of the undertaking.

DOMESTIC COINAGE AT UNITED STATES MINTS.

CALENDAR YEARS.	Gold.	Silver.	Other and Total Value.	Calendar Years.	Gold.	Silver.	Other and Total Value.
1918.....	.....	$25,473,029	$31,445,403	1925.....	192,380,000	19,874,218	216,456,863
1919.....	.....	11,068,400	20,777,414	1926.....	78,540,565	19,825,806	102,828,001
1920.....	$16,990,000	25,057,270	50,213,500	1927.....	125,645,000	11,286,217	141,147,127
1921.....	10,570,000	89,057,535	100,782,815	1928.....	177,360,000	8,748,667	189,773,337
1922.....	80,680,016	84,325,030	165,076,646				
1923.....	45,365,000	66,283,038	114,575,118	1793-1928	4,343,948,477	1,413,547,950	5,889,193,936
1924.....	206,010,000	21,627,040	229,946,730				

MONETARY SYSTEM OF THE UNITED STATES.

Gold Coin—Weight, 25.8 grains to the dollar; fineness, 900-1000, unlimited as to issue, denominations, $2.50, $5, $10, $20; legal tender, unlimited; receivable for all public dues; exchangeable for gold certificates and other forms of money.

Standard Silver Dollars—Weight, 412.5 grains; fineness, 900-1000; ratio to gold, 15.988 to 1; coinage ceased in 1905, resumed in 1921; legal tender, unlimited, unless otherwise contracted; receivable for all public dues; exchangeable for silver certificates and other forms of money.

Subsidiary Silver Coin—Weight, 385.8 grains to the dollar; fineness, 900-1000; ratio to gold 14.953 to 1. Limit of issue, needs of the people. Denominations 10 cents, 25 cents, 50 cents; legal tender not to exceed $10; receivable for all dues up to $10; exchangeable for minor coin; redeemable in "lawful money" at the Treasury in sums or multiples of $20.

Minor Coin—Weight, 5 cent piece, 77.16 grains, 75 per cent. copper, 25 per cent. nickel; 1 cent piece, 48 grains, 95 per cent. copper, 5 per cent. tin and zinc; limit of issue, needs of the people; legal tender not to exceed 25 cents; receivable for all dues up to 25 cents; redeemable in "lawful money" at the Treasury in sums or multiples of $20.

Gold Certificates—Limit of issue for gold bullion, to two-thirds of the amount of gold certificates outstanding; for gold coin, unlimited, unless gold coin reserve against United States notes (greenbacks) falls below $100,000,000; denominations, $10, $20, $50, $100, $500, $1,000, $5,000, $10,000; made legal tender by act Dec. 24, 1919; receivable for all public dues; redeemable in gold coin at the Treasury.

Silver Certificates—Unlimited as to issue for standard silver dollars; denominations, $1, $2, $5, $10, $20, $50, $100; not a legal tender; receivable for all public dues; redeemable in silver dollars at the Treasury.

United States Notes—Limit of issue, $346,681,016; denominations, $1, $2, $5, $10, $20, $50, $100, $500, $1,000; legal tender for all debts, public and private, except customs and interest on the public debt, receivable for all public dues; redeemable in gold at the Treasury.

Treasury Notes of 1890—No further issues, volume steadily diminishing by redemption in silver dollars; denominations, $1, $2, $5, $10, $20, $50, $100, $500, $1,000; legal tender, unlimited, unless otherwise contracted; receivable for all public dues; redeemable in gold or silver dollars at the Treasury.

National Bank Notes—Limit of issue subject to deposit of required security and not to exceed capital of banks; denominations, $5, $10, $20, $50, and $100; notes of denominations of $1, $2, $500 and $1,000 authorized, but few issued and none available for issue; not a legal tender; receivable for all public dues except customs; redeemable in "lawful money" at the Treasury or at bank of issue.

Federal Reserve Bank Notes—Issue unlimited, subject to deposit of the required security, and the discretion of the Federal Reserve Board; denominations, $1, $2, $5, $10, $20, $50, $100, $500, $1,000; not a legal tender; receivable for all public dues except customs; redeemable in "lawful money" at the Treasury or at bank of issue; only a small amount is outstanding.

Federal Reserve Notes—Limit of issue same as Federal Reserve Bank notes; denominations, $5, $10, $20, $50, $100, $500, $1,000, $5,000, $10,000; not a legal tender; receivable for all public dues; redeemable in gold at the Treasury, and in gold or "lawful money" at any Federal Reserve Bank.

SMALLER-SIZED PAPER CURRENCY.

The issue of the smaller-sized paper currency of the United States Government was begun by the Treasury Department on July 10, 1929, and thereafter progressed on the basis of retiring outstanding old-size currency unfit for circulation with the new reduced-size currency.

In due course all outstanding old-size currency were replaced with the new small-size, and this was accomplished, for the most part, before the end of the 1929 calendar year.

The initial issue of the new "shin plasters" was made through the Federal Reserve Banks and their branches.

The new size for the paper currency is 6 5-16 x 2 11-16 inches. The principle of denominational designs has been strictly followed. The back designs are uniform for each denomination irrespective of kind. The face designs, likewise, are characteristic for each denomination as regards the important protective features, with only sufficient variation in detail to indicate the kind

Five kinds of paper currency are now issued—United States notes, silver certificates, gold certificates, Federal reserve notes, and National bank notes. The new designs will be applied to all issuable denominations of all these kinds.

The portraits assigned to the faces, and the embellishments provided for the backs, of the several denominations, are as follows:

Denomination	*Portrait on face*	*Embellishment on back*
$1	Washington	Ornate ONE
$2	Jefferson	Monticello
$5	Lincoln	Lincoln Memorial
$10	Hamilton	U. S. Treasury
$20	Jackson	White House
$50	Grant	U. S. Capitol
$100	Franklin	Independence Hall
$500	McKinley	Ornate FIVE HUNDRED
$1,000	Cleveland	Ornate ONE THOUSAND
$5,000	Madison	Ornate FIVE THOUSAND
$10,000	Chase	Ornate TEN THOUSAND

The backs of the new currency are printed uniformly in green; the faces, in black; and the Treasury seals and the serial numbers are imprinted in the following colors:

Silver certificates, blue; United States notes, red; Gold certificates, yellow; Federal reserve notes, green; National bank notes, brown.

For the reduced size currency a new type of distinctive paper has been adopted. The paper basically is of the type developed during the past few years, with a higher folding endurance, particularly in the cross direction, than the paper formerly in use.

The use of small segments of silk fiber as a distinctive feature has been retained, but the segments are scattered throughout the sheet and not localized in rows as formerly.

The first issues of the new small size currency included all kinds except National bank notes, and all denominations from $1 to $20. Small size gold certificates and Federal reserve notes in denominations above $20 were issued at a later date. Small size National bank notes were printed and issued in order of charter numbers.

The U. S. Bureau of Engraving and Printing, at Washington, began printing the little notes on Aug. 6, 1928, and up to June 30, 1929 the Bureau had delivered 697,530,228 of the notes to the Treasury Department and the Federal Reserve Banks; and deliveries are officially expected to total 1,020,600,000 small notes by June 30, 1930.

HIGH PRICES FOR RARE COINS.

The George Alfred Lawrence collection of rare coins, sold at auction at New York City in 1929, fetched some record-breaking prices.

For a privately minted $5 gold piece issued in California in 1849, during the gold fever period, $7,900 was paid. According to Thomas L. Elder, the highest previous price was $6,000, paid at an auction in Europe. The purchaser was Henry Chapman, a Philadelphia dealer, acting for a private collector whose name was not divulged.

The coin was minted for the Massachusetts and California Co., and bears on its face a shield in which is depicted a cowboy throwing a lariat with a bear and deer at either side.

The next highest price of the sale also exceeded all former auction prices for coins in America when $7,000 was paid for the Wass, Molitor & Co.'s privately minted $20 gold piece, struck in San Francisco in 1855.

No less than eight of these privately minted California gold pieces brought $1,000 or more apiece, and for ten coins prices between $600 and $1,000 were paid.

Chapman got, on a bid of $3,900, the Dubosq & Co.'s $10 gold piece, struck in California in 1850, and he also paid $3,700 for a $5 gold coin issued by Schults & Co. in 1851, bearing on the reverse an eagle with the inscription, "Pure California Gold."

Of several $50 coins the only one to get in the thousand-dollar class was the $50 piece minted by Kellog & Co. in San Francisco in 1855, for which $2,150 was paid.

The Baldwin & Co. $10 gold piece, struck in San Francisco, 1851, sold for $1,550.

For a rare Mormon gold coin, $10, minted in Salt Lake City, 1849, $1,125 was paid, and the Moffat & Co. ingot of gold for $16, of which but ten are known to exist, sold for $1,000.

PURPOSES OF THE FUNDED DEBTS OF THE STATES, JAN. 1, 1928.

(Courtesy of the Bank of America, 44 Wall Street, New York City).

(*In thousands of dollars*).

States.	Total Debt.	Education.	Welfare Institutions.	Public Bldgs.	Highways.	Waterways Agricultural, etc.	Soldiers' Bonus.	Funding Operat.	Miscellaneous.
Alabama	44,107	.....	.....	.....	26,550	(a) 9,000	.....	8,557	.....
Arizona	2,833	.....	20	3	.....	.....	.....	2,810	.....
Arkansas	32,128	2,372	328	.....	26,000	.....	3,000	428	.....
California	110,125	2,480	.....	5,010	64,725	(a) 14,853	20,775	2,278	4
Colorado	11,643	.....	.....	.....	8,800	.....	.....	1,648	1,194
Connecticut	16,291	.....	2,000	.....	.....	.....	.....	14,291	.....
Delaware	11,377	562	35	.....	10,530	.....	.....	20	230
Georgia	4,893	292	.....	.....	.....	.....	.....	4,595	7
Idaho	5,367	340	725	900	2,700	(b) 105	.....	598	.....
Illinois	145,293	.....	.....	.....	97,000	.....	48,275	.....	18
Indiana	340	340	.....	.....	.....	.....	.....	.....	.....
Iowa	16,500	.....	.....	.....	.....	.....	16,500	.....	.....
Kansas	26,500	.....	.....	.....	.....	.....	26,500	.....	.....
Louisiana	55,914	.....	960	.....	2,462	(a) 41,636	.....	9,847	1,009
Maine	20,007	.....	.....	.....	16,639	(b) 1,150	1,200	.....	1,019
Maryland	29,231	635	471	6,750	17,828	(b) 1,469	.....	1,381	727
Massachusetts	122,264	.....	7,327	1,250	9,942	(d) 99,213	.....	.....	4,533
Michigan	82,250	.....	.....	.....	50,000	.....	30,000	2,250	.....
Minnesota	89,019	2,471	.....	175	32,967	(c) 46,975	5,660	.....	772
Mississippi	15,300	.....	1,500	1,761	.....	(b) 1,880	.....	2,911	7,268
Missouri	72,639	4,399	.....	.....	52,000	.....	18,240	.....	.....
Montana	5,613	4,981	.....	610	.....	.....	.....	22	.....
Nevada	1,842	78	373	298	500	(c) 63	.....	150	380
New Hampshire	586	.....	85	.....	.....	.....	.....	.....	501
New Jersey	83,116	.....	.....	.....	71,000	(c) 116	12,000	.....	.....
New Mexico	3,870	.....	125	284	2,300	.....	.....	201	960
New York	361,617	.....	23,500	.....	107,000	(e) 191,517	39,600	.....	.....
North Carolina	155,693	14,585	23,648	250	98,500	(b) 1,643	.....	8,480	8,588
North Dakota	33,359	.....	.....	.....	.....	(c) 33,359	.....	.....	.....
Ohio	12,500	.....	.....	.....	.....	.....	12,500	.....	.....
Oklahoma	1,073	.....	.....	1,000	.....	.....	.....	73	.....
Oregon	65,563	.....	.....	.....	34,467	(c) 450	28,500	2,146	.....
Pennsylvania	93,362	.....	.....	.....	93,221	.....	.....	.....	141
Rhode Island	21,874	1,260	4,100	5,195	6,563	(f) 1,526	2,500	.....	730
South Carolina	12,075	.....	.....	7	.....	(c) 250	.....	4,733	7,086
South Dakota	60,500	.....	.....	.....	4,500	(g) 41,000	6,000	6,750	2,250
Tennessee	16,731	3,205	568	1,380	1,000	(b) 40	.....	10,538	.....
Texas	4,002	.....	.....	.....	.....	.....	.....	4,002	.....
Utah	9,660	300	.....	1,600	7,260	.....	.....	.....	500
Vermont	6,542	582	.....	80	.....	.....	980	.....	(h) 5,000
Virginia	26,422	2,467	1	.....	7,428	.....	.....	16,107	419
Washington	10,200	.....	.....	.....	.....	.....	10,200	.....	.....
West Virginia	56,575	.....	.....	.....	49,150	.....	.....	7,425	.....
Wyoming	1,909	.....	.....	9	1,900	.....	.....	.....	.....
1928 Totals	1,971,354	43,012	65,766	26,562	900,931	486,224	282,430	112,211	54,220
1927 Totals	1,846,114	35,984	53,458	17,846	834,476	476,031	271,528	115,368	44,433
1925 Totals	1,558,742	17,003	49,002	27,600	626,852	403,096	287,098	106,735	41,357
1922 Totals	1,071,507	16,904	19,711	20,255	367,687	360,598	130,022	118,558	37,772

NOTES—Florida and Nebraska have no bonded indebtedness. Kentucky has no bonded indebtedness but in 1927 had outstanding warrants for miscellaneous purposes amounting to $10,887,000. Wisconsin has no bonded debt but the general fund of the State is indebted to the school fund of the State to the amount of $1,163,700, and to the normal fund to the amount of $500,000 in the form of 7% certificates of indebtedness which are being paid off at the rate of $100,000 or more each year.

"Education" includes universities, public school systems (cost of buildings and maintenance.)

"Welfare Institutions" includes special and general hospitals, insane asylums, penal institutions and reformatory schools.

"Highways" includes bridges and grade crossing elimination.

"Funding operations" includes refunding operations.

(*a*) are bond issues for waterways and harbors;

(*b*) are bond issues for physical improvements other than highways, waterways, harbors and buildings;

(*c*) are for agricultural aid;

(*d*) $6,172,000 for waterways and Boston Harbor, and $93,041,000 for metropolitan parks, metropolitan sewerage, and metropolitan water;

(*e*) $151,848,000 for State Barge (Erie) Canal, and $39,609,000 for parks, etc., and grade crossing elimination;

(*f*) $976,000 for harbor improvement, and $550,000 for parks;

(*g*) $39,000,000 for agricultural aid (rural credits and land settlements), and $2,000,000 for internal improvements;

(*h*) $5,000,000 for State flood relief.

PER CAPITA BONDED DEBT OF STATES IS $16.61.

From the fourth national survey of State debts and securities, made by the Bank of America, 44 Wall Street, New York City, The World Almanac by permission, reproduces the above table. The information was furnished the bank's statistician, with hardly an exception by State officials having financial operations in their charge and it is, therefore, believed to be as far as possible authoritative and complete. With few exceptions the individual tabulations of the States read as of January 1, 1928, or of more recent date.

The term "state debt" as used covers only funded or "bonded indebtedness" and excludes all items of unfunded or current indebtedness.

No attempt has been made to determine the net debt of the States of the Union. The methods of handling sinking funds and the arrangements for retiring bond issues differ in all the States. The "net funded debt" as returned by the several State Treasurers to The World Almanac is given in a State table elsewhere; also as returned by the Bureau of the Census (see Index).

The indebtedness of seven States remained unchanged since the last review (see The World Almanac for 1928, pages 290, 291); the 41 others have issued new bonds to an amount of some $197,000,000 and retired $70,000,000 worth, a net increase of 6.7%. Several bond issues have appeared too recently to be incorporated in the table. These comprise highway and bridge bonds of Alabama, Illinois and Tennessee; general construction bonds of Maryland, and bonds of North Carolina and South Dakota.

The per capita bonded debt in the above table is $16.61 an increase of 5.4% in the year. The total exceeds by $62,000,000 the public debt of the United States as it was on June 30, 1917, the year the country entered the World War. This State indebtedness is represented largely by obligations incurred during the past eight years, only 31% of the present gross debt existed prior to Jan. 1, 1920.

In connection with the total bonded indebtedness of the States due to expenditures for highways and bridges (45.7% of the total) it should be noted that from 1916 through 1927 the Federal Government assisted the States to the extent of more than half a billion dollars and in 1928 $71,000,000 additional was apportioned among the States under the Federal Highway Act.

POLITICAL AND FINANCIAL STATISTICS OF THE STATES.

State.	Ent'd Union.	Ar'a Sq. M.	Settled.	L'th, M.	Br'th M	Capital.	Sal. Gov.	Term
Alabama	1819, Dec. 14	51,998	1702	330	200	Montgomery	$7,500	4
Arizona	1912, Feb. 14	113,956	1580	390	335	Phoenix	7,500	2
Arkansas	1836, June 15	53,335	1685	275	240	Little Rock	6,000	2
California	1850, Sept. 9	158,297	1769	770	375	Sacramento	10,000	4
Colorado	1876, Aug. 1	103,948	1858	390	270	Denver	5,000	2
Connecticut	1788, Jan. 9	4,965	1635	90	75	Hartford	5,000	2
Delaware	1787, Dec. 7	2,370	1726	110	35	Dover	7,500	4
District of Columbia	1790, July 16	69	1790	10	10	Washington	.....	...
Florida	1845, Mar. 3	58,666	1559	460	400	Tallahassee	10,000	4
Georgia	1788, Jan. 2	59,265	1733	315	250	Atlanta	7,500	2
Idaho	1890, July 3	83,888	1842	490	305	Boise	5,000	2
Illinois	1818, Dec. 3	56,665	1720	380	205	Springfield	12,000	4
Indiana	1816, Dec. 11	36,354	1733	265	160	Indianapolis	8,000	4
Iowa	1846, Dec. 28	56,147	1788	300	210	Des Moines	7,500	2
Kansas	1861, Jan. 29	82,158	1727	400	200	Topeka	5,000	2
Kentucky	1792, June 1	40,598	1765	350	175	Frankfort	6,500	4
Louisiana	1812, Apr. 30	48,506	1699	280	275	Baton Rouge	7,500	4
Maine	1820, Mar. 15	33,040	1624	235	205	Augusta	5,000	2
Maryland	1788, Apr 28	12,327	1634	200	120	Annapolis	4,500	4
Massachusetts	1788, Feb. 6	8,266	1620	190	110	Boston	10,000	2
Michigan	1837, Jan. 26	57,980	1650	400	310	Lansing	5,000	2
Minnesota	1858 May 11	84,682	1805	400	350	St. Paul	7,000	2
Mississippi	1817, Dec. 10	46,865	1716	340	180	Jackson	7,500	4
Missouri	1821, Aug 10	69,420	1764	300	280	Jefferson City	5,000	4
Montana	1889, Nov. 8	146,997	1809	580	315	Helena	7,500	4
Nebraska	1867, Mar. 1	77,520	1847	415	205	Lincoln	7,500	2
Nevada	1864, Oct. 31	110,690	1850	485	315	Carson City	7,000	4
New Hampshire	1788, June 21	9,341	1623	185	90	Concord	5,000	2
New Jersey	1787, Dec. 18	8,224	1664	160	70	Trenton	10,000	3
New Mexico	1912, Jan. 6	122,634	1537	390	350	Santa Fe	5,000	2
New York	1788, July 26	49,204	1614	320	310	Albany	25,000	2
North Carolina	1789, Nov. 21	52,426	1650	520	200	Raleigh	7,100	4
North Dakota	1889, Nov. 2	70,837	1780	360	210	Bismarck	5,000	2
Ohio	1803, Feb. 19	41,040	1788	230	205	Columbus	10,000	2
Oklahoma	1907, Nov. 16	70,057	1889	585	210	Oklahoma City	7,500	4
Oregon	1859, Feb. 14	96,699	1838	375	290	Salem	7,500	4
Pennsylvania	1787, Dec. 12	45,126	1682	300	180	Harrisburg	18,000	4
Rhode Island	1790, May 29	1,248	1636	50	35	Providence	8,000	2
South Carolina	1788, May 23	30,989	1670	285	215	Columbia	7,500	4
South Dakota	1889, Nov. 2	77,615	1794	380	245	Pierre	3,000	2
Tennessee	1796, June 1	42,022	1757	430	120	Nashville	7,500	2
Texas	1845, Dec. 29	265,896	1686	760	620	Austin	4,000	2
Utah	1896, Jan. 4	84,990	1847	345	275	Salt Lake City	6,000	4
Vermont	1791, Mar. 4	9,564	1724	155	90	Montpelier	5,000	2
Virginia	1788, June 26	42,627	1607	425	205	Richmond	5,000	4
Washington	1889, Nov. 11	69,127	1811	340	230	Olympia	6,000	4
West Virginia	1863, June 20	24,170	1727	225	200	Charleston	10,000	4
Wisconsin	1848, May 29	56,066	1670	300	290	Madison	7,500	2
Wyoming	1890, July 11	97,914	1834	365	275	Cheyenne	6,000	4

State.	Gov. T'm Beg.	Legis. Begins.	Meets.	Limit.	Budget.	Net Debt.	Assess Val. R'lty.
					Dollars.	*Dollars.*	*Dollars.*
Alabama	Jan., 1931	Jan., 1931	Q	50	50,000,000	49,888,000	754,340,768
Arizona	Jan., 1931	Jan., 1931	A	60	7,007,606	2,830,275	115,236,380
Arkansas	Jan., 1931	Jan., 1931	B	75	40,569,432	40,247,166	425,472,255
California	Jan., 1931	Jan., 1931	B	None	59,166,015	118,551,536	3,791,316,468
Colorado	Jan., 1931	Jan., 1931	B	None	5,942,641	11,000,000	1,052,070,032
Connecticut	Jan., 1931	Jan., 1931	B	157	35,623,716	2,032,051	2,436,196,872
Delaware	Jan., 1933	Jan., 1931	B	60	9,787,278	6,444,372	265,582,580
Florida	Jan., 1933	Apr., 1931	B	60	15,537,461	None	501,715,196
Georgia	July, 1931	Jun., 1931	B	60	26,501,619	4,983,202	1,291,760,922
Idaho	Jan., 1931	Jan., 1931	B	60	3,051,116	4,240,524	341,097,700
Illinois	Jan., 1933	Jan., 1931	B	None	272,265,416	177,324,500	6,429,115,716
Indiana	Jan., 1933	Jan., 1931	B	61	27,443,896	None	3,219,626,589
Iowa	Jan., 1931	Jan., 1931	B	None	15,500,000	15,200,000	3,197,293,121
Kansas	Jan., 1931	Jan., 1931	B	50	14,000,000	25,500,000	3,500,000,000
Kentucky	Jan., 1931	Jan., 1930	B	60	3,397,733	7,276,834	1,548,584,406
Louisiana	May, 1932	May, 1930	B	60	29,426,135	16,459,287	1,724,954,042
Maine	Jan., 1931	Jan., 1931	B	None	23,317,840	20,977,600	743,685,759
Maryland	Jan., 1931	Jan., 1931	B	90	28,910,400	27,742,503	2,714,871,861
Massachusetts	Jan., 1930	Jan., 1930	A	None	53,773,059	64,641,454	6,020,549,863
Michigan	Jan., 1931	Jan., 1931	B	None	42,682,490	59,091,944	6,704,507,386
Minnesota	Jan., 1931	Jan., 1931	B	90	20,847,796	3,371,758	1,708,372,816
Mississippi	Jan., 1932	Jan., 1930	B	None	13,212,165	17,142,853	724,107,850
Missouri	Jan., 1933	Jan., 1931	B	70	8,621,063	65,609,000	4,906,473,698
Montana	Jan., 1933	Jan., 1931	B	60	3,097,525	8,676,912	840,343,305
Nebraska	Jan., 1931	Jan., 1931	B	90	40,198,854	None	2,490,614,031
Nevada	Jan., 1931	Jan., 1931	B	60	4,523,314	1,597,532	166,760,946
New Hampshire	Jan., 1931	Jan., 1931	B	None	3,553,991	2,774,500	903,576,556
New Jersey	Jan., 1932	Jan., 1930	A	None	29,000,000	79,537,000	6,250,129,030
New Mexico	Jan., 1931	Jan., 1931	B	60	1,913,134	20,310,882	305,653,629
New York	Jan., 1931	Jan., 1930	A	None	268,463,989	242,945,476	36,716,196,116
North Carolina	Jan., 1933	Jan., 1931	B	60	19,788,927	158,268,290	2,964,013,736
North Dakota	Jan., 1931	Jan., 1931	B	60	4,976,710	5,262,500	969,947,703
Ohio	Jan., 1931	Jan., 1931	B	None	40,138,182	10,000,000	9,361,388,870
Oklahoma	Jan., 1931	Jan., 1931	B	60	15,738,000	2,350,000	1,829,789,000
Oregon	Jan., 1931	Jan., 1931	B	40	16,771,725	61,014,510	818,078,405
Pennsylvania	Jan., 1931	Jan., 1931	B	50	72,500,000	93,379,320	8,797,819,745
Rhode Island	Jan., 1931	Jan., 1931	A	60	10,867,349	17,987,786	881,794,815
South Carolina	Jan., 1931	Jan., 1930	A	40	11,000,000	5,000,000	426,000,000
South Dakota	Jan., 1931	Jan., 1931	B	60	4,010,739	57,750,000	1,551,031,251
Tennessee	Jan., 1931	Jan., 1931	B	75	31,832,581	52,986,753	1,301,119,455
Texas	Jan., 1931	Jan., 1931	B	60	21,738,054	4,364,488	3,975,409,266
Utah	Jan., 1933	Jan., 1931	B	60	2,226,301	9,660,000	201,217,101
Vermont	Jan., 1931	Jan., 1931	B	None	14,123,994	9,088,531	228,644,614
Virginia	Jan., 1930	Jan., 1930	B	60	37,519,451	20,877,536	1,154,763,919
Washington	Jan., 1933	Jan., 1931	B	60	34,000,000	10,000,000	836,215,703
West Virginia	Jan., 1933	Jan., 1931	B	60	9,086,830	56,524,600	1,199,701,506
Wisconsin	Jan., 1931	Jan., 1931	B	None	57,000,000	None	5,877,400,648
Wyoming	Jan., 1931	Jan., 1931	B	40	3,227,589	1,900,000	195,487,496

CITIES IN THE UNITED STATES HAVING CITY MANAGERS.

Put in Effect.	Charter.	Ordinance.	Total
1908	1	0	1
1912	1	2	3
1913	7	1	8
1914	14	5	19
1915	18	4	22
1916	12	2	14
1917	16	0	16
1918	18	8	26
1919	24	6	30
1920	22	10	32
1921	45	4	49
1922	26	8	34
1923	29	4	33
1924	14	3	17
1925	22	6	28
1926	16	6	22
1927	17	4	21
1928	6	6	12
1929	3	0	3
Total	311	79	392

Cities having Manager plan, by States, are as follows: Where adopted by charter, **blackface** type is used; adopted by charter but having serious modifications, *italics*; adopted by ordinance, light face type.

ARIZONA
Phoenix
ARKANSAS
Marianna
CALIFORNIA
Alameda
Alhambra
Anaheim
Avalon
Bakersfield
Berkeley
Burbank
Compton
Coronado
Chico
Fillmore
Glendale
Long Beach
Monterey
Pacific Grove
Pasadena
Pittsburg
Porterville
Redwood City
Richmond
Sacramento
Santa Rosa
San Diego
San Jose
San Leandro
San Mateo
San Rafael
So. Pasadena
Stockton
Tulare
Visalia
Yerka
COLORADO
Boulder
Colorado Springs
Durango
Grand Junction
Montrose
CONNECTICUT
New London
Stratford
W. Hartford
FLORIDA
Auburndale
Bartow
Clearwater
Coral Gables
Daytona Beach
Deland
Dunedin
Fernandina
Ft. Meade
Ft. Myers
Ft. Pierce
Ft. Lauderdale
Gainesville
Haines City
Hollywood
Kissimmee
Lakeland
Largo
Leesburg
Miami
Miami Beach
Melbourne
Moore Haven
New Smyrna
Ocala
Palm Beach
Palatka
Plant City
Polk City
Punta Gorda
Quincy
Sanford
St. Augustine
St. Cloud
Stuart
Tallahassee
W. Palm Beach
Winter Haven
Winter Park
GEORGIA
Albany
Brunswick
Cartersville
Columbus
Cordele
Decatur
Eastman
Griffin
Quitman
Rome
Tifton
Waycross
ILLINOIS
Glencoe
Hinsdale
Kenilworth
Riverside
Wheaton
Winnetka
Zion
INDIANA
Indianapolis
Michigan City
IOWA
Ames
Clarinda
Dubuque
Estherville
Iowa Falls
Maquoketa
Mason City
Mt. Pleasant
Red Oak
Villisca
Webster City
West Liberty
KANSAS
Atchison
Belleville
El Dorado
Hays
Hoisington
Kinsley
La Crosse
McCracken
Newton
St. Marys
Salina
Sterling
Stockton
Wichita
Winfield
MAINE
Auburn
Belfast
Camden
Portland
MASSACHUSETTS
Mansfield
Middleboro
Norwood
Orange
Stoughton
MICHIGAN
Alma
Alpena
Bay City
Benton Harbor
Big Rapids
Birmingham
Cadillac
Clawson
Crystal Falls
Dearborn
Escanaba
Ferndale
Gladstone
Grand Haven
Grand Rapids
Grosse Pte. Shores
Iron River
Ironwood
Jackson
Kalamazoo
K'gsford (Iron Mt.)
Lapeer
Marysville
Manistee
Manistique
Mt. Pleasant
Muskegon
Muskegon Hts.
Oak Park
Onaway
Otsego
Petoskey
Pleasant Ridge
Plymouth
Pontiac
Portland
Roseville
Royal Oak
St. Johns
Sault Ste. Marie
Stambaugh
Sturgis
Three Rivers
MINNESOTA
Albert Lea
Anoka
Columbia Hts.
Morris
Robinsdale
White Bear Lake
MISSOURI
Excelsior Springs
Kansas City
Maryville
MONTANA
Bozeman
Columbus
NEBRASKA
Alliance
NEW JERSEY
Cape May
Keansburg
Summit
NEW MEXICO
Albuquerque
Clayton
Clovis
Roswell
NEW YORK
Auburn
Newburgh
Niagara Falls
Rochester
Saranac Lake
Sherrill
Watertown
Watervliet
N. CAROLINA
Chapel Hill
Charlotte
Durham
Elizabeth City
Gastonia
Goldsboro
Greensboro
Hickory
High Point
Morganton
Reidsville
Rocky Mount
Roxboro
Salisbury
Thomasville
OHIO
Ashtabula
Celina
Cincinnati
Cleveland
Cleveland Hts.
Dayton
East Cleveland
Gallipolis
Hamilton
Ironton
Lima
Middletown
Oberlin
Painesville
Sandusky
South Charleston
Springfield
Westerville
Xenia
OKLAHOMA
Ardmore
Bartlesville
Chandler
Coalgate
Cushing
Devol
Duncan
Edmond
El Reno
Elk City
Grandfield
Guthrie
Heavener
Madill
Mangum
McAlester
Muskogee
Norman
Nowata
Oklahoma City
Pawhuska
Sallisaw
Sapulpa
Shawnee
Sulphur
Tecumseh
Walters
Woodward
Yale
OREGON
Astoria
Hillsboro
La Grande
Oregon City
Warrenton
PENNSYLVANIA
Ambridge
Aspinwall
Avalon
Blairsville
Carlisle
Conshohocken
Coraopolis
Dormont
Edgeworth
Ellwood City
Hanover
Jeannette
Lansdowne
Milton
Osborne
Sewickley
Springdale
Towanda
Waynesboro
S. CAROLINA
Beaufort
Florence
Rock Hill
Sumter
SO. DAKOTA
Clark
Rapid City
TENNESSEE
Alcoa
Elizabethton
Kingsport
Knoxville
Murfreesboro
Missionary Ridge
TEXAS
Austin
Amarillo
Beaumont
Big Spring
Brenham
Brownsville
Brownwood
Bryan
Burkburnett
Eastland
Fort Worth
Gainesville
Goose Creek
Kerrville
Longview
Lufkin
Marshall
Mexia
Pampa
Panhandle
San Angelo
Sherman
Stamford
Sweetwater
Taylor
Teague
Temple
Terrell
Tulia
Tyler
Waco
Wichita Falls
UTAH
Brigham City
VERMONT
Bellows Falls
Brattleboro
Ludlow
Springfield
St. Albans
St. Johnsbury
Windsor
VIRGINIA
Alexandria
Bedford
Blackstone
Bristol
Charlottesville
Covington
Farmville
Franklin
Fredericksburg
Galax
Hampton
Hopewell
Lynchburg
Newport News
Norfolk
Petersburg
Portsmouth
Radford
Roanoke
Salem
Staunton
Suffolk
Warrenton
Winchester
WEST VIRGINIA
Bluefield
Charleston
Clarksburg
Follansbee
Hinton
Logan
Marlinton
Morgantown
St. Albans
St. Marys
Wheeling
WISCONSIN
Beloit
Janesville
Kenosha
Rhinelander
Shorewood (Milw.)
Stevens Point
Two Rivers

NATIONAL GRANGE—PATRONS OF HUSBANDRY.

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Wisconsin, Emma M. Wilde, Rhinelander.
Wyoming, Miss Margaret Bundy, Hillsdale, Box 157.

National Superintendent Juvenile Granges—Mrs. Dosia A. Eckert, Mascoutah, Ill.

ELKS, BENEVOLENT AND PROTECTIVE ORDER OF.

(Headquarters, Grand Lodge, Elks National Memorial Building, Chicago.)

Grand Exalted Ruler—Walter P. Andrews, Atlanta, Ga.; *Grand Esteemed Leading Knight*—William Conklin, Englewood, N. J.; *Grand Esteemed Loyal Knight*—Frank J. McMichael, Gary, Ind.; *Grand Esteemed Lecturing Knight*—E. A. Moody, Houston, Tex.; *Grand Secretary*—J. E. Masters, 2750 Lake View Ave., Chicago; *Grand Treasurer*—Lloyd Maxwell, 6 N. Michigan Ave., Chicago; *Grand Tiler*—R. W. Jones, Pocatello, Idaho; *Grand Inner Guard*—J. P. Gribbin, Gallup, N. M.; *Grand Esquire*—Harry Bacharach, Atlantic City, N.J.; *Grand Chaplain*—Rev. Dr. John Dysart, Flint, Mich.; *Secretary to Grand Exalted* John Connolly, Atlanta, Ga.

Pardon Commissioner—William J. Conway, State *Ruler*—S. House, Madison, Wis.

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The Elks National Home at Bedford, Va., is maintained as a residence for aged and indigent members of the Order.

The Elks membership in 1929 was distributed as follows:

Alabama, 1,911; Alaska, 2,118; Arizona, 6,528; Arkansas, 2,592; California, 65,516; Canal Zone, 373; Colorado, 16,267; Connecticut, 18,239; Del., Md. and Dist. of Col., 7,195; Florida, 8,768; Georgia, 4,231; Territory of Hawaii, 1,218; Island of Guam, 194; Idaho, 9,369.

Illinois, 37,810; Indiana, 25,808; Iowa, 15,586; Kansas, 10,682; Kentucky, 7,066; Louisiana, 5,034; Maine, 4,197; Massachusetts, 44,604; Michigan, 31,068; Minnesota, 10,623; Mississippi, 3,226; Missouri, 8,944; Montana, 7,136; Nebraska, 7,923; Nevada, 3,177; New Hampshire, 5,163; New Jersey, 52,687; New Mexico, 2,648.

New York, 100,596; North Carolina, 2,638; North Dakota, 5,343; Ohio, 41,351; Oklahoma, 6,671; Oregon, 18,858; Pennsylvania, 68,577; Philippine Islands, 485; Porto Rico, 317; Rhode Island, 5,760; South Carolina, 1,802; South Dakota, 6,735; Tennessee, 6,432.

Texas, 13,948; Utah, 5,229; Vermont, 2,654; Virginia, 8,224; Washington, 25,799; West Virginia, 10,529; Wisconsin, 16,707; Wyoming, 3,417.

Total, 779,973.

The largest lodge is Brooklyn No. 22, with 16,961 members.

Disbursements of the whole Order in 1928 for charity totaled $2,449,180.

SPAN OF LIFE IN CHIEF AMERICAN CITIES.

City.	At Birth.		At 22 Yrs.		At 32 Yrs.		At 42 Yrs.		At 52 Yrs.		At 62 Yrs.	
	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.
Baltimore	51.55	54.70	40.64	42.72	32.82	35.28	25.30	27.53	18.36	20.13	12.27	13.62
Boston	50.56	53.31	40.22	41.55	32.41	34.23	24.93	26.82	18.04	19.64	12.06	13.20
Buffalo	49.62	53.01	40.38	42.44	32.58	34.97	25.19	27.16	18.12	19.66	12.11	12.83
Chicago	52.36	55.49	41.78	43.27	33.77	35.65	26.08	27.81	18.98	20.27	12.89	13.74
Cleveland	52.47	55.77	41.02	43.15	33.00	35.56	25.16	27.88	18.51	20.39	12.22	13.73
Detroit	52.06	53.44	42.79	42.50	34.81	35.36	27.01	27.77	19.49	20.44	12.89	13.65
Los Angeles	53.53	57.68	41.52	44.73	34.15	37.31	27.00	29.68	19.83	22.06	13.55	15.06
New Orleans	49.62	54.22	36.27	39.96	28.69	33.21	21.78	26.07	15.35	18.98	10.40	12.79
New York	51.61	54.83	40.10	42.07	32.35	34.48	24.82	26.65	17.86	19.24	12.07	12.89
Philadelphia	52.22	54.92	41.04	42.29	33.13	34.84	25.60	27.12	18.43	19.66	12.42	13.29
Pittsburgh	47.18	50.51	38.06	39.78	30.76	32.86	23.96	25.92	17.42	18.83	11.78	12.62
St. Louis	52.34	56.14	40.87	43.36	32.83	35.69	25.18	27.93	17.85	20.48	11.66	13.69
San Francisco	51.76	56.50	38.35	42.31	30.85	34.79	23.76	26.97	16.91	19.67	11.38	13.11
Wash., D. C.	53.77	59.81	41.37	45.83	33.85	37.49	26.24	29.22	18.81	21.25	12.38	14.45
Average	51.65	54.87	40.63	42.51	32.82	35.00	25.32	27.27	18.29	19.84	12.35	13.36

The expectation of life for Negroes at birth is 40.45 years for males (38.45 years in the large cities), and 42.35 years for females (40.58 years in the large cities).

FEDERAL INCOME TAX CHART.

(Compiled by the Guaranty Trust Co., of N. Y., and based on Revenue Act of 1928 signed by President Coolidge on May 29.)

Chart shows tax payable by a married person or head of a family, personal exemption $3,500, but does not take cognizance of any exemption for dependents. The first $5,000 of net income in all cases is deemed to be earned.

Net Income.	Rate of Normal Tax.	Rate of Surtax.	Amount Subject to Surtax Between Change of Rates.	Normal Tax. Earned Income of $30,000 or Over.	Normal Tax. Unearned Income.	Amount of Surtax.	Total Tax. Earned Income of $30,000 or Over—Total Columns 5 and 7.	Total Tax. Unearned Income—Total Columns 6 and 7.
	Pct.	*Pct.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
4,000....	1½	.....	.....	5.63	5.63	.....	5.63	5.63
5,000....	1½	.....	.....	16.88	16.88	.....	16.88	16.88
6,000....	1½	.....	.....	28.13	31.88	.....	28.13	31.88
7,000....	1½	.....	.....	39.38	46.88	.....	39.38	46.88
7,500....	1½	.....	.....	45.00	54.38	.....	45.00	54.38
8,000....	3	.....	.....	56.25	69.38	.....	56.25	69.38
8,500....	3	.....	.....	67.50	84.38	.....	67.50	84.38
9,000....	3	.....	.....	78.75	99.38	.....	78.75	99.38
9,500....	3	.....	.....	90.00	114.38	.....	90.00	114.38
10,000....	3	.....	.....	101.25	129.38	.....	101.25	129.38
10,500....	3	1	10,000 to 10,500	112.50	144.38	5	116.25	149.38
11,000....	3	1	10,500 to 11,000	123.75	159.38	10	131.25	169.38
11,500....	3	1	11,000 to 11,500	135.00	174.38	15	146.25	189.38
12,000 ...	5	1	11,500 to 12,000	153.75	199.38	20	168.75	219.38
14,000....	5	1	12,000 to 14,000	228.75	299.38	40	258.75	339.38
16,000....	5	2	14,000 to 16,000	303.75	399.38	80	363.75	479.38
18,000....	5	3	16,000 to 18,000	378.75	499.38	140	483.75	639.38
20,000....	5	4	18,000 to 20,000	453.75	599.38	220	618.75	819.38
22,000....	5	5	20,000 to 22,000	528.75	699.38	320	768.75	1,019.38
24,000....	5	6	22,000 to 24,000	603.75	799.38	440	933.75	1,239.38
28,000....	5	7	24,000 to 28,000	753.75	999.38	720	1,293.75	1,719.38
32,000....	5	8	28,000 to 32,000	928.75	1,199.38	1,040	1,748.75	2,239.38
36,000....	5	9	32,000 to 36,000	1,128.75	1,399.38	1,400	2,308.75	2,799.38
40,000....	5	10	36,000 to 40,000	1,328.75	1,599.38	1,800	2,908.75	3,399.38
44,000....	5	11	40,000 to 44,000	1,528.75	1,799.38	2,240	3,548.75	4,039.38
48,000....	5	12	44,000 to 48,000	1,728.75	1,999.38	2,720	4,228.75	4,719.38
52,000....	5	13	48,000 to 52,000	1,928.75	2,199.38	3,240	4,948.75	5,439.38
56,000....	5	14	52,000 to 56,000	2,128.75	2,399.38	3,800	5,708.75	6,199.39
60,000....	5	15	56,000 to 60,000	2,327.75	2,599.38	4,400	6,508.75	6,999.38
64,000....	5	16	60,000 to 64,000	2,528.75	2,799.38	5,040	7,348.75	7,839.38
70,000....	5	17	64,000 to 70,000	2,828.75	3,099.38	6,060	8,668.75	9,159.38
80,000....	5	18	70,000 to 80,000	3,328.75	3,599.38	7,860	10,968.75	11,459.38
100,000....	5	19	80,000 to 100,000	4,328.75	4,599.38	11,660	15,768.75	16,259.38
Over 100,000....	5	20	.....	.....	.....	.....	.....	.....

No allowance is made in net income column for credit for dividends or interest on U. S. obligations, if any, included in net income.

Amount of surtax is the total of the instalments for the income considered.

The new law for the year 1928, and thereafter, re-enacted, as fixed by the Revenue Act of 1926, the normal tax rates for individuals at 1½%, 3% and 5%; and the surtax rates, with a maximum of 20% on amounts in excess of $100,000.

PERSONAL EXEMPTIONS.

The personal exemption of a single person remains at $1,500 and a married person or head of a family at $3,500.

The maximum amount of income which may be considered as earned was increased to $30,000.

CORPORATION TAX REDUCED.

The corporation income tax was reduced to 12%. The credit allowed corporations having a net income of $25,000 or less was increased to $3,000.

The estate tax was retained, the maximum rate being 20% with an exemption of $100,000.

AUTO TAX REPEALED.

The excise tax on automobiles was repealed. The tax on the use of foreign built boats was repealed, to take effect July 1, 1928.

DUE DATES FOR RETURNS.

Returns, except those of non-resident aliens and foreign corporations not having an office or place of business in the United States, must be made on or before the fifteenth day of the third month following the end of the taxable year. Returns of non-resident alien individuals and of the foreign corporations above referred to, if made on the basis of the calendar year, must be made on or before the fifteenth day of June and, if made on a fiscal year basis, must be made on or before the fifteenth day of the sixth month following the close of the fiscal year. (*Secs.* 53 and 217.)

OTHER TAXES NAMED IN THE 1928 ACT.

Cigars, $0.75 to $13.50 per 1,000, according to size and retail selling price; the five-cent cigar is taxed at $2 a thousand; cigarettes, $3 to $7.20 per 1,000; tobacco and snuff, 18 cents a pound.

Admissions, 10 per cent. on tickets costing over $3; 5 to 50 per cent. on those sold by speculators at excess prices; boxes or seats at performances, 10 per cent.; cabaret admissions costing over 50 cents, 15 per cent. Prize fight tickets in excess of $5, 25 per cent.

Dues, 10 per cent.

On sales of pistols and revolvers by private persons or concerns, 10 per cent.

Brewers, distillers, liquor dealers, still makers, $1,000 a year.

Opium (including its derivatives) importers, manufacturers, producers or compounders, $24 a year; retailers, $3 a year; wholesalers, $12 a year; prescribers (doctors, etc.), $3 a year; opium, etc., leaves sold or removed, 1 cent an ounce.

Bonds, debentures, certificates of indebtedness, 5 cents per $100 of face value issued or reissued; capital stock, 5 cents per $100 of par or actual value issued; 2 cents per $100 value on each sale or transfer after issue.

Passage tickets (outside U. S., Canada, Cuba and Mexico), $1 on tickets costing $30 or less; $3 for tickets at over $30 and not over $60; $5 on tickets costing over $60. Tickets costing not over $10 are exempt.

Playing cards, 10 cents a pack.

Insurance policies, 3 cents per $1 premium.

Produce sales or exchanges for future delivery, 1 cent per $100.

Distilled spirits produced or imported, $2.20 per gallon until Jan. 1, 1927; thence, to Jan. 1, 1928, $1.65 per gallon; thence, $1.10 per gallon.

U. S. CUSTOMS REVENUES AND INTERNAL REV. RECEIPTS SINCE 1800.

Year (Fiscal).	Customs.	Internal Revenue.	Year (Fiscal).	Customs.	Internal Revenue.	Year (Fiscal).	Customs.	Internal Revenue.
	Dollars.	*Dollars.*		*Dollars.*	*Dollars.*		*Dollars.*	*Dollars.*
1800....	9,080,933	809,397	1903....	284,479,582	230,740,925	1917....	225,962,393	809,393,640
1810....	8,583,309	7,431	1904....	261,274,565	232,903,781	1918....	179,998,383	3,698,955,821
1820....	15,005,612	106,261	1905....	261,798,857	234,187,976	1919....	184,457,867	3,850,150,078
1830....	21,922,391	12,161	1906....	300,251,878	249,102,738	1920....	322,902,650	5,407,580,252
1840....	13,499,502	1,682	1907....	332,233,363	269,664,023	1921....	308,564,391	4,595,357,062
1850....	39,668,686	.....	1908....	286,113,130	251,665,950	1922....	356,443,387	3,197,451,083
1855....	53,025,794	.....	1909....	300,711,934	246,212,719	1923....	561,928,807	2,621,745,227
1860....	53,187,512	.....	1910....	333,683,445	289,957,220	1924....	545,637,504	2,796,179,257
1870....	194,538,374	184,302,828	1911....	314,497,071	322,526,300	1925....	547,561,000	2,584,140,268
1880....	186,522,065	123,981,916	1912....	311,321,672	321,615,895	1926....	579,430,093	2,835,999,892
1890....	229,668,585	142,594,696	1913....	318,891,396	344,424,454	1927....	605,499,983	2,865,683,130
1900....	233,164,871	295,316,107	1914....	292,320,015	380,008,894	1928....	568,986,188	2,710,535,538
1901....	238,585,456	306,871,669	1915....	209,786,672	415,681,024	1929....	602,262,786	2,939,054,375
1902....	254,444,708	271,867,990	1916....	213,185,846	512,723,288			

U. S. INCOME-TAX RECEIPTS, YEAR ENDED JUNE 30, 1929.

States	Corporation	Individual	Total	States	Corporation	Individual	Total
	Dollars.	*Dollars.*	*Dollars.*		*Dollars.*	*Dollars.*	*Dollars.*
Alabama	3,972,733	3,626,314	7,599,048	Nebraska	3,525,644	2,331,084	5,856,729
Alaska	58,190	98,437	156,628	Nevada	696,698	379,107	1,075,806
Arizona	1,004,426	1,306,178	2,310,604	N.H.	1,303,111	2,050,237	3,353,349
Arkansas	2,082,401	1,474,897	3,557,299	N. J.	45,264,960	48,657,143	93,922,103
California	63,302,945	66,921,101	130,224,046	N. Mex.	509,262	424,278	933,541
Colorado	6,831,459	4,206,231	11,037,690	New York	336,784,291	407,997,505	744,781,797
Conn.	19,359,366	20,899,642	40,259,009	N. C.	14,257,284	5,809,510	20,066,795
Delaware	18,448,078	9,718,837	28,166,915	N. Dak.	442,255	222,878	665,134
Dist.ofCol.	7,152,235	8,525,716	15,677,952	Ohio	73,483,289	48,338,222	121,821,512
Florida	3,787,514	9,071,694	12,859,209	Oklahoma	9,619,282	7,952,322	17,571,605
Georgia	8,939,240	4,560,553	13,499,794	Oregon	3,252,063	2,650,509	5,902,572
Hawaii	3,995,956	1,477,291	5,473,247	Penn.	113,942,133	95,047,510	208,989,644
Idaho	730,078	318,593	1,048,671	R. I.	6,304,888	7,290,929	13,595,817
Illinois	120,075,562	97,325,962	217,401,525	S. C.	2,751,105	749,290	3,500,396
Indiana	14,814,468	10,647,174	25,461,642	S. Dak.	487,436	306,250	793,687
Iowa	7,376,359	5,459,306	12,835,666	Tenn.	8,243,719	5,516,925	13,760,645
Kansas	13,746,423	3,523,185	17,269,608	Texas	20,709,581	16,994,203	37,703,785
Kentucky	9,391,010	5,806,624	15,197,634	Utah	2,430,592	1,048,369	3,478,962
Louisiana	8,600,305	4,385,111	12,985,416	Vermont	1,173,836	1,135,152	2,308,989
Maine	4,331,709	4,054,892	8,386,602	Virginia	15,630,464	4,546,926	20,177,390
Maryland	15,925,953	15,406,034	31,331,988	Wash.	8,904,776	4,519,443	13,424,220
Mass.	54,847,898	54,874,977	109,722,875	W. Vir.	8,297,516	3,051,208	11,348,725
Michigan	91,960,234	48,524,248	140,484,483	Wisconsin	24,210,359	13,297,417	37,507,776
Minn.	16,785,764	10,882,506	27,668,271	Wyoming	616,698	493,624	1,110,323
Miss.	1,327,839	997,904	2,325,743				
Mo.	32,426,733	19,206,134	51,632,868	Total.	1,235,733,256	1,095,541,172	2,331,274,428
Montana	1,617,111	1,431,557	3,048,669	Expenses of collection were $34,377,082.			

GRAND TOTAL OF INCOME TAX COLLECTIONS.

Fiscal Year.	Corporation.	Individual.	Income and Excess-Profits Taxes.	Total.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*
1914	32,456,662.67	28,253,534.85	.....	60,710,197.52
1915	39,155,596.77	41,046,162.09	.....	80,201,758.86
1916	56,993,657.98	67,943,594.63	.....	124,937,252.61
1917	179,610,064.23	180,108,340.10	.....	359,718,404.33
1918	.....	.....	2,839,027,938.57	2,839,027,938.57
1919	.....	.....	2,600,783,902.70	2,600,783,902.70
1920	.....	.....	3,956,936,003.60	3,956,936,003.60
1921	.....	.....	3,228,137,673.75	3,228,137,673.75
1922	.....	.....	2,086,918,464.85	2,086,918,464.85
1923	.....	.....	1,691,089,534.56	1,691,089,534.56
1924	.....	.....	1,841,759,316.80	1,841,759,316.80
1925	916,232,697.02	845,426,352.49	.....	1,761,659,049.51
1926	1,094,979,734.17	879,124,407.16	.....	1,974,104,141.33
1927	1,308,012,532.90	911,939,910.82	.....	2,219,952,443.72
1928	1,291,845,989.25	882,727,113.64	.....	2,174,573,102.89
1929	1,235,733,256.24	1,095,541,172.40	.....	2,331,.274,428.64
Total.	6,155,020,191.23	4,932,110,588.18	18,244,652,834.83	29,331,783,614.24

CHIEF SOURCES OF INTERNAL REVENUE, OTHER THAN INCOME TAX.

Yr. Fisc.	Spirits.	Ferm'ed Liquors.	Tobacco.	Oleo-marg.	Habit Drugs.	Manf. & Prod.	Estates.	Corp. Cap. St.	Occup. pation'l.	Admis-sions.	Dues.	Prohib Enfor't.
	$1,000	*$1,000*	*$1,000*	*$1,000*	*$1,000*	*$1,000*	*$1,000*	*$1,000*	*$1,000*	*$1,000*	*$1,000*	*$1,000*
1910	148,029	60,572	58,118	1,099	.....	.....	.....	.....	.....	.....	.....	.....
1915	144,620	79,329	79,957	1,695	250	.....	.....	.....	4,967	.....	.....	.....
1916	158,682	88,771	88,064	1,486	245	.....	.....	.....	6,908	.....	.....	.....
1917	192,111	91,897	103,202	1,996	277	.....	6,076	10,472	5,237	.....	.....	.....
1918	317,554	126,286	156,189	2,337	185	36,570	47,453	24,996	2,692	26,357	2,259	.....
1919	365,211	117,840	206,003	2,792	726	75,598	82,030	28,776	4,721	50,920	4,072	.....
1920	97,905	41,966	295,809	3,728	1,514	216,230	103,635	93,020	9,913	76,720	5,198	641
1921	82,598	25	255,219	2,986	1,170	177,802	154,043	81,520	8,585	89,731	6,160	2,152
1922	45,563	46	270,759	2,121	1,269	143,942	139,419	80,612	8,663	73,385	6,616	1,980
1923	30,354	4	309,015	2,254	1,014	163,981	126,705	81,568	8,035	70,175	7,171	729
1924	27,580	5	325,639	2,814	1,057	177,532	102,967	87,472	7,814	77,712	8,010	855
1925	25,903	2	345,247	3,039	1,091	130,382	103,940	90,003	5,811	30,908	8,691	561
1926	26,436	16	370,666	3,070	982	142,493	119,216	97,386	4,547	23,981	10,074	416
1927	21,195	1	376,170	3,185	798	66,620	100,340	9,776	8	17,941	10,436	503
1928	15,308	.....	396,450	3,423	690	51,797	60,087	9,389	.....	17,725	10,353	925
1929	12,777	.....	434,444	3,623	605	5,711	61,897	6,562	.....	6,083	11,245	727

U. S. INTERNAL REVENUE RECEIPTS, YEAR ENDED JUNE 30, 1929.

Districts and States.	Income tax.	Miscellaneous taxes.	Total.
	Dollars.	*Dollars.*	*Dollars.*
Alabama	7,599,048	554,531	8,153,579
Alaska	156,628	1,107	157,736
Arizona	2,310,604	88,273	2,398,878
Arkansas	3,557,299	116,016	3,673,315
1st Calif.	68,575,383	17,894,822	86,470,205
6th Calif.	61,648,663	6,510,272	68,158,935
Total Cal.	130,224,046	24,405,095	145,629,141
Colorado	11,037,690	501,544	11,539,234
Conn.	40,259,009	1,956,109	42,215,118
Delaware	28,168,915	2,142,612	30,309,528
Dist. of Col.	15,677,952	1,416,767	17,094,719
Florida	12,859,209	8,528,952	21,388,162
Georgia	13,499,794	556,125	14,055,919
Hawaii	5,473,247	133,267	5,606,515
Idaho	1,048,671	40,946	1,089,618
1st Ill.	210,180,934	18,973,669	229,154,604
8th Ill.	7,220,591	1,852,568	9,073,160
Total Ill.	217,401,525	20,826,238	238,227,764
Indiana	25,461,642	2,635,530	28,097,172
Iowa	12,835,666	595,024	13,430,691
Kansas	17,269,608	665,097	17,934,706
Kentucky	15,197,634	11,465,315	26,662,950
Louisiana	12,985,416	2,095,284	15,080,701
Maine	8,386,602	302,370	8,688,973
Md. (St.)	31,331,988	3,314,781	34,646,769
Mass.	109,722,875	5,796,744	115,519,620
Michigan	140,484,483	10,938,968	151,423,451
Minn.	27,668,271	1,401,139	29,069,411
Miss.	2,325,743	190,425	2,516,169
1st Mo.	38,098,424	13,606,972	51,705,396
6th Mo.	13,534,444	611,771	14,146,216
Total Mo.	51,632,868	14,218,743	65,851,612
Montana	3,048,669	1,379,113	4,427,782
Nebraska	5,856,729	322,930	6,179,669
Nevada	1,075,806	64,695	1,140,501
N.H.	3,353,349	624,955	3,978,305
1st N. J.	20,279,783	2,224,765	22,504,548
5th N. J.	73,642,320	25,299,937	98,942,258
Total N. J.	93,922,103	27,524,703	121,446,807
New Mex.	933,541	31,812	965,354
1st N. Y.	47,187,188	25,170,015	72,357,204
2nd N. Y.	408,922,015	52,352,376	461,274,391
3rd N. Y.	193,812,164	15,447,149	209,259,314
14th N. Y.	41,296,083	3,152,933	44,449,016
31st N. Y.	14,045,692	798,791	14,844,483
28th N. Y.	39,518,653	1,833,139	41,351,792
Total N.Y.	744,781,797	98,754,406	843,536,203
N. C.	20,066,795	234,427,672	254,494,467
N.D.	665,134	44,751	709,885
1st Ohio	36,903,672	13,065,821	49,969,493
10th Ohio	14,027,381	4,413,801	18,441,183
11th Ohio	9,052,842	515,703	9,568,546
18th Ohio	61,837,615	2,680,379	64,517,994
Total Ohio	121,821,512	20,675,705	142,497,217
Oklahoma	17,571,605	368,907	17,940,513
Oregon	5,902,572	282,739	6,185,311
1st Penn.	121,316,563	21,638,963	142,955,526
12th Penn.	16,597,739	2,238,272	18,836,011
23rd Penn.	71,075,340	4,709,777	75,785,118
Tot. Penn.	208,989,644	28,587,012	237,576,656
R.I.	13,595,817	518,690	14,114,507
S.C.	3,500,396	156,929	3,657,326
S.D.	793,687	44,017	837,704
Tenn.	13,760,645	4,224,268	17,984,914
1st Texas	20,573,036	931,365	21,504,402
2nd Texas	17,130,748	830,788	17,961,536
Total Tex.	37,703,785	1,762,153	39,465,939
Utah	3,478,962	89,205	3,568,168
Vermont	2,308,989	54,389	2,363,379
Virginia	20,177,390	67,306,896	87,484,287
Wash. (St.)	13,424,220	596,067	14,020,287
W. Vir.	11,348,725	2,912,523	14,261,248
Wisconsin	37,507,776	1,709,943	39,217,720
Wyoming	1,110,323	56,567	1,166,890
Philippines		371,869	371,869
Total	2,331,274,428	607,779,946	2,939,054,375

Refunds of $190,164,359, reduced the above total to $2,748,890,016 in 1929.

UNITED STATES INTERNAL-REVENUE RECEIPTS, YEAR ENDED JUNE 30, 1928

States.	Income tax.	Miscel. taxes.	Total.
	Dollars.	*Dollars.*	*Dollars.*
Alabama	8,177,753	469,909	8,647,663
Alaska	148,614	1,493	150,108
Arizona	1,737,389	182,772	1,920,161
Arkansas	4,223,761	108,260	4,332,021
California	114,436,673	22,781,440	137,218,113
Colorado	11,452,559	426,730	11,879,300
Con'ectic't	34,381,187	1,732,952	36,114,139
Delaware	20,011,261	1,006,382	21,017,644
Dist. of Col	16,360,745	824,708	17,185,454
Florida	17,180,799	6,303,569	23,484,369
Georgia	13,549,945	633,40	14,183,347
Hawaii	6,112,482	131,899	6,244,382
Idaho	1,071,449	72,982	1,144,431
Illinois	201,134,675	20,884,986	222,019,661
Indiana	27,245,618	7,449,168	34,694,786
Iowa	11,310,290	672,01	11,982,309
Kansas	18,685,704	620,577	19,306,282
Kentucky	15,000,549	9,009,885	24,010,435
Louisiana	12,180,548	2,033,88	14,214,433
Maine	8,086,129	383,467	8,469,596
Maryland	28,253,996	3,057,20	31 311,205
Mas'chu'ts	98,529,722	6,887,664	105,417,386
Michigan	128,483,571	45,494,655	173,978,227
Minnesota	26,105,278	1,739,594	27,844,872
Mississippi	2,673,803	86,630	2,760,433
Missouri	51,978,795	13,106,184	65,084,979
Montana	2,824,762	153,677	2,978,439
Nebraska	5,332,712	399,955	5,732,668
Nevada	690,109	112,739	802,849
N'w Ham.	3,245,709	748,740	3,994,449
N'w Jersey	82,955,633	22,646,228	105,601,861
N'w Mex.	771,759	16,817	788,576
New York	646,604,323	106,580,699	753,185,023
No. Caro	20,351,497	204,963,805	225,315,303
No. Dak.	748,381	40,110	788,492
Ohio	113,764,003	25,922,994	139,686,998
Oklahoma	20,188,067	326,819	20,514,887
Oregon	5,815,361	294,021	6,109,383
Pen'sylv'a	216,937,912	29,804,771	246,742,684
Rhode Isl.	13,571,998	1,198,436	14,770,434
So. Caro	3,736,743	160,668	3,897,411
So. Dak.	678,653	66,732	745,391
Tennessee	13,350,618	4,485,133	17,835,751
Texas	45,659,115	1,673,412	47,332,528
Utah	3,663,069	108,319	3,771,438
Vermont	2,220,604	82,008	2,302,703
Virginia	21,890,640	61,804,231	83,694,871
Wash'gton	12,156,274	582,722	12,738,997
W. Virg'ia.	13,352,481	2,529,739	15,882,220
Wisconsin	43,492,214	4,659,371	48,151,586
Wyoming	2,057,041	109,842	2,166,883
Philip. Isl.		387,953	387,953
Total	2,174,573,102	615,962,434	2,790,535,537

Refunds of $142,293,567 reduced the net total receipts to $2,648,141,970 in 1928.

FEDERAL RESERVE BOARD.

(As of Oct. 13, 1929.)

Ex-Officio Members—A. W. Mellon, Secretary of the Treasury, *Chairman*; J. W. Pole, Comptroller of the Currency.

Appointive Members—Governor—Roy A. Young; *Vice Governor*—Edmund Platt; other members—Adolph C. Miller, Charles S. Hamlin, George R. James, Edward H. Cunningham.

Secretary—Walter L. Eddy; *Assistant Secretaries*—J. C. Noell, E. M. McClelland; *Fiscal Agent*—Wm. M. Imlay; *General Counsel*—Walter Wyatt; *Chief Federal Reserve Examiners*—J. F. Herson. *Director, Div. Research and Statistics*—E. A. Goldenweiser; *Chief Div. Bank Operations*—E. L. Smead.

INCOME TAX RECEIPTS BY STATES, 1926, 1927, 1928, YEARS ENDED JUNE 30.

State.	1926.	1927.	1928.	State.	1926.	1927.	1928.
	Dollars.	*Dollars.*	*Dollars.*		*Dollars.*	*Dollars.*	*Dollars.*
Ala.	8,276,196	10,458,447	8,177,753	Nebr.	6,172,516	5,807,695	5,332,712
Alaska	150,823	143,351	148,614	Nevada	450,979	501,137	690,109
Ariz.	1,573,910	1,673,191	1,737,389	N. H.	3,012,765	3,007,486	3,245,709
Ark.	4,391,724	5,053,439	4,[illegible]	N. J.	72,251,938	81,300,585	82,955,633
Cal.	101,712,719	112,308,807	114,336,673	N. M.	635,119	658,048	771,759
Col.	11,975,701	12,656,644	11,452,569	N. Y.	569,505,437	649,299,444	646,604,323
Conn.	29,001,346	33,799,750	34,381,187	N. C.	17,677,936	19,204,557	20,351,497
Del.	9,539,634	14,319,246	20,011,261	N. D.	778,088	740,217	748,381
D. C.	15,190,626	16,019,922	16,360,745	Ohio	109,070,914	117,649,359	113,764,003
Fla.	33,989,492	35,589,829	17,180,799	Okla.	15,788,615	23,256,879	20,188,067
Ga.	12,436,864	13,698,661	13,549,945	Ore.	6,399,176	6,197,774	5,815,361
Hawaii	6,060,722	5,143,509	6,[illegible]2,482	Pa.	195,395,832	222,915,261	216,937,912
Idaho	1,128,838	1,428,429	1,[illegible]1,449	R. I.	14,460,565	12,904,620	13,571,998
Illinois	176,861,248	194,970,988	201,134,675	S. C.	4,176,144	3,825,735	3,736,743
Ind.	24,922,712	28,[illegible]5,715	27,245,618	S. D.	858,476	737,327	678,658
Iowa	11,111,594	11,[illegible]5,742	11,310,290	Tenn.	11,398,292	13,723,260	13,350,618
Kansas	15,562,895	19,[illegible]6,805	18,685,704	Texas	36,878,727	42,964,080	45,659,115
Ky.	14,638,764	16,257,681	15,000,549	Utah	3,462,747	3,768,779	3,663,069
La.	12,582,610	15,396,335	12,180,548	Vt.	2,661,312	2,656,126	2,220,694
Me.	8,591,328	8,564,062	8,086,129	Va.	17,827,023	20,780,578	21,890,640
Md.	25,646,453	29,626,632	28,253,996	Wash.	12,156,713	13,192,297	12,156,274
Mass.	100,017,316	105,269,384	98,529,722	W. Va.	11,653,718	15,750,409	13,352,481
Mich.	122,570,115	141,638,551	128,483,571	Wis.	28,650,351	35,682,249	43,492,214
Minn.	28,384,381	26,219,220	26,105,278	Wyo.	1,364,591	1,830,105	2,057,041
Miss.	3,526,683	3,324,901	2,673,803				
Mo.	49,603,446	55,902,564	51,978,795	Total.	1,974,104,141	2,219,952,444	2,174,573,102
Mon.	1,967,948	2,376,244	2,824,762				

INCOME TAX RECEIPTS, YEARS ENDED JUNE 30.

State.	1925.	1924.	1923.	1922.	1921.	1920.	1919.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
Ala.	8,288,275	7,984,248	6,202,620	9,009,980	14,222,196	14,413,217	10,392,914
Alaska	194,373	190,228	135,333	173,787	279,821	372,949	282,287
Ariz.	1,416,794	1,591,667	1,164,518	1,427,375	2,784,941	2,685,349	4,962,995
Ark.	4,692,973	5,431,632	4,517,829	5,336,259	8,228,525	9,928,798	6,330,623
Cal.	92,884,521	92,401,441	84,526,238	92,251,113	129,170,961	129,858,256	74,267,539
Col.	11,740,667	11,543,616	10,920,856	14,545,632	25,085,242	28,116,321	11,650,463
Conn.	26,565,630	26,901,779	25,131,076	27,245,128	49,208,464	75,958,692	61,367,388
Del.	6,563,730	9,127,303	3,411,768	3,986,808	9,848,404	18,606,049	20,262,707
D. of C.	12,480,534	24,164,324	7,783,800	10,521,286	8,054,914	8,928,755	7,323,728
Fla.	12,118,724	8,005,449	6,338,119	8,433,602	10,108,053	8,027,614	4,465,886
Ga.	12,613,731	113,869,531	12,075,270	14,270,049	28,792,002	33,731,763	25,062,149
Hawaii	5,067,186	5,021,422	3,506,113	14,632,590	18,859,082	10,737,113	5,148,047
Idaho	1,437,069	1,271,318	1,526,394	1,372,658	3,495,317	3,730,432	3,129,349
Ill.	159,415,517	161,072,008	163,626,874	179,633,973	260,944,632	310,793,183	201,473,091
Ind.	23,702,838	26,384,368	25,042,436	30,715,323	49,809,541	49,691,162	34,572,093
Iowa	10,716,799	12,854,337	11,807,867	17,046,762	28,893,632	30,352,715	22,414,925
Kan.	15,140,741	17,323,184	19,915,327	22,242,152	26,873,549	29,147,067	21,667,746
Ky.	14,324,935	14,284,640	11,935,824	16,285,993	25,091,391	27,003,568	22,101,296
La.	12,396,172	13,400,178	10,473,771	15,477,826	29,242,438	31,973,161	19,079,461
Me.	7,682,797	8,978,879	9,369,688	10,989,939	14,459,568	16,091,951	10,067,350
Md.	25,110,611	25,562,203	27,872,540	29,070,268	44,948,063	49,905,750	30,930,214
Mass.	99,444,237	109,857,344	112,172,735	130,180,292	214,058,413	202,205,596	207,680,626
Mich.	100,868,402	104,373,390	88,678,933	112,258,181	184,494,520	187,521,362	90,670,964
Minn.	22,426,721	23,855,584	21,553,185	30,297,828	53,886,224	53,405,882	30,651,657
Miss.	3,483,059	4,008,798	2,903,454	3,405,262	7,244,977	9,741,970	5,873,160
Mo.	42,467,573	44,116,410	40,151,456	55,035,012	86,121,595	101,963,031	67,028,558
Mont.	1,885,190	2,060,349	2,182,064	2,302,331	3,925,062	4,830,980	5,461,404
Neb.	5,681,386	7,458,788	7,275,308	9,215,553	15,828,609	16,293,174	13,058,788
Nev.	451,905	581,492	500,672	564,023	718,136	849,759	6,189,394
N. H.	3,221,556	4,038,467	6,604,043	4,311,758	8,304,563	12,579,024	8,180,113
N. J.	66,137,027	69,620,079	65,316,777	67,766,027	97,391,062	109,908,678	67,886,787
N. M.	733,076	890,835	760,225	811,595	1,306,243	3,672,720	1,107,408
N. Y.	496,709,727	506,593,933	456,952,558	527,695,268	814,736,708	1,109,802,448	712,425,702
N. C.	15,877,646	18,173,156	18,183,734	23,179,559	38,664,722	44,962,859	30,161,143
N. D.	667,994	771,387	886,826	1,163,686	2,072,432	2,418,932	2,563,333
Ohio	95,526,111	95,412,405	88,033,261	128,898,272	203,847,472	279,754,263	184,420,127
Okla.	9,820,419	11,028,491	10,455,830	14,276,549	21,637,304	20,039,573	14,764,148
Ore.	6,784,101	8,242,145	8,260,908	14,934,997	21,973,313	21,994,587	12,750,223
Pa.	189,164,203	198,270,944	181,444,848	254,798,087	351,737,751	429,930,354	302,011,410
R. I.	14,234,137	16,241,809	17,355,117	19,992,123	36,086,774	40,139,827	17,598,438
S. C.	5,787,515	7,544,042	5,337,290	9,699,041	26,032,367	23,943,518	17,200,692
S. D.	858,943	1,169,750	1,188,439	1,643,613	3,648,484	4,829,056	5,028,765
Tenn.	11,770,261	11,943,033	11,570,882	14,174,092	25,606,805	26,295,058	17,220,136
Tex.	28,885,747	28,295,285	26,383,605	34,978,069	52,190,451	76,216,882	47,800,575
Utah	3,385,994	2,937,172	2,865,695	2,971,391	7,116,197	5,545,632	6,348,347
Vt.	3,001,689	2,935,562	2,525,632	2,997,106	4,803,370	5,431,701	3,363,459
Va.	15,303,807	16,048,299	13,706,232	18,577,380	31,594,405	37,447,725	23,851,930
Wash.	12,334,154	14,723,370	10,742,417	15,733,630	29,221,065	34,755,730	25,996,295
W. Va.	12,044,165	14,386,962	13,314,012	22,961,834	35,819,846	27,671,888	21,357,100
Wis.	26,697,560	27,215,717	24,276,851	36,879,538	57,131,042	69,522,627	46,954,967
Wyo.	1,450,159	1,595,540	1,580,212	1,547,897	2,537,062	3,207,279	2,215,977
Total	1,761,659,049	1,841,759,317	1,691,089,534	2,086,918,465	3,228,137,673	3,956,936,003	2,600,783,902

CORPORATION CASH AND STOCK DIVIDENDS, DISTRIBUTED BY YEARS.

Year (Calendar)	Aggregate		With net income		Without net income	
	Cash.	Stock.	Cash.	Stock.	Cash.	Stock.
1922	3,436,715,104	3,348,049,865	3,182,869,985	3,166,915,547	253,845,119	181,134,291
1923	4,169,117,678	891,285,583	3,820,619,642	787,167,102	348,498,036	104,118,481
1924	4,338,822,858	510,525,809	3,994,990,754	466,820,095	343,832,104	43,705,714
1925	5,189,474,507	544,431,367	4,817,301,320	502,489,520	372,173,187	41,941,847
1926	5,945,292,657	757,649,610	5,530,210,586	716,219,451	415,082,071	41,430,159

FEDERAL INCOME TAX RETURNS, BY CALENDAR YEARS.

Year (Cal.)	Individual Returns Total No.	Individual Returns No. Taxable	Individual Net Income	Individual Total Tax	Corporation Returns Total No.	Corporation Returns No. Taxable	Corporation Net Income	Corporation Total Tax
			1,000 Doll.	*Dollars*			*1,000 Doll.*	*Dollars*
1913	357,598	.....	3,900,000	28,253,535	316,909	188,866	4,714,000	71,381,275
1914	357,515	.....	4,000,000	41,046,162	299,445	174, 05	3,940,000	80 190.694
1915	336,652	.....	4,600,000	67,943,595	366,442	190,911	5,310,000	124 937,252
1916	437,036	362,970	6,300,000	173,386,694	341,253	206,984	8,766,000	345.191,844
1917	3,472,890	2,707,234	13,700,000	691,492,954	351,426	232,079	10,730,000	2,937,826,707
1918	4,425,114	3,392,863	16,000,000	1,127,721,8 '5	317,579	202,061	8,362,000	4,286,486,257
1919	5,332,760	4,231,181	19,900,000	1,269,630,104	320,198	209,634	9,412.000	3,444,971,682
1920	7,259,944	5,518,310	23,700,000	1,075,053,686	345,595	203,233	7,903,000	2,700,288,329
1921	6,662,176	3,589,985	19,600,000	719,387,106	356,397	171,239	4,336,000	1,420,962,538
1922	6,787,481	3,681,249	21,400,000	861,057,308	382,883	212,535	6,964,000	1,644,833,576
1923	7,698,321	4,270,121	24,800,000	661,666,133	398,933	233,339	8.322.000	1 598,772,931
1924	7,369,788	4.489.698	25,700,000	704,265,390	417,421	236.389	7,587,000	1,585,814,936
1925	4,171,051	2,501,166	21,900,000	734,555,183	430,072	252,334	9,584,000	1,904,886,389
1926	4,138,092	2,470,990	21,960,000	732,470,790	455,320	253,134	9,673,000	1,229,797,233
1927	4,122,242	2,464,168	22,570,000	826,245,497	452,853	249,847	8,068,000	1,007,981,774

Gross income in 1927 was—individual, $26,098,485,961; corporation, $102,816,264,031.

Individuals, in 1927, held $4,282,028,449 of wholly tax exempt securities.

NET INCOME BY CLASSES AND TAXES, CALENDAR YEAR 1927.

Income Class.	No. of Returns.	Net Income.	Net Tax.	Income Class.	No. of Returns.	Net Income.	Net Tax.
		000 omitted.	*000 omtd.*			*000 omitted.*	*000 omtd.*
Under $5,000 (estd.).....	3,234,887	$8,708,353	$13,230	$70,000 to $80,000.....	3,831	$286,591	$30,728
$5,000 to $6,000.....	168,161	922,441	3,465	$80,000 to $90,000.....	2,764	234,191	27,053
$6,000 to $7,000.....	123,124	797,163	4,021	$90,000 to $100,000....	2,100	199,272	24,561
$7,000 to $8,000.....	90,976	695,045	4,155	$100,000 to $150,000...	5,240	633,510	87,078
$8,000 to $9,000.....	67,448	572,380	4,109	$150,000 to $200,000...	2,114	362,710	55,366
$9,000 to $10,000.....	53,164	504,959	4,282	$200,000 to $250,000...	1,099	244,676	38,772
$10,000 to $11,000.....	43,357	454,411	4,356	$250,000 to $300,000...	641	175,798	29,037
$11,000 to $12,000.....	34,654	398,161	4,495	$300,000 to $400,000...	752	258,455	44,086
$12,000 to $13,000.....	28,372	354,296	4,589	$400,000 to $500,000...	383	170,265	29,192
$13,000 to $14,000.....	23,599	318,455	4,700	$500,000 to $750,000...	383	228,523	38,456
$14,000 to $15,000.....	20,059	290,869	4,829	$750,000 to $1,000,000.	172	149,396	25,569
$15,000 to $20,000.....	65,132	1,122,639	24,892	$1,000,000 to $1,500,000	134	160,184	27,831
$20,000 to $25,000.....	35,282	787,265	25,986	$1,500,000 to $2,000,000	54	93,675	15,578
$25,000 to $30,000.....	21,797	595,840	26,313	$2,000,000 to $3,000,000	55	132,044	21,271
$30,000 to $40,000.....	24,671	850,113	49,015	$3,000,000 to $4,000,000	22	74,835	12,341
$40,000 to $50,000.....	13,406	597,495	43,737	$4,000,000 to $5,000,000	8	36,523	4,852
$50,000 to $60,000.....	8,152	445,041	38,275	$5,000,000 and over....	10	88,995	14,588
$60,000 to $70,000.....	3,613	362,585	35,420				

CORPORATION RETURNS, 1927, (CAL. YR.) BY INDUSTRIES.

Industrial Group.	Corporations Reporting Net Income. No. Ret'rns	Gross Income.	Net Income.	Income Tax.	C'p'tions Report'g No Net Income. No. Ret'rns	Gross Income	Deficit.
Agric. industries ..	4,220	$583,586,371	$74,526,941	$7,336,339	5,165	$165,959,789	$56,415,201
Mining & quarrying	5,127	1,996,973,426	252,226,095	32,125,055	12,872	1,793,608,049	257,427,339
Manufacturing:							
Food products.....	7,457	6,208,467,767	346,724,358	44,275,067	4,730	1,955,797,354	83,863,774
Liq., bev. and tob.	1,339	1,462,896,075	172,517,341	22,951,964	1,179	99,671,098	14,319,023
Textiles (inc. fur)..	7,873	5,895,827,427	396,769,556	48,017,904	5,191	1,324,950,432	106,182,018
Leather.....	1,381	1,297,278,382	94,117,539	11,926,245	846	246,356,528	16,114,196
Rubber, products...	316	993,163,410	69,156,797	8,725,822	292	186,560,168	13,927,898
Lumb'r, wood prod.	4,077	1,856,837,606	122,925,625	15,193,452	3,478	806,116,741	79,781,970
Paper and products	1,324	1,350,154,709	121,413,831	15,646,562	652	149,696,460	13,021,306
Printing, publish'g.	6,459	1,902,188,071	187,270,755	23,744,432	3,709	346,712,514	30,392,283
P'trol'm & mineral refining products.	254	2,029,427,029	96,395,931	12,792,273	351	1,150,845,702	61,916,915
Chemicals,ali'dsubs	3,442	2,926,285,370	300,287,823	39,224,220	2,695	294.372,195	33,586,986
Stone, clay, glasspds	2,531	1.315,530,273	154,593,722	20,262,957	1,992	231.104,274	26,739,855
Metal products, etc	10,978	13,639,253,166	1,183,753,972	155,895,694	8,458	2,594,594,915	216,372,784
Miscellaneous mfg.	3,855	1,617,836,514	146,698,801	18,558,942	3,753	376.453,739	46,937,990
Total manuf'g...	51,286	42,495,145,799	3,392,626,051	437,215,584	37,326	9,763,232,120	743,156.998
Construction.....	9,741	2,245,356,382	155,748,164	18,085,386	7,065	605,744,885	55,666,568
Transportation....	6,781	7,961,083,111	636,951,586	106,841,618	5,127	1,452,426,006	125,801,221
Other pub. utilities	6,420	2,733,335,520	516,399,309	68,639,035	3,177	149,669,479	16,124,070
Total trans. and other pub. util't's	13,201	10,694,418,631	1,353,350,895	175,480,653	8,304	1,602,095,485	141,925,291
Trade.....	71,360	31,572,416,441	1,105,796,112	131,823,271	44,728	5,931,238,704	328,338,121
Service:							
Domestic.....	5,677	1,040,532,210	70,459,657	8,003,335	4,737	532,171,823	46,343,521
Amusements.....	3,588	653,332,833	72,466,155	8,555,724	3,548	210,325,015	32,329,105
Professional.....	3,315	224,349,188	29,708,739	3,409,726	2,802	230,191,037	11,985,299
Business.....	2,722	448,417,939	46,709,768	5,863,103	1,964	75,116,234	8,944,180
Other Service.....	2,312	107,892,814	10,729,350	1,018,752	1,837	233,894,746	5,722,477
Total service....	17,614	2,474,524,984	230,073,669	26,850,640	14,888	1,281,698,855	105,324,582
Finance.....	63,273	6,729,840,927	1,026,538,444	122,726,841	49,882	2,549,414,112	491,808,661
Insurance c'mp'nies	959	2,070,080,762	255,751,359	29,314,377	770	330,309,169	59,941,744
Other finance.....	11,640	1,907,137,476	217,476,225	26,674,773	5,682	231,652,234	62,503,561
Total finance....	75,872	10,707,059,165	1,499,766,028	178,715,991	56,334	3,111,375,515	614,253,966

INDIVIDUAL NET INCOMES IN 1926, (CAL. YR.).

States.	Returns Number.	Net Income Amount.	Tax Amount.	States.	Returns. Number.	Net Income Amount.	Tax Amount.
Alabama	28,540	$136,523,003	$2,449,196	Nebraska	33,532	$134,153,838	$1,381,307
Alaska	.....	.....	.....	Nevada	4,797	16,795,822	195,497
Arizona	10,509	41,716,578	498,896	N. Hampshire	15,276	66,743,817	1,201,298
Arkansas	19,363	84,661,070	1,481,272	New Jersey	176,320	1,032,297,571	32,858,092
California	315,344	1,571,673,688	46,238,346	New Mexico	6,513	24,631,507	227,471
Colorado	35,110	154,804,655	2,959,248	New York	753,044	4,984,020,281	247,164,324
Connecticut	81,449	433,776,846	13,751,314	N. Carolina	35,332	153,231,981	3,398,245
Delaware	9,301	70,544,423	5,100,884	North Dakota	9,881	33,169,117	180,012
Dist. of Col.	40,024	198,055,768	5,526,436	Ohio	231,196	1,146,495,871	32,839,052
Florida	56,109	322,601,033	10,415,636	Oklahoma	37,497	223,036,805	8,134,654
Georgia	36,744	171,146,482	2,888,409	Oregon	30,955	135,030,190	2,175,322
Hawaii	9,146	42,950,279	1,096,213	Pennsylvania	397,575	2,138,168,594	76,887,315
Idaho	11,617	39,887,951	184,344	Rhode Island	26,362	155,050,974	5,545,787
Illinois	374,725	1,995,011,009	64,213,839	S. Carolina	13,809	53,060,331	420,164
Indiana	77,126	358,624,820	9,934,476	S. Dakota	12,414	38,153,263	208,893
Iowa	49,476	203,015,362	2,917,845	Tennessee	35,495	175,714,293	3,651,457
Kansas	32,732	153,673,206	2,756,049	Texas	111,438	547,562,501	12,681,529
Kentucky	32,821	169,100,987	3,226,344	Utah	13,568	53,832,169	628,773
Louisiana	38,996	185,478,850	3,311,535	Vermont	8,646	42,209,083	821,296
Maine	19,709	107,979,178	3,419,490	Virginia	37,797	176,024,673	3,495,042
Maryland	67,100	374,758,859	11,517,168	Washington	61,950	245,592,050	2,800,548
Massachusetts	224,042	1,147,576,498	37,115,976	W. Virginia	32,544	141,396,917	2,304,313
Michigan	176,804	905,814,790	32,408,357	Wisconsin	99,251	407,642,742	8,418,047
Minnesota	64,227	296,414,294	6,475,311	Wyoming	8,930	31,750,581	263,319
Mississippi	17,196	64,859,892	643,744				
Missouri	99,509	512,801,163	13,496,872	Total	4,138,092	21,958,505,649	732,470,790
Montana	16,191	59,289,994	561,833				

In the details contained in the compilation of tax statistics for 1926 New York State, with ninety-two, easily led all other States in the number of taxpayers who reported personal incomes of $1,000,000 or more. Figures by States for the "millionaire" class for 1926 follow:—

California—Two of $5,000,000 or more, one from $3,000,000 to $4,000,000.

Colorado—One from $1,000,000 to $1,500,000.

Connecticut—Two from $1,000,000 to $1,500,000.

Delaware—One from $2,000,000 to $3,000,000, two from $1,500,000 to $2,000,000, two from $1,000,000 to $1,500,000.

District of Columbia—Two from $1,000,000 to $1,500,000.

Florida—Four from $1,000,000 to $1,500,000.

Illinois—One of $5,000,000 or more, two from $2,000,000 to $3,000,000, five from $1,500,000 to $2,000,000, twelve from $1,000,000 to $1,500,000.

Indiana—Two from $4,000,000 to $5,000,000, four from $1,000,000 to $1,500,000.

Iowa—One from $1,000,000 to $1,500,000.

Maine—One from $2,000,000 to $3,000,000.

Maryland—One from $2,000,000 to $3,000,000, two from $1,000,000 to $1,500,000.

Massachusetts—One from $3,000,000 to $4,000,000, two from $2,000,000 to $3,000,000, three from $1,500,000 to $2,000,000, two from $1,000,000 to $1,500,000.

Michigan—Two of $5,000,000 or more, two from $3,000,000 to $4,000,000, one from $2,000,000 to $3,000,000, two from $1,500,000 to $2,000,000, five from $1,000,000 to $1,500,000.

Missouri—One from $2,000,000 to $3,000,000.

New Jersey—One from $2,000,000 to $3,000,000, four from $1,500,000 to $2,000,000, five from $1,000,000 to $1,500,000.

New York—Four of $5,000,000 or more, three from $4,000,000 to $5,000,000, nine from $3,000,000 to $4,000,000, seventeen from $2,000,000 to $3,000,000, fifteen from $1,500,000 to $2,000,000, forty-four from $1,000,000 to $1,500,000.

Ohio—One from $4,000,000 to $5,000,000, three from $1,500,000 to $2,000,000, five from $1,000,000 to $1,500,000.

Oklahoma—One of $5,000,000 or more, one from $2,000,000 to $3,000,000, one from $1,500,000 to $2,000,000.

Pennsylvania—Three of $5,000,000 or more, three from $4,000,000 to $5,000,000, one from $3,000,000 to $4,000,000, five from $2,000,000 to $3,000,000, six from $1,000,000 to $2,000,000, nineteen from $1,000,000 to $1,500,000.

Texas—One of $5,000,000 or more.

Wisconsin—One from $2,000,000 to $3,000,000, three from $1,000,000 to $1,500,000.

INDIVIDUAL RETURNS, NET INCOME REPORTED CALENDAR YEARS BY INCOME CLASSES

Income Classes.	1917.	1918.	1919.	1920.	1921.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
Under $1,000	.....	.....	.....	.....	213,849,934
$1,000 to $2,000	2,461,137,000	2,232,354,577	2,829,113,151	4,050,066,618	3,620,761,768
$2,000 to $3,000	2,064,977,328	3,626,824,833	3,807,286,365	6,184,543,368	5,325,931,265
$3,000 to $5,000	2,115,864,601	3,535,219,007	4,513,264,030	5,039,607,239	4,054,891,244
$5,000 to $10,000	1,827,508,088	2,145,690,016	2,954,137,253	3,068,330,963	2,378,759,237
$10,000 to $25,000	1,687,165,619	1,736,548,050	2,412,275,757	2,547,904,786	1,958,156,206
$25,000 to $50,000	1,042,320,083	978,042,710	1,277,364,635	1,307,785,113	979,629,305
$50,000 to $100,000	846,894,335	679,720,737	896,497,209	810,386,333	582,230,218
$100,000 to $150,000	400,492,040	284,106,740	358,392,923	265,511,505	163,520,999
$150,000 to $300,000	474,651,960	305,024,817	371,148,536	215,138,673	145,948,047
$300,000 to $500,000	209,904,969	144,545,428	159,070,948	89,313,552	61,342,550
$500,000 to $1,000,000	214,631,270	119,075,548	128,290,396	79,962,894	42,780,426
$1,000,000 and over	306,835,914	137,486,892	152,650,245	77,078,139	49,411,329
Total	13,652,383,207	15,924,639,355	19,859,491,448	23,735,629,183	19,577,212,528

Income Classes.	1922.	1923.	1924.	1925.	1926.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
Under $1,000	247,564,383	252,513,019	235,451,546	58,305,538	67,237,548
$1,000 to $2,000	3,630,570,922	3,363,641,547	3,564,474,084	1,774,601,508	1,747,917,122
$2,000 to $3,000	5,153,497,468	6,073,443,625	5,277,147,446	2,047,969,883	2,042,903,198
$3,000 to $5,000	4,500,557,809	6,469,194,945	6,827,924,126	5,236,003,283	4,872,788,835
$5,000 to $10,000	2,641,904,702	2,653,026,193	2,991,187,905	3,463,852,012	3,838,953,366
$10,000 to $25,000	2,255,871,080	2,538,079,115	2,855,396,811	3,544,898,379	3,660,622,482
$25,000 to $50,000	1,208,273,932	1,350,680,468	1,599,848,363	2,032,239,284	1,954,653,219
$50,000 to $100,000	805,223,854	833,398,237	1,066,783,643	1,418,948,285	1,389,339,134
$100,000 to $150,000	260,203,553	280,656,213	377,644,950	572,859,982	570,189,915
$150,000 to $300,000	266,814,381	260,584,012	374,609,374	655,300,217	661,411,549
$300,000 to $500,000	116,672,075	124,569,194	171,248,552	339,773,657	340,214,162
$500,000 to $1,000,000	107,670,678	95,107,209	158,462,179	327,367,523	317,881,202
$1,000,000 and over	141,386,993	152,071,881	155,974,475	422,456,852	494,393,917
Total	21,336,212,530	24,777,465,658	25,656,153,454	21,894,576,403	21,958,505,649

INTERNAL REVENUE COLLECTED ON TOBACCO.

(Compiled from the reports of the Commissioner of Internal Revenue, Treasury Department.

Year ending June 30—	Total.	Manufactured tobacco.	Cigars.	Cigarettes.	Snuff.	Special and miscellaneous taxes.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
1863	3,097,620	2,578,972	476,589	.....	34,466	7,593
1864	8,592,099	7,086,685	1,255,425	.....	240,934	9,055
1865	11,401,373	8,017,021	3,072,476	14,945	283,352	13,579
1866	16,531,008	12,339,922	3,474,439	1,798	698,174	16,675
1867	19,765,148	15,245,478	3,661,984	.....	798,365	59,321
1868	18,730,095	14,947,108	2,951,675	.....	745,308	86,004
1869	23,430,708	16,845,480	4,957,680	2,273	525,584	1,098,691
1870	31,350,708	23,926,699	5,697,354	21,426	373,785	1,331,444
1871	33,578,907	25,133,522	6,569,568	28,605	427,018	1,420,194
1872	33,736,171	24,073,683	7,535,075	31,082	497,093	1,599,238
1873	34,386,303	22,315,810	8,899 733	40,658	1,082 049	2,048 053
1874	33 242,876	20,900,510	9 289,896	43 696	1,038,446	1,970 328
1875	37 303,462	24,133,726	10,140,384	65,444	1,067,033	1,896,875
1876	39,795,340	25,694,313	10,969,787	135,485	1,061,468	1,934,287
1877	41,106,547	27,053,072	10,799,459	261,819	1,095,696	1,896,501
1878	40,091,755	25,320.158	11,430,145	289,082	1,063,714	1,988,656
1879	40,135,003	24,703,875	12,115,468	416,985	902,135	1,996,540
1880	38,870,140	21,170.155	14,206,819	715,269	634,609	2,143,288
1881	42,854,991	22,833,287	16,095,725	992,981	689,183	2,243,815
1882	47,391,989	25,033,742	18,245,852	972,570	778,651	3,261,174
1883	42,104,250	22,136,402	16 895 215	929,975	736,023	1,406,635
1884	26,062,400	13,488.047	10,368,805	454,409	448,212	1,302,927
1885	26,407,088	13,953,410	10,077,287	529,536	508,944	1,337,911
1886	27,907,363	14,834 095	10,532.804	655,570	493,284	1,391,610
1887	30,108,067	15,995,019	11,364,916	792,280	524,942	1,430,910
1888	30,662,432	16,154,049	11,534,180	931,363	594,959	1,447,881
1889	31,866,860	17,076,900	11,602,157	1,057,831	645,089	1,466,883
1890	33,958,991	18,325,482	12,263,670	1,116,627	737,731	1,515,481
1891	32,796,271	17,080,633	13,424,678	1,342,269	726,156	222,535
1892	31,000,493	15,237,742	13,646,398	1,446,492	669,861	.....
1893	31,889,712	15,143,985	14,442,591	1,588,362	714,774	.....
1894	28,617,899	14,127,108	12,200,752	1,592,413	697,626	.....
1895	29,704,908	14,896,178	12,491,917	1,666,924	649,889	.....
1896	30,711,629	15,220,028	12,713,268	2,025,417	752,916	.....
1897	30,710,297	15,644,089	12,189,507	2,080,583	796,118	.....
1898	36,230,522	17,657,276	14,031,727	3,599,705	931,869	9,945
1899	52,493,208	28,453,989	16,854,524	4,213,215	1,751,798	1,219,682
1900	59,355,084	33,477,244	19,785,482	3,969,191	1,790,000	333,077
1901	62,481,907	35,292,206	21,459,868	3,427,044	2,003,021	299,768
1902	51,937,925	28,612,644	18,722,046	2,687,139	1,696,429	219,667
1903	43,514,810	18,640,059	20,705,042	3,038,061	1,130,455	1,193
1904	44,655,809	19,719,043	20,498,712	2,229,599	1,209,455	.....
1905	45,659,910	20,069,346	20,976,092	3,346,560	1,267,912	.....
1906	48,422,997	21,294,930	22,008,184	3,757,431	1,362,452	.....
1907	51,811,070	22,131,178	23,102,587	5,163,233	1,404,072	.....
1908	49,862,754	21,846,564	21,259,326	5,403,998	1,352,866	.....
1909	51,887,178	23,325,439	20,814,317	6,126,244	1,621,178	.....
1910	57,889,352	26,210,461	21,778,459	7,979,829	1,920,603	.....
1911	66,910,480	30,461,923	22,589,719	11,607,091	2 251 747	.....
1912	70 365,568	31,502,810	22,371,110	14,085,289	2,406,359	.....
1913	76,470,324	32,349,002	23,571,303	17,893,262	2,656,757	.....
1914	79,815,860	33,000,378	23,629,223	20,564,920	2,621,339	.....
1915	79,764,071	32,197,893	21,715,448	20,976,988	2,387,126	2,486,616
1916	88,063,948	33,378,574	22,881,203	26,410,363	2,653,655	2,739,853
1917	103,201,592	35,661,057	25,512,910	38,226,019	2,830,220	971,386
1918	155,757,278	47,485,438	30,910,204	66,492,268	4,049,402	6,819,966
1919	204,972,560	57,491,384	37,011,264	90,603,156	5,134,366	14,742,390
1920	294,267,609	74,663,768	56,415,928	151,494,416	6,948,931	4,744,566
1921	254,035,199	59,330,627	52,090,073	135,409,628	5,795,402	1,409,469
1922	269,757,875	66,341,839	45,152,102	150,245,993	6,947,631	1,070,310
1923	307,919,496	68,857,707	48,137,581	182,715,736	7,175,216	1,033,256
1924	324,609,639	66,700,456	45,961,304	203,777,498	7,005,090	1,165,291
1925	344,057,803	66,922,389	44,077,665	225,142,225	6,753,620	1,161,904
1926	369,605,294	67,710,773	38,852,093	254,951,590	6,917,719	1,173,119
1927	375,000,180	65,070,195	23,897,348	279,015,556	6,907,665	109,416
1928	396,450,041	62,774,542	23,180,859	301,828,344	7,461,355	81,131
1929	434,444,543	61,159,178	22,871,826	342,034,060	7,126,909	73,044

Does not include tax collected on cigarette papers and tubes for 1918 to 1928.

ESTATES AND FEDERAL ESTATE TAXES, BY CALENDAR YEARS.

Year (Cal.)	Returns Filed.			Gross Estate.			Net Taxable Estate.			Tax.		
	Total.	Res. Dec.	Non-Res. Dec.	Total.	Resident Deced'ts	Non-Res. Dec.	Total.	Resident Deced'ts.	Non-Res. Dec.	Total.	Res. Dec.	Non-Res. Dec.
	No.	*No.*	*No.*	*$1,000*	*$1,000*	*$1,000*	*$1,000*	*$1,000*	*$1,000*	*$1,000*	*$1,000*	*$1,000*
1916-'21.	45,126	42,230	2,896	8,893,239	8,785,642	107,597	5,509,522	5,407,673	101,849	356,516	351,138	5,378
1922....	13,876	12,563	1,313	3,014,073	2,955,959	58,113	1,704,974	1,652,832	52,142	120,562	117,624	2,938
1923....	15,119	13,963	1,156	2,804,327	2,774,741	29,587	1,532,061	1,504,621	27,440	89,109	88,384	725
1924....	14,513	13,011	1,502	2,566,522	2,540,922	25,599	1,395,816	1,372,421	23,395	71,939	71,451	488
1925....	16,019	14,013	2,006	3,001,089	2,958,364	42,725	1,658,869	1,621,008	37,861	87,322	86,223	1,099
1926....	14,567	13,142	1,425	3,407,923	3,386,267	21,656	1,972,537	1,952,969	20,567	101,805	101,324	481
1927....	10,700	9,353	1,347	3,173,235	3,146,289	26,945	1,761,617	1,735,840	25,777	41,686	40,931	755

The estate tax in the year ended June 30, 1928, totaled $60,087,234; in the year ended June 30, 1929, it was $61,897,141.

The collection in chief states in 1929 was—California, $6,073,976; Florida, $5,129,551; Illinois, $3,444,314; Missouri, $3,119,091; New York, $14,380,929; Pennsylvania, $8,959,404.

The period, 1916-1921, covers Sept. 9, 1916 to Jan. 15, 1922, inclusive. The period, 1923-1927, covers Jan. 16-Dec. 31, inclusive. The figures thus offer a historical comparison.

The Federal Estate Tax, under the 1926 act (still in effect on Dec. 15, 1928) exempts estates not exceeding $100,000. The tax is 1% on the first $50,000 above the $100,000, and rises to 4% on $200,000 in excess of the exemption, and so on up to $10,000,000 on which the tax is 19%; on over $10,000,000 it is 20%.

WOOL MANUFACTURES.

SUMMARY FOR THE UNITED STATES: 1919-1927.

(Data for establishments with products under $5,000 in value included for 1919 but not for subsequent years.)

Year or Period.	No. estab.	Wage Earners (Aver. No.)	Wages.	Cost of Materials.	Value of Prod.	Value Added by Manuf.	Horse-power.
			Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	
1927	891	194,827	224,799,962	615,783,590	1,036,143,196	420,359,606	647,854
1925	973	206,110	243,042,793	756,074,445	1,198,293,372	442,218,927	659,331
1923	1,004	237,454	280,152,690	748,556,135	1,312,719,242	564,163,107	615,601
1921	961	190,894	209,573,372	463,849,422	888,557,982	424,708,560	.....
1919	1,016	196,404	198,586,069	759,193,319	1,234,657,092	475,463,773	522,917

Cost of materials includes supplies, fuel and power.

PRINCIPAL MATERIALS USED IN WOOL MANUFACTURES.

Kind.	1927.	1925.	1919.	Kind.	1927.	1925.	1919.
Wool:	*Pounds.*	*Pounds.*	*Pounds.*		*Pounds.*	*Pounds.*	*Pounds.*
In condi. in which purch...	538,990,486	555,262,841	491,728,475	Other animal hair.....	45,222,142	51,738,821	38,706,214
Domes. tot.	285,900,786	261,893,253	253,838,421	Cotton, total...	32,821,904	40,188,264	22,682,635
For. total..	253,089,700	293,369,588	237,890,054	Rags, clip's, etc.	60,600,140	76,498,210	48,799,746
Equiv. sc'r'd..	308,329,156	351,067,225	295,388,119	Recov'r'd wool fiber.....	31,839,261	40,345,188	37,532,275
Animal hair, tot.	62,909,554	69,518,341	54,340,349	Waste and noils purchased....	62,874,935	65,365,752	53,277,222
Camel, alpaca and vicuna.	1,999,685	2,330,895	3,362,621	Tops, purch....	50,228,496	46,359,672	26,466,973
Mohair.....	15,687,727	15,448,625	12,271,514	Yarns, purch...	231,171,121	237,578,886	171,914,904

PRODUCTS, BY CLASS, QUANTITY, AND VALUE OF WOOL-MANUFACTURES.

Class and State.	Quantity.				Value.	
	1927.		1925.		1927.	1925.
	Pounds.	*Sq. Yds.*	*Pounds.*	*Sq. Yds.*		
Aggregate value.....	.....	.....	.....	.....	$1,036,143,196	$1,198,293,372
Suitings, dress goods, overcoatings & cloakings, total	251,695,989	443,918,414	262,822,396	461,167,753	489,833,895	566,674,525
All wool woolen.....	96,328,803	136,635,181	105,257,724	153,568,014	167,483,716	199,336,369
All wool worsted.....	81,896,439	173,754,429	82,803,391	179,162,874	231,998,202	275,617,190
Wool-and-cotton mixed....	19,950,198	30,432,771	17,016,594	26,124,408	20,843,583	25,942,503
Cooton-warp woolen.....	29,535,457	46,609,011	40,159,170	60,933,611	24,785,326	40,029,187
Cotton-warp worsted.....	9,055,249	26,888,903	17,585,517	41,378,846	14,341,769	25,749,276
Other suitings.....	14,929,843	29,598,119	.....	.....	30,381,299	.....
Domett flannels & shirtings	4,163,069	8,413,356	2,907,735	7,205,582	3,626,505	3,439,996
Satinets and linseys.....	2,198,782	3,973,651	7,826,186	11,877,015	1,281,783	4,244,228
Blankets, all-wool.....	10,618,104	19,343,118	8,050,404	12,472,703	14,202,925	12,751,788
Blankets, cotton-mixed.....	6,814,804	12,091,285	5,058,469	8,097,783	4,858,922	5,174,672
Blankets, cotton-warp.....	10,599,352	19,915,630	9,346,463	15,070,065	6,909,492	7,410,534
Horse blankets.....	1,206,809	1,068,644	1,578,780	1,409,513	631,014	786,560
Oth. woolen & worsted woven	28,818,624	44,386,102	38,072,104	64,247,614	53,644,444	75,430,883
Upholst'y mat'ls & automobile linings, exc. pile fabrics	3,060,255	4,249,635	.....	.....	6,806,189	.....
Pile fabrics (exc. cloakings).	16,640,654	14,409,947	.....	.....	31,188,754	.....
Mohair.....	14,381,122	12,277,475	.....	.....	28,138,395	.....
Wool.....	2,154,832	2,038,851	.....	.....	2,886,364	.....
Other pile fabrics.....	104,700	93,621	.....	.....	163,995	.....
Goods unclassified.....	9,117,715	25,726,520	.....	.....	15,649,501	.....
Carpets and rugs, total.....	.....	67,192,933	.....	72,100,609	163,217,310	181,884,186
Felt goods.....	58,470,407	.....	57,684,289	.....	39,014,473	40,591,057
Wool-felt hats.....	.....	765,127	.....	558,471	8,261,764	7,687,643
Yarns for sale.....	147,366,823	.....	152,571,059	.....	184,350,831	211,537,081
Woolen.....	49,306,029	.....	44,449,281	.....	42,056,098	34,357,596
Worsted.....	75,284,108	.....	83,419,345	.....	115,172,066	144,501,462
Wool-and-cotton mixed....	9,750,909	.....	19,409,003	.....	8,943,595	25,927,433
Other yarns.....	13,025,777	.....	5,293,430	.....	18,179,072	6,750,590
Noils & wool waste, for sale	49,809,499	.....	44,630,005	.....	18,733,525	18,166,758
Other products, value, and am'ts rec'd for contr. work	.....	.....	.....	.....	47,576,313	62,513,461

AMERICAN AGRICULTURE: PREHISTORIC DECADENCE.

(By Vernon C. Allison)

The two most striking aspects of the ruins of former civilization in the Americas are that they are largely located in districts which are today probably incapable of supporting the population density which produced them, and they were based upon village life dependent upon maize.

A logical deduction is that the appearance, rise and decline of these civilizations are correlated with the appearance, rise and decline of conditions favoring the propagation of the maize plant.

Maize was first cultivated in Mexico or Central America about 7000 B. C. Evidence in favor of a world-wide climatic reversal within historic times is presented.

In 1226 a pulsating change occurred, involving *decrease* in precipitation in Yucatan and an *increase* over the remainder of the Americas.

Under these favorable conditions in Yucatan the Maya civilization developed, until 500 A. D. when with the return of modern conditions the Maya culture deteriorated.

After 500 A. D. increasing aridity in the Southwest impoverished the agriculture developed in the preceding era of greater moisture.

After this, nomadic pressure from more favored regions forced the consolidation of Southwestern civilization, and its restriction to that encountered by the Spaniards.

The exceptionally dry climate of the first five centuries A. D. encouraged the Ozark Bluff-Dwellers to leave the caverns and shelters. During these centuries the Mound Builders developed their civilization in the Mississippi River drainage.

With the return of moist conditions starting about 500 A. D. the Mound Builders fought a losing battle until about 1000 A. D.

They then scattered, retaining in peripheral regions a large share of their maize culture.

ESTIMATED GROSS VALUE OF FARM PRODUCTION.

(Values in thousands of dollars, i.e., 000 omitted; compiled by U. S. Dept. of Agriculture.)

State.	Crops.				Animal Products.			
	1925.	1926.	1927.	1928.	1925.	1926.	1927.	1928.
Maine	105,152	83,653	76,707	54,254	32,093	31,999	31,853	30.931
New Hampshire	24.901	22,204	20,893	19,909	19,413	20,010	19,474	20,618
Vermont	43,976	41,988	38,621	36,251	40,763	39,765	41.851	41,338
Massachusetts	53,524	50,647	49,111	49,107	41,394	43,282	41,824	42.189
Rhode Island	5,709	5,686	5,046	4,841	6,796	6,661	6,356	6,732
Connecticut	39 613	39,144	37,939	38,137	32,890	35,039	34,680	35,787
New York	330,359	296,753	276,084	260,587	249,345	249.515	267,024	280,588
New Jersey	79,832	74,406	77,828	70,256	45,938	47,194	47,797	49,852
Pennsylvania	299,258	271,561	264,865	240,720	203,909	215,088	220,935	225,564
Ohio	331,856	325,685	304,427	296,937	284,590	286,746	278,183	279,601
Indiana	270,082	262,864	251,494	255,695	230,508	246,454	238,043	245,229
Illinois	493,422	456,165	441,843	507,877	365,355	380,369	352,400	348,283
Michigan	255,105	242,084	232,745	237,315	182,683	164,054	190,294	190,553
Wisconsin	313,649	295,896	295,102	287,976	319,753	346,619	353,726	341.444
Minnesota	356,464	334,650	336,685	327,396	322,931	346,029	320,240	341,603
Iowa	499,850	499,264	532,427	555,275	570,400	6..0,245	569,401	574,210
Missouri	339,542	306,163	31..162	309,755	295,298	311,432	297,227	306,666
North Dakota	278,447	192,880	281,798	241,946	87,820	89,958	82,509	87,497
South Dakota	187,135	127,742	259,386	173,491	160,125	163,548	150,708	160,111
Nebraska	319,074	265,660	421,041	342,671	303,846	303,551	284,542	296,350
Kansas	299,725	328,207	386,528	400,628	239,690	237,244	237,938	260,567
Delaware	19,100	16,852	18,700	20,099	8,772	9,393	9,537	9,957
Maryland	84,295	84,055	86,515	69,482	43,386	43,461	46,914	48,114
Virginia	184,128	198,331	215,039	202,004	79,134	81.359	89,519	93,375
West Virginia	85,557	84,053	81,500	82,616	46,790	51,122	52,582	55,287
North Carolina	376,911	370,082	390,590	359,212	76,859	81,619	80,751	78,705
South Carolina	186,604	173,598	190,115	167,123	34,938	36,425	37,108	36,550
Georgia	281,678	266,618	299,182	267,092	74,099	79,277	78,822	74,032
Florida	104,564	94,812	100,713	113,602	20,540	22,765	21,228	20,495
Kentucky	216,560	207,064	210,925	229,246	110,245	119,167	122,122	114,939
Tennessee	222,151	219,873	229,446	229,060	93,497	102,369	101,397	98,919
Alabama	266,465	225,667	265,472	228,781	59,049	64,602	57,118	54,354
Mississippi	334,121	239,506	267,247	248,716	51,462	55,106	56.275	54,733
Arkansas	255,971	213,278	222,036	232,028	59,420	65,929	62,866	59,863
Louisiana	200,387	151,939	157,989	167,747	33,569	34,005	31,956	31,776
Oklahoma	309,577	313,023	301,495	309,460	108,286	15,964	124,425	131,908
Texas	662,499	706,404	791,800	808,134	213,720	232,364	247,871	263,164
Montana	106,047	107,020	158,835	123,740	71,190	71,906	68,288	82,338
Idaho	119,412	91,808	113,9..7	96,398	55,410	55,136	53,841	61,427
Wyoming	31,897	31,061	32,248	34,097	40,012	40,555	41,247	50,215
Colorado	135,384	120,671	132,212	117,463	77,846	79,095	81,786	89,811
New Mexico	26,677	30,712	26,618	30,540	29,992	34,847	37,134	39 328
Arizona	36,140	31,529	39,569	49,326	19,195	21,147	23,159	22,940
Utah	52,516	38,418	42,558	42,441	36,929	38,378	38,193	43,698
Nevada	11,421	8,274	7,811	8,365	16,370	16,902	15,475	17,290
Washington	170,503	151,120	172,983	150,418	73,704	72,500	75,058	80,312
Oregon	99,305	92,847	102,652	96,075	67,399	68,385	67,753	74,307
California	483,314	470,614	510,612	532,503	181,871	186,022	190,351	201,384
United States	9,989,859	9,261,501	10,070,581	9,726,822	5,819,224	6,054,632	5,979,781	6,154,884

DISTRIBUTION OF GROSS VALUE OF PRODUCTION AND OF GROSS AND CASH INCOME FROM PRODUCTION, BY COMMODITIES.

(Five Year Average, 1924-1928; compiled by U. S. Dept. of Agriculture.)

Item.	Per-centage of gross income.	Per-centage of cash income.	Item.	Per-centage of gross income.	Per-centage of cash income.
Crops:	*Per cent.*	*Per cent.*	Crops—Continued:	*Per cent.*	*Per cent.*
Corn	3.37	3.71	Grapes	.53	.59
Wheat	7.23	8.39	Cranberries	.05	.06
Oats	1.28	1.51	Strawberries	.47	.55
Barley	.53	.63	Other berries	.27	.31
Rye	.29	.33	Pecans	.05	.05
Buckwheat	.08	.09	Oranges	.93	1.09
Rice	.35	.41	Grapefruit	.13	.15
Grain sorghums	.15	.18	Other fruit	.62	.69
Pop corn	.02	.02	Other nuts	.14	.16
Cotton lint	11.74	13.85	Maple sirup and sugar	.07	.08
Cottonseed	1.31	1.55	Sugar beets	.47	.55
Tobacco	2.19	2.58	Sugar-cane and sirup	.20	.12
Potatoes, white	2.93	2.73	Sorghum sirup	.16	.08
Sweet potatoes	.79	.70	Farm gardens	2.48	.....
Truck crops	2.69	2.93	Nursery products	.17	.21
Hay	1.69	2.00	Forest products	2.69	1.84
Sweet sorghum forage	.02	.03	Greenhouse products	.66	.77
Flaxseed	.39	.46	Animal products:		
Broomcorn	.04	.05	Cattle and calves	8.65	9.91
Hops	.05	.06	Hogs	13.21	12.62
Alfalfa seed	.07	.09	Sheep and lambs	1.31	1.51
Clover seed, red and alsike	.13	.15	Poultry (chickens)	3.67	2.58
Clover seed, sweet and jap	.04	.04	Eggs	5.70	5.13
Timothy seed	.05	.06	Milk	15.57	13.85
Field beans	.41	.48	Wool	.80	.94
Soy beans	.05	.06	Mohair	.06	.08
Cow peas	.03	.03	Bee products	.10	.08
Peanuts	.31	.36	Horses	.13	.16
Apples	1.65	1.57	Mules	.10	.12
Peaches	.52	.47			
Pears	.21	.20	Total	100.00	100.00

VALUE OF AMERICAN CROPS AND INCOME THEREFROM.

(Value in thousands of dollars; i.e., 000 omitted; compiled by U. S. Dept. of Agriculture.)

Product.	Gross value.				Gross income.			
	1925.	1926.	1927.	1928.	1925.	1926.	1927.	1928.
Crops.								
Corn	2,046,550	2,023,242	2,365,302	2,341,462	336,482	324,312	408,124	423,417
Wheat	972,481	1,014,854	1,047,127	900,754	804,175	861,799	875,486	764,621
Oats	584,482	506,687	563,119	597,480	150,428	117,264	116,180	146,696
Barley	131,655	107,602	183,999	204,751	55,385	36,767	72,920	84,401
Rye	37,585	34,401	49,068	36,002	27,903	24,119	38,621	26,730
Buckwheat	12,235	11,002	13,318	11,794	9,480	8,132	10,507	8,851
Rice	49,268	45,621	42,168	37,319	45,231	42,395	40,558	35,844
Grain sorghums	80,251	74,065	104,712	93,433	12,135	14,360	28,072	18,749
Emmer and spelt	2,313	1,279	3,213	2,450	190	82	269	196
Popcorn	3,676	1,651	1,181	1,302	3,676	1,651	1,181	1,308
Cotton lint	1,577,396	1,121,222	1,314,093	1,300,502	1,577,396	1,121,222	1,314,093	1,300,502
Cottonseed	220,381	172,134	206,971	227,895	162,543	130,027	156,157	170,974
Tobacco	250,774	236,702	256,875	276,448	250,774	236,702	256,875	276,448
Potatoes, white	531,689	500,743	456,456	293,679	430,685	400,185	382,890	234,380
Sweet potatoes	103,941	98,483	102,588	88,675	101,212	96,239	100,817	86,730
Truck crops	346,833	287,597	308,231	326,926	346,833	287,597	308,231	326,926
Hay	1,254,585	1,268,419	1,284,620	1,182,960	204,045	192,622	179,989	178,638
Sweet sorghum	28,296	29,973	36,280	28,748	2,373	2,782	3,534	2,852
Flaxseed	50,746	39,252	49,737	37,316	47,253	36,163	46,943	34,297
Broom corn	4,219	4,285	4,212	4,850	4,219	4,285	4,212	4,850
Hemp	224	195	112	116	224	195	112	116
Hops	6,232	7,206	7,024	6,328	6,232	7,206	7,024	6,328
Alfalfa seed	11,825	9,645	8,315	7,026	10,822	8,608	7,365	5,975
Clover seed	16,206	13,181	27,527	18,399	13,346	9,778	24,558	15,277
Clover seed sweet	5,903	8,817	6,327	4,168	4,229	6,483	4,694	2,966
Timothy seed	6,561	6,834	5,424	2,977	6,101	6,460	5,173	2,712
Field beans	52,470	41,383	50,346	68,181	48,324	38,041	45,964	62,395
Soybeans	23,431	21,808	28,050	29,944	5,958	5,843	6,510	6,447
Cowpeas	34,552	28,843	36,866	26,768	4,439	3,773	4,272	3,065
Peanuts	39,480	33,376	47,122	39,213	35,732	29,304	42,015	34,435
Velvet beans	9,636	11,991	14,520	14,805				
Apples	215,050	211,896	173,744	200,582	207,785	199,066	168,929	193,189
Peaches	64,171	68,426	50,494	63,649	62,506	64,667	49,164	60,253
Pears	29,066	22,399	24,298	24,167	28,196	21,508	23,569	23,503
Grapes	66,168	64,603	65,332	49,601	65,299	63,621	64,493	48,160
Cranberries	6,370	5,623	6,089	7,743	6,370	5,623	6,089	7,743
Strawberries	50,512	58,373	59,179	53,711	50,512	58,373	59,179	53,711
Other berries	28,311	32,615	36,857	31,881	28,311	32,615	36,857	31,881
Pecans	7,030	9,772	4,592	4,030	7,030	9,772	4,592	4,030
Oranges	89,864	104,082	118,313	142,285	89,864	104,082	118,313	142,285
Grapefruit	16,855	11,146	19,456	18,901	16,855	11,146	19,456	18,901
Other fruits	63,463	79,285	74,605	81,931	63,283	78,816	74,468	81,466
Other nuts	19,080	12,450	20,958	15,818	19,080	12,450	20,958	15,818
Maple sirup & sug.	7,679	9,802	9,166	7,526	7,629	9,802	9,166	7,526
Sugar beets	47,137	54,964	59,455	50,960	47,137	54,964	59,455	50,960
Sugar cane & sirup	33,836	24,802	24,219	24,669	29,525	20,376	19,355	20,786
Sorghum sirup	23,646	29,080	25,716	24,683	17,399	21,405	18,854	18,138
Farm gardens	301,583	284,349	266,082	303,651	301,583	284,349	266,082	303,651
Nursery products	20,432	20,432	20,432	20,432	20,432	20,432	20,432	20,432
Forest products	327,011	317,981	309,852	311,091	327,011	317,981	309,852	311,091
Greenhouse prod.	76,839	76,839	76,839	76,839	76,839	76,839	76,839	76,839
Total	9,989,859	9,261,501	10,070,581	9,726,822	6,230,471	5,531,376	5,919,948	5,757,484
Animal Products.								
Cattle and calves	808,901	869,504	940,727	1,137,176	1,002,954	1,010,030	1,005,770	1,124,474
Hogs	1,598,320	1,753,645	1,570,027	1,387,122	1,666,402	1,757,626	1,506,949	1,477,721
Sheep and lambs	173,568	174,872	177,508	197,406	152,612	155,876	150,962	171,463
Poultry (chickens)	410,827	462,333	457,823	444,208	408,883	445,631	449,314	457,464
Eggs	722,925	735,323	668,218	746,285	691,897	704,037	639,868	717,103
Milk	1,852,191	1,896,855	2,005,097	2,061,464	1,758,841	1,804,605	1,910,545	1,965,358
Wool	97,245	88,485	86,240	109,209	97,245	88,485	86,240	109,299
Mohair	5,790	7,219	7,537	10,228	5,790	7,219	7,537	10,228
Bee products	11,984	11,129	12,490	9,493	11,934	11,129	12,490	9,493
Horses	44,736	38,056	38,028	36,998	14,749	16,227	14,973	15,406
Mules	22,787	17,211	16,086	15,205	10,537	10,194	12,701	12,216
Total	5,819,224	6,054,632	5,979,781	6,154,884	5,821,049	6,001,059	5,797,349	6,070,225
Grand total					12,051,520	11,542,435	11,717,297	11,827,709

Note.—The values shown above for feed and seed crops, horses, and mules, include sales by farmers in some States eventually bought by farmers in other States. These inter-farm sales tend to overstate the total income from farm production for the country as a whole.

THE MYSTERY OF SAP, IN WOOD.

Moisture in wood, or sap, is chiefly water with small percentages of organic and mineral matter present in soluble form. In the sapwood these materials are largely sugars, but in the heartwood they are principally tannins, resins, and dyestuffs.

For all practical purposes, in the drying of wood, sap can be considered as water, since only very small quantities of the other materials pass on in evaporation.

Moisture is held in green or wet wood in two ways. It is contained within the otherwise practically empty cell cavities, and it is absorbed in the cell walls.

The cell water is called "free" water; that in the cell walls may be termed "imbibed" water. Free water is found in the cell cavities only when the cell walls are fully saturated.

Shrinkage of wood takes place only with a loss of moisture and swelling with the absorption of moisture. But all loss of moisture is not accompanied by shrinkage. As wood dries, it first gives up its free water.

After the cell cavities become empty, the moisture in the saturated cell walls is drawn off. Wood does not start to shrink until the cell walls begin to lose moisture.

The point at which the cell cavities are empty but the cell walls are still saturated is thus an important one in drying. It is known as the fiber-saturation point. The moisture content at this point varies from 20 to 35 per cent, but for most woods is between 25 and 30 per cent.

In actual practice, of course, the cells near the surface fall below this point before those on the interior have reached it, and the outer wood tends to shrink before the inner. Such a state is often the cause of serious drying troubles.

Free water is present in both the heartwood and sapwood of most living trees but in greatly differing quantity. Sapwood usually contains more moisture than heartwood.

WILLIAMSBURG, VA.

(The ancient capital is to be restored to its Colonial appearance through the generosity of John D. Rockefeller, Jr.)

In 1623 Gov. Wyatt considered running a pale between the James and York Rivers from Martin's Hundred to Cheskiack. This plan was delayed. In 1632, Dr. John Pott received a patent for 1,200 acres of land, and erected palisades from Queen's Creek to Archer's Hope Creek. Between the two creeks a settlement was made on a ridge, known as Middle Plantation. In 1639 Middle Plantation was commanded by Lieut. Richard Popeley.

1674—Middle Plantation was included in a parish called Bruton.

1693—An act of the Assembly designated Middle Plantation as the site for the proposed "free school and college" of William and Mary.

October, 1698—Governor Nicholson made Middle Plantation the seat of the government, and in 1699 the Assembly approved the change. The place was newly called Williamsburg, after the reigning monarch, William, and the first survey was made by Theodorick Bland. The area of Williamsburg was 283 acres. The main street was named Duke of Gloucester Street in 1705 in honor of Queen Anne's eldest son.

1705—The General Assembly met in the new capitol building for the first time. The Governor's Palace was begun.

1706—Matley's Free School founded.

1715—Present Bruton church was finished on site of former church built in 1683.

1716—William Levingston built the first theatre in America.

1722—The last year of Spotswood administration, the town of Williamsburg was made "a city corporate," and John Holloway became first mayor.

1730—First printing office established by William Parks.

1736—The Virginia Gazette begun by William Parks.

1746—The capitol building burned.

May 30, 1765—Patrick Henry made his famous speech in the house of Burgesses at Williamsburg.

May 6, 1776—The fifth and most important of all revolutionary conventions in Virginia convened and adopted the Constitution of Virginia, the first written constitution of the New World.

1780—Thomas Jefferson became governor of Virginia in June, 1779, and remained in Williamsburg until April, 1780, when he went to Richmond, which had been selected as the seat of the government in place of Williamsburg.

July 4, 1781—Cornwallis and his army left Williamsburg.

There remain in the town more than 40 public buildings and private Colonial residences which stood before the Revolution. These have been bought and will be maintained.

The College of William and Mary of Williamsburg possesses what is believed to be the only building in the United States designed by Sir Christopher Wren.

The little old Colonial courthouse on Court Green still stands. Three or four more modern buildings will be razed to restore the Green.

Directly across from the courthouse stands a curious eight-sided tower called the Powder Horn. It was built in 1714 and was an ammunition house from which Washington supplied himself when he marched off to Braddock's relief.

Lord Dunmore's removal of the powder from this arsenal in April, 1775, precipitated the Revolution in Virginia, on the morning after the Battle of Lexington, but before the news of that encounter had reached the South.

Bassett Hall, one of the finest ancient buildings in the town, stands at the end of a long lane of trees. It was the property of Burwell Bassett, whose uncle, George Washington, was frequently a visitor. The great-grandfather of Martha Washington is buried in the Bruton Parish Churchyard.

In 1841, Vice-President John Tyler was living at Bassett Hall when the son of Secretary of State Daniel Webster galloped down the long lane of trees to bring him the news of the death of President Harrison and of his own succession. The house stands in a park of several hundred acres of woodland.

One of the famous buildings of Williamsburg, the Raleigh Tavern, was destroyed by fire in 1859. It is to be restored. The "ordinary" in this tavern was operated in colonial times by Henry Wetherburn, whose wares were so favorably known that William Randolph sold 200 acres of land to Thomas Jefferson's father for "Henry Wetherburn's biggest bowl of arrack punch."

Raleigh Tavern was twice used as an assembly place for the House of Burgesses, when the Royal Governor dissolved the Assembly for discussing disloyal petitions and resolutions, including the decision to set aside a day for fasting and prayer in 1774 when news of the blockade of Boston Harbor was received.

Raleigh Tavern was the birthplace of the Phi Beta Kappa, the first chapter of the well-known scholastic fraternity being established there on December 5, 1776.

Behind the clerk's house stands the old prison, which was built in 1701. In it were confined the associates of Black Beard, the pirate, who were executed in 1718. It is amusing to recall that £300 of the original subscriptions for founding the college were accredited to "several pirates" on the account books.

THE UNITED STATES CENSUS.

(From data supplied by the Bureau.)

The Constitution requires that a population census of the United States be taken decennially. The First Census was taken in 1790, and the most recent, the Fourteenth, in 1920. The Census Bureau was made a permanent organization in 1902, and since 1913 has been a branch of the Department of Commerce.

The scope of the decennial census, which at first was little more than a simple count of the population by family groups and by sex and color, has been extended from time to time until in 1920 it covered in detail the following subjects: (1) Population, including occupations; (2) Agriculture, including irrigation and drainage; (3) Manufactures; (4) Mines, quarries, and oil and gas wells. Approximately 87,000 enumerators, together with a large number of supervisors, clerks, and other employees, were engaged in the task of collecting the data, compiling the statistics, and preparing the reports for publication. A decennial census of the United States is the most extensive investigation of its character undertaken by any governmental or other agency in any country; and the Bureau of the Census is the largest statistical organization in the world.

In addition to the comprehensive decennial censuses, the Bureau carries on numerous other statistical inquiries of greater or less magnitude at intervals ranging in length from 10 years to one week. Of these inquiries, the most important are the following: Decennial—the blind and the deaf; institutional population (the dependent, defective, and delinquent classes); religious bodies; wealth, public debt, and taxation; transportation by water. Quinquennial—agriculture (decennial prior to 1920) electrical industries (electric light and power plantsr electric railways, telephones, and telegraphs). Biennial—manufactures. Annual—births; deaths; marriages and divorces; prisoners; insane in institutions; financial statistics of states and cities; forest products; clay and other refractory products; farm equipment; glue and gelatin. Other inquiries are made at semiannual, quarterly, monthly, and more frequent intervals, covering production of cotton, hides, leather, shoes, and many other commodities.

In 1927 the Bureau took for the first time a census of distribution or trade in some of the principal cities.

One of the important features of the Census Bureau's work is the montnly publication of the Survey of Current Business, which gives indices of current and past business conditions for the more important industries.

The Director of the Census is appointed by the President. The present Director is William M. Steuart of Michigan; the Assistant to the Director, Joseph A. Hill of New Hampshire. The permanent organization includes five chief statisticians, namely: for Population, Leon E. Truesdell; for Manufactures, Le Verne Beales; for Statistics of States and Cities, Starke M. Grogan; for Agriculture, Cotton and Tobacco, William L. Austin; for Vital Statistics, T. F. Murphy. The regular force of the Bureau at Washington during intercensal periods comprises about 700 persons, and in addition approximately 700 special agents are employed intermittently in the South for the collection of data in regard to cotton and cottonseed. During a decennial census period the office force in Washington reaches a maximum of about 6,000 employees.

INDEPENDENCE HALL NATIONAL MUSEUM, PHILADELPHIA.

Independence Hall was at first called "The State House of Pennsylvania." It now comprises the main or central building (Independence Hall), two arcades connecting it with two two-story buildings called the Wings or Province Halls, and two separate corner buildings, one Congress Hall, the other Old City Hall, one on the corner of Fifth Street and the other on the corner of Sixth Street, facing on Chestnut Street, Philadelphia. The State House group of buildings was designed and built by Andrew Hamilton, a Philadelphia lawyer, who bought the land, for which he created a trust. Congress and City Halls were in Hamilton's original scheme of the State House group, but were not built until after the close of the Revolution. The group of buildings covers a frontage of 396 feet on Chestnut Street.

ORIGINAL BUILDING.

The original building (Independence Hall) in the group was begun in 1732 and was opened and first put to use in September, 1736, when William Allen, Mayor and prominent merchant of Philadelphia, gave a dinner to the citizens. In October, 1736, the Legislature, of which Benjamin Franklin was clerk, moved into the completed part of the structure, then known as the "East Room." A new Province bell was ordered from and cast by Thomas Lister of Whitechapel, London, and arrived at Philadelphia, August, 1752. In a test the bell was cracked, and only after being re-cast twice (by Pass & Stow, two local workmen) was it finally successfully rung. This is the bell now known as the "Liberty-Bell." In June, 1753, Pass & Stow placed in position in the State House steeple the Liberty Bell, weighing 2,080 pounds. The State House was practically completed in 1759. Here are some of the historical events that have taken place in Independence Hall:

June 15, 1775, Washington accepted his appointment as General of the Continental Army.

July 4, 1776, Colonies issued the Declaration of Independence.

July 15, 1776, convention to form a new Constitution for Pennsylvania met here.

USED AS A PRISON.

September 11 and October 4, 1777, American officers captured at the Battles of Brandywine and Germantown were held prisoners in the building by the British.

Congress, which convened in Independence Hall March 4, 1777, left again on September 18, 1777; returned July 2, 1778, and continued to sit there until the close of the Revolution.

July 9, 1778, the Articles of Federation and Union between the States were signed in Declaration Chamber by eight States. The five remaining States signed later, the last, Maryland, on March 1, 1781.

CONSTITUTION FRAMED.

May 14, 1787, the Federal Convention to frame a Constitution for the United States assembled, sitting until September.

December 13, 1787, the Pennsylvania Convention met to ratify the Philadelphia Constitution.

In 1824 Lafayette was given a reception there.

December 6, 1790, the Congress of the United States occupied the County Building, now known as Congress Hall, one of the Independence Hall group, and remained there until the seat of Government was removed to Washington in 1800.

March 4, 1793, George Washington was inaugurated in Congress Hall, at the beginning of his second term as President; and John Adams was inaugurated there March 4, 1797. The House of Representatives occupied the lower floor and the Senate the second floor.

SUPREME COURT HELD THERE.

February 7, 1791, the Supreme Court of the United States held its first session on the second floor of the City Building, now known as Old City Hall, one of the Independence Hall group, and stayed there until August 15, 1800. The Supreme Court of Pennsylvania sat on the second floor of the building also. The City Building was used as the municipal headquarters until March 27, 1895.

In 1816 the City of Philadelphia bought the entire property.

There are many historic oil portraits in the National Portrait Gallery, including Washington and other early American public men.

Independence Hall was formally thrown open as a public historical museum July 4, 1876, although parts of this building were used as a museum as early as 1790. Cost of its annual upkeep is $25,000. Its art collection, made up in the main of original pictures of celebrities of Colonial and Revolutionary times, is worth over $500,000. The museum collection consists of furniture, manuscripts, musical instruments, water colors, missiles, maps, coins, currency, weapons, metals, prints, wearing apparel, utensils, and books.

There are no pay days. The National Museum is open to the public daily throughout the year, from 9 A. M. to 4 P. M.; including Sundays. The National Museum, Independence Hall group, is located on the south side of Chestnut Street, between Fifth and Sixth Streets.

UNITED STATES BUREAU OF ENGRAVING AND PRINTING.

(An official revision of the Bureau.)

The Bureau of Engraving and Printing of the Treasury Department manufactures all paper money of the Government, all stamps, including revenue stamps, all official checks, drafts, warrants, commissions, certificates, transportation requests, passports, and liquor permits.

The expenditures for the fiscal year ended June, 30, 1929, aggregated $10,603,971.77, an increase of 8.9% from the previous year.

The work is measured in the number of printed sheets delivered. The total number of sheets delivered for the year was 413,487,661.

Of these sheets 158,957 were for currency, 100,622,438 of which contained 4 notes each of the old size and 58,127,519 contained 12 notes each of the new small size; 7,090,000 and 3,523,000 were of U. S. notes, 4 and 12 notes each, respectively, 73,892,000 and 30,365,000 were of silver certificates, 4 and 12 notes each, respectively, 1,059,000 and 2,112,000 were of gold certificates, 4 and 12 notes each, respectively, 14,927,438 and 10,519 were of national bank currency, 4 and 12 notes each, respectively, and 3,654,000 and 22,117,000 were of Federal reserve notes, 4 and 12 notes each, respectively.

The total weight of this paper currency manufactured during the year would be about 1,300 tons. It would have loaded 32 forty-ton freight cars. Over half of these notes were one-dollar bills.

Of bonds, notes and certificates there were delivered 1,497,487 sheets.

Of the total number of sheets 240,381,375 were of postage and other stamps. In the year 1,800 tons of stamps were manufactured, about 45 carloads of them.

The other miscellaneous forms manufactured at this plant consumed 12,858,842 sheets, weighing about 195 tons, and would have made about 5 carloads.

The average number of employees during the year was 4,920. Of these 117 were in administrative offices, 200 were in the engraving division, 159 in the wetting division, 1,393 in the plate printing division, 419 in the numbering division, 1,009 in the examining division, 501 in the surface printing division, 226 in the postage stamp division, 323 in the engineering and machine division, and the remainder miscellaneously assigned.

The major task of the Bureau of Engraving and Printing is the production of paper money. The designing, engraving and printing of the new series of small-size currency in all denominations and kinds were performed during this fiscal year. The face value of the new notes printed aggregated nearly four billion dollars. The paper money is all printed from steel engraved plates. Since steel engravings are now little used except in printing money, practically all of the steel engravers in the country work here and for one private agency engaged in the manufacture of money for other nations.

The engravings are transferred to flat plates which now print twelve notes at an impression. Four of these plates are placed on a flat-bed power press.

Paper especially made for the Government is used. The method of printing is such as is employed almost nowhere else.

Infinite care is taken that every note shall be perfect and that none of the distinctive paper is lost in the process of manufacture. Each note is subjected to a score of examinations.

MOUNT VERNON AND THE TOMB OF WASHINGTON.

"Mount Vernon," on the west shore of the Potomac River, 15 miles below Washington, belongs to the Mount Vernon Ladies' Association of the Union.

It was built in 1743 by Lawrence, half brother of George Washington. On the death of Lawrence and of his only daughter, George Washington inherited the estate. He had lived there since 1747. He died and was buried there in 1799.

When Lawrence Washington went to Mount Vernon, the house consisted of two stories and an attic, with four rooms on each floor. When George married Martha Custis, the daughter of another wealthy planter, he enlarged the building. The mansion contains nineteen rooms.

Mount Vernon at its largest extent contained 8,000 acres of land and stretched 10 miles along the river. The plantation maintained over 300 persons, field laborers, servants, etc.

Plans to restore additional property formerly owned by George Washington near Mount Vernon omit one of the features of the old Dogue Run farm—the whiskey still, it is stated by the United Press.

At the Dogue Run farm, four miles across country from the Mansion estate, which overlooks the Potomac, the first President maintained and operated various enterprises incidental to his 8,000-acre farm. One of these was a mill which converted grain from the Washington farm into flour, and the other was a still which turned surplus grain into excellent corn and rye whiskey.

Foundations of both the mill and the still have been located. The flour mill is included in the restoration plan, but the still has been left out.

According to old records at Mount Vernon, George Washington's account sheets for 1798 show $1,700 profit from the still with "755 gallons still unsold."

Washington's early letters tell of the employment of a Scot named Anderson as manager of the Dogue Run farm. The first President remarked in one of his letters that Anderson was "a better distiller than he was a farmer" and complimented the manager as "an excellent judge of whiskeys."

Early records show that Anderson induced Washington to become a distiller. The farm manager pointed out the profits to be made by converting surplus grains into beverages and a first class still was erected at Dogue Run.

All grains raised on Washington's 8,000 acres were hauled to Dogue Run, where the best of the harvest was milled into flour and the remainder made into mash and later into whiskey.

Most of the whiskey from the Washington still was sold, but some of it was placed in barrels and taken to the Mansion house at Mount Vernon.

Prices were not high in those days and good quality rye whiskey brought from 75 cents to $1 a gallon.

One of the relics at Mount Vernon is a liquor and whiskey case, a gift to the first President from Lord Fairfax. This case consists of seven sections: one is for flasks of rye whiskey, another is for other blends, a third for choice liquors, and the four others contain various sized goblets.

Also in the Washington collection at Mount Vernon is a wine chest, the personal property of the first President. It contains sixteen one-gallon glass jugs, each designed to hold a different kind of wine.

Washington, in addition to his distilling activity, went into wine-making on an extensive scale. On the Mount Vernon, or Mansion farm, he cultivated a vineyard covering fifteen acres. All the wine presses have disappeared from the estate.

Washington's nearest neighbor, Lord Fairfax, lived 5 miles away, and George Mason, who also served his country with distinction, was still farther down the river. Fairfax's estate was known as "Belvoir," Mason's as "Gunston Hall." Mason and Washington were often associated in their public services. The three families were on most intimate terms, often visiting each other for days at a time.

Pohick P. E. church, which he and his family attended, was 7 miles away.

When the land "ran out" Washington experimented with fertilizer, practised rotation of crops and imported seed from Europe. He maintained a dock on the Potomac, exported flour and grain and imported articles from abroad. Wool, cotton and flax were raised and 1,365 yards of cloth were woven on the place one year.

In 1853 John Augustine Washington offered the Mount Vernon estate for sale. A patriotic daughter of South Carolina, Ann Pamela Cunningham, devoted herself to raising $200,000 required for the purpose.

In 1856 the Mount Vernon Ladies' Association of the Union was incorporated (it had existed since 1853) with Miss Cunningham as regent, and vice regents representing 12 States. Contributions were solicited and popular support was enlisted.

Portions of the original estate that had been sold have been acquired again; buildings which had fallen into ruin have been restored; the deer park under the hill has been restocked; the mansion has been repaired; many articles of furniture and adornment have been restored to the several rooms; numbers of valuable relics and mementos of George and Martha Washington and of their time have been deposited here, including the key of the Bastile, presented to Washington by Lafayette in 1789.

The area of the estate is about 260 acres, 23 acres having been given to the estate in 1926.

The regent is Mrs. Alice H. Richards, "Oakridge," Newcastle, Maine, elected in 1917; there are 36 vice-regents from as many States.

SALARY AND EXPENSES OF THE PRESIDENT.

The salary of the President was the cause of discussion in the First Congress.

The salary was finally placed at $25,000, and so remained until President Grant's second term (March 3, 1873), when it was increased to $50,000.

Chapter 2918 of the Laws of the Second Session of the Fifty-ninth Congress, approved March 4, 1907, appropriated "for traveling expenses of the President of the United States, to be expended at his discretion and accounted for by his certificate solely, $25,000."

In the Second Session of the Sixtieth Congress the President's salary was fixed at $75,000 a year.

The appropriation in 1907 of $25,000 for the President's traveling expenses covered only that one fiscal year. Annually since then Congress has made the same allowance, which now covers also "official entertainment" expenses.

The unexpended balance of an annual appropriation for one fiscal year may not be obligated in a succeeding fiscal year without legislative authority such as was given in the Deficiency Act of March 4, 1923.

The funds thus advanced are accounted for the same as funds advanced to other disbursing agents of the Government, all payments being supported by vouchers etc., approved and certified by the President.

The unexpended balances of the amounts thus advanced for disbursements are deposited in the Treasury and credited under the appropriation from which drawn, the unexpended balance of the appropriation from which the advances were made, being carried to the surplus fund and covered into the Treasury.

The President's use of any vessel of the Navy is pursuant to and by virtue of his authority as Commander-in-Chief of the Army and Navy of the United States.

The expenses of operating a vessel thus used are paid from the appropriations for the Navy.

The President's personal expenses of subsistence and entertainment while on the Mayflower are authorized to be charged under the appropriation for "traveling expenses of the President."

Fiscal Year.	Approp.	Appropriation Act.	To Surplus.	Expended.	Fiscal Year.	Approp.	Appropriation Act.	To Surplus.	Expended.
	Dolls.		*Dollars.*	*Dollars.*		*Dolls.*		*Dollars.*	*Dollars.*
1915....	25,000	Aug. 1, 1914	12,645.85	12,354.15	1923....	25,000	June 12, 1922	1,099.76	23,900.24
1916....	25,000	March 3, 1915	6,950.00	18,050.00	1924....	25,000	Feb. 13, 1923	4,572.90	20,427.10
1917....	25,000	July 1, 1916	6,874.56	18,125.44	1925....	25,000	June 7, 1924	2,076.95	22,923.05
1918....	25,000	June 12, 1917	20,194.83	4,805.17	1926....	25,000	March 3, 1925	88.01	24,911.99
1919....	25,000	July 1, 1918	8,606.87	16,393.13	1927....	25,000	April 22, 1926	5,241.32	19,758.68
1920....	25,000	July 19, 1919	3,065.18	21,934.82	1928....	25,000	Feb. 11, 1927	.....	.....
1921....	25,000	June 5, 1920	22,150.39	2,849.61	1929....	25,000	May 16, 1928	.....	.....
1922....	25,000	March 4, 1921	12,512.11	12,487.89	1930....	25,000	Feb. 20, 1929	.....	.....

SMITHSONIAN INSTITUTION.

(Revised annually by the Institution.)

The Smithsonian Institution at Washington, D. C., was established by statute in 1846, under the terms of the will of James Smithson, an Englishman, who bequeathed his fortune in 1826 to the United States to found an institution for the "increase and diffusion of knowledge among men." From the income of the fund a building, known as the Smithsonian Building, was erected on land given by the United States.

The Institution is legally an establishment, having as its members the President of the United States, the Vice President, the Chief Justice, and the President's Cabinet. It is governed by a Board of Regents consisting of the Vice President, the Chief Justice, three members of the Senate, three members of the House of Representatives, and six citizens of the United States appointed by joint resolution of Congress.

The Regents are empowered to accept gifts without action of Congress, in furtherance of the purposes of the Institution, and to administer trusts in accord therewith. The Secretary of the Smithsonian Institution is its executive officer and the director of its activities. The Secretary is Dr. C. G. Abbot.

Its annual income is but $65,000 and effort is being made to add to its endowment,

The Smithsonian Institution throughout its history has conducted and encouraged important scientific researches and investigations, and its Secretaries—Joseph Henry, Spencer F. Baird, S. P. Langley, Charles D. Walcott and Dr. Abbot—have contributed largely to the advancement of knowledge.

The most important investigation now in progress by the Institution is the study of the radiation of the sun and its relation to life and to weather conditions on the earth, by the Secretary.

The Smithsonian issues 11 series of scientific publications which are distributed free to libraries, learned societies, and educational institutions throughout the world. It also maintains a library of 700,000 volumes, which consists mainly of transactions of learned societies, and scientific periodicals. While the body of the library is deposited in the Library of Congress and accessible to all its readers, a working library is maintained at the Institution.

The Institution has charge of the National Museum, the National Gallery of Art, including the Freer Gallery of Art; the International Exchange Service, the Bureau of American Ethnology, the National Zoological Park, the Astrophysical Observatory, and the United States Regional Bureau for the International Catalogue of Scientific Literature.

The United States National Museum is the depository of the national collections. It is rich in the natural history, geology, paleontology, archaeology and ethnology of America, and has collections illustrating American history, including large war collections illustrative of the part taken by the United States in the recent conflict, as well as many series relating to arts and industries. It is an educational and research museum, and issues scientific publications.

Its aeronautical collection includes *The Spirit of St. Louis*, deposited by Col. C. A. Lindbergh, in the Spring of 1928.

The National Museum occupies three special structures, built in 1881, 1911 and 1917 respectively, containing 650,000 square feet of floor space.

The buildings are opened to the public 9 A. M. to 4.30 P. M., week days, and Sundays, 1.30 P. M. to 4.30 P. M.

The National Gallery of Art contains numerous important art works acquired by the Smithsonian Institution during the first half century of its existence, including a valuable collection of etchings and engravings from George P. Marsh; more recent are the Harriet Lane Johnston bequest, comprising numerous portraits and other works by British, Flemish, Dutch, and Italian masters; the Ralph Cross Johnson collection of rare paintings by Italian, English, French, Flemish, and Dutch masters; the William T. Evans collection, comprising 150 examples of the works of contemporary American artists, and numerous collections of minor importance. A unit of the National Gallery is the Freer Gallery of Art, the gift of Charles L. Freer, comprising rich collections of Chinese and Japanese art in every branch, with many paintings and etchings by Whistler, and the famous "Peacock Room," besides works by Thayer, Dewing, Homer, and Tryon. The Freer collections are housed in a separate building.

The Bureau of American Ethnology, for the study of the American Indian; the *International Exchange Service* for the exchange of governmental and scientific publications between the United States and foreign countries; the *Astrophysical Observatory*, for the investigation of radiation phenomena; the *National Zoological Park*, at Washington, containing about 2,300 animals, and the U. S. Regional Bureau for the *International Catalogue of Scientific Literature*, are branches of the Institution.

8,607,805 HAVE ASCENDED WASHINGTON NATIONAL MONUMENT.

The Washington Monument, at the National Capital, has been called "one of the most stupendous works of man, and also one of the most beautiful of all human creations."

It is a tapering shaft or obelisk of white marble, 555 feet, 5 1-8 inches in height, and 55 feet 1 1-2 inches square at the base.

Visible for miles in every direction, it shares with the Lincoln Memorial Building, Continental Hall, and the Pan-American Union structure in the imposing development in that part of the Capital City which lies between the White House and the Potomac River and its Tidal Basin.

Shortly after the death of Washington in December, 1799, Congress passed a resolution, on the motion of John Marshall, which provided for the erection of a marble monument in the City of Washington and that the family of Gen. Washington be requested to permit his body to be deposited under it.

In 1816 and again in 1819 the matter was brought up, but nothing definite was done. At this time a vault was prepared for Washington's remains beneath the floor of the crypt under the dome of the Capitol.

In 1833 Chief Justice Marshall and others organized the Washington National Monument Society, which raised $88,000 by popular subscriptions and in 1848 was authorized by Congress to erect a shaft on plans prepared by Robert Mills, an architect.

The cornerstone was laid July 4, 1848.

Work progressed slowly until 1854, $300,000 having been subscribed, when a block of marble, which had originally stood in the Temple of Concord at Rome, and which had been sent by the Pope to be set in the wall in the Monument, was stolen. No trace of it ever was found. At the time, contributions of stones from societies, municipalities and the several States were being encouraged.

The disappearance of the stone angered and estranged a large body of citizens and discouraged the collection of public contributions so that all construction ceased when a height of 150 feet had been attained.

The United States Government, under an Act of Congress, took over the Monument in 1876, and, after enlarging and fortifying with concrete the old foundations, resumed work August, 1880.

The first 150 feet of the obelisk had been built of dressed white Maryland marble, in 2-foot courses.

Upon resumption, the first thirteen courses were built of white Massachusetts marble. All the courses above that are of white Maryland marble backed with New England granite up to 452 feet. Above that the walls are entirely of marble.

The capstone, which weighs 3,300 pounds, was set in place on Dec. 6, 1884, and marked the completion of the work.

The capstone is crowned by a small right pyramid of pure aluminum 5 6-10 inches at its base, 8 9-10 inches high, weighing 100 ounces.

On the faces of the aluminum point are inscribed dates and names of individuals connected with the erection of the Monument.

In the walls are 187 (May, 1928) memorial stones, with inscriptions, contributed by States, cities and organizations.

The cost of the foundations and shaft of the Monument amounted to $1,187,710. The total cost, including equipment and slopes, was $1,300,000.

The mound and slopes about the base of the Monument were constructed at a later date by Col. John M. Wilson, later Chief of Engineers, U. S. Army.

The Monument was dedicated on Feb. 21, 1885, and was opened to the public on Oct. 9, 1888.

The Monument is open from 9.00 A. M. to 4.00 P. M. daily and from 12.30 P. M. to 4.30 P. M. on Sundays and holidays, except Christmas Day.

A new elevator, capacity 35 passengers, was installed in 1926.

Ascent also by stairs (898) built between the walls and the elevator shaft.

Up to Jan. 1, 1929, visitors to the number of 8,607,805 had gone to the top of the monument.

UNITED STATES GOVERNMENT COMMERCE AGENTS.

(List Published Sept. 2, 1929, by the Department of Commerce.)

DISTRICT OFFICES AND MANAGERS.

Atlanta, Ga.: Harry O. Mitchell, 538 Post Office Bldg.
Birmingham, Ala.: Charles L. McLain, Post Office Building.
Boston, Mass.: Harvey A. Sweetser, 1801 Customhouse.
Charlotte, N. C.: C. Grant Isaacs, 1207 First National Bank Building.
Chicago, Ill.: Frederic L. Roberts, Room 577, 38 South Dearborn Street.
Denver, Colo.: Gustav E. Bittner, Chamber of Commerce Building.
Des Moines, Iowa: Buel A. Williamson, 121 Federal Building.
Detroit, Mich.: A. J. Barnaud, 607 Free Press Bldg.
Galveston, Tex.: Richard C. Long, Cotton Exchange Building.
Houston, Tex.: Ernest L. Tutt, Chamber of Commerce Building.
Indianapolis, Ind.: Kenneth H. Dame, Room 317, Chamber of Commerce Building.
Jacksonville, Fla.: W. N. Pearce, 13 Chamber of Commerce Building.
Kansas City, Mo.: J. E. Wrenn, Chamber of Commerce Building.
Los Angeles, Calif.: J. H. Smiley, 1163 South Broadway.
Louisville, Ky.: Prentiss M. Terry, Room 405, 421 West Market Street.
Memphis, Tenn.: W. B. Henderson, 266 South Main Street.
Milwaukee, Wis.: B. P. Boykin, 418 Post Office Bldg
Minneapolis, Minn.: Ernest M. Zwickel, 213 Federal Building.
Mobile, Ala.: A. E. Boadle, 154 St. Francis Street.
New Orleans, La.: John S. Goff, Room 225–A, Customhouse.
New York, N. Y.: James F. Hodgson, 734 Customhouse.
Norfolk, Va.: Herbert P. Van Blarcom, 406 E. Plume Street.
Philadelphia, Pa.: Edwin B. George, Room 812, 20 South 15th Street.
Pittsburgh, Pa.: Wilson K. Ray, Chamber of Commerce Building.
Portland, Oreg.: James E. Peebles, 215 New Post Office Building.
St. Louis, Mo.: T. L. Gaukel, 1216 Liberty Central Trust Co. Building.
San Francisco, Calif.: Wesley O. Ash, 310 Customhouse.
Seattle, Wash.: Shirl H. Blalock, 820 Skinner Bldg.
Wilmington, Del.: J. H. Farrell, 409 Equitable Bldg.

There are cooperative offices at Baltimore, Buffalo, Cincinnati, Cleveland, Hartford, Newark, N. J., New Haven, Richmond, Rochester, N. Y., Spokane, Toledo, and every other American city of consequence where there are commercial or trade bodies or associations of merchants or manufacturers.

FOREIGN OFFICES AND REPRESENTATIVES IN CHARGE.

The initials C. A., T. C., and A. T. C., after name stand for commercial attaché, trade commissioner, and assistant trade commissioner, respectively.

Acora, Gold Coast Colony, West Africa: J. Francis Foy, A. T. C.
Athens, Greece: Frederick Lyon, C. A., 17 Bucharest Street.
Barcelona, Spain: Evett D. Hester, T. C., Fontanella 10, 2°.
Batavia, Java: Thomas C. Barringer, T. C., Kali Besar, West 3.
Berlin, Germany: Fayette W. Allport, C. A., 21 Friedrich Ebertstrasse.
Berne, Switzerland: Charles E. Lyon, C. A., 26 Bundesgasse.
Bogota, Colombia: Walter J. Donnelly, C. A., Edificio del Banco de Colombia, Carrera 8. (Mail: Apartado 798.)
Bombay, India: Norman C. Stow, A. T. C., Rooms 5 and 6 Rustom Building, Churchgate Street.
Brussels, Belgium: Raymond C. Miller, C. A., 25 Place de l'Industrie.
Bucharest, Rumania: Sproull Fouché, C. A., Episcopei 6.
Budapest, Hungary: William A. Hodgman, C. A., V, Nador ucca 2, 11/5.
Buenos Aires, Argentina: Alexander V. Dye, C. A., Room 421, Boston Bank Building.
Cairo, Egypt: Charles E. Dickerson, C. A., No. 2 Sharia Soliman Pasha.
Calcutta, India: Robert C. Cockburn, A. T. C., Room 29, Grosvenor House, 21 Old Court House Street.
Caracas, Venezuela: Halbert E. Watkins, C. A., Edificio Washington, Plaza Bolivar. (Mail: Apartado 501).
Constantinople, Turkey: Julian Gillespie, C. A. American Embassy.
Copenhagen, Denmark: Harry Sorensen, C. A., Toldbodvey 7.
Guatemala, Guatemala: Merwin L. Bohan, C. A., 6a Avenida Sur No. 6, "Edificio Hispania."
Habana, Cuba: Frederick Todd, C. A., Horter Building, 326, Obispo 7. (Mail: Apartado 844.)
The Hague, Netherlands: Jesse F. Van Wickel, C. A., 1, Beguidenhoutscheweg.
Hamburg, Germany: James T. Scott, T. C., 31 Moenckebergstrasse.
Helsingfors, Finland: O. S. Watson, C. A., Henriksgatan No. 22.
Johannesburg, South Africa: Samuel H. Day, T. C., 42 Standard Bank Chambers, Commissioner St.
Lima, Peru: Oliver C. Townsend, C. A., Edificio Italia, Calles de Coca y Jesus Nazareno.
London, England: William L. Cooper, C. A., Bush House, Aldwych, London, W. C. 2.
Madrid, Spain: Charles A. Livengood, C. A., Avenida Conde de Penalver 18.
Manila, P. I.: George C. Howard, T. C., 510–512 Masonic Building.
Melbourne, Australia: Sherman R. Peabody, T. C., Chancery House.
Mexico City, Mexico: George Wythe, C. A., Callejon de Condesa No. 3, Apartada 2097.
Milan, Italy: DeForest A. Spencer, T. C., Via Dante, No. 18.
Montevideo, Uruguay: Spencer B. Greene, Acting C. A., Calle Uruguay, Esquina Ciudadela.
Montreal, Canada: E. G. Sabine, T. C., 915 Royal Bank Building, 360 St. James Street. (Mail: Box 2894.)
Mukden, Manchuria, China: John J. Ehrhardt, T. C.; U. S. Department of Commerce, Ssu Djing Lu.
Oslo, Norway: Marquand H. Lund, C. A., Karl Johans Gate 35.
Ottawa, Canada: Lynn W. Meekins, C. A., 321 Metropolitan Building. Mail: Box 547.)
Panama City, Panama: George C. Peck, C. A., National City Bank Building, Avenida Central. (Mail: Box 346.)
Paris, France: D. J. Reagan, A. C. A., 5 Rue de Chaillot.
Peking, China: A. Bland Calder, Acting C. A., American Legation.
Prague, Czechoslovakia: Karl L. Rankin, C. A., Vaclavske Namesti 7, Prague II.
Riga, Latvia: Lae C. Morse, C. A., Doma Laukum.
Rio de Janeiro, Brazil: Carlton Jackson, C. A., Avenida Rio Branco 109, Sala 20.
Rome, Italy: A. A. Osborne, Acting C. A., American Embassy, Rome 30.
San Juan, P. R.: J. R. McKey, T. C., P. O. Box 1033.
Santiago, Chile: Ralph H. Ackerman, C. A., rooms 5, 7, 9, and 11, 8th floor, Edificio Ariztia.
Sao Paulo, Brazil: Walter G. McCreery, T. C., Rua Libero Badaro, 51, Sebrado—7° andar, Caixa Postal 2817.
Shanghai, China: Frank S. Williams, T. C., Box 605, 3 Canton Road.
Singapore, Straits Settlements: Don C. Bliss, T. C., Room 7–a Ocean Building.
Stockholm, Sweden: T. O. Klath, C. A., Kungsgatan 30.
Sydney, Australia: Earl C. Squire, T. C., Yorkshire House, corner Pitt and Spring Streets.
Tokyo, Japan: Joseph H. Ehlers, Acting C. A., Teikoku Seimeikan, 1 Marunouchi Itchome, Kojimachi-ku.
Toronto, Canada: Harvey A. Sweetser, T. C., 1507 Daily Star Building, Toronto 2.
Vancouver, Canada: Ellwood G. Babbitt, T. C., 1527 Standard Bank Building.
Vienna, Austria: John A. Embry, Acting C. A., I. Bosendorferstrasse 13.
Warsaw, Poland: Clayton Lane, C. A., 36 Aleje Ujazdowskie, Apt. 3.
Wellington, New Zealand: Charles F. Kunkel, A. T. C., Dominion Building, Wakefield Street.
Winnipeg, Canada: Charles E. Brookhart, Acting T. C., 507 Electric Railway Chambers.

THE CAPITOL AT WASHINGTON.

The Capitol is situated in latitude 38° 53′ 20.4″ north and longitude 77° 00′ 35.7″ west from Greenwich. It fronts east.

The southeast cornerstone of the original building was laid on Sept. 18, 1793, by President Washington, with Masonic ceremonies.

The original designs were prepared by Dr. William Thornton, and the work was done under the direction of Stephen H. Hallet, James Hoban, George Hadfield, and B. H. Latrobe, architects.

The cornerstone of the extensions was laid on July 4, 1851, by President Filmore, Daniel Webster officiating as orator.

The material used in the walls is white marble from the quarries at Lee, Mass., and that in the columns from the quarries at Cockeysville, Md.

The Dome of the original central building was constructed of wood, covered with copper. This was replaced in 1856 by the present structure of cast iron. It was completed in 1865.

The Dome is crowned by a bronze statue of Freedom, modeled by Crawford.

The Senate Chamber is 113 feet 3 inches in length by 80 feet 3 inches in width and 36 feet in height.

The Representatives' Hall is 139 feet in length by 93 feet in width and 36 feet in height.

The tax assessors value the Capitol and grounds at over $53,000,000.

FACTS AND FIGURES ABOUT THE UNITED STATES CAPITOL.

Area of Capitol Building	153,112 sq. ft.
Area of floors Capitol (over 14 acres)	627,334 sq. ft.
Area of Capitol Grounds	58.8 acres.
Corner stone of Capitol laid	Sept. 18, 1793.
Corner stone of extensions laid	July 4, 1851.
Central portion old Capitol comm'd	1818.
Central portion old Capitol compltd	1827.
Capitol burned by the British	Aug. 24, 1814.
Capitol, north wing, completed	1800.
Capitol, south wing, completed	1811.
Cost of Capitol Building	$14,000,000.
Cost of House Office Building	$4,369,559.55.
Cost of Senate Office Building	$4,512,251.09.
Cubic contents, Capitol Building	13,780,080 cu.ft.
Diameter of rotunda	97 ft. 6 in.
Hgt. Capitol Plaza above Potomac.	88 ft.
Height of Statue of Freedom above east base line of Capitol	287 ft. 5½ in.
Height of Statue of Freedom	19 ft. 6 in.
Height from rotunda floor to top of canopy	180 ft. 3 in.
Length of Capitol Building	751 ft. 4 in.
Present House of Repres. first occup.	Dec. 16, 1857.
Present Senate Chamber first occup.	Jan. 4, 1859.
Statue of Freedom placed in position	Dec. 2, 1863.
Width of Capitol Bldg. (ext. width)	350 feet.
Weight of Statue of Freedom	14,985 pounds.
Weight of dome	8,909,200 lbs.

NATIONAL STATUARY HALL.

The National Hall of Statuary, formerly the Hall of the United States House of Representatives in the Capitol at Washington, was established by Congress July 2, 1864. Each State was invited to contribute marble or bronze statues of her two most distinguished deceased citizens.

State.	Name.	Date.	State.	Name.	Date.
Alabama	J. L. M. Curry	1906	Mississippi	Jefferson Davis	1929
"	Gen. Joe Wheeler	1925	"	James Z. George	1929
Arizona	Gen. John C. Greenway	1929	Missouri	Francis P. Blair	1899
Arkansas	Uriah M. Rose	1917	"	Thomas H. Benton	1899
"	James P. Clarke	1921	New Hampshire	John Stark	1894
Connecticut	Roger Sherman	1872	"	Daniel Webster	1894
"	Jonathan Trumbull	1872	New Jersey	Richard Stockton	1886
Florida	John W. Gorrie	1914	"	Philip Kearny	1875
"	Gen. E. Kirby Smith	1918	New York	Robert R. Livingston	1874
Georgia	Dr. Crawford W. Long	1926	"	George Clinton	1873
"	Alexander H. Stephens	1927	North Carolina	Zebulon Baird Vance	1916
Idaho	George L. Shoup	1909	Ohio	James A. Garfield	1885
Illinois	James Shields	1893	"	William Allen	1887
"	Frances E. Willard	1905	Oklahoma	Sequoyah	1917
Indiana	Oliver P. Morton	1899	Pennsylvania	J. P. G. Muhlenberg	1881
"	Lew Wallace	1909	"	Robert Fulton	1881
Iowa	James Harlan	1909	Rhode Island	Nathaniel Greene	1869
"	Samuel J. Kirkwood	1913	"	Roger Williams	1870
Kansas	John J. Ingalls	1904	South Carolina	John C. Calhoun	1909
"	George W. Glick	1914	"	Wade Hampton	1929
Kentucky	Henry Clay	1929	Tennessee	Andrew Jackson	1928
"	Ephraim McDowell	1929	Texas	Stephen F. Austin	1904
Maine	William King	1877	"	Samuel Houston	1904
Maryland	Charles Carroll	1901	Vermont	Ethan Allen	1875
"	John Hanson	1901	"	Jacob Collamer	1879
Massachusetts	Samuel Adams	1873	Virginia	Washington	1908
"	John Winthrop	1872	"	Robert E. Lee	1908
Michigan	Lewis Cass	1889	West Virginia	John E. Kenna	1901
"	Zachariah Chandler	1913	"	Francis H. Pierpont	1903
Minnesota	Henry Mower Rice	1916	Wisconsin	James Marquette	1895
			"	Robert M. La Follette	1929

The Legislature of California in 1927, named Junipero Serra, Franciscan missionary of 1769, and Rev. Thomas Starr King of Civil War days, as that state's representatives in Statuary Hall.

THE WHITE HOUSE.

The site was selected by President Washington and Major Pierre Charles l'Enfant when they laid out Washington, 1791; architect, James Hoban of Dublin; plans chosen by competition closed July 15, 1792. Cornerstone laid Oct. 13, 1792. First occupants—President and Mrs. John Adams, November, 1800. Burned by British in 1814. Mr. Hoban superintended the restoration. South portico finished 1823; cost $19,000. East Room finished and furnished by appropriation made in 1826. North portico added; cost $24,769 in 1829.

The principal apartments in the White House are officially designated: the East Room, Red Room, Blue Room, Green Room, State Dining Room, Family Dining Room, and Usher's Lobby.

The dimensions of the White House, in 1840, were length or frontage, 170 feet; depth or width, 86 feet. The mansion was built of gray sandstone, which was painted white after the fire, hence the name "the White House."

Maj. l'Enfant, the architect, had studied in Paris under the celebrated Brongniart, whose masterpiece is the well-known Hotel de Bourbon-Condé in the Rue Monsieur in the old Faubourg Saint-Germain quarter. This house was built in 1786 for the Princess Louise Adelaide de Bourbon-Condé. After its confiscation by the Revolutionary Government in 1790 it became the property of an American, Joseph Sands, who paid 156,000 francs for it.

On leaving Paris for New York in 1798, he disposed of it to the notorious Comte Paul de Barras for 44,000 francs.

Major l'Enfant copied minutely this Bourbon-Condé house when planning a house for the President, and reproduced the Blue Room, the East Room and other rooms now used for White House receptions.

The President's Office Building is located at the West of the White House. It was built and occupied in 1902, and was enlarged later. The building contains the President's Room, the Cabinet Room, a room for the President's Secretary, etc.

In 1927, the White House was repaired at a cost of $400,000. A new roof was put on, the upper part of the building was made safe with steel beams, the attic was converted into rooms, and the whole Executive Mansion was redecorated.

The White House and grounds are valued by the tax assessors at over $22,000,000.

NATIONAL GEOGRAPHIC SOCIETY, WASHINGTON, D. C.

(Prepared for The Almanac by the President, Gilbert Grosvenor, LL.D., Litt.D.)

The National Geographic Society, founded in 1888 "for the increase and diffusion of geographic knowledge," has filled such an important role in the encouragement of science and the support of its application to human welfare that its membership exceeds 1,300,000, its researches and explorations stretch to the ends of the earth, and its facilities for the diffusion of geographic and other scientific knowledge extend to every community in the world.

In the promotion of its work of pushing back the horizon of geographic knowledge, the Society pioneered in the study of Alaska and in the encouragement of the opening up of that territory; supported Peary in his expeditions that ended in the attainment of the North Pole; investigated the problems of vulcanism and seismology at Mont Pelee, Messina, and Mt. Katmai, discovering, through Dr. Robert F. Griggs, in the latter region, the great Valley of Ten Thousand Smokes, which the President of the United States has since proclaimed a National Monument, and which throws great light on the processes of vulcanism and how they affected the geography of bygone geological ages; studied the processes of glaciation in Alaska, and through these studies brought to light new data on the work of ice in the processes of earth sculpture in geologic times; opened up the famous Carlsbad Caverns in New Mexico, the world's greatest known underground labyrinth.

Furthermore, in this work it has accomplished much in the field of ethnographic and economic geography, unearthing the ancient city of the Incas of Peru—Machu Picchu, and their marvelous staircase farms that far eclipse the Hanging Gardens of Babylon; studying the remnants of long-forgotten chapters of human history in different parts of west and north China, including devil worship, pre-Buddhist religions, and ancient manuscripts, with the bringing to America of several new species of rhododendrons as a major by-product of these researches; uncovering a New World Pompeii in the Valley of Mexico, where tangible evidence of a civilization 7,000 years old has been found beneath the lava flow of the Pedregal; and unearthing the city of Pueblo Bonito in Chaco Canyon, New Mexico.

An expedition financed by the Society, headed by Dr. Joseph F. Rock, explorer-biologist, is now in the interior of China.

The Society has made a grant of $65,000 to the United States Astrophysical Observatory, of the Smithsonian Institution, for the pursuit of its studies on the determination of the laws of solar radiation and the relation thereof to terrestrial weather changes. A grant of $25,000 was made toward the Byrd Antarctic Expedition.

In its work of diffusing geographic knowledge the Society relies principally on its leading publication, the National Geographic Magazine. That periodical goes into 1,300,000 homes, and also is made wide use of in the schools.

It also issues a series of monographs known as Contributed Technical Papers in which the scientific work of its expeditions are dealt with in their purely scientific aspects.

Through the columns of more than 500 leading American daily newspapers and the large plate-matter syndicates, the Society's Geographic News Bulletins are reaching into more than half the homes of the United States.

A further educational activity, undertaken by the Society is its Pictorial Georgraphy. The Society has compiled and distributed among its entire membership a noteworthy series of maps of the continents. Each of these contains the latest topographic and political data including numerous changes in place names and readjustments of boundaries. It also has published a series of regional maps, including those on the Caribbean, the South Pacific, which shows postwar mandate areas, and the Arctic regions. For two years The Society's cartographic department worked upon the New Map of Europe, the first to be published which contains all official spellings of place names adopted by the various nations along with the designations more familiar to Americans. This data was collected in cooperation with European governments and geographical societies. The last data to be received was the complete modernized nomenclature made known in Turkey by the adoption of the Latin alphabet. From time to time The Society is issuing detailed maps of the States of the United States containing latest highway, rail and topographical data and these in conjunction with the large map of the United States, already published, will form a complete and detailed gazetteer of our own country. Many small sketch maps also are published in the National Geographic Magazine itself to explain and locate the places mentioned in The Geographic's articles.

In its recognition of the services to mankind of those who labor to push back the horizons of geography, the Society has awarded the Hubbard Gold Medal to Peary, Amundsen, Gilbert, Shackleton, Stefansson, Bartlett, Byrd, and Lindbergh. It also awarded special gold medals to Peary, Amundsen, and Goethals, and a gold medal to Floyd Bennett.

For a review of the Society's scientific work in the past year reference is made to the article on "Scientific Progress in 1928," in this Almanac.

The officers and editorial staff are: *President and Editor*, Gilbert Grosvenor; *Vice President and Associate Editor*, John Oliver La Gorce; *Secretary*, O. P. Austin; *Associate Secretary*, George W. Hutchison; *Treasurer*, John Joy Edson; *Assistant Editors*, William J. Showalter and Ralph A. Graves; *Chief of Illustrations Division*, Franklin L. Fisher; *Chief of School Service*, J. R. Hildebrand.

THE AMERICAN LAW INSTITUTE.

The American Law Institute was organized at a meeting of about 350 judges, lawyers and law teachers at Washington, Feb. 23, 1923. The officers are:

Honorary President, Elihu Root; *President*, George W. Wickersham; *Vice Presidents*, James Byrne and Judge Benjamin N. Cardozo; *Treasurer*, George Welwood Murray; *Director*, Dr. William Draper Lewis, 3400 Chestnut St., Philadelphia, Pa.; Adviser on Professional and Public Relations, Herbert F. Goodrich, 3400 Chestnut St., Philadelphia. There is a Council of thirty-three members of Nation-wide prominence, and about 675 life members, and 203 official members.

The Institute received from the Carnegie Corporation a gift of $1,075,000, payable over a period of ten years, thus giving an income in excess of $100,000 a year. In 1926, the yearly payments were increased to $140,000 a year at the request of the Council of the Institute. The work has thus been accelerated and the Institute will have accomplished in about seven years what it expected to accomplish in ten years.

The primary purpose of the Institute is to make a Restatement of the Law—that is, the setting forth of the fundamental principles primarily of the common law. It is not desired that the Restatement shall be adopted by the Legislatures as a code.

It is realized that the multiplication of jurisdictions, courts and decisions makes it necessary to preserve the common law system.

The work was begun on June 1, 1923. Four persons, called reporters, who are primarily responsible for the production of drafts of the Restatement on different topics, were appointed: Samuel Williston, of Harvard, as Reporter for Contracts; Joseph H. Beale, also of Harvard, as Reporter for Conflict of Laws; Warren A. Seavey, of Harvard Law School, as Reporter for Agency, and Francis H. Bohlen, of the University of Pennsylvania, as Reporter for Torts.

The restatement of the Law of Business Associations has since been undertaken with the Director, William Draper Lewis, as Reporter; the restatement of the law of Property, with Richard R. Powell, of the Columbia University School of Law as Reporter; the restatement of the law of Trusts, with Austin W. Scott, of Harvard Law School as Reporter. Each has a body of experts for advisory legal assistance.

Preliminary drafts are distributed to members for tentative consideration, suggestion and criticism. This process is continued until each group is satisfied that a correct statement of the law has been reached.

If approved by the Council and by the Institute, such statement will be published officially by the Institute.

A model code of criminal procedure for recommendation to State Legislatures has been undertaken also. William E. Mikell, former Dean of the University of Pennsylvania Law School, and Edwin R. Keedy, also of the University of Pennsylvania Law School, are drafting this code with the assistance of a group of experts.

Tentative Drafts of two-thirds of the Code have already been submitted to the last two Annual Meetings of the Institute. It is expected that the Official Draft of the Code can be published during the summer of 1930. The work has been financed by the Laura Spelman Rockefeller Memorial which has appropriated $117,000 for the work.

AMERICAN GEOGRAPHICAL SOCIETY.

(Headquarters, Broadway and 156th St., N. Y City.)

The American Geographical Society was established in 1852 for the advancement of geographical science. It maintains a large geographical library, an extensive collection of maps and a yearly program of lectures.

In recognition of special distinction in the field of exploration and geographical research the Society awards four gold medals: the Cullum Geographical Medal and the Charles P. Daly Medal for distinguished geographical service in any field, the David Livingstone Centenary Medal, founded by the Hispanic Society of America, for scientific achievement in the geography of the southern hemisphere, and the Samuel Finley Breese Morse Medal for exceptionally distinguished work in geographical research.

A program of research in the geography of Hispanic America, inaugurated by the Society in 1920, is being advanced satisfactorily. Its published results include monographs, articles, hand books, and maps, the principal feature being a map of Hispanic America on the millionth scale, drawn and printed in close conformity with the standards of the International Map of the World on the scale of 1:1,000,000. When completed this map will comprise approximately 100 sheets, thirty of which have already appeared.

The Society is engaged in studies of pioneer settlement in undeveloped lands and of the population of New England.

A School of Surveying was inaugurated in 1921 under the Society's auspices.

The Society's publications consist of books and maps and a quarterly journal, the *Geographical Review*, a scientific periodical devoted to the publication of original articles, notes, and book reviews.

In connection with the compilation of its Millionth Map of Hispanic America the Society sent two expeditions into the field in 1927–1928 to make original surveys of selected areas in Ecuador and Peru. Colonization and climatological studies have been undertaken in Hispanic America; and at Trujillo, Peru, the Society has established its own meteorological station in order to secure regular reports on the special conditions that mark the coast of Peru.

The scientific work in the Arctic of Sir Hubert Wilkins was carried out under the auspices of the American Geographical Society, which also sponsored his flight from Pt. Barrow (Alaska) to Spitzbergen.

The Society cooperated with Commander R. E. Byrd in the organization of his expedition for the exploration by airplane of the Ross Sea area in Antartica.

The Officers of the Society for 1928 were: *Honorary President*, John Greenough; *President*, John H. Finley; *Vice Presidents*, W. Redmond Cross, Philip W. Henry, Alexander Hamilton Rice, M.D.; *Foreign Corresponding Secretary*, Frederic C. Walcott; *Domestic Corresponding Secretary*, Paul Tuckerman; *Recording Secretary*, Hamilton Fish Kean; *Treasurer*, Henry Parish; *Director and Editor*, Isaiah Bowman, Ph.D.

CULLUM GEOGRAPHICAL MEDAL.

1896, Robert E. Peary; 1897, Fridtjof Nansen; 1899, Sir John Murray; 1901, T. C. Mendenhall; 1902, A. Donaldson Smith; 1903, Luigi Amedeo, Duke of the Abruzzi; 1904, G. von Neumayer; 1904, Sven Hedin; 1906, Robert F. Scott; 1906, Robert Bell; 1908, Wm. Morris Davis; 1909, F. P. Moreno; 1909, Sir E. H. Shackleton; 1910, Hermann Wagner; 1911, J. B. E. A. Charcot; 1914, Ellen C. Semple; 1914, Sir John S. Keltie; 1917, Geo. W. Goethals; 1918, Frederick H. Newell; 1919. E. de Margerie; 1919 Henry F. Osborn; 1921, Albert I., Prince of Monaco; 1922, Edward A. Reeves; 1924, Jovan Cvijic; 1925, Pedro C. Sanchez, Harvey C. Hayes, Lucien Gallois.

CHARLES P. DALY MEDAL.

1902, Robert E. Peary; 1906, Thor. Thoroddsen; 1908, George Davidson; 1909, William W. Rockhill; 1909, Chas. Chaille-Long; 1910, Grove Karl Gilbert; 1912, Roald Amundsen; 1913, Alfred H. Brooks; 1914, Albrecht Penck; 1915, Paul V. de la Blache; 1917, Geo. G. Chisholm; 1918, Vilhjalmur Stefansson, 1920, George Otis Smith; 1922, Sir F. Younghusband; 1922, E. de K. Leffingwell; 1922, Adolphus W. Greely; 1924, Claude H. Birdseye; 1925, Knud Rasmussen; 1925, Robert A. Bartlett, David L. Brainard; 1928, Alois Musil.

DAVID LIVINGSTONE CENTENARY MEDAL.

1916, Sir Douglas Mawson; 1917, Theodore Roosevelt; 1917, Manuel Vicente Ballivian; 1918; Candido Mariano da Silva Rondon; 1920, Wm; Speirs Bruce; 1920, Alexander H. Rice; 1923, Griffith. Taylor; 1924, Frank Wild; 1925, Louis Riso Patron; 1926, Eric von Drygalski.

SAMUEL FINLEY BREESE MORSE MEDAL

1928. Sir Hubert Wilkins.

CABINET HOLDOVERS WITHOUT REAPPOINTMENT.

The practice of holding over without reappointment was general until the passage of the act of March 2, 1867, limiting the term of heads of departments to four years and one month.

This provision of law was in force only two years when it was repealed.

The following table, prepared by Mr. Cozier, assistant clerk of the United States Senate Judiciary Committee, shows the instances where heads of departments have held office without reappointment, after the expiration of the term of the President by whom they were appointed.

Washington, 1793: State, Treasury, War, Attorney General, and Postmaster General.

Adams, 1797: State, Treasury, War, Attorney General, and Postmaster General.

Jefferson, 1801: Treasury, Navy, and Postmaster General.

Jefferson, 1805: State, Treasury, War, Navy, and Postmaster General.

Madison, 1809: Treasury, Navy, Attorney General, and Postmaster General.

Madison, 1813: State, Treasury, War, Navy, Attorney General, and Postmaster General.

Monroe, 1817: Navy, Attorney General, and Postmaster General.

Monroe, 1821: State, Treasury, War, Navy, Attorney General, and Postmaster General.

Adams, 1825: Navy, Attorney General, and Postmaster General.

Jackson, 1829: Postmaster General.

Jackson, 1833: State, Treasury, War, Navy, Attorney General, and Postmaster General.

Van Buren, 1837: State, Treasury, War, Navy, Attorney General, and Postmaster General.

Harrison, 1841: None.

Tyler, 1841: State, Treasury, War, Navy, Attorney General, and Postmaster General.

Polk, 1845: None.

Taylor, 1849: None.

Fillmore, 1850: None.

Pierce, 1853: None.

Buchanan, 1857: None.

Lincoln, 1861: None.

Lincoln, 1865: State, War, Navy, Interior, Attorney General, and Postmaster General.

Johnson, 1865: State, Treasury, War, Navy, Interior, Attorney General, and Postmaster General.

Grant, 1869: None.

Grant, 1873: None.

Hayes, 1877: None.

Garfield, 1881: None.

Arthur, 1881: War, Navy, and Interior

Cleveland, 1885: None.

Harrison, 1889: None.

Cleveland, 1893: None.

McKinley, 1897: None.

McKinley, 1901: None.

Roosevelt, 1901: State, Treasury, War, Navy, Interior, Agriculture, Commerce, Labor, and Postmaster General.

Roosevelt, 1905: None.

Taft, 1909: None.

Wilson, 1913: None.

Wilson, 1917: State, War, Treasury, Navy, Interior, Agriculture, Commerce, Labor, and Attorney General.

Harding, 1921: None.

Coolidge, 1921: State, War, Treasury, Navy, Interior, Agriculture, Commerce, Labor, Attorney General, and Postmaster General.

Coolidge, 1925: Treasury, War, Navy, Interior, Commerce, and Labor.

Hoover, 1929: Treasury and Labor.

Note.—Table does not include instances where officers held over for only a few weeks or less.

During the second term of President Washington, Timothy Pickering, of Pennsylvania, was appointed Secretary of State. He held the position during the remainder of Washington's term and continued without reappointment after the inauguration of John Adams.

After he had served as such Secretary of State during three years of Adam's administration he was asked to resign and refused to do so. He was dismissed by President Adams on May 12, 1800.

HIGH BLOOD PRESSURE.

Many business men, including brokers, bankers, and others subjected to daily nervous strain, are afflicted with high blood pressure.

In a recent statement issued by the U. S. Health Service, considerable encouragement is given to persons having a high blood pressure if they will adopt proper treatment, which consists principally of a proper regimen.

Any individual so afflicted who takes reasonable care of himself under the direction of his physician may usually expect many years of comfortable existence.

And the importance of treatment is emphasized by the fact that the complications and conditions associated with high blood pressure, grouped as a single cause of death, lead the list of causes of death in our mortality statistics.

Every living person has blood pressure. A certain amount of pressure is necessary in order to make the blood flow through the circulatory vessels of the body. The actual pressure depends on four physical factors: (1) the force of the heart beat; (2) the resistance caused by friction through the vessels; (3) the elasticity of the vessel walls; and (4) the amount of blood.

An average blood pressure has been established by thousands of examinations made on normal persons. This average pressure varies according to age. However, perfectly healthy individuals may deviate from this average. It also shows marked variation in the same individual from hour to hour throughout the day. The upper limit of normal blood pressure for the average individual has been stated to be equal to his age in years plus 100.

The factors which influence blood pressure are many and varied.

Exercise, excitement, and anger cause increased pressure, whereas nervous depression often causes the blood pressure to fall.

Certain diseases, notably Bright's disease, various chronic infections, and chronic poisonings raise the blood pressure, while debilitating diseases, such as tuberculosis, are often associated with low blood pressure.

Heredity is also a factor. Blood pressure depends partly upon the amount of elastic tissue in our arteries. Some families noted for their longevity constitute a group having especially good arteries. Other family groups are unfortunate enough to inherit and transmit poor arteries, that is, arteries which have too little elastic tissue in them.

As age advances, thickening of the arteries inevitably occurs, and persons who have the best heritage in this respect have the best chances for old age.

Sometimes a certain amount of increased pressure is necessary, and in this case there is ground for optimism; but there are limits beyond which the rise may become dangerous in itself. This limit varies quite markedly with different persons, but is it generally considered that if the pressure can be kept below 200 the individual is relatively safe from dangerous developments due directly to the high blood pressure.

Treatment consists principally in a proper regimen, directed chiefly toward preventing the complications and relieving the symptoms.

With the heart under increased strain, it is evident that rest constitutes the greatest protection for this organ.

The amount of exercise should be decided upon by the family physician.

Food is a factor in treatment; but it is now believed that a consideration of the quantity of food—a restriction in amount—rather than quality is of the greater importance.

The giving of drugs is usually disappointing, but in emergencies they may be life saving.

The person with a high blood pressure should not become a "high blood pressure fiend," constantly thinking, talking, and living his high blood pressure.

He should adopt a cheerful frame of mind, shun too frequent estimations of the pressure, avoid physical and mental, particularly emotional, excesses, and get plenty of rest, and he may live happily with his blood pressure to a ripe old age.

HEART DISEASE A MENACE OF CHILDHOOD.

Special reports obtained by the United States Public Health Service from certain States, for 1928, with an aggregate population of approximately 25,000,000, showed that 228 persons out of every 100,000 died from heart disease, as compared with 106 from kidney disease, 105 from cancer, and 100 from pneumonia—the four great killers of mankind.

Moreover, these figures do not tell the whole story, because the number of deaths from heart disease is increasing. During the eight years from 1917 to 1925, in the registration area of the United States, the population increased by about one-third, deaths from heart disease practically doubled, and the number caused by heart diseases as a contributing factor increased 81 per cent, although the number of deaths from all causes increased only about 14 per cent.

Heart disease is particularly a disease of early life. Practically 75 per cent of all cases of heart disease develop in children under 10 years of age, as compared with about 12 per cent in persons over 40 years of age.

In the period 1921 to 1927, 20 out of every 100,000 children from 5 to 19 years of age died of heart disease annually in the registration area of 1920. In other words, in the area comprising 37 States and 82 per cent of the total population of the country, heart disease was the third highest in the list of the causes of death among children.

Moreover, of 17,974 school children carefully examined by medical officers of the United States Public Health Service in Florida, Illinois, and Missouri, over 3 out of every 100 had heart disease in the proportion of two functional disorders to one due to an organic lesion.

Heart disease may be congenital or acquired. Little can be done to prevent the development of congenital cases beyond increasing attention to the supervision of expectant mothers.

Acquired heart disease is most frequently due to improper habits of living and to the infections, particularly those of the rheumatic group.

It has been shown that the incidence of certain infections and rheumatic diseases in association with damaged hearts is very high—scarlet fever in 12 per cent, diphtheria in 16 per cent, chorea in 15 per cent, rheumatism in 44 per cent, and tonsillitis in 66 per cent of the cases.

Diphtheria may act in two ways; in one way, to cause permanent damage to the heart, and in the other, by paralyzing the enervation of the heart, to cause sudden death.

Therefore, special watchful supervision should be maintained over children recovering from diphtheria to prevent any undue strain, either physical or mental, for some weeks after an attack of diphtheria.

Neglect of this precaution has resulted in the sudden death of children who apparently were far advanced toward recovery.

HOMICIDES AND SUICIDES IN BIG UNITED STATES CITIES.

	Homicides.		Suicides.			Homicides.		Suicides.			Homicides.		Suicides.	
	No.	Rate.	No.	Rate.		No.	Rate.	No.	Rate.		No.	Rate.	No.	Rate.
1900..	481	3.4	2,099	14.9	1910..	1,479	8.0	3,743	20.2	1920..	1,930	8.4	2,910	12.7
1901..	520	3.6	2,247	15.5	1911..	1,505	7.9	3,880	20.5	1921..	2,168	9.3	3,731	16.0
1902..	567	3.8	2,487	16.7	1912..	1,504	7.7	3,868	19.9	1922..	2,211	9.3	3,626	15.3
1903..	636	4.2	2,758	18.0	1913..	1,702	8.6	3,957	19.9	1923..	2,435	10.1	3,692	15.3
1904..	723	4.6	2,958	19.1	1914..	1,715	8.5	4,351	21.5	1924..	2,682	10.9	3,855	15.7
1905..	983	6.1	3,126	19.4	1915..	1,698	8.2	4,455	21.5	1925..	2,808	11.2	4,000	16.0
1906..	1,189	7.2	2,984	18.0	1916..	1,786	8.5	3,892	18.5	1926..	2,302	10.0	4,333	16.3
1907..	1,455	8.5	3,319	19.4	1917..	2,661	9.5	3,816	17.7	1927..	2,340	10.1	5,169	16.5
1908..	1,401	8.0	3,957	22.6	1918..	1,865	8.5	3,351	15.2	1928..	2,387	10.1	5,561	17.5
1909..	1,252	6.9	3,772	20.9	1919..	2,006	8.9	3,229	14.3					

The figures in the above table were compiled by the United States Census Bureau (except 1926-1928, which are by F. L. Hoffman, in The Spectator, New York).

The homicide figures for 1928 cover 30 cities; suicide figures for 1928 cover 97 cities.

Homicides in 1928 in big cities, by Hoffman's count, were—New York, 401; Chicago, 498; Philadelphia, 182; Boston, 27; Buffalo, 30; Baltimore, 75; Cincinnati, 73; Cleveland, 134; Detroit, 228; Indianapolis, 34; Jersey City, 8; Kansas City, Mo., 99; Los Angeles, 70; Milwaukee, 16; Minneapolis, 24; Newark, N. J., 29; New Orleans, 111; Pittsburgh, 65; Richmond, Va., 23; Rochester, N. Y., 10; St. Louis, 138; St. Paul, 13; Salt Lake, 5; San Francisco, 33; Toledo, 36; Washington, D. C., 58.

MASONIC MEMBERSHIP BY STATES.

(Official 1928 figures; number of lodges in parenthesis.)

Ala., (573) 53,293; Ariz., (36) 6,264; Ark., (527) 36,985; Calif., (562) 134,302; Colo., (147) 33,264, Conn., (120) 45,241; Del., (22) 6,058; Dist. of Col.; (43) 23,281; Florida, (260) 32,404; Ga., (644) 66,843; Idaho, (80) 10,302; Ill., (1,008) 293,110; Indiana, (559) 129,071; Ia., (558) 86,468; Kan., (449) 83,401; Ky., (598) 63,267

La., (270) 35,191; Me., (207) 43,897; Md., (122) 33,857; Mass., (321) 123,425; Mich., (499) 150,650; Minn., (307) 61,496; Miss., (383) 36,554; Mo., (661) 113,705; Mont., (134) 20,361; Neb., (293) 41,948; Nev., (23) 2,954; N. H., (81) 15,561; N. J., (269) 92,565; N. M., (57) 6,692;

N.Y., (1,011) 343,744; N. C., (429) 41,439; N. D., (129) 15,459; Ohio, (621) 204,638; Okla., (461) 72,687; Ore., (172) 30,286; Penn., (563) 210,593; R. I., (42) 18,852; S. C., (290) 29,847; S. D., (176) 19,707; Tenn., (154) 50,732; Texas, (999) 137,836; Utah, (25) 5,107; Vt., (103) 19,438; Va., (353) 48,558; Wash., (265) 49,040; W. Va., (116) 34,380; Wis., (305) 60,305; Wyo., (46) 8,145; Philippines (101) 6,683; Porto Rico (53) 4,000.

Total United States (16,227) 3,293,886.

Canada—Alberta, 13,301; British Columbia, 14,900; Canada (Ontario), 112,401; Manitoba, 11,875; New Brunswick, 6,012; Nova Scotia, 9,820; Prince Edward Island, 1,224; Quebec, 15,158; Saskatchewan, 13,843—total for Canada, 198,534.

Mexico (York G. L.), 943, Panama, 346; Cuba, 12,829; Chile, 4,500; Ecuador, 536; Guatemala, 612; San Salvador (Cuscatlan), 210;—total for Latin-America, 50,000.

New South Wales, 67,273; New Zealand, 25,579; Queensland, 21,000; South Australia, 13,658; Tasmania, 3,332; Victoria, 46,771; Western Australia, 8,117—Total Australasia, 186,230.

England, 328,700; Ireland, 50,000; Scotland, 85,000.

Austria, 1,652; Czechoslovakia, 1,022; Denmark; 7,156; Finland, 279; France, 1,472; Germany, 29,500, Netherlands, 7,503; Norway, 10,000; Switzerland, 4,800; Turkey, 2,600.

Total Masons in English speaking lodges—4,150,000.

All others, approximately, 260,000.

GRAND LODGE F. AND A. M., STATE OF NEW YORK.

Grand Master—John A. Dutton, New York.
Deputy Grand Master—Charles H. Johnson, Albany.
Senior Grand Warden—R. Elliott Owens, Cortland.
Junior Grand Warden—Dana B. Hellings, Buffalo.
Grand Treasurer—Frederick G. Lemmermann, Brooklyn. *Grand Secretary*—Robert Judson Kenworthy, Masonic Hall, New York City.

In England the King, the Prince of Wales, and other members of the reigning family, with many other noblemen, are Freemasons.

Their membership is traditional from the time when Parliament proscribed Roman Catholicism as the religious faith of the rulers of Great Britain.

THE DEGREES IN MASONRY.

Lodge—1. Entered Apprentice. 2. Fellow Crafts. 3. Master Mason.

York Rite.	SCOTTISH RITE, NORTHERN MASONIC JURISDICTION.		
Chapter.	*Lodge of Perfection.*	*Councils of Princes of Jerusalem (Continued).*	*Consistories of Sublime Princes of the Royal Secret (Continued).*
4. Mark Master.	4. Secret Master.	16. Prince of Jerusalem.	25. Knight of the Brazen Serpent.
5. Past Master.	5. Perfect Master.	*Chapters of Rose Croix.*	26. Prince of Mercy.
6. Most Excellent Master.	6. Intimate Secretary.	17. Knight of the East and West.	27. Commander of the Temple.
7. Royal Arch Mason.	7. Provost and Judge.	18. Knight of the Rose Croix of H. R. D. M.	28. Knight of the Sun.
Council.	8. Intendant of the Building.	*Consistories of Sublime Princes of the Royal Secret.*	29. Knight of St. Andrew.
8. Royal Master.	9. Master Elect of Nine.	19. Grand Pontiff.	30. Grand Elect Knight K-H, or Knight of the White and Black Eagle.
9. Select Master.	10. Elect of Fifteen.	20. Master ad vitam.	31. Grand Inspector Inquisitor Commander.
10. Super Excellent Master.	11. Sublime Master Elected.	21. Patriarch Noachite.	32. Sublime Prince of the Royal Secret.
Commandery.	12. Grand Master Architect.	22. Prince of Libanus.	33. Sovereign Grand Inspector-General.
11. Illustrious Order of the Red Cross.	13. Master of the Ninth Arch.	23. Chief of Tabernacle.	
12. Knight of Malta.	14. Grand Elect Mason.	24. Prince of the Tabernacle.	
13. Knight Templar.	*Councils of Princes of Jerusalem.*		
	15. Knight of the East, or Sword.		

ANCIENT ACCEPTED SCOTTISH RITE MASONS.

Supreme Councils of Sovereign Grand Inspectors-General of the Thirty-third and Last Degree.

Officers of the Northern Masonic Jurisdiction—M.P. Sovereign Grand Commander, Leon M. Abbott, Mass.; P. Gr. Lieut. Commander, Frederic B. Stevens, Mich.; Gr. Minister of State, Harry C. Walker, N. Y.; Gr. Treasurer-General, Leroy A. Goddard, Ill.; Gr. Secretary-General, Charles H. Spilman, Boston, Mass.

Officers of the Southern Masonic Jurisdiction—M.P. Sovereign Grand Commander, John H. Cowles, Ky.; Lt. Grand Commander, Charles E. Rosenbaum, Ark.; Gr. Minister of State, Edward C. Day, Mont.; Gr. Treasurer-General, Garnett N. Morgan, Tenn.; Gr. Secretary-General, Hyman W. Witcover, D. C.

ROYAL ARCH MASONS.

Officers of the General Grand Chapter, 1927-1930. Charles Clark Davis, *General Grand High Priest*, Centralia, Ill.; John William Nellson, *Deputy General Grand High Priest*, Concordia, Kan.; William Tecumseh Sherman O'Hara, *General Grand King*, Nicholas Building, Toledo, O.; Mattison Boyd Jones, *General Grand Scribe*, 1227 Citizens Nat. Bank Bldg., Los Angeles; Gustav Adolph Eitel, *General Grand Treasurer*, Masonic Temple, Baltimore; Charles Arthur Conover, *General Grand Secretary*, 95 West Chicago St., Coldwater, Michigan; John Huske Anderson, *General Grand Captain of Host*, Fayetteville, North Carolina; George Allison Holland, *General Grand Principal Sojourner*, Lexington, Ky.; William Edward Goff, *General Grand Royal Arch Captain*, Battle Creek, Mich.

KNIGHTS TEMPLAR.

Officers of the Grand Encampment of the United States of America: *Grand Master*, Wm. L. Sharp, Ill.; *Deputy Master*, Perry W. Weidner, Calif.; *Generalissimo*, Harry C. Walker, N. Y.; *Captain General*, Isaac H. Hettinger, Mo.; *Senior Warden*, Andrew D. Agnew, Wis.; *Junior Warden*, Mark Morris, Mich.; *Treasurer*, Louis L. Emmerson, Ill.; *Recorder*, Adrian Hamersly, Ind.

The office of the Grand Master is at Chicago, Illinois, and of the Grand Recorder at 110 Chamber of Commerce Bldg., Indianapolis, Indiana.

The number of Commanderies under the jurisdiction of the Grand Encampment is 1702, membership 449,696.

CHROMIUM, BERYLLIUM, AND CADMIUM.

(From the October 12, 1929 Issue of Skillings, Mining Review.)

Articles of commerce that are daily becoming more common are implements and tools and utensils made from so-called stainless steel. In the past when one wanted a bright knife, with which to cut his food, someone had to devote considerable time frequently to rubbing and polishing the steel or silver from which it was made.

Today steel knives are made which can be washed easily and given the drying that they get in the average kitchen and still retain their smooth, untarnished finish. This is due to the fact that they are alloyed with a certain amount of the metal, chromium.

Chromium is rapidly becoming an important metal because of its ability to impart to its alloys strength, hardness, and resistance to abrasion and corrosion. It has been known as a chemical element since its discovery by Vauquelin about 1800 but was little used until after 1827, says Fred M. Becket in Research Narratives.

Then a young man named Tyson, who had experience with a British metallurgical company, noticed while in the Farmer's Market in Baltimore, Maryland, a farmer who had propped his cider barrel with chunks of a black mineral which Tyson recognized as chromite. Inquiry led him to the finding of this ore in northern Maryland and in Pennsylvania. With the financial assistance of his father he organized the chromite industry of the Maryland-Pennsylvania district.

For nearly fifty years they dominated the world supply. In those days chromium was largely used for making chemicals which by their brilliant color gave the element its name, from chroma, Greek for color.

About 1869 metallurgical use began to be made of chromium in the manufacture of steel in this country. The first ferro-chromium was made in crucibles at Brooklyn. Later the French devised a way for manufacturing ferro-chromium in blast furnaces and in 1896 the first ferro-chrome was made at Spray, North Carolina in an electric furnace. This latter method enabled an alloy richer in chromium to be made and more uniform in grade, with lower costs.

The first important use of chromium in steel was in that for the Eads Mississippi river bridge at St. Louis, which is still in constant use and was completed in 1874.

Even below 1 per cent chromium confers strength, hardness and resistance to abrasion. Such steels are most usual in ball and roller bearings, case-hardened gears and mining and milling machinery subjected to hard duty.

Nickel, vanadium and molybdenum often participate in low-chromium steels, special to the automobile, materials which successfully resist terrific strains imposed by a hard-driving public.

The method of making stainless steel was discovered about 1913. Rustless irons are similar in chromium content but, are soft enough, through reason of low carbon to be formable for use about acid plants and in seamless tubing for special uses and for steam turbine blades, which must stand high stresses.

Chromium combined with nickel forms the heating units used in toasters and various similar utensils about the house and factory. It is also used in alloys to form corrosion resisting vats and vessels in dairies, chemical plants and places where the product must be kept clean and the containers unattacked. Chromium is now plated on various metals giving a high, elastic covering that resists tarnish and abrasion, and affords a permanently bright and shining surface to plumbing fixtures, lamp reflectors, trimmings, and all the many things for which a smooth and permanent surface is required.

The bulk of our chromium comes from Rhodesia in Africa, in the form of ore, which is reduced to ferro-chromium in this country.

Another metal, which has been slow in developing and which may be as important as chromium, but for different properties, is beryllium. This metal sold in 1922 at the rate of $5,000 a pound, though there were only a few ounces available at the time.

In 1916 Hugh S. Cooper devised a method for producing metallic beryllium of 99.5 per cent purity, permitting sale at $50 a pound. Still lower costs will probably bring the metal into general use for many things.

In its metallic state it weighs only about two-thirds as much as aluminum and about the same as magnesium; it is the world's lightest inert metal, only about twice as heavy as water. It is hard enough to scratch glass easily and is much harder than aluminum or magnesium. Temperature changes cause it to expand and contract at about the same rate as iron.

It takes a high polish and is untarnished by the air. It is gray in color and has a melting point close to that of steel. Beryllium alloyed with aluminum gives greater strength and resistance to corrosion to the aluminum. It adds stiffness to copper. In iron it acts as a powerful hardening agent.

Beryllium derives its name from beryl, a hard gem stone of which emerald and aquamarine are varieties. Beryls contain about 14 per cent of beryllium oxide. Beryl occurs with feldspar in New Hampshire and is wasted today. A shipment was made very recently of 1,000 lbs. of beryl from Manitoba to New York. It is associated with tin ore at Shatford Lake and will be shipped as a by-product.

Another metal which is still quite new industrially is cadmium. This is associated with zinc and is recovered from the zinc smelters and electrolytic zinc plants. Cadmium was discovered in 1817 but it was not recovered commercialy in this country until 1906.

Cadmium is a soft heavy metal, ductile enough to be beaten out into thin foil or drawn into wire. It is harder than tin but softer than zinc.

Cadmium salts are all poisonous, which makes it unavailable as a substitute for tin in many instances.

Its principal use is in making fusible plugs for automatic sprinklers, steam boilers and fire alarms and safety fuses in electric circuits and is a constituent of other varieties of metals with low fusing points in company with lead, tin and bismuth.

It is used in making stereotype plates. Added to copper wire cadmium improves the strength and wearing qualities of the wire and raises the annealing temperature without greatly reducing the conductivity. It is used in rustproofing light steel hardware for automobiles and refrigerators.

During the World War the metal was used in the manufacture of smoke bombs and as bands on hard-jacketed bullets.

PRODUCTION OF COAL-TAR DYES IN THE UNITED STATES.

(Data Gathered by the United States Tariff Commission.)

Year (Cal.).	Intermediates.	Finished Products.						
		Dyes.	Tan. Mat. & Syn. Ph. Res.	Color Lakes.	Medic.	Perfumes.	Flavors.	Total.
	Pounds.	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*
1918...	357,662,251	58,464,446	4,233,356	9,590,537	3,623,352	116,263	458,256	76,802,959
1919...	177,362,426	63,402,194	3,794,534	7,569,921	6,777,988	41,419	610,825	82,532,390
1920...	257,726,911	88,263,776	7,802,541	10,983,538	5,184,989	99,740	166,884	112,942,227
1921...	70,899,912	39,008,690	3,546,396	6,152,187	1,545,917	119,335	901,245	51,457,565
1922...	165,048,155	64,632,187	7,854,652	10,578,664	2,946,347	793,148	1,215,668	88,368,131
1923...	231,393,871	93,667,524	9,763,685	13,079,175	3,273,085	1,365,449	1,458,024	122,950,171
1924...	186,596,502	68,679,000	12,778,115	9,343,147	2,967,944	1,805,267	1,750,555	97,730,211
1925...	210,699,779	86,345,438	14,687,074	11,414,753	3,237,796	2,335,024	2,207,102	120,554,228
1926...	229,653,802	87,978,624	14,106,993	11,796,203	3,696,196	1,922,666	2,857,913	122,752,021
1927...	240,073,184	95,167,905	18,784,713	11,601,507	3,598,839	1,998,987	2,205,472	133,191,969
1928...	279,274,807	96,625,451	26,998,966	12,127,242	4,008,393	1,577,718	1,746,350	143,563,099

FEDERAL POWER COMMISSION.

(Headquarters, Interior Department Building, Washington, D. C.)

Commissioners—James W. Good, Secretary of War, chairman; Ray L. Wilbur, Secretary of the Interior; Arthur M. Hyde, Secretary of Agriculture.
Executive Secretary—F. E. Bonner. *Chief Engineer* Lt. Col. M. C. Tyler, U. S. Army. *Chief Counsel*—Thad H. Brown. *Solicitor*—Chas. A. Russell. *Chief Accountant*—Wm. V. King. *Chief Clerk*—F. W. Griffith.

MINERAL PRODUCTS—STATES THEY COME FROM.

(Data on this page are from the U. S. Bureau of Mines.)

Mineral.	Chief States.
Aluminum	N. Y., N. C., Tenn.
Antimony ore	Idaho
Arsenious oxide	Nev., Utah, Mont., S. D.
Asbestos	Md., Cal., Ga., Ariz.
Asphalt	Cal., Tex., Ill., Ky., Utah, Okla.
Barytes (crude)	Ga., Mo., Tenn., Va.
Bauxite	Ark., Ga., Tenn., Ala.
Borates	Cal., Nev.
Bromine	Mich., W. Va., Ohio.
Cadmium	Not separable by States.
Calcium-magnes. chloride	Mich., W. Va., Ohio.
Cement	Pa., Cal., Ind., Mich.
Chromite	Md., Cal., Ore.
Clay products	Ohio, Pa., N. J., Ill.
Clay, raw	N. J., Pa., Mo., Ga.
Coal:	
Bituminous	Pa., W. Va., Ill., Ky.
Anthracite	Pa.
Coke	Pa., Ind., Ohio, Ill., Ala.
Copper	Ariz., Mont., Utah, Mich
Diatomaceous earth	Cal., Okla., Ill., Mo.
Emery	Va., N. Y.
Feldspar (crude)	N. C., Me., N. H., N. Y.
Ferroalloys	Pa., N. Y., Md., Ohio.
Fluospar	Ill., Ky., Col., N. M.
Fuller's earth	Fla., Ga., Tex., Ill.
Garnet, abrasive	N. Y., N. H., N. C.
Gold	Cal., Col., S. D., Alaska.
Graphite	Ala., Tex., R. I., Mich.
Grindstones and pulpstones	Ohio, W. Va., Mich., Wash.
Gypsum	N. Y., Iowa, Ohio, Mich.
Iron ore	Minn., Mich., Ala., N. Y.
Iron, pig	Pa., Ohio, Ill., Ind., Ala.
Lead	Mo., Idaho, Utah, Okla.
Lime	Ohio, Pa., Mass., Mo.
Magnesite (crude)	Cal., Wash.
Magnesium	N. Y., Mich.
Magnesium chloride	Mich., Cal.
Magnesium sulphate	Mich., Wash., Cal.
Manganese ore	Mont., Ark., Va., Col.
Manganiferous ore	Minn., Wis., Mich., Colo.
Magnaniferous zinc	N. J.
Mica	N. C., N. H., N. M., Va.
Millstones	N. Y., Va., N. C., N. H.
Mineral paints	Pa., Ill., Col., Ohio.
Mineral waters	Wis., N. Y., Cal., Me.
Natural gas	W.Va., Pa. ,Okl., Cal.,Tex.
Natural gas gasoline	Okla., Cal., Tex., W. Va.
Oilstones, etc	Ark., Ind., Ohio, N. H.
Peat	Ill., N. J., Cal., Ind.
Petroleum	Okla.,Cal.,Tex., Ark.,Kan.
Phosphate rock	Fla., Tenn., Idaho, Ky.
Platinum and allied metals	Cal., Ore , Alaska, Utah.
Potash (K2O)	Cal., Md., Pa., Ind.
Pumice	Kan., Neb., Cal., Utah.
Pyrites	Cal., Va., N. Y., Wis.
Quicksilver	Cal., Tex., Nev., Ore.
Salt	Mich., N. Y., Ohio, Kan.
Sand and gravel	Ill., N. Y., Ind., Mich.
Sand-lime brick	Mich., Mass., Wis., N. J.
Silica (quartz)	Wis., Md., Cal., Nev.
Silver	Utah, Mont., Nev., Idaho.
Slate	Pa., Vt., N. Y., Me.
Stone	Pa., Ind., Ohio, N. Y.
Sulphur	Tex., La., Nev., Utah.
Talc and soapstone	N. Y., Va., Vt., Cal.
Tin	Alaska.
Titanium ore: Rutile	Fla., Va.
Tungsten	Nev., Calif., Colo., S. D.
Uranium, vanadium ores	Utah, Col.
Zinc	Okla., Kan., N. J., Mont.

MINERAL PRODUCING STATES AND THEIR LEADING MINERAL PRODUCTS.

State.	Products
Ala	Coal, iron ore, cement, clay products.
Alaska	Copper, gold, coal, silver.
Ariz	Copper, gold, silver, lead.
Ark	Petroleum, coal, natural gas, bauxite.
Cal	Petroleum, cement, natural gas, clay products.
Col	Coal, gold, clay products, silver.
Conn	Clay products, stone, lime, sand and gravel.
Del	Clay products, stone, sand and gravel.
D. of C.	Sand and gravel, clay products, sand-lime brick, stone.
Fla	Phosphate rock, stone, Fuller's earth, sand and gravel.
Ga	Clay products, stone, cement, Fuller's earth.
Idaho	Lead, silver, zinc, gold.
Ill	Coal, clay products, petroleum, cement.
Ind	Coal, cement, stone, clay products.
Iowa	Coal, cement, clay products, gypsum.
Kan	Petroleum, zinc, coal, natural gas.
Ky	Coal, petroleum, clay products, natural gas.
La	Petroleum, sulphur, natural gas, natural-gas gasoline.
Me	Stone, lime, clay products, slate.
Md	Coal, clay products, cement, sand and gravel.
Mass	Stone, clay products, lime, sand and gravel.
Mich	Iron ore, copper, cement, salt.
Minn	Iron ore, stone, cement, clay products.
Miss	Sand and gravel, clay products, mineral waters, stone.
Mo	Lead, clay products, cement, coal.
Mont	Copper, silver, coal, zinc.
Neb	Cement, clay products, sand and gravel, stone.
Nev	Copper, silver, gold, gypsum.
N. H.	Stone, clay products, sand and gravel, feldspar.
N. J.	Clay products, zinc, cement, sand and gravel.
N. M.	Coal, copper, zinc, silver.
N. Y.	Clay products, cement, gypsum, stone.
N. C.	Stone, clay products, sand and gravel, feldspar.
N. D.	Coal, clay products, mineral waters, sand and gravel.
Ohio	Clay products, coal, natural gas, petroleum, and lime.
Okla	Petroleum, zinc, natural gas, natural-gas gasoline.
Ore	Cement, stone, sand and gravel, clay products.
Pa	Coal, cement, clay products, natural gas.
R. I.	Stone, clay products, lime, sand and gravel.
S. C.	Stone, clay products, sand and gravel, barytes.
S. D.	Gold, stone, sand and gravel, silver
Tenn	Coal, clay products, cement, stone.
Texas	Petroleum, sulphur, natural-gas gasoline, natural gas.
Utah	Copper, silver, lead. coal.
Vt	Stone, slate, lime, talc.
Va	Coal, clay products, stone, cement.
Wash	Coal, cement, clay products, sand and gravel.
W. Va.	Coal, natural gas, petroleum, clay products.
Wis	Stone, sand and gravel, mineral waters, iron ore.
Wyo	Petroleum, coal, natural gas, natural-gas gasoline.

VALUE OF MINE AND QUARRY PRODUCTS OF THE UNITED STATES, 1900-1927.

Year.	Metallic.	Non-Met.	Other & Tot.
	Dollars.	*Dollars.*	*Dollars.*
1900	513,732,000	594,204,000	1,108,936,000
1901	493,314,000	660,764,000	1,155,078,000
1902	604,517,000	722,434,000	1,327,951,000
1903	588,753,000	905,628,000	1,495,381,000
1904	501,114,000	857,667,000	1,359,181,000
1905	702,585,000	920,780,000	1,623,765,000
1906	886,180,000	1,014,500,000	1,900,880,000
1907	904,108,000	1,165,376,000	2,069,570,000
1908	550,768,000	1,040,761,000	1,591,773,000
1909	754,944,000	1,131,866,000	1,887,107,000
1910	749,879,000	1,237,668,000	1,987,844,000
1911	680,907,000	1,242,942,000	1,924,081,000
1912	862,008,000	1,375,420,000	2,237,794,000
1913	878,869,000	1,554,298,000	2,433,545,000
1914	686,639,000	1,424,063,000	2,111,172,000
1915	991,730,000	1,400,484,000	2,394,644,000
1916	1,620,745,000	1,884,413,000	3,508,439,000
1917	2,086,234,000	2,900,462,000	4,992,496,000
1918	2,153,318,000	3,380,690,000	5,540,708,000
1919	1,359,744,000	3,232,626,000	4,595,770,000
1920	1,762,350,000	5,214,170,000	6,981,340,000
1921	654,130,000	3,481,890,000	4,138,670,000
1922	987,180,000	3,656,410,000	4,647,290,000
1923	1,510,930,000	4,471,620,000	5,986,500,000
1924	1,232,330,000	4,067,730,000	5,305,800,000
1925	1,380,280,000	4,291,100,000	6,677,630,000
1926	1,402,920,000	4,802,180,000	6,213,600,000
1927	1,217,700,000	4,303,600,000	5,529,500,000
1928	1,282,000,000	4,109,000,000	5,400,000,000
Total '80-'28	34,920,370,000	73,269,062,00	108,319,289,000

Included in non-metallic are *mineral fuels;* production in 1928 was valued at $2,893,000,000.

VALUE OF MINERAL PRODUCTS OF THE UNITED STATES, BY STATES.

State.	1921.	1922.	1923.	1924.	1925.	1926.	1927.
Alabama	$52,269,451	$61,723,268	$82,296,430	$77,315,758	$77,139,340	$83,709,894	$78,640,669
Alaska	17,041,057	19,506,610	20,241,137	17,361,834	18,286,320	17,606,890	14,402,440
Arizona	30,818,363	63,737,720	104,940,212	100,325,413	114,202,670	84,485,672	100,558,556
Arkansas	227,515,412	31,418,633	41,954,319	61,748,999	87,185,532	115,047,987	59,449,109
California	297,725,679	283,411,997	375,492,868	428,175,652	496,923,376	523,352,257	459,470,570
Colorado	54,045,056	54,806,277	61,379,146	61,487,882	63,148,959	65,597,487	58,855,263
Con'ct'c't	4,219,457	5,346,295	7,177,266	8,129,332	6,755,454	7,695,341	7,299,100
Delaware	379,785	428,314	416,074	512,105	539,261	375,945	493,377
D. of Col	411,745	869,132	929,768	813,608	954,795	987,289	1,374,719
Florida	12,597,948	10,907,718	12,557,822	13,101,223	16,650,659	19,700,522	18,095,961
Georgia	8,650,003	11,120,018	14,300,313	14,946,610	16,503,741	17,479,964	16,758,390
Idaho	16,502,273	18,495,628	27,105,344	27,831,623	31,611,166	31,752,827	29,183,929
Illinois	254,019,136	244,617,561	282,760,623	235,796,027	231,658,604	237,241,601	180,288,060
Indiana	97,700,676	108,394,095	130,885,954	112,299,075	111,833,732	118,692,300	107,578,234
Iowa	35,639,505	36,205,251	46,174,897	40,459,869	38,420,203	35,971,787	33,426,375
Kansas	113,098,346	103,884,561	110,630,255	105,005,476	142,944,214	165,060,612	120,368,526
Kentucky	114,404,662	158,701,496	148,853,786	120,510,775	131,370,840	146,768,273	152,614,177
Louisiana	61,061,974	75,519,328	61,199,048	56,930,681	60,503,891	62,203,543	51,266,921
Maine	4,302,039	5,588,140	7,565,553	6,035,160	5,838,718	5,785,619	5,475,695
Maryland	16,083,965	14,905,227	21,189,542	18,506,867	21,557,810	24,066,996	20,469,294
Mas'ch'ts	9,835,107	11,004,523	14,781,129	15,725,882	16,831,529	16,786,577	16,295,373
Michigan	69,452,819	101,430,981	128,291,450	114,239,386	122,212,254	130,860,609	124,029,572
Min'esota	72,609,973	111,617,448	174,105,328	107,844,680	110,252,956	118,361,306	102,972,753
Mis'sip'i	1,954,253	1,600,393	2,163,343	2,090,422	2,171,945	1,882,986	2,553,633
Missouri	56,375,543	62,402,642	79,201,473	81,054,122	92,548,473	90,003,537	75,890,415
Montana	30,161,734	59,400,591	74,707,269	70,631,806	79,261,284	79,762,630	68,264,687
Nebraska	2,366,287	2,996,587	3,302,397	3,209,425	3,358,585	3,322,460	3,541,792
Nevada	14,038,071	18,274,023	28,598,627	26,225,943	26,409,901	27,613,232	26,753,295
N'w Ham.	2,234,007	2,283,119	3,572,615	3,378,165	3,464,837	4,144,645	3,447,105
N'wJers'y	47,429,290	62,396,279	72,602,066	75,271,009	76,761,313	77,065,713	73,064,418
New Mex.	13,227,568	18,038,022	23,791,047	23,913,528	25,548,804	28,513,991	28,608,776
New York	62,502,458	73,527,880	89,975,134	95,435,299	102,035,557	112,016,562	112,106,913
No. Caro.	5,455,479	7,268,381	10,020,559	9,261,467	9,504,063	10,992,793	11,703,671
No. Dak.	2,500,349	3,693,095	3,473,018	2,776,720	2,662,029	2,804,837	2,869,663
Ohio	223,533,658	236,808,628	287,868,728	249,049,648	247,50 ,588	253,883,995	226,731,200
Oklahoma	269,882,786	369,069,612	398,810,630	393,039,665	501,767,118	569,518,693	524,594,732
Oregon	5,199,803	5,489,956	6,054,487	7,364,232	7,826,711	6,941,355	6,821,224
Pen'syl.	944,688,650	823,148,222	1,225,036,404	1,011,630,879	867,196,142	1,055,766,077	936,693,474
Rhode Isl.	922,765	770,966	1,022,528	1,132,641	1,151,857	1,339,398	1,310,756
So. Caro.	1,754,491	2,414,346	3,550,059	3,444,366	3,507,804	3,677,209	4,251,137
So. Dak.	7,498,656	7,278,934	7,372,368	6,884,433	7,971,650	7,595,358	8,463,952
Tennessee	33,754,823	35,146,266	41,553,789	35,354,525	38,869,198	39,296,668	37,874,981
Texas	212,302,907	249,604,173	260,450,913	272,729,023	351,211,629	420,586,730	374,503,420
Utah	40,595,872	60,697,116	86,221,000	84,356,626	100,275,442	98,985,218	90,368,455
Vermont	10,650,213	9,576,636	13,910,449	14,549,429	14,408,933	14,955,161	14,702,891
Virginia	32,810,842	38,551,479	48,052,018	37,962,143	41,038,393	46,136,458	41,322,998
Wash'gt'n	17,605,878	19,725,303	22,169,191	21,159,370	22,382,132	21,256,952	21,965,917
W. Virg'a	316,180,647	358,772,116	412,866,535	307,314,205	333,527,697	395,941,940	366,643,205
Wisconsin	9,990,961	13,822,883	19,089,600	15,796,720	19,205,380	20,711,736	21,776,847
Wyoming	51,365,150	58,529,284	77,664,547	75,494,166	78,754,915	78,988,066	56,166,600

In this table iron ore, not pig iron, is taken as the basis of valuation of iron, and in the case of other metals mine production (recoverable content of metals) is the basis.

CEMENT AND OTHER QUARRY PRODUCTION AND VALUES.

Year.	Cement.		Clay.	Clay products.	Lime.		Sand and Gravel.	
(*Cal.*)	*Barrels.*	*Dollars.*	*Dollars.*	*Dollars.*	*Short tons*	*Dollars.*	*Short tons.*	*Dollars.*
1918	71,348,474	113,717,616	8,332,641	220,573,493	3,206,016	26,808,909	61,824,426	37,927,079
1919	86,141,488	147,318,398	7,090,631	275,346,378	3,330,347	29,448,553	70,576,407	45,951,356
1920	97,079,200	195,589,915	11,275,663	373,670,102	3,570,141	37,543,840	82,041,388	65,661,605
1921	96,016,549	181,675,440	6,055,300	270,738,536	2,532,153	24,895,370	79,345,008	56,484,245
1922	118,590,644	208,464,028	8,330,514	321,494,403	3,639,617	33,255,039	94,867,046	64,617,664
1923	137,183,792	259,631,776	11,188,913	424,582,628	4,076,243	39,993,652	139,932,153	90,903,654
1924	147,465,010	266,053,267	11,507,536	415,779,378	4,072,000	39,596,423	156,230,063	97,013,115
1925	159,016,937	281,075,691	12,736,632	423,446,917	4,580,823	42,609,141	172,001,473	107,542,123
1926	164,218,941	280,785,583	14,105,589	430,428,494	4,560,398	41,566,452	183,100,818	111,338,701
1927	174,023,051	281,735,676	13,697,159	403,363,270	4,414,932	38,638,413	197,454,269	115,529,786
1928	177,948,619	278,795,999	13,696,000	.....	4,395,000	36,600,000	196,000,000	112,000,000

Year.	Slate.	Stone.		Asphalt (mine).		Asphalt. (from dom. petrol.)		Asphalt (from for. petrol.).	
(*Cal.*)	*Dollars.*	*Short tons.*	*Dollars.*	*Short tons.*	*Dollars.*	*Short tons.*	*Dollars.*	*Short tons.*	*Dollars.*
1918	4,841,120	68,563,360	82,700,430	60,034	780,808	604,723	8,796,541	597,697	9,417,818
1919	6,030,648	65,539,000	96,709,143	88,281	682,989	614,692	8,727,372	674,876	7,711,510
1920	8,726,442	78,527,000	133,541,960	198,497	1,213,908	700,496	11,985,457	1,045,779	14,272,862
1921	7,322,006	63,538,740	106,962,266	296,412	1,985,583	624,220	9,048,221	908,093	11,761,358
1922	9,176,784	80,211,560	122,066,928	327,792	2,253,180	805,145	10,385,925	1,242,163	13,899,407
1923	12,076,624	103,318,660	159,470,241	400,236	2,885,631	995,654	13,060,174	1,378,722	16,840,045
1924	11,776,016	103,184,120	161,870,113	562,367	3,958,339	1,158,456	14,305,007	1,920,915	21,710,793
1925	12,575,326	115,851,370	174,216,792	584,850	4,148,400	1,206,700	15,305,760	1,971,670	27,520,010
1926	12,352,767	124,496,360	188,308,590	715,180	4,484,960	1,245,160	15,452,940	2,213,310	31,098,460
1927	11,380,736	136,345,130	198,647,222	839,040	5,605,850	1,525,420	19,019,150	2,426,030	35,771,940
1928	11,472,291	133,130,000	196,800,000	799,071	5,094,983	1,741,392	20,425,371	2,264,137	29,687,614

Stone produced (quarried) in 1927 was, by kinds, in short tons—granite, 13,210,570; marble, 600,060; limestone, 99,662,270 10,706,740; trap rock, ; sandstone, 5,050,600; other, 7,114, 890.

PRODUCTION OF CHIEF METALS IN THE UNITED STATES.

(Data by Bureau of Mines, U. S. Department of Commerce.)

Year (Cal.).	Gold.	Silver.	Copper.	Lead.	Iron Ore.	Pig Iron.	Steel.	Zinc, Crude.
	Dollars.	*Dollars.*	*Long tons.*	*Short tons.*	*Long tons.*	*Long tons.*	*Long tons.*	*Short tons*
1850...	50,000,000	50,900	650	22,000	.....	563,755	.....	.....
1860...	46,000,000	156,800	7,200	15,600	.....	821,223	.....	.....
1870...	50,000,000	16,434,000	12,600	17,830	3,031,891	1,665,179	68,750	.....
1871...	43,500,000	23,588,300	13,000	20,000	.....	1,706,793	73,214	.....
1872...	36,000,000	29,396,400	12,500	25,880	.....	2,548,713	142,954	.....
1873...	36,000,000	35,881,600	15,500	42,540	.....	2,560,963	198,796	7,343
1874...	33,490,900	36,917,500	17,500	52,080	.....	2,401,262	215,727	.....
1875...	33,467,900	30,485,900	18,000	59,640	.....	2,023,733	389,799	15,833
1876...	39,929,200	34,919,800	19,000	64,070	.....	1,868,961	533,191	.....
1877...	46,897,400	36,991,500	21,000	81,900	.....	2,066,594	569,618	.....
1878...	51,206,400	40,401,000	21,500	91,060	.....	2,301,215	731,977	.....
1879...	38,900,000	35,477,100	23,000	92,780	.....	2,741,853	935,273	.....
1880...	36,000,000	34,717,000	27,000	97,825	7,120,362	3,835,191	1,247,335	23,239
1881...	34,700,000	37,657,500	32,000	117,085	.....	4,144,254	1,588,314	.....
1882...	32,500,000	41,105,900	40,467	132,890	.....	4,625,323	1,736,692	33,765
1883...	30,000,000	39,618,400	51,574	143,957	.....	4,595,510	1,673,535	36,872
1884...	30,800,000	41,921,300	64,708	139,897	.....	4,097,868	1,550,879	38,544
1885...	31,801,000	42,503,500	74,052	129,412	.....	4,044,526	1,711,920	40,688
1886...	35,869,000	39,482,400	70,430	130,629	.....	5,683,329	2,562,503	42,641
1887...	33,136,000	40,887,200	81,017	145,700	.....	6,417,148	3,339,071	50,340
1888...	33,167,500	43,045,100	101,654	151,919	.....	6,489,738	2,899,440	55,903
1889...	32,967,000	46,838,400	101,239	156,397	14,518,041	7,603,642	3,385,732	58,560
1890...	32,845,000	57,242,100	115,966	143,630	16,036,043	9,202,703	4,277,071	53,683
1891...	33,175,000	57,630,000	126,839	178,554	14,591,178	8,279,870	3,904,240	80,873
1892...	33,015,000	55,662,500	154,018	173,305	16,296,666	9,157,000	4,927,581	87,260
1893...	35,955,000	46,800,000	147,033	163,982	11,587,629	7,124,502	4,019,995	78,832
1894...	39,500,000	31,422,100	158,120	162,686	11,879,679	6,657,888	4,412,032	75,328
1895...	46,610,000	36,445,500	169,917	170,000	15,957,614	9,446,308	6,114,834	89,686
1896...	53,088,000	39,654,600	205,384	188,000	16,005,449	8,623,127	5,281,689	81,499
1897...	57,363,000	32,316,000	220,571	2,2.000	17,518,046	9,652,680	7,156,957	99,980
1898...	64,463,000	32,118,400	235,050	222,000	19,433,716	11,773,934	8,932,857	115,399
1899...	71,053,400	32,858,790	253,870	210,500	24,683,173	13,620,703	10,639,857	129,051
1900...	79,171,000	35,741,100	270,588	270,824	27,553,161	13,789,242	10,188,329	123,886
1901...	78,666,700	33,128,400	268,782	270,700	28,887,479	15,878,354	13,473,595	140,822
1902...	80,000,000	29,415,000	294,423	270,000	35,554,135	17,821,307	14,947,250	156,927
1903...	73,597,700	29,522,000	311,627	282,000	35,019,308	18,009,252	14,534,978	159,219
1904...	80,464,700	33,456,024	362,739	307,000	27,644,330	16,497,033	13,859,887	186,702
1905...	88,180,700	34,222,000	402,637	307,514	42,526,133	22,992,380	20,023,947	203,849
1906...	94,373,800	38,256,400	409,735	336,200	47,749,728	25,307,191	23,398,136	199,694
1907...	90,435,700	37,299,700	387,945	352,381	51,720,619	25,781,361	23,362,594	123,745
1908...	94,560,000	28,050,600	420,791	311,666	35,983,336	15,936,018	14,023,247	290,749
1909...	99,673,400	28,455,200	487,925	359,839	51,155,437	25,795,471	23,905,021	230,225
1910...	96,269,100	30,854,500	482,214	375,402	56,889,734	27,303,567	26,094,919	252,479
1911...	96,890,000	52,615,700	489,836	391,995	41,092,447	23,649,547	23,676,106	271,621
1912...	93,451,500	39,197,400	555,031	392,517	57,017,614	29,726,937	31,251,303	323,907
1913...	88,301,023	40,864,871	546,645	411,878	61,980,437	30,966,152	31,300,874	357,252
1914...	94,531,800	40,067,700	513,454	512,794	41,439,791	23,332,244	23,513,030	343,418
1915...	101,035,700	37,397,300	619,647	507,026	55,526,490	29,916,213	32,151,036	458,135
1916...	92,590,300	48,957,000	860,648	552,228	75,167,672	39,434,797	42,773,680	564,338
1917...	83,750,700	59,678,100	842,018	548,450	75,288,851	38,621,216	45,060,607	584,597
1918...	68,646,700	66,485,129	852,024	539,905	69,658,278	39,054,644	44,462,432	492,405
1919...	60,333,400	63,333,652	574,294	424,433	60,965,418	31,015,364	34,671,232	452,272
1920...	51,186,900	60,801,955	539,759	476,849	67,604,165	36,925,987	42,132,934	450,045
1921...	50,067,300	53,052,000	225,708	398,222	29,490,978	16,688,126	19,783,797	198,232
1922...	48,849,100	56,240,048	424,235	468,746	47,128,527	26,825,060	35,602,926	353,274
1923...	51,734,000	60,134,839	640,625	543,841	69,351,442	39,721,415	44,943,696	508,335
1924...	52,277,000	43,822,814	729,576	566,407	54,267,419	30,874,765	37,931,939	515,831
1925...	49,860,200	45,911,864	747,710	654,921	61,907,997	36,116,311	45,393,524	555,631
1926...	48,269,600	39,136,497	776,617	680,685	67,623,000	38,698,417	48,293,763	576,960
1927...	45,418,600	34,266,328	751,849	668,320	61,741,100	35,858,232	44,935,185	611,991
1928...	46,165,400	34,200,567	815,134	626,202	62,197,088	37,401,648	51,544,180	591,525

Of the iron ore mined in 1928 the Lake Superior district supplied 52,517,175 long tons.

Pig iron figures do not include ferro-alloys, which in 1928 totaled 754,066 long tons.

Iron ore mined in the United States (1810-1928) 1,854,797,088 long tons (2,240 lbs.)

UNITED STATES PRODUCTION OF OTHER METALS IN 1928.

(Values in Parenthesis. S. T., Short Tons; L. T., Long Tons.)

Metallic—($47,899,000); ferro-alloys, 794,659 l. t. ($66,578,039); platinum and allied metals, 59,039 troy oz., ($4,692,786).

Non-Metallic—gypsum, 5,102,250 s. t. ($32,036,169); mineral paints (zinc and lead pigments) 201,495 s. t. ($25,893,125); phosphate rock, 3,439,921 l. t. ($12,339,850); salt, 8,074,700 s. t. ($26,772,568); sand, (molding, bldg., gravel), 194,000,000 s t., ($109,000,000); sand lime brick, 313,553,000 ($3,654,590); slate, 646,360 s. t. ($11,472,291); sulphur, 2,082,924 l. t. ($37,500,000); sulphuric acid (from copper and zinc smelters), 1,140,268 s. t. ($9,007,809).

PRODUCTION AND VALUE OF CHIEF METALS.

Year.	Gold.	Silver.	Copper.	Lead.	Iron Ore.	Pig Iron.	Zinc.	Petroleum.
(Cal.)	*Troy ozs.*	*Troy ozs.*	*Value dolls.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
1918.....	3,320,784	67,810,139	471,408,000	76,667,000	244,368,147	1,180,759,965	89,618,000	703,944,000
1919.....	2,918,628	56,682,445	239,274,000	44,990,000	197,312,517	775,915,043	66,032,000	760,266,000
1920.....	2,476,166	55,361,573	222,467,000	76,296,000	285,006,327	1,140,904,096	72,907,000	1,360,745,000
1921.....	2,422,006	53,052,441	65,221,000	35,840,000	89,745,308	389,437,792	19,823,000	814,745,000
1922.....	2,363,075	56,240,048	128,289,000	51,562,000	157,809,286	608,144,858	40,273,000	895,111,000
1923.....	2,502,632	73,335,170	210,945,000	90,625,000	151,307,105	946,799,378	69,134,000	978,430,000
1924.....	2,528,900	65,407,186	214,087,000	113,956,000	160,796,886	665,078,972	67,058,000	1,022,683,000
1925.....	2,411,987	66,155,424	237,832,000	108,910,000	174,015,645	739,316,333	84,456,000	1,284,960,000
1926.....	2,335,042	62,718,746	243,547,000	84,208,000	151,125,820	749,633,468	91,799,000	1,447,760,000
1927.....	2,197,125	60,434,441	220,609,000	72,639,000	155,788,657	646,296,199	73,851,000	1,172,830,000
1928.....	2,233,251	58,462,507	262,930,000	72,639,000	155,788,657	661,351,270	72,166,000	1,077,900,000

ROLLED IRON AND STEEL PRODUCTION IN THE UNITED STATES.

(Data by American Iron and Steel Institute; gross tons.)

Year (Calendar).	Iron and Steel Rails.	Plates and Sheets.	Nail Plate.	Wire Rods.	Structural Shapes.	Oth. Finished Products.	Total Gross Tons
1910	3,636,031	4,955,484	45,294	2,241,830	2,266,890	8,475,750	21,621,279
1911	2,822,790	4,488,049	48,522	2,450,453	1,912,367	7,316,990	19,039,171
1912	3,327,915	5,875,080	45,331	2,653,553	2,846,487	9,908,475	24,656,841
1913	3,502,780	5,751,037	37,503	2,464,807	3,094,972	10,030,144	24,791,243
1914	1,945,095	4,719,246	38,573	2,431,714	2,031,124	7,204,444	18,370,196
1915	2,204,203	6,077,694	31,929	3,095,907	2,437,003	10,546,188	24,392,924
1916	2,854,518	7,453,980	30,088	3,518,746	3,029,964	15,493,093	32,380,389
1917	2,944,161	8,267,616	22,864	3,137,138	3,110,000	15,585,921	33,067,700
1918	2,540,892	8,799,135	18,310	2,562,390	2,849,969	14,385,058	31,155,754
1919	2,203,843	7,372,814	12,832	2,538,476	2,614,036	10,359,543	25,101,544
1920	2,604,116	9,337,680	20,577	3,136,907	3,306,748	13,941,835	32,347,863
1921	2,178,818	4,260,574	14,573	1,564,330	1,272,624	5,483,087	14,774,006
1922	2,171,776	7,968,397	21,969	2,654,741	2,718,768	10,916,353	26,452,004
1923	2,904,516	9,497,717	22,833	3,075,892	3,405,197	14,370,921	33,277,076
1924	2,433,332	8,087,883	22,175	2,522,545	3,283,708	11,736,792	28,086,435
1925	2,785,257	9,807,659	22,038	2,844,656	3,604,130	14,323,220	33,386,960
1926	3,217,649	10,529,056	17,337	2,722,032	3,911,663	15,098,155	35,495,892
1927	2,806,486	9,627,734	18,051	2,770,271	3,742,445	13,914,044	32,879,031
1928	2,647,493	11,006,050	16,200	3,080,816	4,096,143	16,816,214	37,662,916

Two-thirds of the rails produced now weigh 85 pounds or over a yard, and one-quarter of the rails weigh 100 pounds or over a yard. Four-fifths of the rails are by open-hearth process. Girder and high T rails for electric and street railways are included in the figures given above. No iron rails have been produced since 1911.

Of the 1928 rolled iron and steel production, 37,177,939 tons were rolled *steel*.

Tin plate production in 1928 totaled 3,672,797,065 lbs.; tern plates, 278,241,691 lbs.; galvanized sheets, 3,040,763,695 lbs.

IRON AND STEEL OUTPUT OF CHIEF COUNTRIES.

(Figures by the American Iron & Steel Institute); gr. t.=gross tons (2,240 lbs.); met. t.=metric tons (2,204.6 lbs.)

	United States.		United Kingdom.		Germany.		France.		Belgium.		Canada.		Alsace-Lorraine.	
Year.	Iron	Steel.	Iron.	Steel.	Iron.	Steel.	Iron.	Steel.	Iron.	Steel.	Iron.	Steel.	Iron.	Steel.
(Cal.)	1,000 *gr. t.*	1,000 *gr. t.*	1,000 *gr. t.*	1,000 *gr. t.*	1,000 *met. t.*	1,000 *met. t.*	1,000 *met. t.*	1,000 *met. t.*	1,000 *met. t.*	1,000 *met. t.*	1,000 *met. t.*	1,000 *met. t.*	1,000 *met. t.*	1,000 *met. t.*
1900	13,789	10,188	8,960	4,901	8,520	6,646	2,714	1,565	1,019	655	86	24	.....	.....
1905	22,992	20,024	9,608	5,812	10,875	11,066	3,077	2,280	1,311	1,227	468	403	2,169	.....
1910	27,301	26,095	10,012	6,374	14,794	13,699	4,038	3,482	1,852	1,945	740	742	2,722	.....
1911	23,649	23,676	9,526	6,462	15,574	15,019	4,470	3,916	2,046	2,193	824	791	2,908	.....
1912	29,727	31,251	8,751	6,796	17,869	17,302	4,939	4,428	2,301	2,515	913	853	3,463	.....
1913	30,966	31,301	10,260	7,664	19,312	18,935	5,207	4,687	2,485	2,467	1,015	1,042	3,863	2,286
1914	23,332	23,513	8,924	7,835	14,408	14,946	2,736	2,802	1,454	1,396	706	743	2,411	1,511
1915	29,916	32,151	8,724	8,550	11,745	13,258	584	1,111	68	99	825	913	1,803	1,178
1916	39,435	42,774	8,919	8,992	13,293	16,182	1,311	1,784	128	99	1,069	1,286	2,219	1,456
1917	38,621	45,061	9,338	9,716	13,171	16,587	1,408	1,991	8	10	1,086	1,562	2,010	1,547
1918	39,055	44,462	9,107	9,539	8,387	11,786	1,293	1,800	.....	10	1,107	1,695	1,495	1,223
1919	31,015	34,671	7,417	7,894	5,654	6,877	2,447	2,155	250	337	863	928	1,113	863
1920	36,920	42,133	8,035	9,067	6,388	8,537	3,344	2,706	1,116	1,253	999	1,110	1,369	845
1921	16,688	19,784	2,616	3,703	7,855	9,996	3,447	3,099	872	764	616	669	1,442	1,154
1922	27,220	35,603	4,902	5,881	9,194	11,714	5,277	4,538	1,613	1,565	402	481	2,261	1,673
1923	40,361	44,944	7,440	8,482	4,940	6,305	5,468	5,302	2,148	2,297	909	884	1,889	1,592
1924	31,406	37,932	7,307	8,201	7,832	9,835	7,693	6,990	2,844	2,875	619	661	2,984	2,379
1925	36,701	45,393	6,262	7,385	10,089	12,194	8,494	7,446	2,542	2,548	596	756	3,287	2,629
1926	39,373	48,294	2,458	3,596	9,643	12,342	9,432	8,430	3,368	3,339	815	782	3,574	2,800
1927	36,566	44,935	7,293	9,097	13,102	16,311	9,326	8,306	3,709	3,680	766	916	3,381	2,734
1928	38,155	51,544	6,611	8,525	11,804	14,517	10,097	9,386	3,885	3,934	1,083	1,239	.....	.....

Iron means pig iron and ferro alloys.

Steel means steel ingots and castings.

German figures, 1900-1917 represent the German Customs Union (Germany, Luxemburg, Alsace-Lorraine, and the Saar); German figures, 1918 and since, exclude Alsace-Lorraine and the Saar.

French figures, 1919 and since, include Alsace-Lorraine.

Alsace-Lorraine figures for 1918 were January-October only.

In 1928 Luxemburg produced 2,571,777 metric tons of steel; the Saar, 2,073,051 tons.

Production of pig iron in 1927, in certain other countries (metric tons) was—Australia, 518,000; Austria, 432,749; Brazil, 70,000; China, 300,000; Czechoslovakia, 1,300,000; Hungary, 299,332; India, British, 900,000; Italy, 529,433; Japan (1928) 1,507,764; Poland, 618,186; Roumania, 63,498; Russia, 2,947,000; Spain, 593,070; Sweden, 500,000; Jugoslavia, 22,651.

World production, yearly averages—pig iron, 75,000,000 long tons; steel, 89,500,000 long tons; lead, 1,135,000 metric tons; aluminum, 117,000 metric tons; platinum, 60,000 metric tons; tin, 131,000 metric tons; zinc, 1,000,000 metric tons; tungsten, 4,000 metric tons.

Iron Ore Unmined (millions of tons)—America, 9,855; France, 4,369; Great Britain, 2,254; Sweden, 1,548; Germany, 1,374; Russia, 1,032; Spain, 610; Norway, 367; Austria-Hungary, 284; Luxemburg, 270; Asia, 260; Africa, 225; Australia, 136; Greece, 100; world total—23,000.

WORLD PRODUCTION OF COAL OF ALL GRADES, 1914-1927.

Year.	Production, in part estimated (metric tons).	Percentage produced by United States.	Year.	Production, in part estimated (metric tons).	Percentage produced by United States.
1914	1,207,000,000	38.7	1921	1,135,000,000	40.5
1915	1,193,000,000	40.5	1922	1,226,000,000	35.3
1916	1,291,000,000	41.5	1923	1,359,000,000	43.9
1917	1,356,000,000	43.6	1924	1,357,000,000	38.2
1918	1,333,000,000	46.3	1925	1,372,000,000	38.5
1919	1,173,000,000	42.8	1926	1,365,000,000	43.7
1920	1,320,000,000	45.3	1927	1,470,000,000	36.9

Includes lignite and sub-bituminous coal as reported, without attempting to reduce to equivalent tonnage of bituminous coal.

COAL, COKE AND PETROLEUM PRODUCTION IN THE UNITED STATES.

(Anthracite figures by Penna. State Dept. of Mines; rest by U. S. Bureau of Mines.)

Year (Cal.)	Anthracite Produced.	Anthracite Shipped.	Bituminous Produced.	Coke Produced.	Total Coal Production.	Petroleum Produced.
	Net Tons.	*Net Tons.*	*Gross Tons.*	*Gross Tons.*	*Gross Tons.*	*Gallons.*
1900	57,363,396	50,704,201	189,567,957	18,333,246	240,789,310	2,672,062,218
1901	67,094,665	59,861,650	201,632,276	19,460,610	261,874,836	2,914,346,148
1902	41,340,935	35,338,031	232,336,468	22,680,116	269,277,178	3,728,210,472
1903	75,232,585	67,458,836	252,454,775	22,566,322	419,068,229	4,219,376,154
1904	73,594,369	65,137,283	248,803,294	21,125,988	314,121,784	4,917,400,320
1905	78,647,020	69,934,070	281,306,058	28,777,794	350,645,210	5,658,138,360
1906	72,139,510	63,418,916	306,138,274	32,501,087	369,783,284	5,312,745,312
1907	86,056,412	76,138,664	352,463,493	36,410,325	428,195,914	6,976,004,070
1908	83,543,243	73,507,322	296,941,021	23,244,213	371,288,123	7,498,848,910
1909	80,223,833	70,314,739	339,057,372	35,102,737	411,441,621	7,693,176,708
1910	83,683,994	73,418,729	372,420,663	37,240,009	447,853,909	8,801,404,416
1911	90,917,176	79,775,010	362,417,017	31,742,401	443,188,505	9,258,874,422
1912	84,426,869	73,462,014	401,879,448	39,271,070	477,202,303	9,363,271,848
1913	91,626,964	80,325,964	427,174,372	41,338,866	508,893,052	10,434,741,660
1914	91,189,641	79,713,875	377,414,259	30,853,495	458,504,890	11,162,026,470
1915	89,377,706	77,578,441	395,200,380	37,126,026	474,660,256	11,806,372,368
1916	87,680,198	76,180,937	448,678,288	31,664,893	526,873,371	12,632,220,636
1917	100,445,299	88,147,050	492,670,146	49,648,954	581,609,263	14,083,255,242
1918	99,445,794	86,614,364	517,308,768	50,427,118	605,546,343	14,948,964,072
1919	87,838,024	75,959,448	468,908,482	44,821,000	487,410,413	15,864,198,000
1920	89,636,036	77,130,591	496,975,892	46,328,571	577,008,067	18,622,884,000
1921	90,358,642	77,984,929	415,921,950	25,287,622	444,105,760	19,831,686,000
1922	53,910,201	45,514,224	407,894,000	37,124,012	456,718,127	23,416,302,000
1923	92,663,854	81,937,565	486,964,286	55,487,000	570,302,687	30,861,094,000
1924	87,277,449	77,012,628	422,960,000	38,250,000	503,508,000	29,985,480,000
1925	61,334,145	53,272,800	466,935,000	45,269,000	528,269,000	31,745,784,000
1926	83,874,500	74,849,332	516,330,357	49,877,678	600,204,857	32,193,168,000
1927	79,367,154	70,020,533	464,110,800	45,468,750	614,991,850	37,566,270,000
1928	74,552,312	65,922,934	439,958,800	47,043,772	508,471,300	37,815,288,000

Coal exports in 1928—anthracite, 2,979,214 tons; bituminous, 14,432,376 tons (exclusive of 3,834,128 tons of bunker coal.)

CRUDE PETROLEUM PRODUCED IN THE UNITED STATES, 1925–1927, BY STATES.

State.	1926 (Cal.)		1927 (Cal.)		1928 (Cal.)	
	Barrels.	Value at wells.	Barrels.	Value at wells.	Barrels.	Value at wells.
	No.	*Dollars.*	*No.*	*Dollars.*	*No.*	*Dollars.*
Alaska	7,600	9,600	7,000	33,000	32,295,000	27,400,000
Arkansas	58,332,000	64,600,000	40,005,000	42,400,000	.....	.....
California	224,673,000	345,547,000	231,196,000	260,735,000	231,982,000	241,500,000
Colorado	2,768,000	5,100,000	2,831,000	3,400,000	2,722,000	2,400,000
Illinois	7,760,000	17,200,000	6,994,000	11,700,000	6,459,000	10,000,000
Indiana	808,000	1,770,000	852,000	1,390,000	1,053,000	1,400,000
Kansas	41,498,000	93,800,000	41,069,000	58,300,000	38,332,000	50,800,000
Kentucky	6,274,000	15,250,000	6,719,000	11,220,000	7,325,000	11,830,000
Louisiana	23,201,000	38,200,000	22,818,000	29,740,000	21,626,000	25,500,000
Michigan	94,000	253,000	439,000	832,000	595,000	900,000
Montana	7,727,000	10,170,000	5,058,000	7,090,000	3,925,000	6,400,000
New Mexico	1,666,000	3,270,000	1,226,000	1,680,000	959,000	1,200,000
New York	1,956,000	7,200,000	2,242,000	7,110,000	2,573,000	9,300,000
Ohio	7,272,000	19,180,000	7,593,000	14,970,000	7,030,000	14,500,000
Oklahoma	179,195,000	413,900,000	277,775,000	397,200,000	249,558,000	347,100,000
Pennsylvania	8,961,000	31,930,000	9,526,000	29,150,000	9,876,000	32,900,000
Tennessee	43,000	100,000	60,000	90,000	47,000	70,000
Texas	166,916,000	308,700,000	217,389,000	248,550,000	256,888,000	249,800,000
Utah	525	656	.....	.....	.....	.....
West Virginia	5,946,000	20,560,000	6,023,000	17,410,000	5,704,000	17,000,000
Wyoming	25,776,000	51,020,000	21,307,000	29,830,000	21,415,000	27,900,000
[illegible]	770,874,000	1,447,760,000	901,129,000	1,172,830,000	901,474,000	1,054,880,000

The figures represent oil transported from producing properties but do not include oil consumed on leases for fuel or net changes for year in producer's stocks.

GASOLINE, KEROSENE AND PETROLEUM OIL PRODUCTION IN UNITED STATES.

Year. (Calendar)	Crude Petroleum Run to Stills (Barrels).		Chief Petroleum Products (Barrels).			
	Domestic.	Foreign.	Gasoline.	Kerosene.	Gas, Fuel Oils.	Lubricants.
1916	246,992,000		49,021,000	34,655,000	111,045,000	14,870,000
1917	315,132,000		67,870,000	41,114,000	155,079,000	17,947,000
1918	326,025,000		85,007,000	43,461,000	174,319,000	20,035,000
1919	361,520,000		94,235,000	55,753,000	181,602,000	20,161,000
1920	433,915,000		116,251,000	55,240,000	210,987,000	24,938,000
1921	443,363,000		122,704,000	46,313,000	230,091,000	20,896,000
1922	434,976,000	65,730,000	147,672,000	54,913,000	254,910,000	23,304,000
1923	538,252,000	42,986,000	179,903,000	55,927,000	287,481,000	26,128,000
1924	597,954,000	45,765,000	213,326,000	60,026,000	320,476,000	27,498,000
1925	698,582,000	41,338,000	259,601,000	59,689,000	364,991,000	31,055,000
1926	734,301,000	44,963,000	299,734,000	61,768,000	365,195,000	32,293,000
1927	778,729,000	50,106,000	330,435,000	56,113,000	393,066,000	31,721,000
1928	835,157,000	77,674,000	377,183,000	60,156,000	425,755,000	34,659,000

Imports of petroleum in 1928 were 79,766,672 barrels; exports of domestic petroleum, 18,961,362 barrels; imports of gasoline, 4,297,774 barrels; exports of gasoline, 51,756,533 barrels.

There are over 90,000 miles of petroleum pipe lines in this country with a carrying capacity at any one time of 15,750,000 barrels of crude oil. The first pipe line opened in April, 1874, was from Millerstown, Pa., to Clairview, Pa., 35 miles. It carried 3,500 barrels a day to the Pittsburgh refineries. Oil was pumped to Bayonne in 1888.

The tankage capacity at wells and refineries exceeds 800,000,000 barrels of 42 gallons each.

In 1927, gasoline produced from natural gas totaled 1,641,144,000 gallons.

WORLD PRODUCTION OF PETROLEUM.

(The figures represent thousands of 42-gallon barrels.)

Year Cal.	United States	Mexico	Russia	Persia	Dutch East Indies	Venezuela	Roumania	Peru	India	Poland	Argentina	Trinidad	Colombia	World Total
1900	63,621	.....	75,780	.....	2,253	.....	1,629	274	1,079	2,347	.....	.....	.....	149,137
1901	69,389	10	85,168	.....	4,014	.....	1,678	275	1,431	3,251	.....	.....	.....	167,440
1902	88,767	40	80,540	.....	2,430	.....	2,060	287	1,617	4,142	.....	.....	.....	181,809
1903	100,461	75	75,591	.....	5,770	.....	2,763	278	2,510	5,235	.....	.....	.....	194,879
1904	117,081	126	78,537	.....	6,508	.....	3,599	290	3,385	5,947	.....	.....	.....	217,948
1905	134,717	251	54,960	.....	7,850	.....	4,421	373	4,137	5,766	.....	.....	.....	215,091
1906	126,494	502	58,897	.....	8,181	.....	6,378	531	4,016	5,468	.....	.....	.....	213,263
1907	166,095	1,005	61,851	.....	9,983	.....	8,118	751	4,344	8,456	.....	.....	.....	263,957
1908	178,527	3,933	62,187	.....	10,283	.....	8,252	945	5,047	12,612	12	.....	.....	285,287
1909	183,171	2,714	65,970	.....	11,042	.....	9,327	1,411	6,677	14,933	18	57	.....	298,709
1910	209,557	3,634	70,337	.....	11,031	.....	9,724	1,258	6,137	12,673	20	143	.....	327,763
1911	220,449	12,553	66,184	.....	12,173	.....	11,108	1,465	6,451	10,519	13	285	.....	344,361
1912	222,935	16,558	68,019	.....	10,846	.....	12,976	1,752	7,117	8,535	47	437	.....	352,443
1913	248,446	25,696	62,334	1,857	11,172	.....	15,555	2,071	7,930	7,818	131	504	.....	385,345
1914	265,763	26,215	67,020	2,910	11,422	.....	12,827	1,837	7,410	6,436	276	644	.....	407,544
1915	281,104	32,911	68,548	3,616	11,920	.....	12,030	2,579	8,202	5,352	513	750	.....	432,033
1916	300,767	40,546	65,817	4,477	12,547	.....	8,945	2,491	8,491	8,567	867	929	.....	457,500
1917	335,316	55,293	63,072	7,147	13,180	120	3,721	2,577	8,079	6,228	1,218	1,602	.....	502,824
1918	355,928	63,828	27,168	8,623	12,778	333	3,730	2,527	8,188	6,032	1,353	2,032	.....	503,430
1919	378,367	87,073	31,752	10,139	15,508	425	6,618	2,628	8,736	6,096	1,331	1,841	.....	555,759
1920	442,929	157,069	25,430	12,230	17,529	457	7,435	2,817	8,375	5,607	1,651	2,082	.....	688,804
1921	472,183	193,398	28,968	16,673	16,958	1,433	8,368	3,699	8,734	5,167	2,036	2,354	.....	765,903
1922	557,531	182,278	35,692	22,247	17,066	2,201	9,843	5,314	8,529	5,227	2,866	2,445	323	858,909
1923	732,407	149,585	39,147	25,230	19,870	4,201	10,867	5,699	8,406	5,402	3,400	3,051	424	1,015,727
1924	713,940	139,678	45,355	32,272	20,473	9,042	13,369	8,379	8,416	5,657	4,639	4,057	445	1,014,160
1925	763,743	115,515	52, 48	35,038	21,422	19,771	16,646	9,252	8,000	5,960	5,997	4,387	1,007	1,067,761
1926	775,000	90,000	61,000	35,460	22,200	37,226	23,299	10,782	8,728	5,835	6,500	4,971	6,446	1,096,608
1926	774,874	90,421	64,311	35,842	21,242	37,226	23,314	10,762	8,728	5,844	7,952	5,278	6,444	1,098,389
1927	903,800	64,200	72,400	36,800	21,400	64,400	26,100	9,800	8,200	5,800	8,700	5,200	14,600	1,252,145
1927	901,129	64,121	57,018	39,688	25,967	63,134	26,368	10,135	7,878	5,342	8,630	5,712	15,002	1,261,073
1928	902,000	50,150	87,800	42,080	28,500	106,000	30,600	11,970	8,300	5,530	9,100	7,750	19,900	1,322,896

Total United States production (1857-1928)—11,250,346,000 bbls. (42-gal. each); total **Mexican** (1901-1928), 1,515,277,000 bbls. (42-gal. each).

Total world production, up to end of 1928—17,134,333,000 (42-gal. each).

Mexico supplies most of the petroleum imported into the United States.

The United States exports domestic crude petroleum chiefly to Canada—15,431,230 barrels in 1928, out of total exports of 18,961,362 barrels.

DEEPEST WELLS IN THE WORLD.

The deepest hole in the world, and also the deepest producing oil well in the world, is the University 1 B., at Big Lake, in Reagan County, Texas—8,523 ft.

The deepest gas well in the world was drilled by the People's Natural Gas Company at Longbridge, near Ligonier, Pa. Drilling commenced in May, 1922, and ceased in August, 1925, reading a total depth of 7,756 feet.

The deepest oil well, completed in 1925, at 7,591 feet, is in California and was drilled by the Miley Oil Company at Athens, in the Los Angeles basin.

There were drilled in 1928, in the United States, 22,331 wells, of which 12,357 produced oil, with an average initial production of 343 bbls. In 1927 there were drilled 14,179 producing wells.

There are approximately 350,000 oil wells in this country, of which 250,000 are averaging not over one barrel each a day. Drilling, each year, costs $500,000,000.

A lake that is really a well, deeper than it is wide, has recently been investigated by Russian geologists in Leningrad. It is known as Cerik-kol, or the Blue Lake, and is south of the health resort of Nalchik.

It is 235 meters long and 130 meters wide, but has the depth of 258 meters, with practically vertical walls.

Except at its surface, the water temperature remains constant the year round, at about 17 degrees Fahrenheit higher than the annual temperature of the air. The lake has no surface inlets, not even the smallest of brooks, but a little river flows out of it.

The lake is charged with hydrogen sulphide and also contains gypsum, so that nothing can live in it.

There are several of these "dead" wells or lakes in the United States.

VALUE OF COAL, COKE AND GAS PRODUCTION.

Year,	Coal (hard)	Coal (soft).	Coal (total).	Coke.	Gas (natural).		Gasoline (nat. gas):	
(Cal.)	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*M. cubic feet.*	1,000 *Dollars.*	*M. cubic feet.*	1,000 *Dollars.*
1918.....	336,480,347	1,491,809,940	1,828,290,287	382,324,368	721,001,000	153,554	449,109,000	50,363
1919.....	364,926,950	1,160,616,013	1,525,542,963	258,339,749	745,916,000	160,888	480,404,000	64,197
1020.....	434,252,198	2,129,933,000	2,564,185,000	475,981,215	798,210,000	196,194	496,431,000	71,788
1921.....	452,304,903	1,199,983,600	1,652,288,000	147,673,095	662,052,000	174,617	465,097,000	61,815
1922.....	273,700,125	1,274,820,000	1,548,520,000	238,313,323	762,546,000	221,535	545,139,000	72,711
1923.....	506,736,768	1,514,621,000	2,021,408,000	373,496,898	1,006,976,000	240,001	875,711,000	77,268
1924.....	477,230,852	1,062,626,000	1,539,857,000	244,041,561	1,141,521,000	253,856	1,016,272,000	82,233
1925.....	327,664,512	1,060,402,000	1,388,067,000	262,559,137	1,188,571,000	265,271	1,040,390,000	120,383
1926.....	474,164,252	1,183,412,000	1,657,576,000	307,773,402	1,313,019,000	300,168	1,206,300,000	136,412
1927.....	420,941,726	1,029,657,000	1,450,598,726	262,320,578	1,445,428,000	317,930	1,341,248,000	118,688
1928.....	400,374,000	946,090,000	1,346,464,000	.....	1,568,139,000	335,500	1,500,000,000	135,800

In 1928, according to the U. S. Bureau of Mines, there were in this country 4,366,000 consumers of natural gas.

GREAT COAL-MINE DISASTERS IN THE UNITED STATES.

Date.		Location of Mine.	Killed.	Date.		Location of Mine.	Killed.
1869.....	Sept. 6	Plymouth, Pa.....	179	1908.....	Nov. 28	Marianna, Pa.....	154
1884.....	March 13	Pocahontas, Va.....	112	1909.....	Nov. 13	Cherry, Ill.....	259
1891.....	Jan. 27	Mount Pleasant, Pa...	109	1911.....	April 8	Littleton, Ala.....	128
1892.....	Jan. 7	Krebs, Okla.....	100	1913.....	Oct. 22	Dawson, N. M.....	263
1900.....	May 1	Scofield, Utah.....	200	1914.....	April 28	Eccles, W. Va.....	181
1902.....	May 19	Coal Creek, Tenn....	184	1915.....	March 2	Layland, W. Va.....	112
1902.....	July 10	Johnstown, Pa.....	112	1917.....	April 27	Hastings, Col.....	121
1903.....	June 30	Hanna, Wyo.....	169	1923.....	Feb. 8	Dawson, N. M.....	120
1904.....	Jan. 25	Cheswick, Pa.....	179	1924.....	March 8	Castle Gate, Utah...	171
1905.....	Feb. 20	Virginia City, Ala....	108	1924.....	April 28	Benwood, W. Va.....	119
1907.....	Dec. 6	Monongah, W. Va....	361	1928.....	May 19	Mather, Pa.....	195
1907.....	Dec. 19	Jacobs Creek, Pa....	239				

All of the above named disasters were due to mine explosions except those of Sept. 6, 1869 and Nov. 13, 1909, where fire alone raged.

ESTIMATED ORIGINAL STOCK OF COAL IN THE UNITED STATES.

(And reserves at end of 1928. Data by United States Geological Survey.)

State.	Original Stock of Coal in the Ground.						Production to End of 1928.
	Lignite.	Sub-bituminous.	Bituminous.	Semi-bituminous.	Anthr. and Semi-Anthr.	Total	
	1,000 *tons.*	1,000 *tons.*	1,000 *tons.*	1,000 *tons.*	1,000 *tons*	1,000 *tons.*	*tons.*
Alabama	.....	.....	67,570,000	.....	.....	67,570,000	524,298,465
Arizona	.....	1,141,000	10,000	.....	.....	1,151,000	9,207
Arkansas	90,000	.....	170,000	1,226,000	230,000	1,716,000	62,060,821
California	.....	16,000	27,000	.....	.....	43,000	2,153,264
Colorado	.....	104,175,000	213,071,000	.....	100,000	417,246,000	329,615,550
Connecticut	.....	.....	.....	.....	.....	.....	.....
Delaware	.....	.....	.....	.....	.....	.....	.....
Dist. of Col	.....	.....	.....	.....	.....	.....	.....
Florida	.....	.....	.....	.....	.....	.....	.....
Georgia	.....	.....	.....	933,000	.....	933,000	10,686,856
Idaho	.....	100,000	600,000	.....	.....	700,000	895,000
Illinois	.....	.....	201,400,000	.....	.....	201,400,000	1,989,676,786
Indiana	.....	.....	53,051,000	.....	.....	53,051,000	579,327,186
Iowa	.....	.....	29,160,000	.....	.....	29,160,000	276,871,385
Kansas	.....	.....	30,000,000	.....	.....	30,000,000	206,878,918
Kentucky	.....	.....	123,327,000	.....	.....	123,327,000	816,433,585
Louisiana	.....	.....	.....	.....	.....	.....	.....
Maine	.....	.....	.....	.....	.....	.....	.....
Maryland	.....	.....	1,507,000	6,536,000	.....	8,043,000	223,495,738
Massachusetts	.....	.....	.....	.....	.....	.....	.....
Michigan	.....	.....	2,000,000	.....	.....	2,000,000	39,458,075
Minnesota	.....	.....	.....	.....	.....	.....	.....
Mississippi	.....	.....	.....	.....	.....	.....	.....
Missouri	.....	.....	84,000,000	.....	.....	84,000,000	179,873,290
Montana	315,474,000	62,985,000	2,655,000	.....	.....	381,104,000	90,551,449
Nebraska	.....	.....	.....	.....	.....	.....	.....
New Hampshire	.....	.....	.....	.....	.....	.....	.....
New Jersey	.....	.....	.....	.....	.....	.....	.....
New Mexico	.....	1,906,000	18,925,000	.....	100	20,931,000	91,369,408
New York	.....	.....	.....	.....	.....	.....	.....
North Carolina	.....	.....	68,000	.....	.....	68,000	1,118,664
North Dakota	600,000	.....	.....	.....	.....	600,000	22,222,253
Ohio	.....	.....	93,967,000	.....	.....	93,967,000	1,143,718,435
Oklahoma	.....	8,000,000	46,951,000	.....	.....	54,951,000	117,032,414
Oregon	.....	500,000	60,000	.....	.....	560,000	2,462,862
Pennsylvania	.....	.....	102,574,000	9,574,000	21,000,000	133,148,000	9,682,199,855
Rhode Island	.....	.....	.....	.....	.....	.....	.....
South Carolina	.....	.....	.....	.....	.....	.....	.....
South Dakota	1,020,000	.....	.....	.....	.....	1,020,000	12,507
Tennessee	.....	.....	25,665,000	.....	.....	25,665,000	210,102,377
Texas	23,000,000	.....	8,000,000	.....	.....	31,000,000	50,696,199
Utah	.....	5,156,000	88,184,000	.....	.....	93,340,000	103,655,562
Vermont	.....	.....	.....	.....	.....	.....	.....
Virginia	.....	.....	20,749,000	400,000	500,000	21,649,000	260,777,251
Washington	500	52,442,000	11,412,000	1,000	23,000	63,878,000	104,870,063
West Virginia	.....	29,900,000	122,644,000	.....	.....	152,544,000	2,277,885,053
Wisconsin	.....	.....	.....	.....	.....	.....	.....
Wyoming	.....	590,160,000	30,563,000	.....	.....	620,723,000	228,355,267
United States	939,584,500	818,581,000	1,378,310,000	56,570,000	21,853,100	3,214,898,600	25,517,233,000

Production includes wastage.

The amount of coal still in reserve in the ground is the difference between total original stock and total production—3,189,381,367,000 short tons.

This coal reserve total is thus divided (short tons)—anthracite 16,999,959,000; semi-bituminous, 55,031,875,000; bituminous, 1,359,608,317,000; sub-bituminous, 818,238,781,000; lignite, 939,502,436,000.

The total for California is to end of 1923, since then included under "Miscellaneous," which also includes Idaho, and Oregon, 1921-1926.

COAL RESERVES OF THE WORLD.

The coal reserves of the world, at the beginning of 1929, totaled, and is officially estimated, 7,863,556,000,000 metric tons.

These reserves, at the beginning of 1928, excluding above production figures for that year, were estimated for chief countries, as follows:

North America—United States and Alaska, 3,536,000,000,000 (of which 16,000,000,000 is anthracite); Canada, 1,361,000,000,000 (of which 2,000,000,000 is anthracite); Mexico and Central America, 10,000,000,000; total for North America—4,871,000,000,000.

South America — Colombia, 30,000,000,000; Brazil, Chile, Peru and Venezuela, 100,000,000,000; total for South America—130,000,000,000.

Europe—British Isles, 166,000,000,000; Germany, 148,200,000,000; Poland, 68,800,000,000; Ukrainia, 55,000,000,000; Czechoslovakia, 24,500,000,000; France, 18,600,000,000; Belgium, 11,000,000,000 Norway and Spitzbergen, 8,750,000,000; Spain 5,500,000,000; Holland, 5,000,000,000; Russia in Europe, 12,000,000,000; Austria and Hungary, 1,000,000,000; other and total for Europe—522,200,000,000.

Asia—China, 1,100,000,000,000 (of which 427,000,000,000 is anthracite); Siberia, 192,000,000,000; India, 87,000,000,000; Indo-China, 22,000,000,000; Japan, 9,000,000,000; other and total for Asia, 1,900,000,000,000.

Australasia — 200,000,000,000 (of which 183,000,000,000 is in the Commonwealth of Australia).

Union of South Africa—62,000,000,000.

Coal unmined in Pennsylvania is estimated at 16,000,000,000 tons anthracite and 108,000,000,000 tons bituminous; in West Virginia, 150,000,000,000 tons, bituminous.

THE ORIGIN OF COAL.

Recent researches and discoveries, particularly in Australia and the United States have led some geologists to discard the theory that coal is the decayed or preserved remains of ancient peats and ferns located in the places where the coal is now found.

On the contrary, these geologists say, most of the coal in both the northern and southern hemispheres is what remains of pine or cedar trees that were washed down from the hills by water or were carried there by ice drifts.

The only exceptions, it is asserted, are the coal beds that lie under some lakes and ponds.

WORLD PRODUCTION OF COAL AND LIGNITE IN 1928.

World production of coal in 1928 in chief foreign countries (metric tons, of 2,204.6 lbs.), estimated—Canada, 15,900,000; Belgium, 27,500,000; Czechoslovakia, 35,881,000; France, 52,400,000; Germany, 317,000,000; Saar Valley, 13,131,000; Hungary, 7,300,000; Holland, 10,920,000; Poland, 40,600,000; Russia (all), 34,102,000; Spain, 6,550,000; United Kingdom, 241,590,100; India, 21,871,000; Japan, 33,700,000; Union of South Africa, 12,570,700; Australia, 9,550,000; world total—1,444,000,000 metric tons.

GOLD AND SILVER PRODUCTION AND PRICES.

According to the Director of the Mint, 2,233,251 ounces of refined gold, valued at $46,165,400 and 58,462,507 of refined silver, valued at $34,200,567, were produced in the United States in the calendar year 1928.

The figures indicated a $746,800 gain in gold production over the prior year and a reduction of 1,971,934 ounces in silver.

Among the gold producing states California led with 513,249 ounces valued at $10,609,800, while Alaska was second with 330,604 ounces valued at $6,834,200 and South Dakota third with 318,095 ounces worth $6,575,000. Colorado was fourth, and Utah was fifth.

Utah led the silver producing states with 17,749,317 ounces valued at $10,383,350, while Montana was second with a production of 10,681,675 ounces worth $6,248,780.

Idaho was third in silver production, turning out 8,949,716 ounces valued at $5,235,584.

The Mint Bureau rated the silver at the average New York price of bar silver of 58¼ cents an ounce.

AVERAGE PRICE OF AN OUNCE OF GOLD IN LONDON, AND U. S. EQUIVALENT.

Calendar Year.	Per standard oz. to 1918, per fine oz. thereafter.	Equivalent in U. S.		Calendar Year.	Per standard oz. to 1918, per fine oz. thereafter.	Equivalent in U. S.		Calendar Year.	Per standard oz. to 1918, per fine oz. thereafter.	Equivalent in U. S.	
		For Brit. stand. oz. (0.916⅔)	For a fine ounce (1.000)			For Brit. stand. oz. (0.916⅔)	For a fine ounce (1.000)			For Brit. stand. oz. (0.916⅔)	For a fine ounce (1.000)
	£ s. d.				£ s. d.				£ s. d.		
1870	3 17 9.01	$18.919	$20.632	1890	3 17 9.44	18.927	20.648	1910	3 17 9.03	$18.919	$20.639
1871	3 17 9.01	18.919	20.638	1891	3 17 10.29	18.945	20.667	1911	3 17 9.00	18.918	20.638
1872	3 17 9.24	18.923	20.644	1892	3 17 10.17	18.924	20.664	1912	3 17 9.00	18.918	20.638
1873	3 17 9.28	18.924	20.644	1893	3 17 10.57	18.950	20.673	1913	3 17 9.00	18.918	20.638
1874	3 17 9.00	18.918	20.638	1894	3 17 9.33	18.925	20.646	1914	3 17 9.04	18.919	20.639
1875	3 17 9.23	18.923	20.643	1895	3 17 9.03	18.919	20.639	1915	3 17 9.00	18.918	20.638
1876	3 17 9.30	18.924	20.645	1896	3 17 10.16	18.942	20.664	1916	3 17 9.00	18.918	20.638
1877	3 17 9.42	18.927	20.648	1897	3 17 11.23	18.964	20.688	1917	3 17 9.00	18.918	20.638
1878	3 17 9.41	18.927	20.647	1898	3 17 10.46	18.948	20.671	1918	3 17 9.00	18.918	20.638
1879	3 17 9.11	18.921	20.641	1899	3 17 9.27	18.924	20.644				
1880	3 17 9.15	18.921	20.642	1900	3 17 9.91	18.937	20.658	1919	4 10 1.03	20.093	21.920
1881	3 17 9.35	18.925	20.646	1901	3 17 9.83	18.935	20.657	1920	5 12 11.52	25.195	27.486
1882	3 17 9.43	18.927	20.648	1902	3 17 9.55	18.930	20.650	1921	5 7 .50	23.875	26.046
1883	3 17 9.18	18.922	20.642	1903	3 17 10.96	18.940	20.662	1922	4 13 3.80	20.814	22.706
1884	3 17 9.32	18.925	20.645	1904	3 17 9.94	18.937	20.659	1923	4 10 2.90	20.128	21.958
1885	3 17 9.17	18.922	20.642	1905	3 17 9.42	18.927	20.648	1924	4 13 8.3	20.898	22.797
1886	3 17 9.10	18.920	20.640	1906	3 17 9.82	18.935	20.656	1925	4 5 5.6	19.063	20.796
1887	3 17 9.01	18.919	20.638	.907	3 17 9.95	18.938	20.659	1926	4 4 11.1	18.942	20.664
1888	3 17 9.21	18.923	20.643	1908	3 17 10.19	18.942	20.665	1927	4 4 11.2	18.944	20.666
1889	3 17 9.04	18.919	20.639	1909	3 17 9.18	18.922	20.642	1928	4 4 11.2	18.944	20.666

London quotations on gold were changed in September, 1919, from the standard ounce to a fine ounce basis.

Conversions on basis of legal monetary parity; exchange not a factor.

ANNUAL PRICE OF BAR SILVER IN LONDON.

(By the Director of the Mint. Value of a fine ounce at average quotation and par of exchange.)

Calendar	Lowest.	Highest.	Average	Value.	Ratio	Calendar	Lowest.	Highest.	Average	Value.	Ratio
	Pence.	*Pence.*	*Pence.*	*Dollars.*			*Pence.*	*Pence.*	*Pence.*	*Dollars.*	
1900	27	30 1-4	28 5-16	.62007	33.33	1919	47 3-4	79 1-8	57 1-32	1.25047	16.53
1910	23 3-16	26	24 21-32	.54077	38.22	1920	38 7-8	89 1-2	61 13-32	1.34649	15.31
1911	23 11-16	26 1-8	24 19-32	.53928	38.33	1921	30 5-8	43 3-8	36 23-32	.80522	25.60
1912	25 1-8	29 11-16	28 1-16	.61470	33.62	1922	30 3-8	37 3-8	34 13-32	.75403	27.41
1913	26 7-16	29 3-8	27 9-16	.60458	34.19	1923	30 1-2	33 11-16	31 15-1	.670028	29.52
1914	22 1-8	27 1-4	25 1-4	.55312	37.37	1924	31 1-2	36 1-6	33 31-32	.74456	27.76
1915	22 5-16	27 1-4	23 5-8	.51892	39.84	1925	31 1-16	33 7-16	32 3-32	.70346	29.38
1916	26 11-16	35 13-16	31 3-8	.68647	30.11	1926	24 1-8	31 13-16	28 11-16	.62873	32.88
1917	35 11-16	55	40 13-16	.89525	23.09	1927	24 3-4	28	26 1-16	.57110	36.20
1918	42 1-2	49 1-2	47 17-32	1.04171	19.84	1928	26 1-16	28 7-8	26 3-4	.58627	35.26

BULLION VALUE OF 371¼ GRAINS OF PURE SILVER.

(This is the content of the Standard Silver Dollar.)

Cal'd'r	Value.	Cal'd'r	Value.	Cal'd'r	Value.	Cal'd'r	Value.	Cal'd'r	Value.	Cal'd'r	Value.
	Dollars.		*Dollars.*		*Dollars.*		*Dollars.*		*Dollars.*		*Dollars.*
1900	.47958	1905	.47200	1910	.41825	1915	.40135	1920	.78844	1925	.53681
1901	.46093	1906	.52353	1911	.41909	1916	.53094	1921	.48817	1926	.48284
1902	.40835	1907	.51164	1912	.47543	1917	.69242	1922	.52543	1927	.43838
1903	.41960	1908	.41371	1913	.48760	1918	.76142	1923	.50458	1928	.45237
1904	.44763	1909	.40231	1914	.42810	1919	.86692	1924	.51906		

MIGRATORY CHILD LABOR.

(By Prof. G. B. Mangold, University of Southern California.)

Entire families are still transported from New York City, Syracuse, Rochester and Buffalo to the bean and pea fields of central New York and to the orchards and tomato farms of other parts of the State.

The imported workers are drawn principally from the Italian and the Slavic colonies of the cities mentioned.

The States adjacent to New York City obtain much migratory child labor from that city.

Baltimore, Philadelphia, and other cities furnish many families for work in the regions where fruit and vegetables and other products are raised and prepared for the market.

In the Middle West the beet fields and the truck farms in the neighborhood of the large cities call for migratory labor. The children of the immigrant are in the great majority. Here too a new type enters. Many Mexican families are now brought from the southwestern States.

In the South the burden rests largely on the Negro child and on the Mexicans.

In southern California and in Arizona, migratory child labor is largely of Mexican origin.

The disinclination to work by the side of the Mexican or the Oriental is also in part responsible for the deflection of such families to regions farther north.

The truck farms in certain sections of the western coast also furnish additional opportunities. Here to a larger extent than elsewhere may be found employment for a large part of the year, provided a family is willing to roam about from five hundred to more than a thousand miles each season.

In northern California and in the Pacific Northwest, a larger proportion of native child workers may be found, although all of California is fairly well covered with Mexican migratory labor.

Washington and Oregon have proved less accessible to the immigrant but have been reached by the automobile driver and his family.

MANUFACTURES IN CONTINENTAL UNITED STATES, 1849-1925.

All figures on manufactures are by the Bureau of the Census, of the U. S. Dept. of Commerce.

Those for 1927 are final and revised.

Those for 1899-1914 are also final and revised, and remain as published in the 1929 Almanac.

But those for 1921-1925, though now final, have been readjusted by the Census Bureau, and therefore do not agree with the figures in the 1929 Almanac.

These adjustments were rendered necessary, the Bureau states, (1) because the "poultry killing and dressing" industry, which had been canvassed at the censuses for 1925 and earlier years, was not canvassed at the census for 1927; and (2) because statistics for the "coffee and spice, roasting and grinding" industry were compiled for 1927 and for 1923 and prior years but not for 1925.

Therefore the totals for the United States in the table that follows have been adjusted by subtracting the data for the "poultry killing and dressing" industry for all years prior to 1927 and by including for 1923, 1921 and 1919, the data for the "coffee and spice, roasting and grinding" industry, which had been subtracted from the figures for those years as given in the report for 1925.

The statistics for States for 1925, 1923 and 1921 have been adjusted in the same manner as those for the United States totals; but the State statistics for 1919 have not been adjusted.

Horsepower was not counted in 1921.

The number of wage earners is the average number.

YEAR.	No. Estab.	No. Wage Earners.	Capital.	Wages in the Year.	Cost of Materials.	Value of Products.
1849	123,025	957,059	$533,245,351	$236,755,464	$555,123,882	$1,019,106,616
1859	140,433	1,311,246	1,009,855,715	378,878,966	1,031,605,092	1,885,861,676
1869	252,148	2,053,996	1,694,567,015	620,467,474	1,990,741,794	3,385,860,354
1879	253,852	2,732,595	2,790,272,606	947,953,795	3,396,823,549	5,369,579,191
1889	355,405	4,251,535	6,525,050,759	1,891,219,696	5,162,013,878	9,372,378,843
1899	512,191	5,306,143	9,813,834,390	2,320,938,168	7,343,627,875	13,000,149,159

The figures for years above cover not only factories but also "hand and neighborhood and building industries."

Value figures for 1869 are on a gold basis.

The figures below, 1899-1927, exclude the hand-and neighborhood, and building industries.

1899	207,514	4,712,763	8,975,256,496	2,008,361,119	6,575,851,491	11,406,926,701
1904	216,180	5,468,383	12,675,580,874	2,610,444,953	8,500,207,810	14,793,902,563
1909	268,491	6,615,046	18,428,269,706	3,427,037,884	12,142,790,878	20,672,051,870
1914	275,791	7,036,247	22,790,979,937	4,078,332,433	14,368,088,831	24,246,434,724

Year.	No. Estab.	No. Wage Earners.	Horsepower.	Wages in the Year.	Cost of Materials.	Value of Products.
1919	214,188	8,997,921	29,323,697	10,459,741,826	37,196,688,773	62,000,093,444
1921	196,098	6,944,315		8,200,359,380	25,291,734,235	43,618,565,920
1923	196,182	8,776,646	33,092,222	11,007,851,450	34,683,915,155	60,529,574,115
1925	187,224	8,381,511	35,766,944	10,727,337,625	35,896,886,428	62,668,259,991
1927	191,866	8,353,977	39,045,940	10,848,802,532	35,133,136,889	62,718,347,289

In 1927, in addition to wage earners, there were 132,668 proprietors and firm members, and 1,301,002 salaried officers and employees.

Salaries totaled in the year, $3,229,524,618. Fuel and power (included in "cost of materials" in the table above) cost $1,897,337,523.

MANUFACTURES IN THE U. S. BY GREAT GROUPS, 1927-1925.

The figures for 1925 for "All industries" and for "Food and kindred products," in this table, differ from those in the table on the next page, because of the exclusion here and the inclusion in the 1925 report of data for the poultry killing and dressing industry. The figures for the "Textiles and their products," "Lumber and allied products," "Leather and its manufactures," "Rubber products," and "Miscellaneous industries" for 1925 differ somewhat also, because of the transfers of establishments manufacturing certain classes o products from one group to another.

Industry Group.	Year.	Establish.	Wage Earners. Aver.	Wages.	Value of Products.
		No.	*No.*	*Dollars.*	*Dollars.*
Food and kindred products	1927	49,786	679,158	$23,387,583	10,999,789,550
	1925	47,947	662,010	791,049,484	10,373,082,162
Textiles and their products	1927	26,845	1,692,473	1,760,168,290	8,964,143,064
	1925	24,450	1,628,283	1,654,814,276	9,126,154,902
Iron and steel and their products, not including machinery	1927	6,346	835,091	1,264,406,082	6,199,252,444
	1925	6,068	851,270	1,284,339,157	6,461,668,061
Lumber and allied products	1927	20,163	866,581	929,789,682	3,457,427,173
	1925	21,926	921,266	978,472,291	3,689,126,705
Leather and its manufactures	1927	4,263	316,421	364,229,059	1,868,320,020
	1925	4,243	314,025	355,346,411	1,763,709,361
Rubber products	1927	516	141,997	198,073,743	1,225,077,114
	1925	509	148,382	191,089,638	1,257,997,707
Paper, printing, and related industries	1927	28,404	555,040	858,336,931	4,638,571,773
	1925	26,553	536,766	805,516,245	4,143,684,899
Chemicals and allied products	1927	8,939	394,817	534,947,864	6,404,914,348
	1925	8,871	381,075	506,386,054	6,438,027,055
Stone, clay, and glass products	1927	8,673	350,397	464,272,991	1,612,548,765
	1925	8,478	353,036	467,012,428	1,640,651,985
Metals and metal products, other than iron and steel	1927	6,658	270,665	380,365,227	2,668,696,686
	1925	6,924	275,292	380,781,402	2,833,769,702
Tobacco manufactures	1927	2,156	129,299	105,250,631	1,163,768,379
	1925	2,623	132,132	111,558,170	1,091,000,981
Machinery, not including transportation equipment	1927	12,038	886,344	287,777,619	5,367,014,850
	1925	11,807	858,843	1,225,359,140	5,020,281,100
Musical instruments and phonographs	1927	431	42,985	60,761,435	226,362,120
	1925	461	46,980	62,501,841	231,686,552
Transportation equipment, air, land, and water	1927	2,537	494,905	803,297,856	4,702,378,136
	1925	2,778	559,578	908,487,563	5,451,753,433
Railroad repair shops	1927	2,309	428,291	648,908,452	1,289,695,158
	1925	2,363	457,755	668,191,768	1,332,679,079
Miscellaneous industries	1927	11,779	268,793	364,808,988	1,925,987,823
	1925	11,223	254,818	336,431,757	1,812,985,907
All industries	1927	191,863	8,351,257	10,848,782,433	62,713,947,403
	1925	187,224	8,381,511	10,727,337,625	62,668,259,591

MANUFACTURES IN UNITED STATES, BY GREAT GROUPS.

Group No.	Industry.	Census year.	No. establishments.	Wage-earners.	Wages.	Cost of materials.	Value of products.	Horse-power
					Expressed in thousands of dollars			
	All industries	1925	187,390	8,384,261	10,729,969	35,935,648	62,713,714	35,772,628
		1923	195,580	8,768,491	10,999,282	34,480,855	60,258,470	33,056,870
		1921	195,555	6,937,688	8,192,952	25,154,807	43,427,224	
		1919	273,804	9,030,771	10,452,586	37,014,832	61,888,635	29,297,961
		1914	271,822	7,015,136	4,063,210	14,242,415	24,065,766	22,264,343
1	Food and kindred products.	1925	48,113	664,760	793,681	7,748,678	10,418,536	3,881,952
		1923	51,118	672,472	785,555	6,766,003	9,220,523	3,685,667
		1921	51,401	617,736	736,895	5,956,684	8,041,084	
		1919	68,629	723,124	765,521	10,008,734	12,443,556	3,173,400
		1914	66,707	527,887	298,837	3,790,666	4,827,011	2,477,376
2	Textiles and their products.	1925	24,433	1,627,141	1,654,013	5,348,050	9,122,858	3,986,136
		1923	26,767	1,715,361	1,743,851	5,394,648	9,462,634	3,783,504
		1921	25,960	1,509,789	1,472,390	3,801,252	6,956,715	
		1919	28,457	1,610,067	1,481,183	5,379,557	9,211,190	3,248,456
		1914	23,364	1,506,197	675,902	2,014,099	3,445,481	2,717,369
3	Iron and steel and their products, not including machinery.	1925	6,068	851,270	1,284,339	3,734,350	6,461,668	7,518,999
		1923	6,358	892,660	1,324,588	4,152,918	6,828,841	7,202,426
		1921	6,255	571,798	731,186	2,140,344	3,456,390	
		1919	7,621	858,571	1,244,405	3,423,678	5,889,523	6,430,002
		1914	6,331	618,349	421,988	1,315,810	2,137,628	4,587,816
4	Lumber and allied products.	1925	21,922	921,145	978,375	1,724,983	3,688,552	3,472,770
		1923	21,674	931,748	962,542	1,666,188	3,633,034	3,336,133
		1921	21,393	703,309	670,421	1,197,465	2,456,608	
		1919	41,195	863,937	859,832	1,368,172	3,113,203	3,409,654
		1914	43,452	865,009	446,777	765,573	1,615,780	3,176,145
5	Leather and its finished products.	1925	4,264	315,288	356,246	1,015,123	1,767,581	413,759
		1923	4,868	344,545	358,630	1,083,315	1,880,085	412,998
		1921	4,813	280,071	314,412	934,398	1,544,186	
		1919	6,397	349,362	363,453	1,713,806	2,610,231	382,537
		1914	6,758	307,060	169,358	753,135	1,104,595	311,194
6	Rubber products.	1925	498	141,121	190,563	718,840	1,255,414	656,857
		1923	529	137,868	182,084	501,163	958,518	605,634
		1921	496	103,273	123,613	377,879	704,903	
		1919	477	158,549	193,764	594,343	1,138,216	429,273
		1914	342	74,022	44,167	163,035	300,994	199,242
7	Paper, printing and related industries.	1925	26,553	536,766	805,516	1,614,235	4,143,685	3,060,794
		1923	25,799	527,019	743,050	1,544,418	3,772,288	2,743,529
		1921	25,377	467,256	637,432	1,332,371	3,150,564	
		1919	36,424	510,049	564,722	1,308,201	3,014,832	2,346,682
		1914	37,209	453,006	296,566	581,266	1,456,814	2,039,073
8	Chemicals and allied products.	1925	8,871	381,075	506,386	4,184,911	6,438,027	2,984,913
		1923	8,832	384,493	501,205	3,680,407	5,706,866	2,739,519
		1921	8,894	314,231	404,300	3,111,425	4,594,777	
		1919	12,405	460,641	550,262	3,903,873	6,090,949	2,424,938
		1914	13,229	349,154	225,190	1,485,074	2,685,423	1,920,277
9	Stone, clay, and glass products.	1925	8,478	353,036	467,012	603,427	1,640,652	2,348,157
		1923	8,317	351,692	453,567	573,473	1,563,121	1,936,054
		1921	8,347	252,990	307,065	428,257	1,033,089	
		1919	12,599	302,810	332,725	422,612	1,111,747	1,584,917
		1914	14,790	335,824	206,084	240,817	618,700	1,493,976
10	Metals and metal products, other than iron and steel.	1925	6,924	275,292	380,781	1,946,777	2,833,770	1,158,486
		1923	7,433	296,911	394,024	1,767,672	2,634,031	1,168,656
		1921	7,801	212,354	256,251	885,840	1,406,873	
		1919	10,346	304,195	358,638	1,737,024	2,517,417	951,770
		1914	9,708	238,246	153,956	963,794	1,327,930	549,326
11	Tobacco manufactures.	1925	2,623	132,132	111,558	425,769	1,091,001	42,075
		1923	3,672	146,337	120,462	515,865	1,044,192	43,515
		1921	4,372	149,985	120,903	608,689	1,048,490	
		1919	10,291	157,097	123,988	483,567	1,012,933	43,390
		1914	13,951	178,872	77,856	207,134	490,165	34,756
12	Machinery, not including transportation equipment.	1925	11,807	858,843	1,225,359	1,985,367	5,020,281	2,714,377
		1923	12,147	907,707	1,253,743	1,891,524	4,727,818	2,300,443
		1921	12,395	662,277	832,781	1,361,163	3,235,075	
		1919	14,821	998,484	1,240,487	1,973,455	4,768,671	2,060,325
		1914	13,457	618,737	412,406	662,967	1,582,409	1,256,908
13	Musical instruments and phonographs.	1925	461	46,980	62,502	98,761	231,687	97,318
		1923	535	58,329	75,396	123,600	282,531	90,229
		1921	600	45,113	54,494	94,988	212,989	
		1919	778	68,741	75,868	137,460	320,905	91,040
		1914	737	48,768	30,855	49,324	119,689	57,526
14	Transportation equipment, air, land, and water.	1925	2,778	559,578	908,488	3,389,101	5,451,753	1,888,961
		1923	3,873	606,328	963,939	3,394,505	5,333,480	1,624,468
		1921	4,273	405,773	591,333	1,809,011	3,018,155	
		1919	6,768	858,582	1,259,015	3,200,603	5,627,265	1,453,804
		1914	7,818	312,562	230,615	639,793	1,137,423	602,459
15	Railroad repair shops.	1925	2,363	457,755	668,192	563,646	1,332,679	942,248
		1923	2,348	523,430	772,968	631,359	1,520,093	806,435
		1921	2,326	418,285	671,956	506,571	1,267,342	
		1919	2,368	515,709	726,691	547,829	1,354,446	644,875
		1914	2,011	365,902	253,150	261,438	552,618	478,893

SUMMARY OF MANUFACTURES, BY STATES, 1919-1927.

Division and State.	Census Year.	No. Estab.	No. Wage Earners.	Wages.	Cost of Materials.	Value of Products.	Horsepower.
				Dollars.	*Dollars.*	*Dollars.*	
United States	1927	191,866	8,353,977	10,848,802,532	35,133,136,889	62,718,347,289	39,045,940
	1925	187,224	8,381,511	10,727,337,625	35,896,886,428	62,668,259,591	35,766,944
	1923	196,182	8,776,646	11,007,851,450	34,683,915,155	60,529,574,115	33,092,222
	1921	196,098	6,944,315	8,200,359,380	25,291,734,235	43,618,565,920	.....
	1919	214,188	8,997,921	10,459,741,826	37,196,688,773	62,000,093,444	29,323,697
Geographic Divs.:							
New England	1927	17,745	1,098,748	1,328,650,205	3,048,863,047	6,028,474,916	4,566,155
	1925	18,173	1,122,216	1,339,309,628	3,203,910,742	6,140,063,353	4,349,191
	1923	19,081	1,254,496	1,472,315,452	3,290,155,596	6,419,975,465	4,151,136
	1921	19,057	1,071,699	1,161,290,708	2,521,633,683	4,902,507,669	.....
	1919	25,528	1,351,389	1,436,436,587	3,951,908,159	7,183,070,799	3,779,818
Middle Atlantic	1927	62,276	2,467,791	3,491,679,907	10,488,831,747	19,533,075,079	10,968,754
	1925	58,894	2,491,035	3,434,605,812	10,682,119,398	19,409,205,830	10,106,390
	1923	66,004	2,694,015	3,595,210,841	11,124,014,153	19,738,279,625	9,627,810
	1921	67,176	2,246,089	2,770,713,141	8,131,943,813	14,587,831,388	.....
	1919	88,360	2,872,653	3,464,931,287	11,424,095,826	19,854,772,760	8,512,612
East North Central	1927	43,671	2,309,860	3,340,800,715	10,525,393,203	18,988,400,328	11,101,846
	1925	42,857	2,335,335	3,345,353,641	10,756,306,521	19,016,850,903	10,046,917
	1923	43,948	2,386,791	3,333,374,760	10,182,499,492	17,817,290,576	9,033,225
	1921	43,503	1,710,418	2,211,698,788	6,871,575,083	11,797,243,977	.....
	1919	61,332	2,396,618	2,992,930,744	10,621,687,089	17,377,479,599	7,702,551
West North Central	1927	16,192	448,192	550,698,481	3,170,989,447	4,733,111,997	2,033,074
	1925	16,181	451,008	550,973,905	3,192,756,066	4,696,379,808	1,851,114
	1923	16,535	468,646	562,900,846	2,834,116,094	4,281,956,339	1,704,192
	1921	17,247	383,357	475,054,444	2,361,639,297	3,485,107,074	.....
	1919	29,166	499,635	546,172,557	3,778,125,226	5,187,064,766	1,592,809
South Atlantic	1927	17,029	879,060	794,264,870	2,487,870,882	4,631,952,156	3,980,297
	1925	16,570	838,799	757,014,724	2,548,720,165	4,531,307,248	3,517,208
	1923	17,044	831,992	729,827,841	2,438,201,297	4,237,726,760	3,143,936
	1921	16,427	646,170	564,904,101	1,739,105,051	2,984,347,096	.....
	1919	29,976	817,212	778,026,847	2,596,264,687	4,455,151,691	2,791,088
East South Central	1927	7,637	359,542	331,279,629	1,025,122,182	1,808,818,353	1,787,386
	1925	8,071	355,902	322,615,104	1,041,046,475	1,807,034,346	1,614,945
	1923	7,500	347,150	310,318,837	987,113,051	1,701,560,624	1,461,574
	1921	7,240	259,073	225,235,082	642,524,613	1,091,660,123	.....
	1919	14,655	329,226	298,710,318	977,824,517	1,642,391,461	1,414,190
West South Central	1927	8,208	267,142	281,155,572	1,644,155,128	2,399,410,457	1,419,558
	1925	7,876	264,970	267,690,679	1,719,518,742	2,543,224,778	1,316,629
	1923	7,942	267,042	265,271,977	1,374,691,276	2,080,206,912	1,227,242
	1921	8,099	229,508	238,006,162	1,149,033,327	1,723,054,649	.....
	1919	13,909	285,244	293,021,663	1,547,993,571	2,277,861,293	1,179,896
Mountain	1927	3,919	94,957	130,303,790	659,600,439	981,090,829	829,256
	1925	3,844	100,353	134,567,216	687,992,116	1,045,884,920	757,906
	1923	3,970	103,803	143,392,104	609,140,793	955,772,450	714,807
	1921	4,016	82,000	118,577,423	396,214,510	616,843,315	.....
	1919	7,612	109,216	141,900,942	610,239,118	922,676,092	685,192
Pacific	1927	15,189	428,685	599,969,363	2,082,310,814	3,614,013,174	2,359,614
	1925	14,758	414,985	575,206,916	2,040,494,271	3,454,286,473	2,269,714
	1923	14,155	420,454	591,352,386	1,850,861,098	3,256,821,710	1,886,942
	1921	13,333	316,001	432,919,531	1,478,064,858	2,429,970,629	.....
	1919	19,567	435,179	581,269,395	1,868,242,090	3,157,610,312	1,752,036
New England:							
Maine	1927	1,426	68,142	74,212,035	208,865,679	372,093,474	628,941
	1925	1,500	73,849	79,777,217	205,708,596	371,849,483	600,787
	1923	1,642	83,328	91,854,368	217,069,933	402,650,287	570,532
	1921	1,761	75,710	83,429,077	192,102,483	339,561,543	.....
	1919	2,995	88,651	94,225,346	254,568,523	456,921,783	545,613
New Hampshire	1927	1,028	65,482	72,803,397	182,106,373	327,528,366	376,373
	1925	1,038	66,658	71,725,465	192,253,411	327,400,651	370,740
	1923	1,078	75,314	79,073,889	185,754,469	333,124,503	352,656
	1921	1,122	67,416	67,893,041	139,268,670	246,346,200	.....
	1919	1,499	83,074	79,326,341	239,527,617	407,204,934	348,892
Vermont	1927	880	26,241	32,305,433	69,957,432	134,029,978	172,762
	1925	951	27,563	32,326,006	74,387,398	138,269,861	178,806
	1923	1,021	30,783	34,695,484	80,775,801	149,951,623	177,212
	1921	1,101	25,767	28,068,025	63,688,543	113,904,333	.....
	1919	1,790	33,491	34,083,935	95,172,581	168,108,072	184,327
Massachusetts	1927	10,037	578,068	705,929,549	1,678,812,411	3,317,851,888	2,130,503
	1925	10,027	591,438	716,155,593	1,773,697,884	3,405,672,159	2,013,017
	1923	10,519	667,172	799,363,111	1,835,013,447	3,570,543,265	1,931,787
	1921	9,994	579,071	641,360,936	1,441,035,230	2,849,413,516	.....
	1919	11,906	713,836	766,623,337	2,260,713,036	4,011,181,532	1,716,982
Rhode Island	1927	1,497	120,009	138,895,884	313,107,076	592,232,647	410,181
	1925	1,595	120,346	138,125,781	345,221,110	621,919,637	395,754
	1923	1,691	134,667	152,499,859	358,580,772	675,425,020	391,928
	1921	1,759	112,745	119,414,065	277,692,752	517,118,172	.....
	1919	2,466	139,665	137,495,377	415,989,203	747,322,858	319,688

Division and State.	Census Year.	No. Estab.	No. Wage Earners.	Wages.	Cost of Materials.	Value of Products.	Horsepower.
				Dollars.	*Dollars.*	*Dollars.*	
Connecticut	1927	2,877	240,806	304,503,907	596,014,077	1,284,738,563	847,395
	1925	3,062	242,362	301,199,566	612,642,343	1,274,951,562	790,087
	1923	3,130	263,232	314,828,741	612,961,174	1,288,280,767	727,021
	1921	3,320	210,990	221,125,564	407,846,005	836,163,905	
	1919	4,872	292,672	324,682,251	685,937,199	1,392,431,620	664,316
Middle Atlantic:							
New York	1927	36,650	1,072,284	1,605,378,086	4,804,172,874	9,400,061,376	3,671,185
	1925	33,392	1,066,198	1,533,888,975	4,704,750,680	8,968,262,479	3,348,184
	1923	38,183	1,150,889	1,581,321,565	4,764,026,655	8,959,964,363	3,263,325
	1921	38,102	1,000,399	1,303,386,795	3,686,850,668	6,972,679,438	
	1919	49,330	1,228,130	1,458,206,804	4,943,213,919	8,867,004,906	2,926,963
New Jersey	1927	8,312	408,093	570,308,502	1,956,597,097	3,417,450,248	1,496,935
	1925	8,204	425,377	576,235,826	2,086,855,079	3,539,181,253	1,384,234
	1923	8,767	448,069	578,926,675	2,039,477,467	3,396,627,729	1,256,892
	1921	8,784	381,773	460,470,509	1,484,334,069	2,556,142,540	
	1919	11,057	508,686	600,658,345	2,270,473,279	6,672,064,987	1,140,554
Pennsylvania	1927	17,314	987,414	1,315,993,319	3,728,061,776	6,715,563,455	5,800,634
	1925	17,298	999,460	1,324,481,011	3,890,513,639	6,901,762,098	5,373,972
	1923	19,054	1,095,057	1,434,962,601	4,320,510,031	7,381,687,533	5,107,593
	1921	20,290	863,917	1,006,855,837	2,960,759,076	5,059,009,410	
	1919	27,973	1,135,837	1,406,066,138	4,210,408,628	7,315,702,867	4,445,095
East North Central:							
Ohio	1927	10,961	669,097	968,181,165	2,877,126,245	5,230,323,268	3,734,761
	1925	11,131	676,661	975,738,405	3,028,002,130	5,345,592,745	3,482,583
	1923	11,186	699,073	979,605,752	2,908,095,972	5,145,179,543	3,307,687
	1921	11,466	494,134	626,884,681	1,916,968,362	3,298,158,383	
	1919	16,125	730,733	944,651,734	2,911,947,871	5,100,308,728	2,885,007
Indiana	1927	4,726	280,717	375,217,514	1,227,168,557	2,153,479,432	1,602,113
	1925	4,762	280,633	364,789,224	1,254,851,691	2,121,382,017	1,420,496
	1923	4,900	291,000	374,383,460	1,188,542,313	2,029,859,289	1,381,686
	1921	5,094	206,310	251,285,706	824,234,762	1,375,066,410	
	1919	7,916	277,580	317,042,997	1,174,950,568	1,898,753,387	1,094,568
Illinois	1927	14,711	623,468	914,102,612	2,921,092,107	5,386,003,235	2,456,997
	1925	14,104	622,127	897,729,057	2,922,437,860	5,317,635,887	2,247,083
	1923	14,334	645,561	913,159,911	2,793,594,910	5,039,879,627	1,942,418
	1921	13,935	513,741	701,384,715	2,096,769,970	3,703,049,638	
	1919	18,593	653,114	801,087,359	3,488,270,446	5,425,244,694	1,654,947
Michigan	1927	5,800	488,856	760,602,319	2,346,678,386	4,244,941,132	2,259,747
	1925	5,598	508,573	792,213,944	2,466,267,360	4,372,996,324	1,887,740
	1923	5,696	503,306	769,065,573	2,270,764,427	3,882,173,768	1,471,545
	1921	5,717	304,463	419,963,002	1,305,661,147	2,206,129,025	
	1919	8,305	471,242	639,708,093	1,919,243,243	3,466,188,483	1,193,709
Wisconsin	1927	7,473	247,722	322,697,105	1,153,327,898	1,973,653,261	1,048,228
	1925	7,262	247,341	314,993,011	1,084,747,480	1,859,243,930	1,009,015
	1923	7,832	247,851	297,160,064	1,001,501,870	1,720,198,349	929,889
	1921	7,291	191,770	214,140,684	727,940,842	1,214,860,521	
	1919	10,393	263,949	290,440,561	1,127,274,961	1,846,984,307	874,320
West North Central:							
Minnesota	1927	3,886	98,833	123,619,231	726,390,744	1,066,727,215	584,328
	1925	3,881	100,514	123,655,793	768,798,119	1,099,687,515	507,928
	1923	3,894	103,935	125,504,551	646,709,620	962,084,268	460,114
	1921	4,080	85,760	107,200,533	584,460,473	849,198,700	
	1919	6,225	115,623	127,106,505	883,089,777	1,218,129,735	473,660
Iowa	1927	3,061	73,692	91,246,664	496,939,635	769,340,610	330,702
	1925	3,219	74,258	91,516,909	489,901,039	746,329,586	306,188
	1923	3,381	77,339	93,700,143	427,374,032	681,679,589	281,533
	1921	3,472	61,463	77,788,942	329,083,340	510,633,925	
	1919	5,683	80,551	90,117,169	520,240,807	745,472,697	242,820
Missouri	1927	5,422	195,378	230,017,241	1,004,709,373	1,665,173,463	656,269
	1925	5,100	194,682	230,427,696	976,782,972	1,602,849,724	589,806
	1923	5,283	196,601	227,897,923	941,847,002	1,544,378,187	553,247
	1921	5,433	156,309	182,815,763	726,278,481	1,159,876,193	
	1919	8,592	195,037	196,515,353	1,056,457,164	1,594,208,338	476,648
North Dakota	1927	307	3,260	4,808,122	34,271,002	47,003,022	16,167
	1925	320	3,261	4,574,698	32,306,744	44,631,516	16,711
	1923	340	3,552	5,134,350	30,704,161	42,145,471	16,730
	1921	388	3,107	4,669,294	26,265,359	36,358,218	
	1919	894	4,472	5,401,330	44,489,499	57,373,622	17,791
South Dakota	1927	472	5,551	6,785,893	63,619,877	83,001,163	24,676
	1925	592	5,107	6,171,739	46,324,194	62,701,600	21,347
	1923	489	5,146	6,210,607	33,673,093	47,320,901	16,458
	1921	574	4,635	6,350,033	26,846,398	41,557,756	
	1919	1,414	6,382	7,905,426	42,985,870	62,170,782	22,176
Nebraska	1927	1,277	26,110	34,296,241	326,917,490	420,296,190	141,506
	1925	1,303	27,108	35,936,371	347,444,629	442,083,752	133,303
	1923	1,378	31,238	39,731,783	313,781,719	414,725,261	120,999
	1921	1,387	27,548	37,274,087	244,938,279	331,951,329	
	1919	2,884	36,521	46,066,755	480,774,122	596,042,498	125,769
Kansas	1927	1,767	45,368	59,925,089	518,141,326	681,570,334	279,426
	1925	1,856	46,078	58,690,699	531,198,369	698,096,115	275,831
	1923	1,770	50,835	64,721,489	440,026,467	589,622,662	255,111
	1921	1,913	44,535	58,955,192	423,766,967	556,130,953	
	1919	3,474	61,049	73,060,019	750,087,987	913,667,094	233,945

Division and State.	Census Year.	No. Estab.	No. Wage Earners.	Wages.	Cost of Materials.	Value of Products.	Horsepower.
				Dollars.	*Dollars.*	*Dollars.*	
South Atlantic:							
Delaware	1927	446	21,324	25,222,182	69,032,720	129,899,735	103,166
	1925	419	20,704	25,072,302	70,622,434	125,406,332	107,391
	1923	453	23,116	27,368,652	70,735,802	128,951,304	112,485
	1921	460	17,754	19,596,184	50,118,027	86,756,312	.....
	1919	668	29,035	37,265,319	85,432,933	165,073,009	85,105
Maryland	1927	3,205	126,700	141,902,797	564,120,437	943,410,896	579,713
	1925	3,179	125,761	138,560,496	568,107,952	925,688,028	544,558
	1923	3,163	128,802	136,254,865	568,605,418	902,936,360	497,945
	1921	3,120	107,049	110,445,985	386,063,999	636,936,504	.....
	1919	4,937	140,342	147,866,545	549,347,379	873,944,774	406,637
Dist. of Columbia	1927	503	9,519	15,668,655	36,098,635	90,389,537	39,471
	1925	538	9,753	15,320,067	33,503,934	83,576,826	37,508
	1923	600	9,823	14,795,722	32,870,254	73,107,854	31,846
	1921	490	8,640	12,955,438	30,260,534	67,639,522	.....
	1919	595	10,482	13,189,031	30,940,100	68,826,570	33,069
Virginia	1927	2,432	114,918	110,377,945	346,165,769	671,346,808	503,726
	1925	2,552	112,126	105,880,765	314,523,839	589,235,865	441,795
	1923	2,743	111,578	104,680,099	304,492,917	548,153,489	431,237
	1921	2,569	88,554	85,061,979	268,917,866	454,233,467	.....
	1919	5,603	119,352	120,006,452	371,540,833	643,511,621	419,738
West Virginia	1927	1,313	77,630	103,431,224	252,884,424	455,216,551	546,440
	1925	1,395	80,700	105,892,102	260,880,407	470,821,582	495,051
	1923	1,487	85,661	109,936,819	259,151,186	479,510,169	371,669
	1921	1,550	60,536	78,549,260	170,876,327	310,422,830	.....
	1919	2,785	83,036	101,840,420	270,940,596	471,970,877	328,455
North Carolina	1927	2,984	204,590	158,394,434	560,819,236	1,154,646,612	986,057
	1925	2,614	182,234	134,237,097	550,706,965	1,050,434,117	800,051
	1923	2,670	173,687	127,537,821	516,148,642	951,910,599	702,832
	1921	2,602	135,833	94,234,837	379,964,936	665,117,738	.....
	1919	5,999	157,659	126,680,099	526,906,181	943,807,949	549,808
South Carolina	1927	1,059	108,992	74,477,866	206,772,453	358,334,205	478,245
	1925	1,134	100,144	67,061,783	237,227,046	370,283,045	423,359
	1923	1,180	96,803	64,753,457	221,240,204	360,445,739	470,735
	1921	1,107	76,251	51,409,995	141,901,655	236,420,578	.....
	1919	2,004	79,450	62,565,413	227,986,384	381,452,984	395,466
Georgia	1927	3,175	154,163	108,118,193	360,261,684	609,917,660	565,899
	1925	2,876	141,173	99,210,003	399,351,258	648,852,294	523,334
	1923	3,058	137,475	92,143,788	381,769,333	604,452,862	449,888
	1921	2,809	98,264	69,915,971	243,939,164	381,296,566	.....
	1919	4,803	123,441	101,180,339	440,490,057	693,237,096	433,719
Florida	1927	1,912	61,219	56,671,574	91,715,524	218,790,152	177,580
	1925	1,863	66,204	65,780,109	113,796,330	267,009,159	144,161
	1923	1,690	65,047	52,356,618	83,187,541	188,258,384	138,269
	1921	1,720	53,289	42,734,452	67,062,543	145,820,579	.....
	1919	2,582	74,415	67,433,229	92,680,224	213,326,811	139,091
East South Central:							
Kentucky	1927	1,851	74,912	83,858,607	250,632,957	447,764,961	318,755
	1925	1,860	76,562	84,939,919	254,933,128	453,731,042	257,965
	1923	1,965	76,697	82,625,908	242,067,145	426,669,085	251,554
	1921	2,028	58,808	62,613,343	173,285,796	302,290,053	.....
	1919	3,957	69,340	67,033,546	235,715,626	395,660,417	246,399
Tennessee	1927	2,098	114,968	101,197,846	351,436,325	614,040,524	475,243
	1925	2,157	107,570	95,201,301	356,840,677	600,026,232	447,291
	1923	2,304	106,481	92,468,849	333,491,919	554,581,123	391,435
	1921	2,241	75,295	65,677,435	224,597,926	372,477,618	.....
	1919	4,589	95,167	81,355,256	344,766,730	556,253,162	338,732
Alabama	1927	2,355	119,093	105,488,817	317,493,407	550,372,126	779,156
	1925	2,349	116,599	101,242,839	325,684,194	552,824,044	697,998
	1923	1,996	109,620	95,205,227	323,665,655	541,728,687	640,892
	1921	1,855	82,748	66,747,237	186,407,328	302,808,591	.....
	1919	3,654	107,159	99,065,800	300,664,290	492,730,895	628,287
Mississippi	1927	1,333	50,569	40,734,359	105,559,493	196,640,742	214,232
	1925	1,705	55,171	41,231,045	103,588,476	200,453,028	211,691
	1923	1,235	54,352	40,018,753	87,888,332	178,581,729	177,693
	1921	1,116	42,222	30,197,067	58,233,563	114,083,861	.....
	1919	2,455	57,560	51,255,716	96,677,871	197,746,987	200,772
West South Central:							
Arkansas	1927	1,146	40,032	35,288,168	103,815,280	182,750,871	183,041
	1925	1,257	43,977	37,538,492	110,664,557	195,208,015	177,011
	1923	1,231	44,545	37,770,294	90,709,437	172,541,140	165,154
	1921	1,289	33,431	27,804,064	64,676,913	119,029,485	.....
	1919	3,123	49,954	47,186,189	102,812,977	200,312,858	212,219
Louisiana	1927	1,624	82,415	79,673,477	427,994,341	638,361,215	415,582
	1925	1,742	88,058	79,762,794	465,426,439	710,050,100	410,298
	1923	1,781	94,719	83,030,577	407,414,316	624,682,620	402,938
	1921	1,851	85,170	76,761,093	311,589,476	479,099,889	.....
	1919	2,617	98,265	94,405,732	431,403,867	676,189,770	387,233
Oklahoma	1927	1,373	27,932	35,785,266	269,418,221	371,871,409	185,480
	1925	1,274	26,163	34,035,813	298,522,237	400,291,825	156,608
	1923	1,239	25,444	33,035,505	229,684,969	314,459,440	152,956
	1921	1,396	22,230	29,514,354	203,204,006	283,060,791	.....
	1919	2,445	29,503	35,025,942	312,605,829	401,362,869	139,550

Division and State.	Census Year.	No. Estab.	No. Wage Earners.	Wages.	Cost of Materials.	Value of Products.	Horsepower.
				Dollars.	*Dollars.*	*Dollars.*	
Texas	1927	4,065	116,763	130,408,661	842,927,286	1,206,579,962	635,455
	1925	3,603	106,772	116,353,580	844,905,509	1,237,647,838	572,712
	1923	3,691	102,334	111,435,601	646,882,554	978,523,712	506,194
	1921	3,563	88,677	103,926,651	569,562,932	841,864,484	.....
	1919	5,724	107,522	116,403,860	701,170,898	999,995,796	440,894
Mountain:							
Montana	1927	565	14,242	20,915,203	151,791,508	203,503,250	188,390
	1925	606	14,777	21,078,039	146,351,366	205,474,257	166,528
	1923	679	15,943	24,540,317	128,701,942	174,873,619	190,516
	1921	571	11,384	16,791,100	49,166,052	80,771,186	.....
	1919	1,290	17,160	24,742,562	122,151,924	166,664,518	153,489
Idaho	1927	470	13,513	18,970,643	47,927,463	86,256,399	89,830
	1925	487	15,782	20,698,119	52,856,907	96,641,797	82,497
	1923	510	16,347	22,886,215	43,133,993	87,428,909	72,146
	1921	485	10,783	15,183,270	36,057,495	57,067,462	.....
	1919	922	13,917	18,548,272	43,948,505	80,510,749	73,840
Wyoming	1927	229	5,577	9,066,022	63,741,234	85,368,360	40,191
	1925	224	6,333	10,526,253	76,073,349	107,934,752	28,721
	1923	246	7,510	12,501,584	69,694,623	110,631,659	23,959
	1921	254	7,254	13,890,314	48,320,446	80,246,919	.....
	1919	576	6,634	11,188,979	42,250,528	81,445,394	17,864
Colorado	1927	1,483	32,001	43,193,765	173,277,399	278,221,431	254,530
	1925	1,414	31,958	43,002,344	171,128,143	278,692,846	219,852
	1923	1,377	31,226	40,652,745	150,092,753	255,189,812	176,076
	1921	1,491	27,625	35,611,463	147,248,631	221,324,285	.....
	1919	2,631	35,254	42,974,879	174,870,275	275,622,335	206,110
New Mexico	1927	200	4,653	5,421,441	10,055,852	20,182,672	21,467
	1925	200	4,629	5,083,211	9,684,279	19,458,585	18,842
	1923	186	5,459	6,483,635	9,954,209	20,422,126	16,863
	1921	194	4,477	4,879,703	6,158,514	13,896,960	.....
	1919	387	5,736	6,658,462	7,727,483	17,856,602	17,260
Arizona	1927	300	8,967	12,132,957	77,799,198	117,624,434	100,641
	1925	294	9,127	11,506,159	92,270,550	138,781,477	102,127
	1923	283	9,008	12,635,070	80,992,793	123,377,206	128,531
	1921	269	4,774	6,809,465	26,495,183	39,110,439	.....
	1919	480	8,528	12,014,769	92,645,437	120,769,112	103,958
Utah	1927	556	13,585	16,688,574	120,567,348	163,118,376	112,233
	1925	517	15,077	18,199,536	127,543,099	177,224,538	124,735
	1923	585	14,945	18,344,336	114,182,714	161,606,595	78,733
	1921	645	13,310	18,392,185	74,872,522	111,055,200	.....
	1919	1,160	18,868	21,454,997	110,154,349	156,933,071	92,797
Nevada	1927	116	2,419	3,915,185	14,440,437	26,815,907	21,974
	1925	102	2,670	4,473,555	12,084,423	21,626,668	14,604
	1923	104	3,365	5,348,202	12,387,766	22,242,524	27,983
	1921	107	2,393	4,019,923	7,895,667	13,370,864	.....
	1919	166	3,119	4,318,022	16,490,617	22,874,311	19,874
Pacific:							
Washington	1927	3,344	104,468	145,930,930	389,884,598	677,913,579	680,408
	1925	3,216	105,893	146,224,608	372,758,621	659,339,836	748,110
	1923	3,029	111,663	156,434,842	372,044,358	678,543,200	593,330
	1921	2,908	77,518	99,191,041	259,685,170	448,164,548	.....
	1919	4,918	132,928	194,968,222	443,177,531	809,622,984	683,073
Oregon	1927	1,779	61,401	75,716,972	187,771,163	342,852,371	339,511
	1925	1,907	59,563	78,190,094	193,457,432	352,763,595	387,749
	1923	1,909	62,655	81,768,700	195,921,895	363,715,460	322,297
	1921	1,730	40,167	49,395,194	123,669,620	223,663,602	.....
	1919	2,707	58,559	81,093,784	206,206,041	366,782,627	303,795
California	1927	10,066	262,816	378,321,461	1,504,655,053	2,593,247,224	1,339,695
	1925	9,635	249,529	350,792,214	1,474,278,218	2,442,183,042	1,133,855
	1923	9,217	246,136	353,148,844	1,282,894,845	2,214,563,050	971,315
	1921	8,695	198,316	284,333,296	1,094,710,068	1,738,142,479	.....
	1919	11,942	243,692	305,207,389	1,218,858,518	1,981,204,701	765,168

VALUE OF OTHER IMPORTANT MANUFACTURES IN 1927.

Aircraft and parts	$21,161,853	Gloves, cloth	$30,202,152	Saddlery and harness	$27,356,244
Alcohol, Ethyl	33,971,150	Gloves, leather	36,662,053	Salt	34,329,236
Ammunition	45,602,184	Glue and gelatin	31,195,807	Saws	22,627,990
Artificial leather	34,228,101	Handkerchiefs	31,588,220	Scales and balances	24,655,442
Asbestos prod., misc	44,156,388	Hats, straw	21,717,689	Sewing machines	45,221,816
Awnings, tents, sails	47,929,352	Ink, printing	37,734,493	Soda water apparatus	23,929,068
Babbitt, solder, etc	44,673,031	Jute goods	23,185,997	Sporting goods	44,942,778
Belting, leather	27,265,752	Labels and tags	34,397,630	Springs	43,820,633
Buttons	29,130,168	Lace goods	27,298,159	Steam packings	43,044,501
Kiddies' sleds, car'ges	28,668,145	Leather goods, misc	43,291,552	Steel barrels	24,104,669
Grown-ups' wagons, etc	19,422,235	Lime	41,587,458	Nitric, etc., acids	23,554,797
Cleansers and polishes	41,234,466	Linoleum	47,442,441	Suspenders	26,985,376
Clocks	38,195,803	Macaroni, etc	45,353,200	Tanning materials	35,677,033
Dairy supplies	36,823,648	Malt	20,274,172	Tin foil, etc	32,302,389
Dental goods	42,695,252	Matches	24,905,835	Turpentine and rosin	39,902,971
Abrasives, emery whls	24,181,837	Mirrors	31,424,943	Umbrellas, canes	23,156,400
Engraving, plate ptg	39,071,105	Motorcycles, bikes	21,454,149	Wall paper	30,059,153
Felt goods	41,894,844	Needles, pins, etc	20,325,250	Waste	33,377,276
Firearms	19,452,372	Oleomargarines	39,282,364	Watches	32,278,362
Furs, dressed	27,680,635	Optical goods	32,757,210	Screens and strips	22,643,361
Gas mach., meters	36,715,190	Lead pencils	24,499,839	Shades and fixtures	37,081,937
Glass cut'g and stain'g	22,327,581	Fountain pens, etc	23,255,025	Wood distill., charcoal	27,630,487

MANUFACTURES IN AMERICAN CITIES—1914, 1919, 1923.

City and State.	Wage Earners.			Wages.			Value of Products.		
	1914.	1919.	1923.	1914.	1919.	1923.	1914.	1919.	1923.
	Av. No.	*Av. No.*	*Av. No.*	*$1,000*	*$1,000*	*$1,000*	*$1,000*	*$1,000*	*$1,000*
Akron, Ohio	24,680	65,054	44,903	17,310	94,779	71,284	122,292	558,962	406,837
Atlanta, Ga	12,585	15,739	16,005	6,004	14,512	16,116	41,279	113,992	122,284
Baltimore, Md	73,769	97,814	90,149	35,509	103,129	93,698	215,172	677,879	654,765
Boston, Mass	78,894	88,759	80,773	49,444	96,401	105,050	284,802	618,922	581,128
Bridgeport, Conn	30,042	42,862	33,207	16,929	51,812	37,882	85,126	208,090	148,856
Buffalo, N. Y	54,416	75,899	70,092	34,818	95,702	96,573	247,516	634,410	590,692
Camden, N. J	22,541	40,906	27,842	12,978	53,630	33,413	71,824	218,165	180,766
Chicago, Ill	313,710	403,942	385,685	213,737	507,754	571,725	1,483,498	3,657,424	3,323,341
Cincinnati, Ohio	59,861	69,680	65,695	33,159	68,650	78,760	210,860	500,041	434,176
Cleveland, Ohio	103,317	157,730	141,648	67,351	211,206	205,388	352,418	1,091,577	1,096,503
Columbus, Ohio	17,236	26,751	27,618	11,177	30,979	37,236	57,608	184,022	186,843
Dayton, Ohio	24,061	31,131	29,665	14,076	39,680	41,779	71,071	174,991	187,934
Denver, Col	11,062	16,635	15,629	7,942	19,342	19,942	46,982	125,411	120,790
Des Moines, Iowa	5,306	7,085	9,558	3,560	7,559	12,665	23,747	59,831	102,919
Detroit, Mich	99,603	167,016	170,049	69,447	245,434	282,741	400,348	1,234,520	1,438,247
Fall River, Mass	36,334	37,015	37,018	16,131	30,514	35,509	64,663	163,246	172,396
Grand Rapids, Mich	17,427	23,548	24,033	10,296	26,170	32,669	49,792	109,135	130,278
Hartford, Conn	17,137	26,264	23,611	11,312	31,441	30,354	42,831	118,003	101,894
Indianapolis Ind	30,971	49,977	45,818	19,042	52,410	54,364	139,700	398,667	346,858
Jersey City, N. J	31,021	36,981	33,263	17,651	42,613	44,736	164,528	374,183	313,999
Kansas City, Kan	13,095	22,339	16,264	8,176	27,130	19,460	159,700	468,686	262,447
Kansas City, Mo	16,252	22,137	22,956	10,504	23,742	29,118	60,953	192,815	196,674
Los Angeles, Cal	23,744	47,118	56,261	18,277	55,111	81,468	103,458	278,184	417,654
Louisville, Ky	25,930	29,902	37,620	14,196	28,886	42,145	105,223	204,566	240,538
Lowell, Mass	29,904	30,111	27,155	14,002	29,865	28,266	56,049	137,802	101,846
Milwaukee, Wis	61,839	84,222	74,847	36,270	89,921	93,689	223,555	576,161	518,548
Minneapolis, Minn	28,295	38,154	33,462	18,895	41,275	41,163	187,854	491,383	338,329
New Bedford, Mass	33,343	41,630	37,926	16,558	40,012	41,190	65,575	210,773	150,097
New Haven, Conn	24,993	30,874	26,108	14,462	31,435	30,648	57,752	125,456	113,925
New Orleans, La	17,348	26,641	21,575	8,538	24,614	18,737	69,814	182,799	135,184
New York, N. Y	585,279	638,775	579,005	357,498	805,822	851,186	2,292,832	5,260,708	5,349,077
Newark, N. J	63,084	86,707	70,066	36,647	104,322	89,465	210,601	577,609	448,172
Oakland, Cal	7,706	23,347	15,027	5,966	31,579	21,096	28,522	134,756	122,492
Omaha, Neb	8,922	21,304	18,142	5,810	27,230	23,195	66,438	452,237	315,971
Paterson, N. J	30,925	37,217	33,247	16,195	38,597	41,277	78,429	216,659	194,857
Philadelphia, Pa	251,286	281,105	274,319	138,249	326,792	356,438	784,500	1,996,481	1,998,750
Pittsburgh, Pa	69,620	83,290	76,665	45,068	109,859	110,466	246,694	614,727	610,189
Portland, Ore	11,273	26,813	21,534	8,542	38,758	28,244	55,697	196,380	154,415
Providence, R. I	44,176	53,372	45,495	24,482	53,178	52,970	115,333	267,629	215,654
Reading, Pa	24,131	29,122	28,712	11,885	29,624	34,775	55,232	141,561	134,502
Richmond, Va	17,282	21,759	18,833	8,440	19,843	18,995	62,491	156,724	146,413
Rochester, N. Y	44,113	63,792	58,649	26,600	69,246	77,616	140,697	351,416	337,362
St. Louis, Mo	85,058	107,919	113,253	51,150	108,557	135,468	360,480	871,700	914,277
St. Paul, Minn	19,483	22,649	22,841	12,796	24,449	29,108	68,682	149,638	150,355
San Francisco, Cal	31,758	48,650	43,638	25,289	59,704	61,376	162,300	417,521	416,318
Seattle, Wash	12,429	40,843	17,842	9,935	63,395	25,323	64,475	274,431	155,781
Springfield, Mass	14,240	18,429	19,737	9,350	19,796	24,754	44,429	98,333	106,820
Syracuse, N. Y	17,551	28,153	23,921	11,031	31,858	31,631	52,164	150,091	149,145
Toledo, Ohio	27,076	42,090	41,613	18,124	53,363	55,837	115,049	293,521	360,375
Trenton, N. J	19,828	24,547	24,045	11,134	27,858	30,913	54,822	122,478	116,623
Worcester, Mass	29,452	38,673	36,424	17,633	44,440	47,263	82,829	208,706	212,505
Yonkers, N. Y	12,650	11,932	14,005	6,455	14,002	18,803	67,223	140,017	144,896
Youngstown, Ohio	15,861	19,414	20,516	12,349	38,319	35,202	92,111	241,458	272,184

MANUFACTURES IN AMERICAN CITIES IN 1925.

City.	Wage Earners.	Wages in Year.	Value of Products.	City.	Wage Earners.	Wages in Year.	Value of Products.
	No.	*1,000 Dollars.*	*1,000 Dollars.*		*No.*	*1,000 Dollars.*	*1,000 Dollars.*
Akron, O	52,546	80,476	565,391	Memphis, Tenn	9,988	11,319	108,876
Atlanta, Ga	18,208	17,642	131,237	Milwaukee	77,432	105,123	541,911
Baltimore	85,797	93,612	678,947	Minneapolis	31,730	40,319	338,823
Birmingham, Ala	16,054	18,119	100,204	Newark, N. J	66,854	89,640	490,046
Boston	77,334	103,812	585,991	New Bedford, Mass	35,696	37,100	143,551
Bridgeport, Conn	28,763	34,903	149,098	New Haven, Conn	22,863	28,463	110,506
Buffalo, N. Y	66,015	95,999	675,435	New Orleans	22,118	20,291	155,105
Cambridge, Mass	21,945	27,409	165,833	N. Y. City	538,845	844,648	5,324,413
Camden, N. J	22,700	29,175	164,050	Oakland, Calif	15,537	21,654	144,840
Canton, O	15,362	24,267	125,830	Omaha, Nebr	15,463	21,048	339,004
Chicago	370,041	563,634	3,439,163	Paterson, N. J	33,779	45,003	200,976
Cincinnati	63,715	80,996	457,538	Philadelphia	246,680	332,414	1,937,414
Cleveland	132,852	201,377	1,094,779	Pittsburgh, Pa	65,414	94,458	518,963
Columbus, O	24,590	33,271	178,289	Portland, Oreg	20,077	26,735	150,521
Dallas, Texas	9,412	11,103	112,157	Providence, R. I	41,207	49,710	212,117
Dayton, O	29,341	43,664	206,103	Reading, Pa	27,247	32,748	132,405
Denver, Colo	15,077	19,970	125,762	Richmond, Va	18,137	17,960	157,449
Detroit	172,742	293,896	1,599,340	Rochester, N. Y	52,589	73,405	337,548
Elizabeth, N. J	17,354	24,762	116,245	St. Louis	105,022	130,856	874,557
Fall River, Mass	30,596	28,240	134,495	St. Paul, Minn	23,664	30,701	194,012
Flint, Mich	25,024	42,842	422,644	San Francisco	41,720	61,040	426,810
Ft. Worth, Tex	6,968	8,491	100,328	Seattle, Wash	19,220	27,610	159,565
Grand Rapids, Mich	25,475	36,293	145,705	Springfield, Mass	17,693	23,189	109,515
Hartford, Conn	21,758	29,858	109,678	Syracuse, N. Y	23,086	31,118	154,025
Indianapolis	41,805	51,394	344,924	Toledo, O	37,209	57,450	371,120
Jersey City	30,607	42,496	340,734	Trenton, N. J	22,322	30,134	126,516
Kansas City, Kan	14,137	17,575	288,544	Waterbury, Conn	23,626	30,426	127,172
Kansas City, Mo	25,575	32,884	221,349	Worcester, Mass	31,142	42,330	210,461
Los Angeles	58,026	85,735	531,827	Yonkers, N. Y	12,662	17,677	120,466
Louisville, Ky	37,672	43,355	263,692	Youngstown, O	19,215	33,682	236,179

MANUFACTURES IN AMERICAN CITIES IN 1927.

City.	Wage Earners.	Wages in Year.	Value of Products
	Number.	*1,000 Dollars.*	*1,000 Dollars.*
Akron, O.	53,008	85,731	567,482
Albany, N. Y.	9,378	13,030	58,185
Allentown, Pa.	15,237	18,242	98,048
Atlanta, Ga.	18,583	17,673	115,830
Baltimore, Md.	84,005	93,582	692,574
Bayonne, N. J.	12,035	18,655	218,990
Birmingham, Ala.	16,611	18,966	109,039
Boston, Mass.	77,232	104,852	618,692
Bridgeport, Conn.	28,415	36,615	158,697
Buffalo, N. Y.	63,615	95,126	649,302
Cambridge, Mass.	20,929	26,334	155,476
Camden, N. J.	26,712	35,799	198,860
Canton, O.	14,865	23,564	119,148
Chicago, Ill.	372,061	576,159	3,478,754
Cincinnati, O.	62,493	79,701	437,954
Cleveland, O.	131,146	201,092	1,040,754
Columbus, O.	24,228	32,482	169,068
Dallas, Tex.	9,459	10,471	98,009
Dayton, O.	30,218	44,392	235,166
Denver, Colo.	15,054	19,458	116,748
Des Moines, Ia.	7,253	9,591	76,108
Detroit, Mich.	189,649	318,096	1,736,933
Duluth, Minn.	6,024	8,282	54,860
Elizabeth, N. J.	16,668	23,913	120,642
El Paso, Tex.	4,554	4,749	20,848
Erie, Pa.	13,792	20,363	91,031
Evansville, Ind.	12,891	13,876	86,362
Fall River, Mass.	31,489	29,342	120,324
Flint, Mich.	38,547	68,188	600,356
Ft. Wayne, Ind.	15,848	21,228	95,366
Ft. Worth, Tex.	7,419	9,079	109,637
Grand Rapids, Mich.	24,449	35,420	135,254
Hartford, Conn.	22,038	29,930	111,089
Houston, Tex.	12,044	14,909	102,154
Indianapolis, Ind.	42,136	54,969	345,814
Jacksonville, Fla.	5,919	5,601	40,079
Jersey City, N. J.	24,732	36,339	270,842
Kansas City, Kan.	13,509	18,397	296,646
Kansas City, Me.	25,486	32,147	222,136
Knoxville, Tenn.	14,971	12,989	61,668
Los Angeles, Calif.	66,536	99,747	610,166
Louisville, Ky.	34,366	39,822	242,695
Lowell, Mass.	18,787	18,888	69,171
Lynn, Mass.	20,763	28,516	106,864
Memphis, Tenn.	9,435	10,130	91,670
Miami, Fla.	1,196	2,053	10,250
Milwaukee, Wis.	86,550	120,806	627,416
Minneapolis, Minn.	34,065	43,257	348,416
Nashville, Tenn.	12,975	12,776	94,435
Newark, N. J.	62,727	89,568	482,739
New Bedford, Mass.	35,084	36,389	125,541
New Haven, Conn.	25,096	31,136	124,034
New Orleans, La.	22,289	21,645	151,893
New York, N. Y.	552,507	904,646	5,722,071
Bronx	21,520	33,507	155,245
Brooklyn	147,427	222,323	1,185,458
Manhattan	321,880	549,186	3,813,495
Queens	53,994	85,963	479,945
Richmond	7,686	13,667	87,927
Norfolk, Va.	4,556	5,257	29,127
Oakland, Calif.	15,939	23,273	159,376
Oklahoma City, Okla.	3,216	4,333	21,587
Omaha, Nebr.	14,780	19,644	307,472
Paterson, N. J.	32,354	45,826	207,470
Philadelphia, Pa.	243,608	334,811	1,861,502
Pittsburgh, Pa.	61,892	89,039	508,529
Portland, Oreg.	20,318	27,214	146,974
Providence, R. I.	42,735	50,818	214,617
Reading, Pa.	26,383	31,712	121,095
Richmond, Va.	19,351	19,084	220,743
Rochester, N. Y.	56,685	80,316	368,111
St. Louis, Mo.	109,428	134,915	937,416
St. Paul, Minn.	21,449	28,163	160,330
Salt Lake, Utah.	4,709	5,965	35,115
San Antonio, Tex.	6,363	6,385	45,165
San Diego, Calif.	3,950	5,024	29,546
San Francisco, Calif.	41,909	61,134	429,728
Savannah, Ga.	3,055	2,815	13,573
Schenectady, N. Y.	21,803	30,233	99,402
Scranton, Pa.	11,115	12,311	55,704
Seattle, Wash.	20,601	29,623	168,032
Somerville, Mass.	5,631	7,385	66,440
Spokane, Wash.	5,678	7,817	46,170
Springfield, Mass.	16,782	22,012	103,921
Syracuse, N. Y.	22,562	32,196	147,903
Tacoma, Wash.	12,335	16,083	79,882
Tampa, Fla.	12,558	14,848	55,704
Toledo, O.	38,727	57,049	360,115
Trenton, N. J.	19,965	25,887	107,417
Tulsa, Okla.	2,186	3,405	20,301
Utica, N. Y.	14,175	16,221	70,240
Washington, D. C.	9,519	15,669	90,389
Waterbury, Conn.	22,920	29,740	122,208
Wichita, Kan.	3,996	5,701	57,790
Wilmington, Del.	13,993	17,926	81,706
Worcester, Mass.	30,294	41,268	193,502
Yonkers, N. Y.	13,414	18,511	107,998
Youngstown, O.	18,566	31,494	267,379

WAGE EARNERS IN CHIEF CITIES IN 1920.

(By U. S. Census Bureau. Includes manufactures and all gainful occupations.)

City.	Male.	Female.	Total.
	Number.	*Number.*	*Number.*
Akron, Ohio	92,082	16,021	108,103
Albany, N. Y.	37,822	14,500	52,322
Atlanta, Ga.	66,702	32,250	98,952
Baltimore, Md.	245,122	92,632	337,754
Birmingham, Ala.	59,070	20,082	79,152
Boston, Mass.	245,905	104,302	350,207
Bridgeport, Conn.	48,369	15,527	63,800
Buffalo, N. Y.	165,362	49,981	215,369
Camden, N. J.	39,336	10,758	50,043
Chicago, Ill.	919,899	311,535	1,231,434
Cincinnati, Ohio	134,925	50,383	185,308
Cleveland, Ohio	273,715	73,531	347,246
Columbus, Ohio	80,726	25,479	106,205
Dallas, Tex.	55,719	21,772	77,491
Dayton, Ohio	53,529	15,030	68,559
Denver, Col.	90,084	29,006	119,090
Des Moines, Iowa	41,301	15,350	56,651
Detroit, Mich.	381,300	83,814	465,114
Fall River, Mass.	36,094	20,404	56,498
Fort Worth, Tex.	40,013	10,703	50,715
Grand Rapids, Mich.	43,985	15,071	59,056
Hartford, Conn.	46,347	17,599	63,946
Houston, Tex.	48,749	17,181	65,930
Indianapolis, Ind.	110,137	36,221	146,358
Jersey City, N. J.	97,738	29,895	127,633
Kansas City, Kan.	34,757	9,222	43,979
Kansas City, Mo.	116,858	40,322	157,180
Los Angeles, Cal.	197,700	68,400	266,100
Louisville, Ky.	78,067	34,186	112,253
Lowell, Mass.	35,771	18,248	54,019
Memphis, Tenn.	56,428	24,143	80,571
Milwaukee, Wis.	153,419	51,344	204,763
Minneapolis, Minn.	127,549	46,740	174,289
Nashville, Tenn.	37,325	17,929	55,254
New Bedford, Mass.	39,796	20,773	60,569
New Haven, Conn.	51,037	18,955	69,992
New Orleans, La.	128,422	49,761	178,183
New York, N. Y.	1,839,685	691,727	2,531,412
Bronx Borough	230,546	77,658	308,204
Brooklyn Borough	646,774	215,139	861,913
Manhattan Borough	773,448	342,518	1,115,966
Queens Borough	151,040	46,792	197,832
Richmond Borough	37,877	9,620	47,497
Newark, N. J.	136,095	42,235	178,330
Norfolk, Va.	43,733	14,627	58,360
Oakland, Cal.	78,354	20,119	98,473
Omaha, Neb.	67,869	21,066	88,935
Paterson, N. J.	44,996	18,883	63,879
Philadelphia, Pa.	603,237	215,763	819,000
Pittsburgh, Pa.	191,989	57,759	249,748
Portland, Ore.	92,102	28,506	120,608
Providence, R. I.	77,375	33,430	109,305
Reading, Pa.	33,939	13,624	49,563
Richmond, Va.	53,184	26,641	79,825
Rochester, N. Y.	96,463	37,641	134,104
St. Louis, Mo.	272,659	99,791	372,450
St. Paul, Minn.	78,702	28,118	106,820
Salt Lake, Utah.	35,814	10,085	45,899
San Antonio, Tex.	52,740	16,807	69,547
San Francisco, Cal.	204,734	60,932	265,666
Scranton, Pa.	41,453	13,334	54,787
Seattle, Wash.	120,600	33,176	153,776
Spokane, Wash.	34,737	11,121	45,858
Springfield, Mass.	42,954	17,301	60,255
Syracuse, N. Y.	58,546	18,759	77,305
Toledo, Ohio	86,846	23,283	110,129
Trenton, N. J.	38,854	11,834	50,688
Washington, D. C.	143,401	92,626	236,027
Wilmington, Del.	38,552	11,767	50,319
Worcester, Mass.	57,885	21,008	78,893
Yonkers, N. Y.	30,187	11,218	41,405
Youngstown, Ohio	46,611	8,652	55,263

PERSONS GAINFULLY OCCUPIED, BY SEX, 1880-1920.

Sex and Census Year.	Total Population.	Population 10 Years of Age and Over.	Persons 10 Years and Over in Gainful Occupations. Number.	Pct. of Total Pop.	Pct. of Pop. 10 Yrs. and Over
BOTH.					
1920	105,710,620	82,739,315	41,614,248	39.4	50.3
1910	91,972,266	71,580,270	38,167,336	41.5	53.3
1900	75,994,575	57,949,824	29,073,233	38.3	50.2
1890	62,622,250	47,413,559	23,318,183	37.2	49.2
1880	50,155,783	36,761,607	17,392,099	34.7	47.3
MALE.					
1920	53,900,431	42,289,969	33,064,737	61.3	78.2
1910	47,332,277	37,027,558	30,091,564	63.6	81.3
1900	38,816,448	29,703,440	23,753,836	61.2	80.0
1890	32,067,880	24,352,659	19,312,651	60.2	79.3
1880	25,518,820	18,735,980	14,744,942	57.8	78.7
FEMALE					
1920	51,810,189	40,449,346	8,549,511	16.5	21.1
1910	44,639,989	34,552,712	8,075,772	18.1	23.4
1900	37,178,127	28,246,384	5,319,397	14.3	18.8
1890	30,554,370	23,060,900	4,005,532	13.1	17.4
1880	24,636,963	18,025,627	2,647,157	10.7	14.7

PERSONS 10 YEARS OF AGE AND OVER IN GAINFUL OCCUPATIONS, BY SEX AND DIVISIONS OF OCCUPATIONS.

Sex and General Division of Occupations.	1920. Number.	1920. Pct. Distribution.	1910. Number.	1910. Pct. Distribution.
BOTH SEXES.				
All occupat'ns.	41,614,248	100.0	38,167,336	100.0
Agric., forest., animal husbandry	10,953,158	26.3	12,659,082	33.1
Extract. minerals	1,090,223	2.6	965,169	2.5
Manuf. mech. ind.	12,818,524	30.8	10,628,731	27.8
Transportation	3,063,582	7.4	2,637,420	6.9
Trade	4,242,979	10.2	3,614,670	9.5
Public service (not else. classified)	770,460	1.9	459,291	1.2
Profes'nal service.	2,143,889	5.2	1,693,361	4.4
Dom., pers. serv.	3,404,892	8.2	3,772,559	9.9
Clerical oc'p't'ns.	3,126,541	7.5	1,737,053	4.6
MALE.				
All occupat'ns.	33,064,737	100.0	30,091,564	100.0
Agric., forest., animal husbandry	9,869,030	29.8	10,851,581	36.1
Extract. minerals	1,087,359	3.3	964,075	3.2
Manuf. mech. ind.	10,888,183	32.9	8,808,161	29.3
Transportation	2,850,528	8.6	2,530,795	8.4
Trade	3,575,187	10.8	3,146,582	10.5
Public service (not else. classified)	748,666	2.3	445,733	1.5
Profes'nal service.	1,127,391	3.4	959,470	3.2
Dom., pers. serv.	1,217,968	3.7	1,241,338	4.1
Clerical oc'p't'ns.	1,700,425	5.1	1,143,829	3.8
FEMALE.				
All occupat'ns.	8,549,511	100.0	8,075,772	100.0
Agric., forest., animal husbandry	1,084,128	12.7	1,807,501	22.4
Extract. minerals	2,864	....	1,094	....
Manuf. mech. ind.	1,930,341	22.6	1,820,570	22.5
Transportation	213,054	2.5	106,625	1.3
Trade	667,792	7.8	468,088	5.8
Public service (not else. classified)	21,794	0.3	13,558	0.2
Profes'nal service.	1,016,498	11.9	733,891	9.1
Dom., pers. serv.	2,186,924	25.6	2,531,221	31.3
Clerical oc'p't'ns.	1,426,116	16.7	593,224	7.3

WAGE EARNERS, 10 YEARS OF AGE AND OVER, BY STATES, 1920.

State	Male Wage Earners.	Female Wage Earners.	Total Wage Earners.	Pct. of Pop.
	Number.	*Number.*	*Number.*	
Alabama	684,348	223,868	908,216	38.7
Arizona	112,193	18,386	130,579	39.1
Arkansas	518,754	115,810	634,564	36.2
California	1,226,113	286,647	1,512,760	44.1
Colorado	303,870	62,587	366,457	39.0
Connecticut	443,653	146,252	589,905	42.7
Delaware	73,122	18,102	91,224	40.9
Dist. of Col	143,401	92,626	236,027	53.9
Florida	300,050	85,262	385,312	39.8
Georgia	840,412	288,745	1,129,157	39.0
Idaho	135,950	17,509	153,459	35.6
Illinois	2,086,800	540,938	2,627,738	40.5
Indiana	931,647	185,385	1,117,032	38.1
Iowa	717,377	141,321	858,698	35.7
Kansas	531,881	92,510	624,391	35.3
Kentucky	719,629	131,493	851,122	35.2
Louisiana	528,507	152,726	681,233	37.9
Maine	245,013	64,845	309,858	40.3
Maryland	466,257	137,221	603,478	41.6
Massachusetts	1,225,163	503,155	1,728,318	44.9
Michigan	1,228,631	245,383	1,474,014	40.2
Minnesota	742,947	164,066	907,013	38.0
Mississippi	526,446	194,964	721,410	40.3
Missouri	1,072,545	244,615	1,317,160	38.7
Montana	185,905	28,278	214,183	39.0
Nebraska	385,292	71,789	457,081	35.3
Nevada	33,214	4,334	37,548	48.5
New Hampshire	143,525	49,302	192,827	43.5
New Jersey	1,014,663	295,990	1,310,653	41.5
New Mexico	107,090	14,941	122,031	33.9
New York	3,367,909	1,135,295	4,503,204	43.4
North Carolina	693,155	202,697	895,852	35.0
North Dakota	178,754	28,328	207,082	32.0
Ohio	1,891,546	409,970	2,301,516	40.0
Oklahoma	586,834	94,594	681,428	33.6
Oregon	267,791	54,492	322,283	41.1
Pennsylvania	2,740,127	686,232	3,426,359	39.3
Rhode Island	194,438	80,562	275,000	45.5
South Carolina	468,601	205,656	674,257	40.0
South Dakota	186,885	29,686	216,571	34.0
Tennessee	677,988	152,108	830,096	35.5
Texas	1,415,180	303,843	1,719,023	36.9
Utah	127,418	21,783	149,201	33.2
Vermont	111,585	26,899	138,484	39.3
Virginia	677,366	156,210	833,576	36.1
Washington	485,767	92,000	578,667	42.7
West Virginia	433,677	57,439	491,116	33.6
Wisconsin	813,184	182,365	995,549	37.8
Wyoming	72,134	9,402	81,536	41.9
Continental U. S.	33,064,737	8,549,511	41,614,248	39.4
Alaska	24,712	2,085	26,797	61.2
Hawaii	97,619	14,263	111,882	59.8
Porto Rico	322,466	86,462	408,928	45.2

Of the 41,614,248 persons engaged in gainful occupations, 20,521,997 were native whites of native parentage; 8,347,466 were native whites of foreign or mixed parentage; 7,746,460 were foreign-born whites; 4,824,151 were Negroes; 63,326 were Indians; 5,614, Chinese; 57,903, Japanese.

Of wage earners in 1920 16 years of age and over in manufactures, 7,202,529 were males and 1,772,924 were females.

Of the 8,549,511 females ten years of age and over engaged in 1920 in gainful occupations, 3,733,329 were native whites of native parentage; 2,110,454 were native whites of foreign or mixed parentage; 1,118,463 were foreign-born whites; 1,571,289 were Negroes.

STRIKES AND LOCKOUTS IN THE UNITED STATES.

(Data by United States Department of Labor.)

Occupation.	Number of disputes.												
	1916.	1917.	1918.	1919.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	1928.
Bakers	81	106	47	88	75	99	24	35	72	55	14	8	10
Boiler makers	23	44	28	31	22	16	4	9	3	5	4	....	....
Boot and shoe workers	45	38	50	54	63	28	55	53	27	31	25	13	34
Brewery workers	21	22	27	23	25	24	12	4	10	6	2	2	2
Brick and tile workers	23	9	5	16	21	12	14	6	8	13	1	....	....
Bldg.laborers and hod-car.	54	74	27	49	90	10	7	39	19	35	26	22	18
Carpenters	75	101	81	96	73	49	20	22	34	50	27	22	35
Chauffeurs, teamsters	108	164	129	95	130	43	20	51	39	44	22	25	16
Frt. handl. and longsh	158	194	89	58	68	36	18	23	12	10	7	3	1
Glass workers	41	23	13	9	11	2	4	14	7	8	6	10	4
Hat and cap, fur work	26	52	38	38	51	25	40	25	34	25	32	19	12
Inside wiremen	32	33	45	33	51	29	7	9	18	16	17	12	10
Machinists	257	204	207	202	127	29	8	13	6	....	15	....	1
Metal polishers	43	25	29	61	78	8	3	4	10	8	10	3	6
Miners, coal	373	355	162	148	161	87	44	158	177	99	78	60	83
Molders	145	156	110	181	145	93	38	54	29	13	21	12	15
Paint., paper hang	46	45	61	81	46	62	10	20	25	29	22	23	10
Plumbers and steamfit	53	53	72	55	81	82	21	25	42	55	38	28	23
Rubber workers	38	12	15	15	14	3	3	7	2	6	2	2	2
Sheet-metal workers	23	33	45	19	14	82	8	13	18	9	18	6	3
Street railway employ	56	118	117	110	81	12	19	21	14	5	8	2	3
Structural-iron work	23	16	20	15	32	5	6	18	13	16	12	10	13
Tailors	38	59	51	70	42	58	19	32	11	22	16	14	6

NUMBER OF DISPUTES IN SELECTED INDUSTRY GROUPS.

Industry.	1916.	1917.	1918.	1919.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	1928.
Building trades	394	468	434	473	521	583	113	208	270	349	272	194	134
Clothing	227	495	436	322	336	240	240	395	238	231	194	129	124
Furniture	50	43	26	35	26	17	4	12	35	56	46	41	25
Iron and steel	72	56	74	76	25	25	10	10	7	7	2	2	2
Leather	34	19	16	27	32	26	17	17	5	5	11	12	5
Lumber	44	299	76	46	38	25	10	19	6	9	3	3	7
Metal trades	547	515	441	581	452	194	83	113	58	48	75	19	28
Mining, coal	373	355	162	148	161	87	44	158	177	100	78	60	83
Mining, other	43	94	46	28	22	8	5	1	1	4	....	....	....
Paper manufacturing	54	41	40	47	39	42	12	16	6	6	10	1	2
Printing and publish	27	41	40	71	83	506	56	19	12	14	9	22	10
Shipbuilding	31	106	140	109	45	20	4	6	1	....	....	....	2
Slaught.,meat cut., pkg.	70	38	42	74	42	30	6	11	14	2	5	5	4
Stone	61	26	14	13	29	34	61	15	15	17	11	4	8
Textiles	261	247	212	273	211	114	115	134	80	139	90	80	65
Tobacco	63	47	50	58	39	19	13	16	12	4	14	3	2
Transport., steam, elec	228	343	227	191	241	37	67	31	18	7	8	1	3

NUMBER OF DISPUTES BEGINNING IN EACH YEAR, BY STATES.

States.	1923.	1924.	1925.	1926.	1927.	1928.
Alabama	6	....	3	5	1	....
Alaska	....	....	2	....	....	....
Arizona	1	....	....	1	....	3
Arkansas	2	3	4	....	....	1
California	47	29	40	34	20	16
Colorado	3	5	10	5	5	5
Connecticut	52	26	46	29	27	11
Delaware	1	....	4	8	2	....
Dist. of Col	6	5	11	6	....	2
Florida	4	2	10	16	6	2
Georgia	4	4	5	9	1	1
Idaho	1	....	....	....	....	....
Illinois	72	80	84	72	44	40
Indiana	35	28	45	32	16	13
Iowa	14	15	12	14	6	8
Kansas	5	6	12	2	1	2
Kentucky	11	12	2	12	12	4
Louisiana	16	7	3	5	2	3
Maine	7	6	10	1	3	5
Maryland	19	25	17	7	9	8
Mass	217	97	162	113	70	95
Michigan	19	10	14	12	7	7
Minnesota	14	4	5	9	11	3
Mississippi	1	....	....	....	2	....
Missouri	27	35	11	9	14	8
Montana	7	1	1	4	3	2
Nebraska	1	2	2	1	2	....

State.	1923.	1924.	1925.	1926.	1927.	1928.
Nevada	1	1	....	....	1	....
New Hamp	6	8	5	8	4	4
New Jersey	78	92	92	84	59	46
New Mexico	....	....	....	....	1	....
New York	403	281	301	216	181	131
N. Car	6	4	7	2	7	1
No. Dakota	1	1	....	....	....	....
Ohio	65	68	73	68	21	27
Oklahoma	2	6	10	2	3	3
Oregon	15	13	5	8	10	6
Pennsylvania	234	261	184	162	123	113
Rhode Island	25	5	25	28	23	9
S. Car	1	1	....	1	....	....
So. Dakota	....	1	....	....	....	....
Tennessee	7	10	3	7	4	7
Texas	15	16	11	4	9	5
Utah	1	2	2	....	1	....
Vermont	....	....	4	1	1	1
Virginia	3	4	1	3	1	3
Washington	36	15	15	5	9	13
West Virginia	28	23	20	11	3	....
Wisconsin	10	15	14	8	3	8
Wyoming	1	1	1	....	....	3
Interstate	28	10	12	8	6	10
United States	1,553	1,240	1,300	1,032	734	629

The totals do not include disputes in Hawaii, Porto Rico, Canal Zone, or Virgin Isl.

The number of men definitely reported as directly involved in strikes is—(1916) 1,599,917; (1917) 1,227,254; (1918) 1,239,989; (1919) 4,160,348; (1920) 1,463,054; (1921) 1,099,247; (1922) 1,612,562; (1923) 756,584; (124) 654,641; (1925) 428,416; 1926) 329,592; (1927) 349,434; (1928) 357,145.

BOILER ACCIDENTS IN THE UNITED STATES.

(Data compiled for "The Locomotive," Hartford, Conn.)

Year.	Explo.	Killed.	Hurt.	Year.	Explo.	Killed.	Hurt.	Year.	Explo.	Killed.	Hurt.
1909	550	227	422	1916	499	199	375	1923	751	150	318
1910	533	280	506	1917	506	149	289	1924	780	121	257
1911	499	222	416	1918	449	130	340	1925	870	154	353
1912	537	278	392	1919	526	186	342	1926	1,029	112	264
1913	499	180	369	1920	652	137	262	1927	901	144	270
1914	467	148	315	1921	620	158	312	1928	1,034	78	191
1915	403	132	236	1922	753	132	332				

WATER POWER HERE AND ABROAD.

The United States Geological Survey estimates the developed water power in this country, as of Jan. 1, 1929, at 13,571,530 horsepower.

The potential water power is estimated at 38,110,000 horsepower, available 90 per cent of the time; and 59,166,000 horsepower, available 50 per cent of the time—in each case at an overall efficiency of 70 per cent of all developed and undeveloped sites.

DEVELOPED AND POTENTIAL WATER POWER IN THE UNITED STATES

State.	Developed.	Potential (Available). 90 P. C. of Time.	Potential (Available). 50 P. C. of Time.	State.	Developed.	Potential (Available). 90 P. C. of Time.	Potential (Available). 50 P. C. of Time.
	Hp.	*Hp.*	*Hp.*		*Hp.*	*Hp.*	*Hp.*
Alabama	799,085	472,000	1,050,000	Nebraska	23,649	183,000	342,000
Arizona	104,360	2,759,000	2,887,000	Nevada	13,650	300,000	370,000
Arkansas	15,680	200,000	300,000	New Hampshire	278,002	186,000	350,000
California	2,226,529	4,603,000	6,674,000	New Jersey	18,902	50,000	90,000
Colorado	98,016	873,000	1,609,000	New Mexico	1,510	116,000	186,000
Connecticut	184,423	65,000	110,000	New York	1,813,501	4,010,000	4,960,000
Delaware	1,161	5,000	10,000	North Carolina	814,000	852,000	1,160,000
Dist. of Col.	5,870	(Md.)	(Md.)	North Dakota	245	82,000	193,000
Florida	9,255	20,000	30,000	Ohio	30,320	55,000	166,000
Georgia	543,685	572,000	958,000	Oklahoma	1,948	70,000	194,000
Idaho	357,577	2,122,000	4,032,000	Oregon	288,973	3,665,000	5,894,000
Illinois	93,772	189,000	361,000	Pennsylvania	290,596	313,000	1,000,000
Indiana	56,521	45,000	145,000	Rhode Island	30,188	25,000	40,000
Iowa	182,139	169,000	395,000	South Carolina	574,000	555,000	860,000
Kansas	16,136	104,000	251,000	South Dakota	19,671	121,000	203,000
Kentucky	142,255	172,000	280,000	Tennessee	177,425	654,000	882,000
Louisiana	0	1,000	2,000	Texas	29,454	288,000	614,000
Maine	538,761	536,000	1,074,000	Utah	154,200	1,420,000	1,586,000
Maryland	415,815	106,000	238,000	Vermont	260,157	80,000	169,000
Massachusetts	362,123	106,000	235,000	Virginia	140,239	459,000	812,000
Michigan	378,315	168,000	274,000	Washington	747,407	7,145,000	11,225,000
Minnesota	292,649	203,000	401,000	West Virginia	91,279	355,000	980,000
Mississippi	0	30,000	60,000	Wisconsin	516,732	285,000	480,000
Missouri	20,560	67,000	152,000	Wyoming	17,355	704,000	1,182,000
Montana	393,440	2,550,000	3,700,000	United States	13,571,530	38,110,000	59,166,000

Developed water power on Jan 1, 1927 was 11,720,938 h.p., on Jan. 1, 1926, it was 11,176,596 h.p.; (Mch. 1925) 10,037,655 h.p.; (Mch. 1924) 9,086,958 h.p.; (Nov. 1921) 7,926,958.

DEVELOPED AND POTENTIAL WATER POWER OF THE WORLD, JAN. 1, 1929.

The Geological Survey estimates the developed water power of the world, including the United States, at 34,575,000 horsepower; and the potential (available at ordinary low water) at 459,000,000 horsepower. This is divided by continents (potential in parenthesis) as follows—

North America—Mexico, 300,000 (6,000,000); United States, 11,721,000 (35,000,000); Alaska, 43,000 (1,000,000); Newfoundland, 160,000 (400,000); Canada, 4,556,000 (18,250,000); Costa Rica, 15,000 (1,000,000); Guatemala, 4,000 (1,500,000); Honduras, 3,000 (1,000,000); Nicaragua, 400 (800,000); Salvador, 2,700 (200,000); Panama, 13,300 (500,000); West Indies, 19,350 (150,000); Total, 17,700,000 (71,000,000).

South America—Argentina, 25,000 (5,000,000); Bolivia, 13,500 (2,500,000); Brazil, 500,000 (25,000,000); British Guiana, (2,500,000); Dutch Guiana, (800,000); French Guiana, (500,000); Chile, 114,000 (2,500,000); Colombia, 25,000 (4,000,000); Ecuador, 5,500 (1,000,000); Paraguay, 200 (2,000,000); Peru, 55,000 (4,500,000); Uruguay, (300,000); Venezuela, 13,000 (3,000,000); total—750,000 (54,000,000).

Europe—Sweden, 1,350,000 (8,000,000); Norway, 1,900,000 (9,500,000); Finland, 220,000 (1,800,000); Russia, 230,000 (3,000,000); Estonia, 16,950 (125,000) Latvia and Lithuania, 5,000 (100,000); Poland, 90,000 (1,400,000); Ukraine, 40,000 (425,000); Region of the Caucasus, 5,000 (5,000,000); Hungary, 3,000 (175,000); Czechoslovakia, 155,000 (1,000,000); Yugoslavia, 180,000 (3,000,000); Austria, 325,000 (1,660,000); Rumania, 30,000 (1,600,000); Bulgaria, 18,000 (1,200,000); Greece, 8,000 (250,000); Turkey, (Small); Albania, 1,000 (500,000); Italy, 2,300,000 (3,800,000); Switzerland, 1,850,000 (2,500,000); Germany, 1,100,000 (2,000,000); France, 2,000,000 (5,400,000); British Isles, 250,000 (850,000); Belgium, 700 (Small); Denmark, 11,000 (9,000); Netherlands, 150 (Small); Spain, 1,000,000 (4,000,000); Portugal, 10,000 (300,000); Iceland, (500,000); total—13,100,000 (58,000,000).

Asia—Chinese Republic, 1,650 (20,000,000); India; 200,000 (27,000,000); Asia Minor, 500 (500,000); Arabia, (No data); Persia, (200,000); Afghanistan, 2,000 (500,000); Siberia, 90,800 (8,000,000); French Indo-China, (4,000,000); Siam and Malay States, 4,500 (4,000,000); Chosen, 18,300 (500,000); Japan, 1,750,000 (4,500,000); total—2,100,000 (69,000,000).

Africa—Tangier, (50,000); Morocco, (250,000); Algeria, 130 (200,000); Tunisia, (30,000); Tripoli, (Small); Eritrea, (Small); British Somali, (Small); Italian Somali, (Small); Gold Coast and British mandate in Togo, (1,450,000); Liberia, (4,000,000); Sierra Leone, (1,700,000); Senegal, (250,000); Rio de Oro, (Small); Gambia, (Small); Portuguese Guinea, (Small); Union of South Africa, 5,000 (1,600,000); Angola, 4,000 (4,000,000); Southwest Africa (Union of South Africa mandate), (150,000); Belgian Congo and Belgian mandate, 250 (90,000,000); French Congo, (35,000,000); French mandate in Cameroon, (13,000,000); Nigeria and British mandate in Cameroon, (9,000,000); Rhodesia, 2,500 (2,500,000); Tanganyika (British mandate), 800 (2,700,000); British Central Africa, (1,200,000); British East Africa, 900 (4,700,000); Portuguese East Africa, (3,700,000); Bechuanaland, (20,000); Abyssinia, (4,000,000); Egypt, (600,000); Ivory Coast, Dahomey and French mandate in Togo, (2,850,000); French Guinea, (2,000,000); French Sudan, (1,000,000); Madagascar, 100 (5,000,000); total—14,000 (190,000,000).

Oceania—Australia, 2,000 (600,000); New Zealand, 60,000 (2,500,000); Philippines,)1,5000.00); Sumatra, 20.000 (2,000,000); Java, 60,000 (750,000); Borneo, including New Guinea and Papua, (7,500,000); Tasmania, 75,000 (700,000); Celebes, 500 (1,000,000); Hawaii, 25,000.(100,000); total 240,000 (17,000,000).

Potential figures for the United States in the above table represent power available 90 per cent of the time at 70 per cent efficiency.

UNITED STATES ORANGE PRODUCTION

In the five-year period 1923 to 1927, says the Department of Commerce, United States orange production averaged 35,500,000 boxes a year, of which California contributed 23,500,000 boxes, Florida 10,500,000, Porto Rico 1,000,000, and other States around 500,000 boxes.

The other States consist of Alabama, with an average yearly production of say 250,000 boxes, Louisiana 120,000, Arizona 70,000, Mississippi 50,000, and Texas 15,000.

California produced 31,000,000 boxes of oranges in 1928 as against 23,000,000 boxes the previous year, and an average crop of 23,500,000 boxes in 1923 to 1927.

Florida accounted for 12,000,000 boxes of oranges in 1928, as against 8,200,000 boxes the previous year and an average crop of 10,500,000 boxes.

Though statistics of production in Porto Rico are not available, there were shipped to continental United States during 1923 to 1927 from 200,000 to 730,000 boxes of oranges a year, which would indicate a normal commercial production of around 1,000,000 boxes a year.

WORLD AREA, AND IRRIGATED ACREAGE.

Continent.	Area.			Irrigated Area.
	Amount.	% of total.	Rank.	Amount.
	Sq. Miles.			*Acres.*
No. Amer....	8,685,833	17.2	3	26,834,000
So. Amer....	7,169,587	14.2	4	6,613,000
Europe.....	3,723,081	7.4	5	14,800,000
Asia.....	16,217,166	32.0	1	140,754,000
Africa.....	11,514,050	22.7	2	10,310,000
Oceania.....	3,307,940	6.5	6	1,270,000
Total.....	50,617,657	100.0	..	200,581,000
United St..	3,026,805	.....	..	20,471,000

The sun draws every day from the earth 37 inches of water, of which 29.5 inches are evaporation from the oceans, etc., and 7.5 inches are from the land surface.

Precipitation balances evaporation, and averages 115,391 cubic miles of water daily.

Irrigated acreage in the United States, in acres—(1889) 3,631,381; (1899) 7,782,188; (1902) 9,487,077; (1909) 14,433,285; (1919) 19,191,716; (1926) 20,471,000.

In North America the irrigated acreage, in so far as reported to the United States Department of Agriculture is—United States, 20,471,000; Barbados, 500; Canada, 400,000; Cuba, 50,000; Dominican Republic, 25,000; Guatamala, 41,000; Haiti, 52,000; Honduras, 5,000; Jamaica, 16,000; Mexico, 5,700,000; Nicaragua, 3,000; Panama, 500; Porto Rico, 70,000—total, 26,834,000.

IRRIGATION AREA IN THE UNITED STATES, BY STATES.

States.	1909.	1919.	1926.
Arid Irrigation.	*Acres.*	*Acres.*	*Acres.*
Arizona.....	320,051	467,565	475,000
California.....	2,664,104	4,219,040	4,325,000
Colorado.....	2,792,032	3,348,385	3,600,000
Idaho.....	1,430,848	2,488,806	2,500,000
Kansas.....	37,479	47,312	95,000
Montana.....	1,679,084	1,681,729	1,800,000
Nebraska.....	255,950	442,690	554,000
Nevada.....	701,833	561,447	565,000
New Mexico.....	461,718	538,377	540,000
North Dakota.....	10,248	12,072	13,000
Oklahoma.....	4,388	2,969	3,000
Oregon.....	686,129	986,162	1,070,000
South Dakota.....	63,248	100,682	110,000
Texas.....	164,283	322,656	600,000
Utah.....	999,410	1,371,651	1,400,000
Washington.....	334,378	529,899	579,000
Wyoming.....	1,133,302	1,207,982	1,350,000
Total.....	13,738,485	18,329,424	19,579,000
Rice Irrigation.			
Arkansas.....	27,753	143,946	200,000
Louisiana.....	380,200	454,882	495,000
Texas.....	286,847	263,464	168,000
Total.....	694,800	862,292	863,000
Grand total.....	14,433,285	19,191,716	20,471,000

IRRIGATED AREA IN UNITED STATES, BY SOURCES.

Source.	1909.	1919.
	Acres.	*Acres.*
Streams:		
Gravity.....	12,767,351	14,527,060
Pumped.....	608,659	1,226,510
Pumped and gravity.....	.....	199,595
Wells:		
Pumped.....	489,341	1,263,098
Flowing.....	144,420	65,856
Flowing and pumped.....	.....	35,685
Lakes:		
Pumped.....	17,826	35,730
Gravity.....	59,631	100,646
Springs.....	196,186	198,008
Stored storm water.....	105,792	98,873
City water.....	.....	930
Sewage.....	.....	2,578
Streams:		
Gravity and pumped wells..	.....	344,713
Gravity and flowing wells...	.....	82,665
Miscellaneous.....	44,079	1,009,769
Total area irrigated.....	14,433,285	19,191,716

IRRIGATED AREA IN UNITED STATES, BY DRAINAGE BASINS.

Drainage basin.	Area Irrigated.	
	1902.	1919.
	Acres.	*Acres.*
Mo. River and tributaries....	2,533,237	4,147,278
Mississippi River and tributaries, excl. of Mo. River....	393,687	958,493
Streams flowing into Gulf of Mex., excl. of Mississippi and Rio Grande.....	21,833	698,077
Rio Grande and tributaries...	496,587	1,293,863
Colorado River and tributaries	935,922	2,336,910
Great interior basin.....	1,639,473	2,313,163
Columbia Riv. and tributaries	1,297,437	3,873,245
Pacific Ocean streams, excl. of Colorado and Columbia....	1,556,232	3,570,687
Total.....	8,874,408	19,191,716

In Canada, the irrigated acreage, by provinces, was—Alberta, 251,645; British Columbia, 42,519.

Lower California—The most extensive irrigation development in Mexico is that south of the international boundary line which divides the Mexicali and Imperial Valleys, the former being in fact a continuation of the latter. The Mexicali Valley contains about 1,000,000 acres, of which 200,000 are available for irrigation.

The development on the Mexican side of the boundary line began when the first water crossed the line in canals on June 20, 1901.

IRRIGATED ACREAGE, BY CONTINENTS.

South America—Argentina, 3,000,000; Brazil, 1,000; British Guiana, 100,000; Chile, 2,458,000; Colombia, 51,000; Curacao, 1,000; Ecuador, 1,000; Peru, 1,000,000; Venezuela, 1,000.

Oceania—Australia, 1,000,000; Hawaii, 200,000; New Zealand, 70,000.

Africa—Algeria, 400,000; Angola, 1,000; Congo, 3,000; Egypt, 5,000,000; Madagascar, 1,500,000, Morocco, 1,500,000; Mozambique, 10,000; Nigeria, 1,000; Senegal, 5,000; Sudan, 450,000; Tunisia, 140,000; Union of South Africa, 800,000

Asia—Afghanistan, 10,000; Arabia, 1,000; Ceylon, 350,000; China, 50,400,000; Chosen, 2,000,000; Formosa, 750,000; India (provinces) 47,565,781; India (states), 8,191,916; Indo-China, 3,470,000; Iraq, 1,550,000; Japan, 6,675,000; Java and Madura, 8,350,000; Malay States (Fed.), 100,000; Palestine, 25,000; Persia, 25,000; Philippines, 750,000; Russia, 8,000,000; Siam, 1,750,000; Straits Settlements, 100,000; Syria and Lebanon, 400,000; Turkey, 300,000.

Europe—Albania, 50,000; Bulgaria, 20,000; Czechoslovakia, 15,000; Finland, 4,000; France, 6,000,000; Germany, 1,000; Greece, 1,000; Hungary, 35,000; Italy, 3,900,000; Malta, 1,000; Poland, 500; Portugal (incl. Azores and Madeira), 1,206,000; Roumania, 1,000; Russia, 50,000; Spain (incl. Canaries), 3,500,500; Switzerland, 3,000· Yugoslavia, 12.000.

SEED PLANTING IN THE UNITED STATES.

(Compiled from reports of the Department of Agriculture.)

NEW ENGLAND.

Kind of Crop.	Date of Planting.	Best Soil.	Manure per Acre.	Seed per Acre.	Weeks Maturity.
Corn	May 10 to 30	Sandy or clay loam	8 to 12 tons	8 to 12 qts	14–17
Wheat	Fall or Spring	Clay loam	18 tons	2 bush	20
Oats	Apr. to May	Strong loam	6 to 8 tons	2 to 3 bush	11–15
Barley	Apr. to June 20	Strong loam	7 to 8 tons	2 to 3 bush	10–15
Rye	Apr. to May, Sept.	Medium loam	7 to 8 tons	6 to 5 pecks	40
Buckwheat	June 1 to 20	Light loam	4 to 6 tons	1 to 1¼ bush	10–15
White beans	May to June	Sandy loam	7 to 8 tons	8 to 16 qts	8–14
Potatoes	Apr. 15 to May 1	Rich loam	15 to 20 tons	8 to 20 bush	2–20
Turnips	July 1 to Aug. 3	Sandy loam	10 tons	1 lb	10
Mangels	Apr. 15 to May 5	Strong heavy loam	8 to 15 tons	4 to 6 lbs	17–22
Tobacco	Seed bed Apr.	Sandy loam	8 to 12 tons		9–12
Hay					

MIDDLE STATES.

Corn	Apr. 20 to May 30	Medium loam	8 to 12 tons manure	6 to 8 qts	16–18
Wheat	Sept. 20 to Oct. 20	Loam	8 tons; 300 lbs. fer	2 bush	41–43
Oats	Mar. to May	Moist clay loam	8 tons; 300 lbs. fer	2 to 2½ bush	16–17
Barley	Mar. to May	Clay loam	8 tons; 300 lbs. fer	2 to 2½ bush	13–16
Rye	Sept. 1 to Oct. 1	Sand or gravel loam	8 tons; 300 lbs. fer	1 bush	40–43
Buckwheat	June to July	Loam	5 tons	½ to 1½ bush	8–10
White beans	May to June	Sandy loam	8 tons	1½ bush	13–14
Potatoes	Mar. to May	Loam	10 to 18 tons	8 to 15 bush	14–22
Sweet potatoes	May to June	Sandy loam		10 to 12 bush	10–15
Cabbage	Mar. to July	Clay or sandy loam	300 to 600 lbs. fer	4 to 8 oz	8–15
Turnips	July	Loam		2 to 5 lbs	10–12
Mangels	May	Loam	10 to 20 tons	10 to 15 bush	15–18
Flax	May	Limestone loam		20 qts	8–10
Tobacco	Seed bed Mar.	Sandy loam	Commercial fer		15–20
Hay, timothy	Aug. to Oct.	Clay loam		6 to 8 qts	
Hay, clover	Feb. to Apr.	Clay loam		6 qts	

CENTRAL AND WESTERN STATES.

Corn	Apr. 1 to June 1	Black or sandy loam	5 to 10 tons	6 qts	16–20
Wheat	Fall or Spring	Strong loam	8 tons	2 bush	40–42
Oats	Apr. 1 to May 1	Clay loam	8 tons	2 to 3 bush	12–14
Barley	Fall or Spring	Clay loam	8 tons	2 bush	11–13
Rye	Sept. 1 to 30	Light loam	8 tons	1 to 2 bush	35–40
Buckwheat	June	Clay loam	5 tons	1 to 2 bush	10–12
White beans	May 10 to June 10	Clay loam	8 tons	1½ bush	12
Potatoes	Mar. 15 to June 1	Sandy loam	5 to 10 tons	5 to 10 bush	10–20
Turnips	July 15 to Aug. 30	Loam or muck	8 to 10 tons	1 to 6 lbs	10–16
Mangels	Apr. 1 to May 15	Sandy loam	8 to 12 tons	6 to 8 lbs	22–24
Flax	Mar. 15 to May 15	Loam	10 to 15 tons	2 to 3 pecks	15–20
Tobacco	Seed bed, Mar.	Sandy loam	8 to 10 tons	Oz. to 6 sq. rds	15–18
Hay	Apr. to May	Clay loam	10 tons	8 to 15 lbs	

SOUTHERN STATES.

Cotton	Feb. to May 15	Sandy loam		1 to 3 bush	20–30
Corn	Feb. to June	Rich loam	10 bush. cot. seed	8 qts	18–20
Wheat	Sept. to Nov.	Clay loam	8 tons	2 bush	43
Oats	Feb., May, Sept.	Clay loam	8 to 10 tons	2½ bush	17
Barley	Apr. to May	Clay loam	8 to 10 tons	2½ bush	17
Rye	Sept. to Oct.	Clay loam	10 tons	1½ bush	43
White beans	Mar. to May	Light loam	8 tons	1 to 2 bush	7– 8
Cabbage	Oct., Mar. to May	Light loam	6 to 10 tons	¼ to ½ lbs	14
Watermelons	Mar. 1 to May 10	Rich, light loam	5 tons; 300 lbs. fer	2 to 7 lbs	16–20
Onions	Feb. 1 to Apr. 10	Loam or muck			16–24
Potatoes	Jan., Feb. to Apr.	Light loose loam	8 to 12 tons	8 to 10 bush	11–15
Sweet potatoes	May to June	Sandy loam		10 to 12 bush	12–15
Pumpkins	Apr. 1 to May 1	Rich, light loam		4 to 7 lbs	17–20
Tomatoes	Jan. 1 to Feb. 19	Rich, sandy loam		4 to 9 oz	14–20
Turnips	Feb., Aug., Apr.	Rich, light loam		2 to 6 lbs	8–12
Tobacco	Seed bed, Mar.	Sandy loam	8 to 15 tons	Oz. to 6 sq. rds	18–20
Cow peas	May 1 to July 15	Sandy loam	200 to 300 bs. phos	2 to 5 pecks	6– 8

SEED USED PER ACRE IN PLANTING.

Crop.	Average.	Crop.	Average.	Crop.	Average.
Alfalfa, broadcast....lbs.	18.3	Clover, red, alone....lbs.	10.7	Orchard grass.....lbs.	12.6
Alfalfa, drilled.....lbs.	14.8	Clover, red, on grain..lbs.	9.8	Peanuts.....bu.	1.02
Barley.....bu.	1.84	Clover, crimson.....lbs.	12.1	Potatoes.....bu.	8.6
Beans, field, small....bu.	.76	Corn, for grain.....lbs.	9.5	Rice.....bu.	1.98
Beans, field, large....bu.	1.29	Corn, fodder.....lbs.	26.0	Rye, for grain.....bu.	1.44
Beets, (not sugar)....lbs.	6.3	Cotton.....bu.	.96	Rye, for forage.....bu.	1.82
Blue grass.....bu.	1.07	Cowpeas, for forage..bu.	1.31	Soy beans, drilled....bu.	.79
Broom corn.....lbs.	6.0	Cowpeas, with.....bu.	.63	Soy beans, broadcast.bu.	1.37
Buckwheat.....bu.	.98	Cowpeas, for seed....bu.	.70	Sugar beets.....lbs.	13.1
Cabbage plants.....No.	5,658.0	Field peas, small.....bu.	.93	Sweet potato plants..No.	6,605.0
Clover, alsike.....lbs.	8.7	Field peas, large.....bu.	1.17	Timothy.....lbs.	9.4
Clover, Japan.....lbs.	9.9	Flaxseed.....lbs.	20.2	Tobacco plants.....No.	4,762.0
Clover, mammoth....lbs.	10.4	Oats.....bu.	2.37	Wheat.....bu.	1.38

PHOSPHATES AND OTHER FERTILIZERS.

The world production of nitrogen is estimated at six to seven million short tons a year, of which one-third comes from the Chilean deposits, and one-sixth is an ammonia by-product from coal.

The production of fertilizer in the United States was over 7,800,000 short tons in 1927, and over 8,000,000 short tons in 1928, valued at more than $200,000,000. There are over 600 establishments.

The bone phosphates come also from Germany, India, and Argentina.

Potash materials are imported mostly from Germany and Belgium.

PRINCIPAL CROP-PRODUCING STATES.

(Dept. of Agriculture Figures; 1928 total yield in parenthesis.)

Corn (bushels)—Iowa (476,012,000; Illinois (367,488,000); Nebraska (212,701,000); Missouri (181,540,000); Kansas (179,118,000); Indiana (161,322,000); Minnesota (143,115,000); Ohio (136,725,000); Texas (99,162,000); So. Dakota (93,849,000); Wisconsin (91,203,000); Oklahoma (70,150,000).

Wheat (bushels)—Kansas (177,833,000; No. Dakota (142,923,000); Montana (77,218,000); Nebraska (69,919,000); Oklahoma (59,576,000); Washington (48,644,000); So. Dakota (34,546,000); Idaho (28,792,000); Illinois (24,200,000).

Barley (bushels)—Minnesota (60,000,000); No. Dakota (55,564,000); So. Dakota (35,675,000); California (31,842,000).

Rye (bushels)—No. Dakota (12,710,000); Minnesota (5,950.000); Nebraska (3,486,000).

Oats (bushels)—Iowa (240,040,000); Illinois (174,338,000); Minnesota (153,338,000); Wisconsin (108,532,000); Indiana (93,684,000); Ohio (89,281,000); Nebraska (78,936,000); No. Dakota (59,954,000); So. Dakota (59,211,000).

Buckwheat (bushels)—Pennsylvania (3,802,000); New York (3,457,000); Minnesota (1,074,000).

Rice (bushels)—Louisiana (18,392,000); California (8,073,000); Arkansas (7,708,000); Texas (7,308,000).

Soy Beans (bushels)—Illinois (3,630,000); No. Carolina (2,940,000); Indiana (1,754,000); Missouri (1,425,000); Tennessee (1,254,000).

Hay, tame (tons)—New York (6,439,000); California (5,104,000); Wisconsin (5,017,000); Pennsylvania (4,645,000).

Tobacco (pounds)—No. Carolina (475,230,000); Kentucky (306,000,000); Virginia (111,600,000). Tennessee (88,459,000); Georgia (84,387,000); So. Carolina (82,288,000); Pennsylvania (49,580,000); Wisconsin (49,025,000).

Cotton (bales)—Texas (5,150,000); Mississippi (1,470,000); Arkansas (1,215,000); Oklahoma (1,180,000); Alabama (1,090,000); Georgia (1,020,000); No. Carolina (840,000); So. Carolina (725,000); Louisiana (685,000).

Potatoes, white (bushels)—Minnesota (38,940,000); Maine (37,840,000); Michigan (35,802,000); New York (32,376,000); Pennsylvania (31,980,000); Wisconsin (31,970,000).

Apples (bushels)—Washington (33,500,000); New York (21,900,000); Virginia (16,100,000); California (12,282,000).

Peaches (bushels)—California (25,752,000); Georgia (10,000,000); Arkansas (3,000,000); No. Carolina (2,590,000); New York (2,400,000); Tennessee (2,190,000).

Pears (bushels)—California (9,126,000); Washington (3,500,000); Oregon (2,700,000); New York (1,000,000).

Grapes (tons)—California (2,331,000); New York (85,476); Michigan (72,800); Ohio (28,700); Pennsylvania (22,680).

STOCKS OF WHEAT ON FARMS, JULY 1 AND PERCENTAGE OF TOTAL CROP.

Year.	P. C.	Stocks.	Year.	P. C.	Stocks.	Year.	P. C.	Stocks.	Year.	P. C.	Stocks.
		Bushels.			*Bushels.*			*Bushels.*			*Bushels.*
1899...	9.3	71,861,000	1907...	7.3	55,438,000	1915...	3.3	28,972,000	1923...	4.1	35,894,000
1900...	9.2	58,363,000	1908...	5.2	33,188,000	1916...	7.3	74,731,000	1924...	3.9	30,981,000
1901...	5.8	35,140,000	1909...	2.2	14,171,000	1917...	2.5	15,611,000	1925...	3.4	29,357,000
1902...	6.9	54,616,000	1910...	5.2	36,725,000	1918...	1.3	8,063.000	1926...	3.1	20,973,000
1903...	6.2	45,262,000	1911...	5.4	34,071,000	1919...	2.1	19,261,000	1927...	3.3	27,215,000
1904...	5.6	37,422,000	1912...	3.8	23,876,000	1920...	5.1	49,546,000	1928...	2.7	23,729,000
1905...	4.3	25,545,000	1913...	4.9	35,515,000	1921...	6.8	56,707,000	1929...	5.0	44,741,000
1906...	6.5	47,393,000	1914...	4.2	32,236,000	1922...	4.0	32,359,000			

WHEAT HARVEST SEASONS OF THE WORLD.

January—Australia, New Zealand and Chili.

February and March—East India, Upper Egypt.

April—Lower Egypt, Syria, Cyprus, Persia, Asia Minor, India, Mexico and Cuba.

May—Algeria, Central Asia, China, Japan, Morocco, Texas and Florida.

June—Turkey, Greece, Italy, Spain, Portugal, South of France, California, Louisiana, Mississippi, Alabama, Georgia, Carolinas, Tennessee, Virginia, Kentucky, Kansas, Arkansas, Utah, Missouri.

July—Roumania, Bulgaria, Austria-Hungary, South of Russia, Germany, Switzerland, France, South of England, Oregon, Nebraska, Minnesota, Wisconsin, Colorado, Washington, Iowa, Illinois, Indiana, Michigan, Ohio, New York, New England and Upper Canada.

August—Belgium, Holland, Great Britain, Denmark, Poland, Lower Canada, Columbia, Manitoba, North and South Dakota.

September and October—Scotland, Sweden, Norway, and North of Russia.

November—Peru, South Africa and Argentina.

December—Burmah and Argentina.

GRAIN CROPS OF THE WORLD.

Year.	Corn.		Wheat.		Oats.		Barley.		Rye.	
	Excl. Russia.	Russia.	Excl. Russia.	Russia.	Excl. Russia.	Russia.	Excl. Russia.	Russia.	Excl. Russia.	Russia.
	Million bushels.	*Million bushels.*	*Million bushels.*	*Million bushels.*	*Million bushels.*	*Million bushels.*	*Million bushels.*	*Million bushels.*	*Million bushels.*	*Million bushels.*
1900.....	3,582	34	2,210	423	2,324	854	1,269	237	675	920
1905.....	3,902	34	2,673	636	2,823	937	1,067	347	782	737
1906.....	4,088	92	2,950	543	3,673	714	1,226	331	787	668
1907.....	3,768	64	2,619	571	2,861	921	1,161	377	751	815
1908.....	3,830	82	2,544	628	2,832	959	1,132	402	827	790
1909.....	3,858	55	2,819	846	3,415	1,163	1,338	502	872	904
1910.....	4,060	102	2,777	836	3,223	1,065	1,242	488	818	875
1911.....	3,908	95	3,043	563	3,135	876	1,326	437	828	769
1912.....	4,451	94	3,093	801	3,700	1,089	1,345	496	862	1,051
1913.....	3,884	84	3,098	1,028	3,580	1,251	1,400	600	892	1,011
1914.....	4,186	90	2,834	834	3,266	915	1,213	433	766	870
1915.....	4,352	72	3,497	827	3,594	897	1,244	429	691	910
1916.....	3,768	62	2,734	531	3,259	845	1,201	305	662	771
1917.....	4,172	.....	2,574	622	3,217	761	1,170	325	548	614
1918.....	3,579	.....	2,911	.....	3,215	.....	1,273	.....	590	.....
1919.....	4,242	.....	2,821	.....	3,040	.....	1,117	.....	681	.....
1920.....	4,089	46	2,948	320	3,647	486	1,249	216	619	368
1921.....	4,316	46	3,169	205	3,137	359	1,246	118	853	401
1922.....	4,240	81	3,225	243	3,385	409	1,313	176	864	568
1923.....	4,008	67	3,551	330	3,946	405	1,222	196	901	549
1924.....	3,688	91	3,141	382	3,652	603	1,230	181	1,460	737
1925.....	4,137	177	3,389	713	3,960	798	1,437	279	816	878
1926.....	4,140	134	3,396	829	3,668	999	1,308	240	828	903
1927.....	4,193	139	3,587	749	3,576	898	1,432	215	891	933
1928.....	4,195	140	3,813	860	3,946	1,109	1,626	262	957	783

Wheat yield (1928) by chief countries, in bushels—United States, 903,000,000; Canada, 534,000,000; Argentina, 310,000,000; India, 290,000,000; Australia, 159,000,000; Europe, 1,381,000,000.

PRINCIPAL CROPS IN THE UNITED STATES.

1928 figures are Oct. 1 estimates U. S. Dept. of Agriculture. Values, Dec. 1, at farm.

Year.	White Potatoes.			Sweet Potatoes.			Cotton.			Tobacco.		
	1,000 Acres.	1,000 Bushels.	1,000 Dollars.	1,000 Acres.	1,000 Bushels.	1,000 Dollars.	1,000 Acres.	Bales.	1,000 Dollars.	1,000 Acres.	1,000 Pounds.	1,000 Dollars.
1900	2,987	247,759	104,764	544	48,346	24,478	24,933	10,123,027	463,310	1,046	814,345	53,661
1910	3,729	349,032	194,566	641	59,938	40,216	32,403	11,608,616	820,407	1,366	1,103,415	102,142
1911	3,619	292,737	233,778	605	54,538	41,202	36,045	15,692,701	687,888	1,013	905,109	85,210
1912	3,711	420,647	212,550	583	55,479	40,264	34,283	13,703,421	817,055	1,226	962,855	104,063
1913	3,668	331,525	227,903	625	59,057	42,884	37,089	14,156,486	862,708	1,216	953,734	122,481
1914	3,711	409,921	199,460	603	56,574	41,294	36,832	16,134,930	549,036	1,224	1,034,679	101,411
1915	3,734	359,721	221,992	731	75,639	46,980	31,412	11,191,820	631,460	1,370	1,062,237	96,281
1916	3,550	286,953	417,063	774	70,955	60,141	34,985	11,449,930	1,122,295	1,413	1,153,278	169,672
1917	4,384	442,108	547,774	919	83,822	92,916	33,841	11,302,375	1,566,198	1,518	1,249,276	300,449
1918	4,295	411,860	491,527	940	87,924	118,863	36,008	12,040,532	1,663,633	1,647	1,439,071	402,264
1919	3,258	290,754	640,192	941	97,126	130,514	33,566	11,420,763	2,034,658	1,951	1,465,481	570,868
1920	3,657	403,296	461,778	992	103,925	117,834	35,878	13,439,603	933,658	1,960	1,582,225	335,675
1921	3,941	361,659	398,362	1,066	98,654	86,894	30,509	7,953,641	643,933	1,427	1,069,693	212,728
1922	4,307	453,396	263,355	1,117	109,394	84,295	33,036	7,962,069	1,161,846	1,695	1,246,837	289,248
1923	3,816	416,105	324,889	993	97,177	95,091	37,123	10,139,671	1,571,815	1,877	1,515,110	301,096
1924	3,327	421,585	263,312	688	53,912	69,441	41,360	13,627,936	1,540,884	1,706	1,251,343	259,139
1925	3,092	323,465	604,072	779	62,319	85,034	46,053	16,103,679	1,464,032	1,756	1,757,000	250,774
1926	3,122	354,328	501,017	819	82,703	78,956	47,087	17,977,374	982,736	1,656	1,297,889	236,702
1927	3,476	402,741	338,741	933	94,112	77,615	40,138	12,956,043	1,269,885	1,585	1,211,909	256,882
1928	3,825	462,943	250,043	810	77,661	72,680	45,326	14,373,	1,291,589	1,912	1,373,501	254,322

Year.	Corn.			Wheat.			Oats.			Rye.		
	1,000 Acres.	1,000 Bushels.	1,000 Dollars.	1,000 Acres.	1,000 Bushels.	1,000 Dollars.	1,000 Acres.	1,000 Bushels.	1,000 Dollars.	1,000 Acres.	1,000 Bushels.	1,000 Dollars.
1900	95,042	2,505,148	878,243	51,387	602,708	373,578	27,365	809,126	208,669	1,591	23,996	12,295
1910	104,035	2,886,260	1,384,817	45,681	635,121	561,051	37,548	1,186,341	408,388	2,182	34,897	24,953
1911	105,825	2,531,488	1,565,258	49,543	621,338	543,063	37,763	922,398	414,663	2,127	33,119	27,557
1912	107,083	3,124,746	1,520,454	45,814	730,267	555,280	37,917	1,418,337	452,469	2,117	35,664	23,636
1913	105,820	2,446,988	1,692,092	50,184	763,380	610,122	38,399	1,121,768	439,596	2,557	41,381	26,220
1914	103,435	2,672,804	1,722,070	53,541	891,017	878,680	38,442	1,141,060	499,431	2,541	42,779	37,018
1915	106,197	2,994,793	1,722,680	60,469	1,025,801	942,303	40,996	1,549,030	559,506	3,129	54,050	45,083
1916	105,296	2,566,927	2,280,729	52,316	636,318	1,019,968	41,539	1,251,837	656,179	3,213	48,862	59,676
1917	116,730	3,065,233	3,920,228	45,089	636,655	1,278,112	43,553	1,592,740	1,061,474	4,317	62,933	104,447
1918	104,467	2,502,665	3,416,240	59,181	921,438	1,881,826	44,349	1,538,124	1,090,322	6,391	91,041	138,038
1919	97,170	2,811,302	3,780,597	75,694	967,979	2,080,056	37,843	1,055,095	855,255	7,682	75,774	119,041
1920	101,699	3,208,584	2,150,332	61,143	833,027	1,197,263	42,491	1,496,281	688,311	4,409	60,490	76,693
1921	103,740	3,068,569	1,297,213	63,696	814,905	754,834	45,495	1,078,341	325,954	4,528	61,675	43,014
1922	102,846	2,906,020	1,910,775	62,317	867,598	873,412	40,790	1,215,803	473,948	6,672	103,362	70,841
1923	104,324	3,053,557	2,217,229	59,659	797,394	736,006	40,981	1,305,883	541,137	5,171	63,077	40,971
1924	100,863	2,309,414	2,666,771	52,535	864,428	1,123,086	42,110	1,502,529	717,189	4,150	65,466	69,696
1925	101,359	2,916,961	1,966,761	52,255	676,429	957,907	44,872	1,487,550	565,506	3,974	46,456	36,340
1926	99,713	2,692,217	1,729,457	56,337	831,040	995,954	44,177	1,246,848	496,582	3,578	40,795	34,024
1927	98,393	2,763,093	1,997,759	58,784	878,374	979,813	41,941	1,182,594	531,762	3,648	58,164	49,609
1928	100,761	2,839,959	2,132,991	57,724	902,749	877,193	41,733	1,449,531	592,674	3,444	41,766	36,067

Year	Barley.			Buckwheat.			Flax.			Rice.			Apples.	Peaches.
	1,000 Ac.	1,000 Bu.	1,000 Dols.	1,000 Ac.	1,000 Bu.	1,000 Dols.	1,000 Ac.	1,000 Bu.	1,000 Dols.	1,000 Ac.	1,000 Bu.	1,000 Dols.	1,000 Bu.	1,000 Bu.
1900	2,894	58,926	24,075	795	11,810	6,588	2,111	19,979					205,930	49,438
1910	7,743	173,832	100,426	860	17,598	11,636	2,467	12,718	29,472	723	24,510	16,624	141,640	48,171
1911	7,627	160,240	139,182	833	17,549	12,735	2,757	19,370	35,272	696	22,934	18,274	214,020	34,880
1912	7,530	223,824	112,957	841	19,249	12,720	2,851	28,073	32,202	723	25,054	23,423	235,220	52,343
1913	7,499	178,189	95,731	805	13,833	10,445	2,291	17,853	21,399	827	25,744	22,090	145,410	39,707
1914	7,565	194,953	105,903	792	16,881	12,892	1,645	13,749	17,318	694	23,649	21,849	253,200	54,109
1915	7,148	228,851	118,172	769	15,056	11,843	1,387	14,030	24,410	803	28,947	26,212	230,011	64,097
1916	7,757	182,309	160,646	828	11,662	13,147	1,474	14,296	35,541	869	40,861	36,311	193,905	37,505
1917	8,933	211,759	240,758	924	16,022	25,631	1,984	9,164	27,182	981	34,739	65,879	166,749	48,765
1918	9,740	256,225	234,942	1,027	19,905	28,142	1,910	13,369	45,470	1,119	38,606	74,042	169,625	33,094
1919	6,474	122,060	151,419	700	14,399	21,032	1,503	7,256	31,802	1,063	41,985	111,913	142,086	53,178
1920	7,600	189,332	135,083	701	13,142	16,863	1,757	10,774	19,039	1,336	52,066	62,036	223,677	45,620
1921	7,414	154,946	64,934	680	14,207	11,540	1,108	8,029	11,648	921	37,612	35,802	99,002	32,602
1922	7,317	182,068	95,560	764	14,564	12,889	1,113	10,375	21,941	1,055	41,405	38,562	202,702	55,852
1923	7,835	197,691	107,038	739	13,965	13,029	2,014	17,060	35,951	895	33,717	37,150	202,842	45,382
1924	6,925	181,575	134,590	745	13,357	13,708	3,469	21,547	71,728	850	32,498	45,009	171,725	53,848
1925	8,088	216,554	127,453	747	13,994	12,423	3,078	22,424	50,783	889	33,309	51,232	172,389	46,562
1926	7,970	184,905	106,237	694	12,670	11,183	2,907	19,335	37,510	1,034	41,730	45,722	246,524	69,865
1927	9,476	265,882	180,200	810	15,755	13,155	2,837	25,847	48,079	1,012	44,744	41,616	123,693	45,463
1928	12,539	356,868	197,128	750	13,163	11,525	2,721	19,321	38,857	965	41,881	37,077	184,920	68,374

Yr.	Hay (Cultivated).			Hay (Wild).			Yr.	Hay (Cultivated).			Hay (Wild).		
	1,000 Acres.	1,000 Tons.	1,000 Dollars.	1,000 Acres.	1,000 Tons.	1,000 Dollars.		1,000 Acres.	1,000 Tons.	1,000 Dollars.	1,000 Acres.	1,000 Tons.	1,000 Dollars.
1915	51,108	85,920	913,644	16,796	21,343	145,125	1922	61,159	95,882	1,204,101	15,871	16,131	115,176
1916	55,721	91,192	1,022,930	16,635	19,800	156,503	1923	59,868	89,250	1,261,486	15,556	17,361	136,734
1917	55,203	83,308	1,423,766	16,212	15,131	204,086	1924	61,147	97,622	1,344,129	15,205	14,859	116,301
1918	55,755	76,660	1,543,494	15,365	14,479	220,487	1925	58,231	85,717	1,195,133	14,560	12,724	108,485
1919	56,888	86,359	1,734,085	17,150	18,401	303,639	1926	58,791	86,497	1,218,319	12,911	9,568	96,159
1920	58,101	87,855	1,560,235	15,787	17,460	198,115	1927	60,885	106,001	1,202,953	14,813	17,326	114,204
1921	58,769	82,379	997,527	15,632	15,391	101,991	1928	57,775	93,031	1,148,283	13,144	12,922	95,076

ANNUAL LOSS TO FARMERS OF THE UNITED STATES CAUSED BY INSECTS

Corn, $314,438,000; Oats, $132,968,000; Wheat, $80,487,000; Flax, $28,590,000; Barley, $20,986,000; Rye, $4,446,000.

Vegetables, $258,000,000; Fruit, $201,127,000; Hay, $148,750,000; Other crops, $272,000,000.

Storage products, $132,840,000; Domestic animals, $128,055,000.

VALUE OF FARM PROPERTY IN THE UNITED STATES.

Census Year.	Total.	Land.	Buildings.	Impl. and Mach.	Live Stock.
1850	$3,967,343,580	$3,271,575,425	.....	$151,587,638	$544,180,516
1860	7,980,493,063	6,645,045,007	.....	246,118,141	1,089,329,915
1870	8,944,857,749	7,444,054,462	.....	270,913,678	1,229,889,609
1880	12,180,501,538	10,197,096,776	.....	406,520,055	1,576,884,707
1890	16,082,267,689	13,279,252,649	.....	494,247,467	2,308,767,573
1900	20,439,901,164	13,058,007,995	$3,556,639,496	749,775,970	3,075,477,703
1910	40,991,449,090	28,475,674,169	6,325,451,528	1,265,149,783	4,925,173,610
1920	77,923,651,599	54,829,563,059	11,486,439,543	3,594,772,928	8,012,876,069
1925	57,017,740,040	37,721,018,222	11,746,629,065	2,691,703,629	4,858,389,124

NUMBER AND ACREAGE OF FARMS BY CENSUS YEARS.

Census Year.	Farms.	Improved.	Total.	Census Year.	Farms.	Improved.	Total.
	Number.	*Acres.*	*Acres.*		*Number.*	*Acres.*	*Acres.*
1850	1,449,073	113,032,614	293,560,614	1900	5,737,372	414,498,487	838,591,774
1860	2,044,077	163,110,720	407,212,538	1910	6,361,502	478,451,750	878,798,325
1870	2,659,985	188,921,099	407,735,041	1920	6,448,343	503,073,007	955,883,715
1880	4,008,907	284,771,042	536,081,835	1925	6,371,640	.....	924,319,352
1890	4,564,641	357,616,755	623,218,619				

NUMBER OF FARMS, 1925, BY STATES.

State.	Farms.	State.	Farms.	State.	Farms.	State.	Farms.
Alabama	237,631	Iowa	213,490	Nevada	3,883	So. Dakota	79,537
Arizona	10,802	Kansas	165,879	New Hamp	21,065	Tennessee	252,669
Arkansas	221,991	Kentucky	258,524	New Jersey	29,671	Texas	465,646
California	136,409	Louisiana	132,450	New Mexico	31,687	Utah	25,992
Colorado	58,022	Maine	50,033	New York	188,754	Vermont	27,786
Connecticut	23,240	Maryland	49,001	No. Carolina	283,482	Virginia	193,723
Delaware	10,257	Massachusetts	33,454	No. Dakota	75,970	Washington	73,267
Dist of Col	139	Michigan	192,327	Ohio	244,703	West Virginia	90,380
Florida	59,217	Minnesota	188,231	Oklahoma	197,218	Wisconsin	193,155
Georgia	249,095	Mississippi	257,228	Oregon	55,911	Wyoming	15,512
Idaho	40,592	Missouri	260,473	Pennsylvania	200,443		
Illinois	225,601	Montana	46,904	Rhode Island	3,911	United States	6,371,640
Indiana	195,786	Nebraska	127,734	So. Carolina	172,767		

ACREAGE AND VALUE OF FARMS, BY STATES.

State.	Land in Farms.			Value of all Farm Property.		
	1925.	1920.	1910.	1925.	1920.	1910.
	Acres.	*Acres.*	*Acres.*	*Dollars.*	*Dollars.*	*Dollars.*
Alabama	16,739,139	19,576,856	20,732,312	500,740,322	690,849,000	370,138,000
Arizona	11,065,291	5,802,126	1,246,613	194,048,696	233,593,000	75,124,000
Arkansas	15,632,439	17,456,750	17,416,075	628,846,351	924,395,000	400,089,000
California	27,516,955	29,365,667	27,931,444	3,424,785,986	3,431,022,000	1,614,695,000
Colorado	24,167,270	24,462,614	13,532,113	712,284,622	1,076,795,000	491,472,000
Connecticut	1,832,110	1,898,980	2,185,788	230,828,891	226,992,000	159,400,000
Delaware	899,641	944,511	1,038,866	72,798,416	80,138,000	63,179,000
District of Columbia	3,813	5,668	6,063	5,002,875	5,928,000	8,477,000
Florida	5,864,519	6,046,691	5,253,538	513,884,122	330,302,000	143,183,000
Georgia	21,945,496	25,441,061	26,953,413	686,673,248	1,356,685,000	580,546,000
Idaho	8,116,147	8,375,873	5,283,604	451,884,713	716,138,000	305,317,000
Illinois	30,731,947	31,974,775	32,522,937	4,627,964,933	6,666,767,000	3,905,321,000
Indiana	19,915,120	21,063,332	21,299,823	1,931,742,483	3,042,311,000	1,809,135,000
Iowa	33,280,813	33,474,896	33,930,688	5,602,077,895	8,524,871,000	3,745,861,000
Kansas	43,729,129	45,425,179	43,384,799	2,504,339,779	3,302,806,000	2,039,390,000
Kentucky	19,913,104	21,612,772	22,189,127	963,568,916	1,511,901,000	773,798,000
Louisiana	8,837,502	10,019,822	10,439,481	385,910,844	589,827,000	301,221,000
Maine	5,161,428	5,425,968	6,296,859	245,869,106	270,527,000	199,272,000
Maryland	4,433,398	4,757,999	5,057,140	397,092,670	463,338,000	286,167,000
Massachusetts	2,367,629	2,494,477	2,875,941	293,405,059	300,472,000	226,474,000
Michigan	18,035,290	19,032,961	18,940,614	1,523,976,902	1,763,335,000	1,088,858,000
Minnesota	30,059,137	30,221,758	27,675,823	2,761,684,227	3,787,420,000	1,476,412,000
Mississippi	16,053,243	18,196,979	18,557,533	550,570,838	964,752,000	426,315,000
Missouri	32,641,893	34,774,679	34,591,248	2,286,639,415	3,591,068,000	2,052,917,000
Montana	32,735,723	33,070,656	13,515,603	574,897,007	985,961,000	347,829,000
Nebraska	42,024,775	42,225,475	38,622,021	2,874,477,959	4,201,656,000	2,079,819,000
Nevada	4,090,586	2,357,163	2,714,757	98,086,358	99,780,000	60,399,000
New Hampshire	2,262,064	2,603,806	3,249,458	107,084,055	118,656,000	103,704,000
New Jersey	1,924,545	2,282,585	2,573,857	311,084,284	311,848,000	254,838,000
New Mexico	27,850,325	24,409,633	11,270,021	236,300,563	325,186,000	159,448,000
New York	19,269,926	20,632,803	22,030,367	1,706,929,770	1,908,483,000	1,451,481,000
North Carolina	18,593,670	20,021,736	22,439,129	1,050,015,835	1,250,167,000	537,716,000
North Dakota	34,327,410	36,214,751	28,426,650	1,191,036,966	1,759,743,000	974,814,000
Ohio	22,219,248	23,515,888	24,105,708	2,256,901,636	3,095,666,000	1,902,695,000
Oklahoma	30,868,965	31,951,934	28,859,353	1,210,134,914	1,660,424,000	918,199,000
Oregon	14,130,847	13,542,318	11,685,110	714,410,119	818,560,000	528,244,000
Pennsylvania	16,296,468	17,657,513	18,586,832	1,460,702,270	1,729,353,000	1,253,275,000
Rhode Island	309,013	331,600	443,308	33,446,425	33,637,000	32,991,000
South Carolina	10,638,900	12,426,675	13,512,028	523,084,383	953,065,000	392,128,000
South Dakota	32,017,986	34,636,491	26,016,892	1,658,921,488	2,823,870,000	1,166,097,000
Tennessee	17,901,139	19,510,856	20,041,657	883,646,221	1,251,965,000	612,521,000
Texas	109,674,410	114,020,621	112,435,067	3,471,867,466	4,447,420,000	2,218,645,000
Utah	5,000,724	5,050,410	3,397,699	250,317,551	311,275,000	150,795,000
Vermont	3,925,683	4,235,811	4,663,577	180,911,645	222,737,000	145,400,000
Virginia	17,210,174	18,561,112	19,495,636	999,465,839	1,196,556,000	625,065,000
Washington	12,610,310	13,244,720	11,712,235	823,437,940	1,057,430,000	637,543,000
West Virginia	8,979,847	9,569,790	10,026,442	411,159,152	496,440,000	314,739,000
Wisconsin	21,850,853	22,148,223	21,060,066	2,272,402,472	2,677,283,000	1,413,119,000
Wyoming	18,663,308	11,809,351	8,543,010	240,396,413	334,411,000	167,189,000
Total United States	924,319,352	955,883,715	878,798,325	49,467,647,287	77,924,100,338	40,991,449,090

RACE AND NATIVITY OF FARMERS IN UNITED STATES, 1920, BY STATES.

State.	Native White Farmers.	For'gn-Born White F'm'rs.	Color'd F'm'rs.	State.	Native White Farmers.	For'gn-Born White F'm'rs.	Color'd F'm'rs.	State.	Native White Farmers.	For'gn-Born White F'm'rs.	Color'd F'm'rs.
Ala....	159,865	1,031	95,203	Md....	40,130	1,569	6,209	Okla...	167,472	5,791	18,725
Ariz....	8,262	1,067	646	Mass...	22,950	8,930	121	Ore....	40,484	9,149	573
Ark....	158,273	2,049	72,282					Pa.....	187,277	14,522	451
Cal....	76,995	34,189	6,486	Mich...	147,450	48,264	733	R. I....	3,123	940	20
Col....	49,846	9,535	553	Minn...	110,966	67,305	207	S. C....	83,542	141	109,010
Conn...	14,955	7,625	75	Miss...	110,279	603	161,219	S. D....	52,700	20,325	1,612
Del....	8,905	363	872	Mo.....	251,835	8,343	2,826				
D. C...	153	31	20	Mont...	41,051	15,563	1,063	Tenn...	213,832	760	38,182
Fla.....	38,386	2,215	12,954	Neb....	99,441	24,592	384	Tex....	327,475	29,774	78,784
Ga.....	180,217	328	130,187	Nev....	2,060	884	219	Utah...	21,276	2,972	414
				N. H...	17,890	2,619	14	Vt.....	25,280	3,767	28
Idaho...	35,284	6,314	508	N. J....	22,555	6,612	535	Va.....	136,874	1,582	47,786
Ill.....	214,177	22,111	893	N. Mex.	26,593	1,376	1,875	Wash...	45,265	19,757	1,266
Ind.....	198,156	6,398	572					W. Va..	86,033	752	504
Ia.....	181,109	32,221	109	N. Y....	166,869	25,776	550	Wis....	134,634	53,998	663
Kansas.	146,859	17,189	1,238	N. C....	193,081	392	76,290	Wyo....	13,306	2,273	169
Ky.....	256,886	1,112	12,628	N. D....	40,899	36,248	543				
La.....	71,081	2,323	62,059	Ohio...	241,075	14,004	1,616	U. S..	4,917,386	581,068	949,889
Me.....	43,830	4,384	13								

In 1910, native white farmers numbered 4,771,063; foreign-born white, 669,556; colored, 920,883.

In 1920 Negro farmers, included in "colored," numbered 25,708; Indian, 16,680; Japanese, 6,892.

FARM POPULATION SMALLEST IN TWENTY YEARS

The farm population of the United States is the smallest in 20 years, according to the Department of Agriculture, at Washington, which estimates the number at 27,511,000 persons on January 1, 1929. compared with a peak of 32,000,000 persons in 1909.

The department's estimate also shows a decrease in farm population during 1928, despire improved agricultural conditions and a slight slackening in industrial employment, the January 1, 1929, figure comparing with a farm population of 27,699,000 persons on January 1, 1928.

The decrease in farm population in 1928 would have been much greater were it not offset by an excess of births over deaths, the figures revealing that in the movement of population from and to farms 1,960,000 persons left farms during the year and 1,362,000 persons moved from cities to farms.

The movement away from farms slowed up somewhat compared with immediately preceding years, but the movement from cities to farms was also smaller.

Thus it is shown that 1,960,000 persons left farms during 1928, compared with 1,978,000 in 1927 and with 2,155,000 in 1926.

The movement from cities to farms was 1,362,000 persons in 1928, 1,374,000 in 1927, and 1,135,000 in 1926.

The large farm birth rate of 23 births per 1,000 persons and small death rate of 8 deaths per 1,000 persons has been a large factor offsetting the farm to city movement,so that the net loss of farm population in 1928 was 188,000 persons, compared with 193,000 in 1927 and with 649,000 in 1926.

CROP LANDS OF THE WORLD.

(Apportionment of total land area mostly in 1927 for countries reporting; United States is 1924.)

Countries.	Arable Land.	Grass and Pasture	Wood and Forest	Other Land.	Total Area.
	1,000 Acres.	*1,000 Acres.*	*1,000 Acres.*	*1,000 Acres.*	*1,000 Acres.*
Germany	50,796	19,773	45,252		115,821
Austria	4,762	5,723	7,752	2,477	20,714
Belgium	3,042	1,300	3,180		7,522
Bulgaria	8,443	.....	.....	.....	25,488
Denmark	6,484	783	3,341		70,608
Spain	39,610	62,469	22,758		124,837
Estonia	2,528	4,408	2,219	2,019	11,174
Irish Free State	3,687	8,468	4,863		17,018
Finland	5,337	2,953	76,621		84,911
France	55,610	27,668	25,567	25,590	134,435
Great Britain	13,185	31,814	11,389		56,388
Northern Ireland	1,193	1,799	359		3,351
Greece	3,536	.....	.....	.....	32,123
Hungary	13,657	4,151	2,696	2,464	22,968
Italy	32,148	17,233	12,278	14,977	76,636
Latvia	4,144	4,117	4,398	3,598	16,257
Lithuania	6,514	3,477	2,187	1,576	13,754
Luxemburg	279	104	257		640
Norway	1,688	623	18,533	55,777	76,621
Netherlands	2,288	3,131	583	2,073	8,075
Poland	45,239	15,733	22,392	9,696	93,060
Rumania	30,759	10,045	17,912	14,151	72,867
Yugoslavia	15,797	10,776	18,745	16,084	61,402
Sweden	9,424	63,275		28,755	101,454
Switzerland	1,250	4,144	2,226	2,583	10,203
Czechoslovakia	14,616	6,363	11,495	2,209	34,683
Canada	56,418	.....	.....	.....	2,338,604
United States	391,460	783,000	492,000	236,757	1,903,217
Argentina	52,736	.....	.....	.....	690,079
Chile	5,115	32,743	12,217	135,623	185,698
Uruguay	1,779	.....	.....	.....	46,190
Greater Lebanon and Alaoulte	939	766	544	1,976	4,225
India, Br. Prov.	304,170	.....	87,026	273,066	664,262
India, Indian St.	79,413	.....	17,322	37,611	134,346
Dutch E. Ind.-Java and Madura	18,172	.....	7,433	6,874	32,479
Japan	14,885	.....	.....	.....	94,288
Algeria	14,747	731	11,352	430,525	457,355
Egypt	8,592	.....	.....	.....	247,100
French Morocco	7,668	.....	3,707	91,172	102,547
Tunis	7,198	247	2,520	20,923	30,888
Union of S. Africa	9,348	.....	.....	.....	302,292
Australia	22,671	.....	.....	.....	1,903,663
New Zealand	1,969	16,679	47,451		66,099

SILK, RAYON, COTTON AND WOOL PRODUCTION.

Cotton consumption in this country in the year ending July 31, 1929, was 7,098,946 bales.

Year.	Silk.	Rayon.		Cotton.		Wool.	
	World prod.	U. S. prod.	World prod.	U. S. prod.	World prod.	U. S. prod.	World prod.
	Pounds.	*Pounds.*	*Pounds.*	*Bales.*	*Bales.*	*Pounds.*	*Pounds.*
1910	51,850,000	.....	.....	11,608,616	21,915,000	321,362,750	.....
1911	57,143,000	320,000	.....	15,692,701	25,356,000	318,547,900	.....
1912	56,772,000	1,100,000	.....	13,703,421	25,043,000	304,043,400	2,971,000,000
1913	57,399,000	1,560,000	28,250,000	14,156,486	26,259,000	296,175,300	2,881,000,000
1914	48,468,000	2,400,000	.....	16,134,930	28,687,000	290,192,000	2,872,000,000
1915	53,088,000	4,111,000	.....	11,191,820	20,689,000	285,726,000	2,836,000,000
1916	59,800,000	5,750,000	.....	11,449,930	19,845,000	288,490,000	2,717,000,000
1917	59,007,000	6,700,000	.....	11,302,375	19,675,000	281,892,000	2,791,000,000
1918	56,307,000	5,500,000	.....	12,040,532	20,613,000	256,870,000	2,809,000,000
1919	61,040,000	8,180,000	.....	11,420,763	21,384,000	249,958,000	2,894,000,000
1920	46,500,000	10,240,000	50,000,000	13,439,603	20,875,000	235,005,000	2,695,000,000
1921	64,638,000	15,000,000	65,000,000	7,953,641	15,330,000	223,062,000	3,003,000,000
1922	69,857,000	24,406,000	78,738,000	9,762,069	18,705,000	222,560,000	2,704,000,000
1923	67,200,000	36,447,000	97,000,000	10,139,671	19,125,000	224,330,000	2,79,000,000
1924	85,860,000	38,494,000	141,916,000	13,627,930	23,835,000	242,405,000	2,836,000,000
1925	88,052,000	51,902,000	185,000,000	16,103,679	26,618,000	253,907,000	2,892,000,000
1926	93,348,000	63,648,000	212,300,000	17,977,374	27,813,000	260,976,000	2,901,000,000
1927	102,181,000	75,555,000	297,340,000	12,956,043	23,370,000	281,914,000	2,798,000,000
1928	.....	97,901,000	323,500,000	14,477,874	25,751,000	299,113,000	2,834,000,000

There are not available estimates of the world's production of rayon prior to 1920, except as to 1913, as, especially for the years 1914 to 1920, absolutely no data obtainable.

In the main producing countries of Europe most of the Rayon plants were working either on munitions or textile substitutes, in World War days.

There are 165,000,000 cotton spindles in the world, of which 35,000,000 are in the United States.

COMMERCIAL PRODUCTION OF DOMESTIC TRUCK CROPS.

(Data by the United States Department of Agriculture.)

Crop.	Unit.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	1928.
		1,000	*1,000*	*1,000*	*1,000*	*1,000*	*1,000*	*1,000*	*1,000*	*1,000*
Asparagus	Crate	3,403.0	3,287.0	4,041.0	5,854.0	5,500.0	6,301.0	7,813.0	7,877	9,235
Beans, snap	Ton	72.1	66.8	79.6	100.3	110.7	149.8	117.3	127	147
Cabbage	Ton	1,105.1	687.0	1,089.0	805.7	1,066.3	947.1	1,034.2	1,203	977
Cantaloupe	Crate	11,444.0	11,549.0	12,805.0	11,745.0	13,834.0	14,553.0	14,393.0	15,014	15,521
Carrot	Bush.	.....	.....	.....	3,184.0	4,084.0	4,800.0	5,523.0	7,552	6,400
Cauliflower	Crate	2,343.0	2,293.0	2,589.0	3,322.0	2,741.0	3,403.0	5,538.0	4,096	4,987
Celery	Crate	4,573.0	4,542.0	5,030.0	5,477.0	6,741.0	6,685.0	6,476.0	7,585	7,173
Corn, sweet	Ton	595.3	360.6	474.7	603.3	527.8	1,014.1	816.0	399	536
Cucumber	Bush.	5,386.0	8,267.0	8,867.0	7,671.0	7,549.0	12,699.0	9,224.0	8,256	8,535
Eggplant	Bush.	.....	882.0	856.0	850.0	795.0	904.0	791.0	782	896
Lettuce	Crate	7,928.0	7,799.0	8,837.0	11,672.0	13,221.0	16,076.0	17,150.0	19,383	18,589
Onion	Bush.	21,343.0	14,165.0	18,763.0	17,306.0	19,146.0	19,423.0	20,945.0	23,525	19,025
Peas, green	Ton	162.7	125.8	181.7	180.9	274.4	242.4	261.1	239	277
Pepper	Bush.	.....	2,874.0	2,634.0	2,953.0	3,674.0	3,455.0	3,890.0	3,502	4,418
Potato, early	Bush.	30,719.0	30,193.0	36,198.0	26,245.0	40,203.0	30,466.0	34,615.0	44,825	55,368
Spinach	Ton	49.6	61.7	67.9	95.8	108.3	106.8	124.4	141	138
Strawberry	Quart	155,588.0	189,670.0	260,403.0	256,409.0	318,121.0	228,577.0	227,940.0	320,499	324,998
Tomato	Ton	1,539.4	724.2	1,658.0	1,609.0	1,687.0	2,321.6	1,375.8	1,641	1,405
Watermelon	No.	58,330.0	61,774.0	71,128.0	42,734.0	57,086.0	56,498.0	69,698.0	57,682	61,775

The estimated farm value of the chief 1928 commercial truck crops above was—asparagus, $13,928,000; beans, $14,940,000; cabbage, $23,488,000; cantaloupe, $20,261,000; celery, $14,005,000; lettuce, $31,530,000; onions, $22,574,000; peas, $19,848,000; potatoes, early, $31,047,000; strawberries, $44,440,000; tomatoes, $40,940,000; watermelons, $10,958,000.

Other 1928 production—oranges, 43,000,000 boxes; grapefruit, 9,000,000 boxes; lemons, 7,100,000 boxes; cherries, 55,000 tons; dried prunes, 196,000 tons; prunes, fresh, 54,000 tons; plums (Calif.) 66,000 tons, apricots, fresh, (Calif.) 171,000 tons; walnuts "English", 26,000 tons; almonds (Calif.) 13,700 tons; olives (Calif.) 21,000 tons; figs, 15,000 tons.

AMERICAN FARMERS' INCOMES.

(Data gathered by the United States Department of Agriculture.)

Crop Year (July-June).	Value of all Farm Prod.	Deductions.	Gross Income from Prod.	Food and Fuel Consumed.	Cash Income from Sales.	Rate on Gross Capital.	Rate on Net Capital.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars*	*P. Ct.*	*P. Ct.*
1919-20	24,025,000,000	8,306,000,000	15,719,000,000	2,887,000,000	12,832,000,000	6 3	5.7
1920-21	17,800,000,000	5,132,000,000	12,668,000,000	2,645,000,000	10,023,000,000	0 5	-4.2
1921-22	12,891,000,000	3,680,000,000	9,214,000,000	2,129,000,000	7,085,000,000	1 2	-2.3
1922-23	14,909,000,000	4,543,000,000	10,366,000,000	2,168,000,000	8,198,000,000	3.2	1.2
1923-24	16,249,000,000	4,961,000,000	11,288,000,000	2,360,000,000	8,928,000,000	3.5	1.6
1924-25	17,086,000,000	5,083,000,000	12,003,000,000	2,327,000,000	9,676,000,000	4.5	3.2
1925-26	16,995,000,000	4,325,000,000	12,670,000,000	2,535,000,000	10,135,000,000	5.2	4.4
1926-27	16,487,000,000	4,360,000,000	12,127,000,000	2,590,000,000	9,537,000,000	4.3	2.9
1927-28	17,153,000,000	4,849,000,000	12,304,000,000	2,434,000,000	9,870,000,000	4.7	3.6
1928-29	17,144,000,000	4,617,000,000	12,527,000,000	2,578,000,000	9,949,000,000	4.7	3.7

GROSS FARM INCOME, BY GROUPS OF COMMODITIES.

Crop Year (July-June).	Grains.	Meat Animals.	Fruits, Vegetables.	Dairy and Poultry.	Cotton and Cotton Seed.	All Others.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
1919-20	3,005,000,000	3,346,000,000	1,747,000,000	3,598,000,000	2,271,000,000	1,752,000,000
1920-21	2,246,000,000	2,328,000,000	1,705,000,000	3,502,000,000	1,272,000,000	1,615,000,000
1921-22	1,266,000,000	1,932,000,000	1,379,000,000	2,877,000,000	760,000,000	1,000,000,000
1922-23	1,393,000,000	2,180,000,000	1,410,000,000	2,957,000,000	1,251,000,000	1,175,000,000
1923-24	1,393,000,000	2,167,000,000	1,526,000,000	3,315,000,000	1,608,000,000	1,279,000,000
1924-25	1,842,000,000	2,619,000,000	1,333,000,000	3,258,000,000	1,719,000,000	1,232,000,000
1925-26	1,594,000,000	2,848,000,000	1,686,000,000	3,589,000,000	1,749,000,000	1,204,000,000
1926-27	1,455,000,000	2,883,000,000	1,585,000,000	3,775,000,000	1,260,000,000	1,169,000,000
1927-28	1,605,000,000	2,871,000,000	1,500,000,000	3,630,000,000	1,476,000,000	1,222,000,000
1928-29	1,540,000,000	3,016,000,000	1,436,000,000	3,840,000,000	1,479,000,000	1,216,000,000

SUGAR PRODUCTION IN CONTINENTAL UNITED STATES.

Year.	Cane.	Beet.	Total.	Year.	Cane.	Beet.	Total.	Year.	Cane.	Beet.	Total.
	1000 *lbs.*	1,000 *lbs.*	1,000 *lbs.*		1000 *lbs.*	1,000 *lbs.*	1,000 *lbs.*		1000 *lbs.*	1,000 *lbs.*	1,000 *lbs.*
1912.	325,147	1,385,112	1,710,259	1918.	571,057	1,521,900	2,092,957	1924.	176,966	2,180,000	2,356,966
1913.	601,075	1,466,802	2,067,877	1919.	241,998	1,452,902	1,694,000	1925.	278,762	1,826,000	2,014,762
1914.	493,028	1,444,108	1,937,136	1920.	352,204	2,178,000	2,530,204	1926.	94,332	1,794,000	2,888,332
1915.	277,240	1,748,440	2,025,680	1921.	655,399	2,040,000	2,696,377	1927.	141,584	2,186,000	2,327,584
1916.	621,799	1,641,314	2,263,113	1922.	628,631	1,350,000	1,978,631	1928.	330,782	2,072,000	2,402,782
1917.	489,438	1,530,414	2,019,652	1923.	324,046	1,762,000	2,086,046				

Beet sugar figures are mostly refined sugar.

SUGAR PRODUCTION OF THE WORLD (CANE AND BEET.)

Year.	1,000 short tons.	Year.	1,000 short tons.	Year.	1,000 short tons.	Year.	1,000 short tons.	Year.	1,000 short tons.
1895-96	10,137	1902-03	13,108	1909-10	16,831	1916-17	18,593	1923-24	22,833
1896-97	10,793	1903-04	13,362	1910-11	18,828	1917-18	20,293	1924-25	26,671
1897-98	10,975	1904-05	13,183	1911-12	17,904	1918-19	18,791	1925-26	27,727
1898-99	11,047	1905-06	15,265	1912-13	20,367	1919-20	17,999	1926-27	26,408
1899-00	11,461	1906-07	15,942	1913-14	21,005	1920-21	19,563	1927-28	28,236
1900-01	12,996	1907-08	15,378	1914-15	20,878	1921-22	20,577	1928-29	29,452
1901-02	14,153	1908-09	16,013	1915-16	18,874	1922-23	20,861		

Cuba, in the 1924-25 season produced 5,126,000 tons of cane sugar—a record for that island.
Beet sugar is mostly produced in Europe.

THREE KINDS OF SUGAR.

There are three carbohydrates of vital importance as food, namely, dextrose (corn sugar), sucrose (ordinary sugar), and levulose. All have about equal food value. There is, however, a difference of fundamental importance between them. Dextrose has a low sweetening power, whereas levulose has a very high sweetening power.

In appearance, dextrose cannot be distinguished from ordinary granulated sugar and is on the market in three sizes of grain, namely, coarse, fine, and standard granulated.

A bushel of corn (60 pounds) produces approximately 25 to 27 pounds of dextrose; 5 pounds of hydrol (molasses); one pound of oil, and 27 pounds of feed.

Dextrose, or corn sugar, while originally developed by the U. S. Bureau of Standards for its low sweetening power, has received a greatly increased rating in relative sweetening power since it has been produced in the form of granulated sugar.

The latest scientific data give the following relative sweetness: dextrose, 74.3; sucrose, 100; levulose, 173.3

Dextrose crystallizes in two forms: the anhydrous and the hydrate.

Levulose is the finest of all the sugars. It has long been scientifically the most fascinating and elusive. The human race consumes large quantaties of it in honey and in sirup. Physiologically it is probably the most easily assimilable of the sugars.

The Bureau of Standards is making levulose from the tubers of Jerusalem artichoke, which grows anywhere in the United States and produces 10 to 20 tons to the acre.

In recent years it has been found by various individuals independently that the artichoke tuber possesses attractive posibilities as a vegetable. A number of food products made from it are being marketed and in numerous instances diabetics seem to have found them a valuable auxiliary to their regular diet.

Cake is said to have been invented by a certain Thearion, a baker who lived in Sicily in the fifth century B. C. The Romans are known to have been fond of pastry. Cakes appeared on the altars of the wealthy and even in some homes of the poor.

When the Romans invaded England they brought with them the custom of breaking a cake or a biscuit over the bride's head. The fragments were picked up and given to her to distribute among friends.

The custom became popular as a sign of hospitality and remained as the vogue in England many years after the Romans left.

In later years the custom began of beautifying the cakes with icings and adding rich ingredients.

CONSUMPTION OF SUGAR, COFFEE AND TEA IN THE UNITED STATES.

(By Statistical and Historical Research Div., U. S. Dept. Agric.)

Year. (See note.)	Raw Sugar.		Coffee.		Tea.	
	Total.	Per Capita.	Total.	Per Capita.	Total.	Per Capita.
	1,000 Lbs.	*Lbs.*	*1,000 Lbs.*	*Lbs.*	*1,000 Lbs.*	*Lbs.*
1910.....	7,296,806	79.7	860,414	9.33	83,298	0.90
1911.....	7,279,782	78.3	869,951	9.29	99,367	1.06
1912.....	7,919,766	83.9	880,551	9.26	100,395	1.06
1913.....	8,300,576	86.6	858,919	8.90	93,911	.97
1914.....	8,878,978	91.3	992,551	10.14	90,148	.92
1915.....	8,669,756	87.9	1,055,089	10.62	92,174	.93
1916.....	7,948,906	79.4	1,128,023	11.20	109,075	1.08
1917.....	8,438,132	83.2	1,264,556	12.38	102,739	1.01
1918.....	8,074,754	78.5	1,080,358	10.43	147,379	1.42
1919.....	8,742,026	83.8	1,248,286	11.89	65,074	.62
1920.....	9,633,724	91.1	1,244,898	11.70	87,801	.83
1921.....	10,485,704	97.6	1,303,546	12.02	75,002	.69
1922.....	11,179,248	102.4	1,213,362	11.04	93,388	.85
1923.....	11,799,698	106.5	1,380,334	12.36	102,157	.91
1924.....	11,292,446	100.2	1,384,545	12.17	90,496	.80
1925.....	13,081,390	114.2	1,259,768	10.92	99,467	.86
1926.....	13,295,254	114.4	1,468,888	12.54	94,512	.81
1927.....	13,036,738	110.6	1,420,095	11.97	87,896	.74
1928.....	13,136,476	110.1	1,441,492	12.0	.....	.....

Note—Sugar figures are for fiscal, coffee and tea for calendar years.

The Department of Commerce announces that the establishments engaged in the refining of cane sugar in 1927 reported products valued at $597,445,632.

Beet Sugar—The establishments engaged primarily in the manufacture of beet sugar in 1927 reported products valued at $104,926,584.

There were (1927) 79 plants, as against 89 in 1925.

Ice Cream—The production in the United States in 1927 was 335,703,610 gallons, or a per capita consumption of 2.85 gallons, as compared with 2.77 gallons in 1926, the Bureau of Agricultural Economics of the Department of Agriculture states.

Ice cream was popular in Italy in the Fifteenth Century.

Chewing Gum—Establishments engaged in manufacture of chewing gum in 1927 reported a total output valued at $61,722,467.

LIVE STOCK ON FARMS IN UNITED STATES SINCE 1880.

Jan. 1	Milch Cows.	Other Cattle.	Sheep.	Swine.	Horses.	Mules.
	1,000	*1,000*	*1,000*	*1,000*	*1,000*	*1,000*
1880	12,443	23,482	35,192	17,682	10,357	1,813
1890	16,512	34,852	35,935	57,410	14,969	2,296
1900	17,136	50,584	61,504	62,868	18,267	3,265
1910	20,625	41,178	52,448	58,186	19,833	4,210
1911	20,823	39,679	53,633	65,620	20,277	4,323
1912	20,699	37,260	52,362	65,410	20,509	4,362
1913	20,497	36,030	51,482	61,178	20,567	4,386
1914	20,737	35,855	49,719	58,933	20,962	4,449
1915	21,262	37,067	49,956	64,618	21,195	4,479
1916	22,108	39,812	48,625	67,766	21,159	4,593
1917	22,894	41,689	47,616	67,503	21,210	4,723
1918	23,310	44,112	48,603	70,978	21,555	4,873
1919	23,475	45,088	48,866	74,584	21,482	4,954
1920	21,427	47,444	40,243	59,959	19,848	5,475
1921	21,408	45,776	38,690	58,602	19,134	5,586
1922	21,788	45,476	36,186	59,559	18,564	5,638
1923	22,063	43,093	36,212	69,044	17,943	5,702
1924	22,255	42,252	36,876	56,361	17,222	5,730
1925	22,498	39,498	38,112	55,568	16,470	5,725
1926	22,188	36,934	39,730	52,148	15,830	5,740
1927	21,801	35,031	41,881	54,788	15,133	5,652
1928	21,824	33,857	44,554	60,420	14,540	5,532
1929	21,820	33,931	47,171	54,956	14,029	5,447

Horses include colts; mules include colts; "other cattle" include calves; sheep include lambs; swine include young pigs.

The total value (Jan. 1, 1929) of live stock on farms was—milk cows, $1,845,675,000; other cattle, $1,463,162; sheep, $500,058,000; swine, $714,760,000; horses, $981,331,000; mules, $447,727.

The number not on farms, in 1920 was: Horses, 1,705,611; mules, 378,250; all cattle, 2,111,527; sheep 450 042; swine 2,638,389.

Losses of farm animals from disease and exposure, were, per 1,000 animals, as follows, in the year ending April 30, 1925 (10-year average in parentheses): Horses and mules, 12.6 (16.1); cattle, from disease, 14.2 (18.3); cattle, from other causes, 11.7 (13.2); swine, 38.6 (56.9); sheep, from disease, 18.2 (21.5); sheep, from other causes; 20.3 (23.8); lambs, other causes, 45.2 (53.1)

LIVE STOCK ON FARMS IN UNITED STATES, BY STATES, JAN. 1, 1929.

(All figures on this page are estimates by the United States Department of Agriculture.)

State.	Horses	Mules	All Cattle.	Milk Cows.	Swine.	Sheep
	1,000	*1,000*	*1,000*	*1,000*	*1,000*	*1,000*
Ala.	65	327	702	354	874	79
Ariz.	90	12	540	36	19	1,109
Ark.	136	339	772	382	885	50
Cal.	267	51	1,955	626	670	3,846
Col.	308	32	1,317	244	550	2,780
Conn.	27	.....	144	109	22	8
Del.	19	9	50	37	24	2
Fla.	25	42	480	74	516	59
Ga.	39	347	820	343	1,228	48
Idaho.	210	7	570	172	318	2,216
Ill.	839	144	1,967	949	4,671	664
Ind.	517	101	1,307	693	2,904	726
Ia.	1,046	93	3,845	1,314	10,246	1,096
Kan.	766	198	2,831	701	2,531	538
Ky.	278	292	955	493	826	996
La.	102	167	585	208	437	110
Me.	72	.....	228	139	60	93
Md.	97	28	283	187	199	108
Mass.	35	.....	183	134	92	11
Mich.	409	7	1,406	841	690	1,380
Minn.	787	14	2,737	1,483	3,302	686
Miss.	100	336	835	390	729	38
Mo.	574	313	2,109	810	4,070	987
Mont.	515	11	1,103	177	328	3,761
Neb.	764	106	2,766	613	4,883	1,050
Nev.	41	4	315	20	29	1,259
N. H.	24	.....	115	75	30	21
N. J.	50	5	163	122	54	6
N. Mex.	163	30	1,017	65	73	2,362
N. Y.	382	6	1,895	1,330	290	452
N. C.	98	276	506	294	874	89
N. D.	589	10	1,078	454	587	582
Ohio.	520	32	1,640	908	2,146	2,154
Okla.	516	333	1,723	610	994	107
Ore.	181	19	673	216	256	2,501
Penn.	349	51	1,372	855	715	441
R. I.	4	.....	28	21	5	2
S. C.	40	177	272	145	458	15
S. D.	593	22	1,570	523	2,536	890
Tenn.	202	321	977	447	872	352
Tex.	780	1,021	5,607	955	1,210	5,052
Utah.	100	4	460	97	98	2,866
Vt.	53	.....	422	286	50	45
Va.	198	105	765	382	578	469
Wash.	205	29	541	280	214	574
W. Va.	124	14	496	219	197	593
Wis.	544	7	2,862	1,935	1,462	450
Wyo.	186	5	764	72	149	3,448
U. S.	14,029	5,447	55,751	21,820	54,956	47,171

LIVE STOCK IN PRINCIPAL COUNTRIES.

Country.	Year.	Cattle.	Swine.	Sheep.
		1,000	*1,000*	*1,000*
Algeria	1928	887	96	5,614
Argentina	1923	37,065	1,437	36,209
Australia	1928	11,564	878	100,610
Austria	1923	2,162	1,473	597
Bolivia	1926	2,320	498	4,220
Belgium	1929	1,751	1,139	126
Brazil	1920	34,271	16,169	7,933
Bulgaria	1925	1,560	574	8,682
Canada	1928	8,793	4,497	3,416
Chile	1925	1,918	247	4,094
China	1914	21,997	76,819	25,951
Colombia	1926	6,500	1,400	800
Costa Rica	1925	433	71	.....
Cuba	1928	4,584	2,880	.....
Czechoslovakia	1926	4,690	2,539	861
Denmark	1928	3,021	3,360	233
Ecuador	1926	1,280	150	700
Estonia	1927	634	354	667
Finland	1927	1,872	418	1,368
France	1929	15,005	6,017	10,415
Germany	1929	18,386	20,072	3,625
Greece	1928	947	453	6,442
Guatemala	1927	310	51	155
Hungary	1928	1,812	2,662	1,566
India, British	1927	151,288	.....	23,237
India, Native States	1926	33,276	.....	11,848
Italy	1924	7,000	2,750	12,500
Japan	1927	1,465	621	18
Korea (Chosen)	1928	1,586	1,244	2
Formosa (Taiwan)	1927	351	1,543	.....
Latvia	1928	961	535	1,090
Lithuania	1929	1,199	1,010	1,468
Madagascar	1925	7,659	386	116
Mexico	1926	5,585	2,903	2,698
Morocco	1927	1,865	92	8,036
Netherlands	1922	2,063	1,260	889
New Zealand	1929	3,444	557	29,011
Nicaragua	1921	1,200	.....	.....
Norway	1928	1,221	283	1,654
Paraguay	1927	2,973	87	600
Persia	1925	1,000	.....	4,000
Peru	1923	1,293	429	12,000
Philippines	1928	3,089	10,568	395
Poland	1927	8,602	6,333	1,918
Portugal	1925	768	1,117	4,450
Rumania	1928	4,552	3,076	12,941
Soviet Russia	1928	66,792	25,234	123,810
Spain	1927	3,688	5,032	20,529
Siam	1927	8,495	.....	.....
Sweden	1925	2,100	1,100	1,200
Switzerland	1926	1,587	635	169
Turkey	1927	7,729	.....	10,166
Union of South Africa	1928	10,478	833	42,500
Uruguay	1924	8,432	251	22,500
England and Wales	1929	5,956	2,364	16,103
Scotland	1929	1,244	159	7,497
Northern Ireland	1928	738	229	624
Irish Free State	1929	4,151	937	3,491
United States	1929	55,751	54,956	47,171
Venezuela	1922	2,278	512	113
Yugoslavia	1928	3,686	2,663	7,722

Figures for cattle, include buffaloes.

MEAT PRODUCTION (SLAUGHTER) AND CONSUMPTION IN THE U. S.

(Figures, which are official, represent (except P. C. i. e., per capita) millions of pounds.)

Cal. Year.	Beef.			Veal.			Mutton-Lamb.			Pork (Excl. Ld).			Lard.		
	Slaughter.	Consump. Total.	Consump. P. C.	Slaughter.	Consump. Total.	Consump. P. C.	Slaughter.	Consump. Total.	Consump. P. C.	Slaughter.	Consump. Total.	Consump. P. C.	Production.	Consump. Total.	Consump. P. C.
			Lbs.			*Lbs.*			*Lbs.*			*Lbs.*			*Lbs.*
1907	7,193	6,780	77.5	644	644	7.4	560	558	6.4	6,622	5,917	67.7	1,649	1,055	12.1
1908	6,642	6,367	71.5	627	627	7.0	559	557	6.3	6,968	6,235	70.0	1,741	1,154	12.9
1909	7,041	6,835	75.4	683	683	7.5	603	601	6.6	6,024	5,455	60.1	1,504	1,042	11.5
1910	6,703	6,561	71.1	686	686	7.4	599	596	6.4	5,649	5,267	57.1	1,434	1,052	11.4
1911	6,466	6,342	67.7	656	656	7.0	732	729	7.8	6,596	6,046	64.5	1,673	1,063	11.3
1912	5,888	5,807	61.1	667	667	7.0	779	773	8.1	6,407	5,873	61.8	1,626	1,068	11.2
1913	5,881	5,854	60.6	487	487	5.0	731	725	7.5	6,622	6,077	63.0	1,681	1,100	11.4
1914	5,606	5,732	58.5	432	437	4.4	712	725	7.4	6,530	6,102	62.3	1,657	1,192	12.2
1915	5,779	5,418	54.5	427	428	4.3	622	623	6.3	6,971	5,908	59.5	1,775	1,281	12.9
1916	6,075	5,639	56.0	535	536	5.3	608	614	6.1	7,386	6,055	60.1	1,849	1,368	13.6
1917	6,641	6,083	59.5	661	662	6.5	473	473	4.6	6,139	5,037	49.3	1,557	1,195	11.7
1918	7,279	6,527	63.0	764	765	7.4	493	486	4.7	7,854	5,684	54.8	1,983	1,374	13.3
1919	6,758	6,475	61.6	803	808	7.7	603	607	5.8	7,832	5,755	54.8	2,039	1,292	12.3
1920	6,713	6,715	63.1	806	814	7.6	532	590	5.5	7,455	6,437	60.5	2,056	1,416	13.3
1921	6,163	6,172	56.9	747	751	7.0	626	640	5.9	7,645	6,886	63.5	2,114	1,223	11.3
1922	6,706	6,644	60.4	792	797	7.3	535	546	5.0	8,260	7,260	66.1	2,357	1,558	14.2
1923	6,873	6,858	61.4	870	872	7.8	571	576	5.2	9,595	8,338	74.7	2,783	1,707	15.3
1924	7,065	7,001	61.6	931	935	8.2	589	589	5.2	9,279	8,492	74.7	2,746	1,749	15.4
1925	7,146	7,175	62.2	1,001	1,004	8.7	599	597	5.2	8,255	7,794	67.6	2,223	1,522	13.2
1926	7,458	7,454	63.6	960	964	8.2	643	642	5.5	8,181	7,690	65.7	2,324	1,584	13.5
1927	6,826	6,926	58.4	867	874	7.4	645	645	5.4	8,533	8,122	68.5	2,356	1,634	13.8
1928	6,082	6,210	51.7	814	822	6.8	671	673	5.6	9,387	8,863	73.9	2,594	1,763	14.7

ALL MEATS (excepting Lard.)

Cal. Year.	Slaughter. Total.	Exports	Imports (less re-exports)	Consumption. Total.	Consumption. Per capita.	Cal. Year.	Slaughter. Total.	Exports	Imports (less re-exports)	Consumption. Total.	Consumption. Per capita.
	Mil. Lbs.	*Mil. Lbs.*	*Mil. Lbs.*	*Mil. Lbs.*	*Lbs.*		*Mil. Lbs.*	*Mil. Lbs.*	*Mil. Lbs.*	*Mil. Lbs.*	*Lbs.*
1908	14,801	862	.....	13,791	154.9	1919	16,006	2,169	72	13,655	130.0
1909	14,362	651	.....	13,585	149.8	1920	15,511	1,089	116	14,560	136.8
1910	13,648	437	.....	13,121	142.2	1921	15,182	819	46	14,450	133.3
1911	14,454	584	.....	13,777	147.1	1922	16,295	775	49	15,249	138.8
1912	13,749	518	.....	13,128	138.1	1923	17,912	1,005	33	16,648	149.0
1913	13,729	518	36	13,152	136.2	1924	17,867	777	34	17,021	149.7
1914	13,299	491	307	13,015	132.8	1925	17,005	592	30	16,575	143.7
1915	13,816	1,309	147	12,394	124.8	1926	17,245	465	59	16,753	143.0
1916	14,626	1,314	40	12,866	127.7	1927	16,872	352	114	16,570	139.7
1917	13,932	1,310	36	12,273	120.1	1928	16,955	360	143	16,569	138.0
1918	16,405	2,428	131	13,477	130.1						

The figures represent dressed weight, and include a small quantity of goat meat.

ANIMALS SLAUGHTERED.

Year.	Cattle.	Calves.	Sheep.	Swine.	Year.	Cattle.	Calves.	Sheep.	Swine.
	Number.	*Number.*	*Number.*	*Number.*		*Number.*	*Number.*	*Number.*	*Number.*
1907	13,286,730	6,211,030	13,359,850	54,708,530	1918	15,750,400	7,513,900	13,359,270	64,796,220
1908	12,851,560	6,048,400	13,525,670	61,615,290	1919	14,838,200	8,445,000	16,317,360	65,190,330
1909	13,611,422	6,515,976	14,724,699	53,219,568	1920	13,885,000	8,455,400	14,179,510	61,899,910
1910	13,540,600	6,552,600	14,797,030	47,075,620	1921	12,271,300	7,770,600	16,709,990	62,957,040
1911	12,958,100	6,264,500	18,056,850	56,646,140	1922	13,148,200	8,363,100	14,112,050	68,105,500
1912	11,979,000	6,348,000	19,247,340	55,564,160	1923	13,882,600	8,824,200	14,862,450	79,843,370
1913	11,477,600	5,284,500	18,520,240	57,046,380	1924	14,399,700	9,466,300	15,440,980	79,630,830
1914	11,004,500	4,661,400	18,289,830	55,500,680	1925	14,705,986	10,099,195	15,453,853	68,294,297
1915	10,822,100	4,639,500	15,755,471	62,017,310	1926	14,971,000	9,542,000	16,689,000	65,779,000
1916	12,026,700	5,773,900	15,407,470	67,612,970	1927	14,000,000	9,030,000	16,589,000	69,250,000
1917	13,723,900	7,030,700	12,148,734	56,900,780	1928	12,452,000	8,667,000	17,348,000	76,593,000

Sheep include lambs. The above figures are estimates by the Bureau of Animal Industry, U. S. Dept. of Agriculture, based on the number of animals slaughtered under Federal inspection.

THE LIVE STOCK DOLLAR.

(From a Bulletin of the Bureau of Railway Economics, Washington, D. C.)

The data covers the five-year period, 1924 to 1928, inclusive, and embrace the sales of 23,377 carloads of live stock shipped from 4,384 points located in forty States. The 1,609,790 head contained in the 23,377 cars consisted of 390,363 cattle and calves, 558,063 hogs and 661,364 sheep.

For the three classes of live stock combined, on the average 5.6 cents out of every dollar paid by the purchaser of live stock was absorbed by freight charges in 1924; 4.5 cents in 1925; 4.3 cents in 1926; 3.8 cents in 1927; and 3.6 cents in 1928. Other costs of distribution absorbed 3 cents in 1924; 2.5 cents in 1925; 2.3 cents in 1926; 2.2 cents in 1927, and 2 cents in 1928.

The net return to the seller at shipping point was 91.4 cents in 1924; 93 cents in 1925; 93.4 cents in 1926; 94 cents in 1927, and 94.4 cents in 1928.

Of the dollar paid by the purchaser in 1924, for cattle and calves, 5.8 cents were absorbed by freight charges. This declined to 5 cents in 1925, 4.7 cents in 1926, 3.9 cents in 1927 and 3.1 cents in 1928. Other costs of distribution declined from 2.8 cents in 1924 to 2.5 cents in 1925, 2.4 cents in 1926, 2 cents in 1927 and 1.6 cents in 1928. The net proceeds to seller rose from 91.4 cents in 1924 to 92.5 cents in 1925, 92.9 cents in 1926, 94.1 cents in 1927, and 95.3 cents in 1928.

Of the dollar paid by the purchaser for hogs, 5.1 cents were absorbed by freight charges in 1924, 3.3 cents in 1925, 3 cents in 1926, 3.5 cents in 1927, and 3.9 cents in 1928. Other costs of distribution absorbed 3.2 cents in 1924, 2.3 cents in 1925, 1.9 cents in 1926, 2.3 cents in 1927, and 2.8 cents in 1928. The net proceeds to seller at shipping point rose from 91.7 cents in 1924 to 94.4 cents in 1925 and to 95.1 cents in 1926, but dropped to 94.2 cents in 1927 and to 93.3 cents in 1928.

Of the dollar paid by the purchaser for sheep, 6 cents were absorbed by freight charges in 1924, 5.2 cents in 1925, 5.3 cents in 1926, 4.4 cents in 1927, and 5.2 cents in 1928. Other costs of distribution required 3 cents in 1924, 2.7 cents in 1925, 2.9 cents in 1926, 2.8 cents in 1927, and 2.8 cents in 1928. The net proceeds to seller at shipping point rose from 91 cents in 1924 to 92.1 cents in 1925, dropped to 91.8 cents in 1926, were 92.8 cents in 1927, and 92 cents in 1928.

FISHERIES OF THE UNITED STATES AND ALASKA.

(Compiled by the Bureau of Fisheries, Department of Commerce.)

CATCH: By sections.

Sections.	Fishermen.	Fishing vessels.	Fishing boats.	Persons on transporters.	Transporting vessels	Products.	
	Number.	*Number.*	*Number.*	*Number.*	*Number.*	*Pounds.*	*Value.*
New England States, 1924	15,007	615	10,022	279	162	406,822,000	10,818,000
Middle Atlantic States, 1926	9,971	617	4,504	89	63	168,012,000	12,456,000
Chesapeake Bay States, 1925	24,793	574	17,021	985	523	333,206,000	13,948,000
South Atlantic States, 1927	11,527	177	7,223	208	115	260,669,000	5,696,000
Gulf States, 1927	15,353	499	8,801	136	68	200,072,000	10,167,000
Pacific Coast States, 1927	20,514	767	7,786	474	172	551,197,000	22,306,000
Mississippi River States, 1922	12,310	.....	15,538	30	13	105,734,000	4,504,000
Lake States, 1927	5,825	401	2,368	162	103	87,659,000	7,032,000
Alaska, 1928	11,610	583	6,885	1,755	474	699,006,000	17,797,000
Total various years, 1922-28	126,910	4,233	80,148	4,117	1,693	2,912,277,000	112,724,000

Note.—For the Pacific Coast and Lake States the number of transporters and persons on transporters are for 1922. Statistics of the fisheries of the Gulf States include those for Lake Okeechobee, Fla.

CANNED FISHERY PRODUCTS AND BY-PRODUCTS OF UNITED STATES AND ALASKA.

Year.	Salmon.	Sardines.	Tuna Fish.	Oysters.	Shrimp.	Total Canned.	By-Products.	Grand Total.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
1921	28,867,169	6,307,362	3,074,626	2,179,271	3,804,781	46,634,706	8,351,827	54,986,533
1922	38,420,717	9,111,589	4,511,873	2,423,616	3,064,087	60,464,947	11,390,693	71,855,640
1923	45,533,573	9,896,796	6,914,760	2,720,073	4,381,534	72,445,205	12,634,590	85,079,795
1924	42,401,602	12,636,599	5,756,586	2,478,044	4,608,950	72,164,589	10,308,990	82,473,579
1925	47,369,507	13,097,318	8,499,080	3,721,159	3,782,819	80,577,138	14,600,198	95,177,336
1926	56,219,306	14,534,792	5,282,283	2,026,569	4,122,092	86,193,240	12,133,110	98,326,350
1927	45,728,761	14,517,814	8,368,227	2,367,949	5,321,652	81,384,133	12,793,256	94,177,389
1928	54,638,143	17,735,368	8,374,030	2,760,576	5,181,547	95,871,855	14,880,956	110,752,811

The Alaska seal herd in 1928 numbered 871,513, and 31,099 were killed for their skins.

The U. S. Pacific Coast salmon pack in 1928 amounted to $9,254,258; the Alaska, to $45,383,885.

There were 481 fish canneries in the U. S. and Alaska in 1928, and their output was 15,629,980 standard cases, containing 617,327,527 pounds of products.

Of the by-products, there were 12,145,577 gallons of fish and whale oils, valued at $5,149,618; 306,013 tons of oyster shell products, valued at $2,459,424.

Fish oil production in 1928 (pounds)—cod and cod liver, 1,873,085; menhaden, 27,752,302; whale, 10,233,735; herring and sardine, 49 266,382; sperm, 703,125; all other, 1,987,702.

The consumption of fish oils is double that of the native production, therefore the imports are large and growing.

The value of shad and shad roe, canned in 1928, amounted to $233,846.

The U. S. Bureau of Fisheries in the fiscal year 1929, distributed 2,861,236,000 eggs, 4,062,948,000 fry, and 136,185,500 fingerlings. The majority of the total output consisted of cod, flounders, haddock, pollock, cisco, lake trout, pike perch, yellow perch, salmon and whitefish.

FISHERIES OF THE WORLD.

(Compiled by the United States Bureau of Fisheries, Washington, D. C.)

Country.	Year.	Products.	
		Pounds.	Value. *Dolls.*
Africa, South	1920	38,440,000	4,136,000
Algeria	1926	28,130,000	1,400,000
Argentina	1924	52,603,000	1,575,000
Australia	1922	55,042,800	6,716,700
Belgium	1920	28,910,000	2,197,000
Canada	1927	1,075,000,000	49,460,600
Chile	1924	25,350,000	1,250,000
China & other Asiatic count's incl. Korea	....	.....	34,000,000
Cuba	1925	15,000,000	2,800,000
Denmark	1927	168,000,000	9,650,000
Egypt	1926	80,336,000	8,000,000
England & Wales	1926	1,698,830,000	83,075,000
Faroe	1919	51,172,000	3,519,300
France	1923	534,175,000	42,734,000
Finland	1922	30,683,000	1,423,000
French Indo-China	1923	551,150,000	11,023,000
Germany	1927	666,245,500	17,493,000
Greece	1923	85,000,000	27,985,000
Hawaii	1926	10,000,000	.....
Holland	1927	493,300,000	13,465,000
Iceland	1924	290,000,000	12,680,000
India, Ceylon, Persia, Asia, Turkey, Arabia, Burma & E. Indies	....	2,000,000,000	20,000,000
Ireland	1927	80,000,000	4,500,000
Italy	1916	.....	3,372,400
Japan	1925	5,700,000,000	176,000,000
Latvia	1927	22,025,000	477,000
Lithuania	1925	13,614,000	693,000
Maltese Islands	1928	1,100,000	180,000
Newfoundland	1926	650,000,000	17,000,000
New Zealand	1925	20,000,000	1,500,000
Norway	1926	1,758,000,000	46,815,000
Poland	1926	3,995,000	205,000
Portugal	1918	.....	36,876,000
Roumania	1924	50,486,000	27,820,000
Russia	....	1,206,000,000	50,000,000
Scotland	1927	770,542,000	23,895,500
Seychelles	1925	1,560,000	60,600
Siam	....	2,000,000,000	40,000,000
Siberia	1914	304,640,000	5,000,000
S. & Cent. Amer. & W. Ind	....	2,600,000,000	13,035,000
Spain	1926	883,691,000	58,895,000
Straits Settl'm't (Singapore)	1925	15,000,000	300,000
Sweden	1918	300,414,000	22,726,400
Other European countries	....	.....	4,800,000
U. S. incl. Alaska	1927	2,908,372,000	112,536,000
U. S. Insular pos.	....	.....	15,800,000
Uruguay	1925	18,300,000	550,000
Yugoslavia	1926	10,000,000	683,500
Total		27,295,606,300	1,018,303,000

Persons engaged in the fishing industry—Canada, 63,303; Denmark, 18,649; England and Wales, 55,944; France, 88,000; Holland, 45,300; Iceland, 13,196; Ireland, 14,800; Italy, 78,681; Japan, 1,115,000; Norway, 98,749; Portugal, 36,673; Scotland, 57,471; Sweden, 24,775; U. S., incl. Alaska, 124,773; Jugoslavia, 13,200; total, world, over 1,700,000.

Valuation figures for Norway include whale fisheries, $22,237,000.

In 1926 fish landed on the west coast of Madras weighed 400,000,000 lbs., worth $2,300,000.

BIG FISH CAUGHT BY ANGLERS.

Compiled by John Treadwell Nichols of the American Museum of Natural History and by Van Campen Heilner of Field and Stream, who also is a field representative of the Museum.

CAUGHT WITH ROD AND REEL.

Name of Fish.	Year	Lbs.	Ozs.	Where Caught.	By Whom Caught.
Albacore	1912	66	4	Santa Catalina Isl., Cal.	Frank Kelly
Amberjack	1916	95	0	Long Key, Fla	S. W. Eccles
Barracuda, Great	....	64	4	Miami, Fla	A. H. Peterson
Bass, black, small mouth	1906	9	4	L'g L'k, Cheboy'n Co. Mich.	Wm. F. Shoemaker
" large mouth	1926	24	0	Tombigbee River, Ala	Geo. J. Nicholls
Bass, striped	1913	73	0	Vineyard Sound, Mass	Chas. B. Church
" Channel	1929	74	0	Chincoteague, Va	Charles B. Beckman
" California Black Sea	1916	515	0	Santa Catalina Isl., Cal.	Wallace Beerley
" " White Sea	1904	60	0	Santa Catalina Isl., Cal.	C. H. Harding
" Sea	....	8	2	Fishing Banks, N.Y. Bay	Peter Volkman
Blackfish (Tautog)	....	20	4	Fishing Banks, N.Y. Bay	Lewis Harm
Bluefish	1874	25	0	Cohasset Narrows, Mass	L. Hathaway
Bonefish	1919	13	12	Bimini, Bahamas	B. F. Peek
Carp	1924	23	0	Wickham Lake, N.Y.	John C. Lawrence
Cero (Florida Kingfish)	1927	58	00	Long Key, Fla	Mae Hanes
Codfish	....	52	0	Fishing Banks, N.Y. Bay	F. Foster, Pat Regan
Dolphin	1925	51	8	Galapagos Islands	Zane Grey
Drum, Black	1925	90	0	Surf City, N. J	Capt. Jack Inman
Flounder	1895	19	0	Fishing Banks, N.Y. Bay	Fred Foster
Jewfish	1925	750	0	Off Miami, Fla	Richard Tallman
Muskallunge	1919	51	3	Lake Viex Desert, Wis.	J. A. Knobla
Ouananiche	1919	15	12	Auburn, Me	R. O. Haynes
Perch, Yellow	1865	4	3	†Bordentown, N.J.	Dr. C. C. Abbot
Pike, Northern	1928	38	0	Lake Wissata, Wis.	R. T. Mahoney
" Wall-eyed	1919	17	0	White River, Ind	Aaron Abel
Sailfish	1925	160	0	Gulf of Lower California	L. I. Hollingsworth
Salmon, Atlantic	1921	69	8	Aaro River, Norway	Johann Aarven
" Chinook	1897	70	0	Campbell River, Vancouver Island, B. C	Sir Richard Musgrave
Swordfish					
Black Marlin	1926	976	0	New Zealand	Cap. Laurie D. Mitchell
Broadbill	1927	588	0	Santa Catalina Isl., Calif.	R. C. Gray
Striped Marlin	1926	450	0	New Zealand	Zane Grey
Tarpon	1911	232	0	Panuco River, Mex	W. A. McLaren
Trout, Brook	1916	14	8	Nippigon River, Ont	Dr. W. J. Cook
" Brown	1924	25	5 2	Logan River, Utah	W. W. Smart
" Cut-throat	1925	41	0	Pyramid Lake, Indian Reservation, Nixon, Nev	John Skimmerhorn
" *Lake	1924	42	8	Isle Royale, Mich	E. A. Seglem
" Rainbow	1914	26	8	Skycomish River, Wash	A. A. Cass
" Steelhead	1904	28	0	Okanagan Lake, Brit. Col.	R. Leckie-Ewing
Tuna	1924	758	0	Port Medway, N. S	Zane Grey
Weakfish	1924	16	8	Fire Isl. Inlet, N. Y.	John P. Wolf
Wahoo	1911	86	00	Nassau, Bahamas	Wm. E. Carlin
Yellowtail, Cal.	1926	111	00	New Zealand	Zane Grey

*Lake trout, 80 lbs., Mackinaw, Mich., abt. 1878, reported by U. S. Nat. Mus.

†Reported but not yet verified.

All of the Field and Stream records, taken for their annual prize fishing contest, are sworn to. Those of the Museum are taken from United States Bureau of Fisheries, Jordan & Evermann, G. Brown. Goode, and Field and Stream.

BIGGEST FISH CAUGHT BY ANY METHOD.

(Compiled by the American Museum of Natural History.)

Name of Fish.	Yr.	Lbs.	Ozs.	Where Caught.	Name of Fish.	Yr.	Lbs.	Ozs.	Where Caught
Bass, Striped	1891	125	0	Edenton, N. C.	Ray, Whip	1912	450	0	C. Look't, N.C.
" Channel	....	75	0	.....	Salmon, Atlantic	1821	83	0	Gt. Brit. coast
" Cal. Bl. Sea	1902	800	0	Avalon, Cal.	" Chinook	....	100	+	Yuk. Riv., Al.
Bluefish	1903	27	0	Nant'ket, Mass.	Shark, Whale	1912	26,594	0	Kn'ts Key, Fla.
Carp	1825	90	0	Zug Lake, Sw.	" Hammerh'd	1919	1,500	+	Miami, Fla.
Catfish, Miss.	1878	150	0	St. Louis, Mo.	Sturgeon	1911	1,000	0	Col. Riv., Ore.
Cero	....	100	0	Fla.	Swordfish, B.B.	....	1,000	+	N. E. Coast
Codfish	1895	211	8	Off Mass.	Trout, Lake	1873	80	0	Mackin'w, M'ch
Drum, Black	....	146	0	St. Aug., Fla.	"	1903	42	0	Col. Riv., Colo.
Flounder, Sum	....	26	0	Noank, Conn.	" Brown	1904	28	8	Off N. Z.
Halibut	1917	625	0	Off Mass.	Tarpon	1912	350	+	Hillsb'ro, Fla.
Jewfish	1925	750	0	Off Miami, Fla.	Tautog (Black)	1876	22	8	Near N. Y. C.
Manta (Devilfish)	1919	3,000	+	Bimini, Bah.	Tuna	....	1,500	+	.....
Mola (Oc'n S'fish)	1919	2,000	+	S. C. Isl., Cal.	Wahoo	....	100	+	West Indies
Muskallunge	1906	75	+	Min. Lake, Wis.	Weakfish	....	30	0	N. J. Coast

1929 fish catch—**Broad Bill Swordfish** 430 lbs , off Long Island, N Y., by Charles Lehmann; **Great Northern Pike**, 20 lbs., 8 oz., Hudson River, north of Glens Falls, N. Y., by Charles Gilman; **Wahoo**, 78 lbs., Long Key, Fla., by Thos Cardeza; **Kingfish**, 40 lbs. 8 oz. off Palm Beach, Fla., by Otto H. Kahn; **Spanish Mackerel**, 31 lbs. (4 ft. long). Amoy, China, by I. D. Harris, of the Standard Oil Co.; **Grouper**, 46 lbs., Long Key, Fla., by Miss D. Haase; **Grapple**, 3 lbs., 8 oz., at Kelly Byne, Ind.

By a Federal law of Feb. 28, 1929, it is unlawful to preserve for sale as food for human consumption any salmon unless it shall have been canned, salted, iced, frozen, smoked, or dried within forty-eight hours after being killed.

Exports in 1928 of fish from the United State were valued at $20,786,101, and included 40,951,505 lbs. of canned salmon ($7,661,536); and 80,253,474 lbs. of sardines ($6,522,711).

Imports of fish in 1928 totaled 373,876,263 lbs. ($38,556,325).

Many fisherman say it is doubtful if a muskallunge ever was caught that weighed as much as 50 lbs.

WHERE EELS COME FROM

"It is not generally known," says Pauline H. Dederer, in the N. Y. Herald Tribune, "that neither the eggs nor embryos of eels had ever been seen until their discovery in 1925 by Dr. Marie Poland Fish, a member of Dr. William Beebe's expedition to the Sargasso Sea.

"In the oozy 'sea soup,' or plankton, scooped up in nets from the ocean surface, larvae of eels were relatively abundant, varying in size from a quarter of an inch to three inches in length, about the shape of a willow leaf, and incredibly thin. Since Dr Schmidt's discovery of the breeding grounds and migration routes of eels had been published just before the Arcturus expedition started out it was hoped to unravel the mystery of the origin of these larvae.

"In a dish of sea water containing various minute animals of the plankton four pinhead dots of living stuff were found, which proved to be the elusive eggs, long sought after. In the course of a few days of study one of these dots was observed to transform into a larval eel.

"Thus for the first time the entire life history was made known."

BIG GAME TROPHIES OF NOTE.

The Almanac presents herewith measurements of a few of the largest and finest big game trophies in collections noted throughout the world, being culled from the great authoritative work, Roland Ward's Record of Big Game, Eighth Edition (marked Ward), and from the famous national collection of heads and horns at the New York Zoological Gardens by Dr. William T. Hornaday (marked Zoo). The abbreviations in the measurements of horns, &c., are: b. c., indicates basic circumference; l., length; and spd., widest spread of the horns. Wherever known the territory where the specimen was shot is given.

Moose, Alaska—12 in. b. c. 44 in. l., 74⅜ in. spd., 13⅛ in. width of palmation, points 15+13. Ward

Moose, Kenai, Alaska—10¼ in. b. c., 41½ in. l., 75 in. spd., 21⅝ in. width of palmation, points 19+23. Zoo

Moose, Kenai, Alaska—9½ in. b. c., 48 in. l., 1¼ in. spd., 17¼ in. width of palmation, points 18+16. Zoo

Caribou, Hudson's Bay, Canada—5½ in. b. c., 62 in. l., 50½ in. spd., points 21+17. Ward

Caribou, Cassiar Mts., B. C.—8 in. b. c., 56 in. l., 44 in. spd., points 26+18. Zoo

Caribou, Alaska—8½ in. b. c., 62 in. l., 50 in. spd. points 9+15. Zoo

Caribou, Newfoundland—6⅛ in. b. c., 49¼ in. l., 43 in. spd., points 18+12. Ward

Reindeer, Norway—5¼ in. b. c., 60 in. l., 41¼ in. spd., points 22+15. Ward

Wapiti (Rocky Mountain), Wyoming—8 in. b. c., 63½ in. l., 52 in. spd., points 7+7. Ward

Wapiti, Arizona — 9 in. b. c., 40¾ in. l., 43 in. spd. Zoo

Sambar deer, India—7½ in. b. c., 50¼ in. l., 38½ in. spd., points 3+3. Ward

Swamp deer, Terai, India—6½ in. b. c., 41 in. l., 38 in. spd., points 8+5. Ward

Hartebeest, North Africa—8½ in. b. c., 15½ in. l., 7¾ in. spd. Ward

Hartebeest (western), Nigeria, Africa—13 in. b. c., 27½ in. l., 10½ in. spd. Ward

Hartebeest (Soudan), Africa—9 in. b. c., 22½ in. l., 22½ in. spd. Ward

Hartebeest (Cape), South Africa—12½ in. b. c., 26 in. l., 13¾ in. spd. Ward

Hartebeest (Konzi), Nyassaland, Africa—12¾ in. b. c., 22¾ in. l., 20 in. spd. Ward

Hirola, Jubaland, Africa—8¼ in. b. c., 26½ in. l., 14½ in. spd. Ward

Gnu (brindled), Portuguese East Africa—20 in. l. 32½ in. spd. Ward

Gnu (Black Wildebeest), Orange Free State, U. S. A.—26½ in. l., 14½ in. spd. Ward

Waterbuck, Transvaal, U. S. A.—9 in. b. c., 36½ in. l., 17 in. spd. Ward

Lechwe, N. W. Rhodesia, Africa—8¼ in. b. c., 34⅜ in. l., 14½ in. spd. Ward

Springbuck, Kalahari, U. S. A.—5 in. b. c., 19 in. l., 20¼ in. spd. Ward

Chiru (Tibetan Antelope), Tibet—6 in. b. c., 27¾ in. l., 13½ in. spd. Ward

Black Buck, Patiala, India—3½ in. b. c., 28¾ in. l., 22 in. spd. Ward

Thomson's Gazelle, Kenya, Africa—5 in. b. c., 16⅛ in., l., 4¼ in. spd. Ward

Grant's Gazelle, Kenya, Africa—7¼ in. b. c., 30 in. l., 9 in. spd. Ward

Sable Antelope, Rhodesia, Africa—10 in. b. c., 52⅜ in. l., 11⅛ in. spd. Ward

Gemsbuck, Bechuanaland, Africa—8¼ in. b. c., 48 in. l., 23¾ in. spd. Ward

Mountain Bushbuck, Lake Zwai, Africa—10 in. b. c., 44 in. l., 21½ in. spd. Ward

Kudu, Mashonaland, Africa—11 in. b. c., 64 in. l., 23 in. spd. Ward

Kudu (Lesser), Somaliland, Africa—7½ in. b. c., 35⅛ in. l., 16½ in. spd. Ward

Eland (Zambesi), Rhodesia—12¾ in. b. c., 37 in. l., 23¾ in. spd. Ward

Eland (E. African), Tanganyika—13 in. b. c., 32½ in. l., 16 in. spd. Ward

Big Horn (Rocky Mountain Sheep), Banff, B. C.—16½ in. b. c., 40½ in. l. Zoo

Big Horn, Alberta, Canada—18¼ in. b. c., 42½ in., l., 22¾ in. spd. Ward

Black Big Horn, Yukon, Canada—15¾ in. b. c., 43¼ in. l., 26½ in. spd. Ward

Black Big Horn, Schlesley Mts., B. C.—14½ in b. c., 34 in. l., 23½ in. spd. Zoo

White Mountain Sheep, Kanai, Alaska—13 in. b. c., 38½ in. l., 20¼ in. spd. Zoo

Big Horn, Lower California—16¼ in. b. c., 42½ in. l., 25¾ in. spd. Zoo

Marco Polo's Argali, Yuldez, Asia—15½ in. b. c., 70¾ in. l., 44¾ in. spd. Ward

Marco Polo's Argali, Great Pamir, Asia—17 in. b. c., 70 in. l., 52 in. spd. Ward

Siberian Argali, Altair Mts., Mongolia—19½ in. b. c., 59⅛ in. l., 40 in. spd. Zoo

Markhor (Suleman), Afghanistan—10½ in. b. c., 39½ in. l., 24¾ in. spd. Ward

Markhor (Suleman), Beluchistan—27¼ in. b. c., 19 in. spd. Zoo

Markhor (Astor), Gilgit, Asia—11¼ in. b. c., 60¾ in. l., 46 in. spd. Ward

Rocky Mountain Goat, Cassiar—6 in. b. c., 11¾ in. l. Ward

Ibex, Nilgiris, India—8¾ in. b. c., 16¾ in. l., 5¼ in. spd. Ward

Ibex, Asiatic, Tien Shan—11¼ in. b. c., 58 in. l., 44½ in. spd. Ward

Bison (Prairie), Wyoming—15 in. b. c., 20¾ in. l., 30½ in. spd. Ward

Bison (Wood)—15 in. b. c., 18¾ in. l., 30¾ in. spd. Zoo

Bison (Indian) or Gaur—26¼ in. l., 31½ in. spd. Zoo

Bison (Indian) or Gaur—20 in. b. c., 31½ in. l., 44¾ in. spd. Ward

Musk Ox, barren grounds, Canada—20½ in. b. c., 26¾ in. l., 28 in. spd. Zoo

Buffalo (wild) or Arna, India—77¼ in. l., about 84 in. spd. Brit. Mus. of Nat. Hist.

Buffalo (wild) or Arna, India—56 in. spd. Zoo

Buffalo (Cape), Wakamba, Africa—41 in. l., 56¼ in. spd. Ward

Buffalo (Cape), Uganda, Africa—37½ in. l., 53 in. spd. Ward

Buffalo (Cape)—38 in. l., 38 in. spd. Zoo

Buffalo (Soudan), White Nile—32¼ in. l., 44 in. spd. Ward

Giraffe, Kenya Col., Africa—Maximum height, 19 ft. 3 in. Ward

Giraffe, Southeast Africa—Maximum height, 18 ft. 7 in. Ward

Hippopotamus—(Full grown bull weighs at least three tons, length about 14 ft., height at shoulder about 4 ft. 10 in. The trophy is the lower curved tusk; largest at Kenya, Africa, measured 7¾ in. b. c., 64½ in. l. on outside curve.) Ward

Indian Wild Boar, Gosrama, India—Tusk, 12½ in. l. Ward

Wart-hog, Africa—Tusk, 24 in. l. Ward

Rhinoceros (Indian), Assam—Horn, 24¾ in. b. c., 24 in. l. Ward

Rhinoceros (Black), Kenya, Africa—Front horn, 18¼ in. b. c., 53½ in. l. Ward

Rhinoceros (White), South Africa—Front horn, 22¼ in. b. c., 62¾ in. l. Ward

Elephant (Asiatic) (Burma—Maximum height at shoulder, 10 ft. 6 in.)—Terai, India—Tusks, 21¾ in. and 22 in. b. c., 8 ft. 9 in. and 8 ft. 6½ in. l. on outside curve, weight, 161 lbs. and 160 lbs. Ward

Elephant (African), Abyssinia—Maximum height, 11 ft. 8½ in.; Tusks (Kenya), 18½ in. b. c. each, 11 ft. 5½ in., and 11 ft.; weight, pair, 293 lbs. Ward

Lion, Kenya, Africa—10 ft. 7 in. l.; two others, 10 ft. 5 in. Ward

Tiger, India—11 ft. 5½ in. l.; 11 ft. 1 in. l.; 11 ft. 0 in. l., and two 10 ft. 7 in. l. Ward

Leopard, Kashmir, Asia—9 ft. 1 in.; gabalior, 8 ft. 0 in.; dhar, 9 ft. 0 in. Ward

Snow leopard, Central Asia—Two measured 8 ft. 8 in. l. Ward

Alaskan Brown Bear, Alaska—19¼ in. ear to end of nose, 4¼ in. in breadth of jaw, 26½ in. circumference of jaws, 16½ in. between ears at base. Zoo

Bear (Kodiak), Alaska—Length of skin, 13 ft. 6 in. Ward

Bear (Grizzly), Cassiar—Length of skin, 9 ft. 1 in. Ward

Bear (Black), Wyoming—Length of skin, 7 ft. 5½ in. Ward

Bear (Polar), Greenland—Length of skin, 9 ft. 7 in. Ward

Walrus (Pacific), Alaska—15 in. width, 45¾ in. circumference of muzzle, 15½ in. width of muzzle, 59¼ in. circumference at back of head. Zoo

Walrus (Pacific), Behring Sea—Tusk measure 31½ in. l. (after about 3½ in. had been sawn off), 8½ in. circumference. Zoo

Walrus (Pacific), Kaschatka—Tusk measure, 36½ in., 9¾ in. c. c. Ward

Walrus, Greenland—Tusk measures 37¼ in., 7¼ in. b. c. Ward

GAME LAW OFFICIALS, UNITED STATES, CANADA, MEXICO.

UNITED STATES.

Alabama—Department of Game and Fisheries, Montgomery.

Alaska—Executive Officer, Alaska Game Commission, Juneau; or Secretary of Agriculture, Washington, D. C.

Arizona—State Game Warden, Phoenix.

Arkansas—Secretary, Game and Fish Commission, Little Rock.

California—Executive Officer, Fish and Game Commission, Postal Telegraph Building, San Francisco.

Colorado—State Game and Fish Commissioner, Denver.

Connecticut—Superintendent of Fisheries and Game, Hartford.

Delaware—Chief Game and Fish Warden, Dover.

District of Columbia—Superintendent Metropolitan Police, Washington.

Florida—State Game Commissioner, Tallahassee.

Georgia—Game and Fish Commissioner, Atlanta.

Hawaii—Chief Territorial Fish and Game Warden, Honolulu.

Idaho—Fish and Game Warden, Boise.

Illinois—Director, Department of Conservation, Springfield.

Indiana—Superintendent, Division of Fisheries and Game, Dept. of Conservation, State House, Indianapolis.

Iowa—State Game Warden, Des Moines.

Kansas—State Fish and Game Warden, Pratt.

Kentucky—Executive Agent, Game and Fish Commission, Frankfort.

Louisiana—Commissioner of Conservation, Court Building, New Orleans.

Maine—Commissioner of Inland Fisheries and Game, State House, Augusta.

Maryland—State Game Warden, 514 Munsey Building, Baltimore.

Massachusetts—Director, Division of Fisheries and Game, Dept. of Conservation, State House, Boston.

Michigan—Director, Department of Conservation, Lansing.

Minnesota—Game and Fish Commissioner, Department of Conservation, St. Paul.

Mississippi—Secretary of State, Jackson; or Sheriff or County Clerk.

Missouri—Game and Fish Commissioner, Jefferson City.

Montana—State Fish and Game Warden, Helena.

Nebraska—State Game Warden, Lincoln.

Nevada—Secretary, State Fish and Game Commission, Reno.

New Hampshire—Fish and Game Commissioner, Concord.

New Jersey—Secretary, Board of Fish and Game Commissioners, Trenton.

New Mexico—State Game Warden, Santa Fe.

New York—Secretary, Conservation Department, Albany.

North Carolina—Director, Dept. of Conservation and Development, Raleigh.

North Dakota—Secretary, Game and Fish Board Devils Lake.

Ohio—Chief Game Warden, Department of Agriculture, Columbus.

Oklahoma—State Fish and Game Warden, Oklahoma City.

Oregon—State Game Warden, Portland.

Pennsylvania—Executive Secretary, Board of Game Commissioners, Harrisburg.

Rhode Island—Chairman, Commissioners of Birds, Providence.

South Carolina—Chief Game Warden, Columbia.

South Dakota—Director of Game and Fish, Pierre.

Tennessee—State Game and Fish Warden, Department of Agriculture, Nashville.

Texas—Game, Fish and Oyster Commissioner, Austin.

Utah—State Fish and Game Commissioner, Salt Lake City.

Vermont—Fish and Game Commissioner, Montpelier.

Virginia—Executive Secretary, Department of Game and Inland Fisheries, Richmond.

Washington—Supervisor of Game and Game Fish, Box 384, Seattle.

West Virginia—Game and Fish Commission, Charleston.

Wisconsin—Conservation Director, Madison.

Wyoming—State Game and Fish Commissioner, Cheyenne.

CANADA.

The Commissioner of National Parks of Canada, Department of the Interior, Ottawa, administers the Migratory Birds Convention Act.

Alberta—Game Commissioner, Department of Agriculture, Edmonton.

British Columbia—Provincial Game Warden, Game Branch, Victoria.

Manitoba—Chief Game Commissioner, Winnipeg.

New Brunswick—Chief Game Warden, Department of Lands and Mines, Fredericton.

Northwest Territories—Director, Northwest Territories and Yukon Branch, Department of the Interior, Ottawa.

Nova Scotia—Chief Cl'k, Dept. of Lands and Forests, Halifax.

Ontario—Deputy Minister of Game and Fisheries, Toronto.

Prince Edward Island—Deputy Minister of Agriculture, Charlottetown.

Quebec—Superintendent of Fisheries and Game, Department of Colonization, Mines and Fisheries, Quebec.

Saskatchewan—Game Commissioner, Regina.

Yukon—Gold Commissioner, Dawson City, Y. T.

NEWFOUNDLAND.

Secretary, Game and Inland Fisheries Board, St. Johns.

MEXICO.

Mexico—Secretary of Agriculture, City of Mexico.

FEDERAL GAME AND FISH LEGISLATION, 1929.

Amendments to the Migratory Bird Treaty Act Regulations were approved by the President on April 23, 1929. Wilson snipe, or jacksnipe, and woodcock are the only shore birds that may be killed during the hunting season 1929-30.

The open seasons on waterfowl, coot, and Wilson snipe remain the same as in 1928 except in the following States: Illinois and Missouri, where the season has been changed to the period September 24-January 7; Oklahoma, where the new season is from October 16 to January 31; and that portion of Washington lying east of the summit of the Cascades, where the season has been changed to the period September 16-December 31, the season west of the summit of the Cascades continuing as previously, October 1-January 15.

In New York the open season for hunting woodcock has been changed to the period October 1 to 31.

A separate season from November 1-January 31 has been established for mourning doves in the counties of Mobile and Baldwin in the State of Alabama; in North Carolina the dove season has been changed to the period November 20-January 31; and Georgia has been included in the group of southern States having a split season on mourning doves from September 1 to 30 and from November 20-January 31.

The taking of migratory game birds by scientific collectors is restricted to the period on any day from one-half an hour before sunrise to sunset. Applications to take or possess migratory birds for scientific or educational purposes will now be accepted when endorsed by ornithologists or certain persons engaged in scientific work or in wild-life conservation.

Taxidermists engaged in receiving and mounting migratory birds are now required to keep accurate records of all such transactions.

The hunting of migratory birds from automobiles is not permitted. The use of sinkboxes on inland waters is still prohibited, but they may be used on coastal waters such as Great South Bay, New York; Barnegat Bay, New Jersey; Susquehanna Flats, Maryland; Back Bay, Virginia; and Currituck Sound, North Carolina.

The bag limits remain the same as in 1928.

A new act of great importance in the conservation of migratory birds was approved February 18, 1929, authorizing the establishment of a national system of inviolate refuges to furnish in perpetuity reservations for the adequate protection of such birds. The act authorizes appropriations totaling $7,800,000 over a period of ten years for the purchase and acquisition of marsh and water areas for sanctuary purposes.

It has been estimated by John C. Phillips, president of the American Wild Fowlers' Club, that 8,000,000 geese and ducks are killed by sportsmen in the United States every year.

To this must be added a large number of wild turkeys and pheasants, quail, partridge, and grouse.

BIRD CENSUS IN NORTH AMERICA.

In order to obtain accurate information regarding the abundance, distribution, and migration of waterfowl and other birds, the U. S. Biological Survey is conducting monthly censuses of waterfowl and yearly censuses of breeding birds at important points in the United States, Canada, Newfoundland and Alaska.

In the case of waterfowl these censuses are taken, of both migrating, wintering, and breeding birds; of other birds, only those that are breeding.

The purpose of the waterfowl censuses is to aid in the administration of the migratory-bird treaty act which enforces the treaty with Great Britain for the protection of birds that migrate between the United States and Canada.

From these monthly waterfowl censuses the movements and the increase or decrease of each species of waterfowl are being traced, and the concentration areas that exist in different parts of the North American Continent are being determined.

The waterfowl censuses were inaugurated in August, 1927. The censuses of breeding land birds have been in progress since 1914.

It has been ascertained through counts of breeding birds that birds in the agricultural districts in the Northeastern United States average slightly more than a pair to the acre, though in parts of the arid West and on the treeless plains this number dwindles to an average of half a pair, or even less, to the acre.

By far the most abundant birds in the United States are the robin and the English sparrow, but several others are common enough to make their total numbers run well into the millions.

The counts so far show that the most abundant bird on farms in the Northeastern States is the robin; next to this is the English sparrow, and following these are the song sparrow, chipping sparrow, meadow lark and catbird, in the order named.

The densest bird population anywhere recorded is on the suburban estate of Gilbert Grosvenor, near Washington, D. C., where a careful count showed, in 1915, one hundred and thirty-five pairs of forty species on five acres.

NATIONAL BIRD RESERVATIONS.

NAME.	Established.	NAME.	Established.	NAME.	Established.
Pelican Island, Fla.	1903	Deer Flat, Idaho	1909	Aleutian Islands, Alaska	1913
Breton Island, La.	1904	Willow Creek, Mont.	1909	Petit Bois Isl., Ala., Miss.	1913
Stump Lake, N. D.	1905	Carlsbad, N. M.	1909	Anaho Island, Nev.	1913
Huron Islands, Mich.	1905	Rio Grande, N. M.	1909	Smith Island, Wash.	1914
Siskiwit Islands, Mich.	1905	Cold Springs, Ore.	1909	Ediz Hook, Wash.	1915
Passage Key, Fla.	1905	Belle Fourche, S. D.	1909	Dungeness Spit, Wash.	1915
Indian Key, Fla.	1906	Strawberry Valley, Utah	1909	Big Lake, Ark.	1915
Tern Islands, La.	1907	Conconully, Wash.	1909	Mille Lacs, Minn.	1915
Shell Keys, La.	1907	Minidoka, Idaho	1909	North Platte, Neb.	1916
Three Arch Rocks, Ore.	1907	Bering Sea, Alaska	1909	Caloosahatchee, Fla.	1920
Flattery Rocks, Wash.	1907	Tuxedni, Alaska	1909	Nine-Pipe, Mont.	1921
Quillayute Needles, Wash.	1907	St Lazaria, Alaska	1909	Pablo, Mont.	1921
Copalis Rock, Wash.	1907	Culebra, P. R.	1909	Flat Creek, Wyo.	1922
East Timballer, La.	1907	Farallon, Cal.	1909	Blackbeard Island, Ga.	1924
Tortugas Keys, Fla.	1908	Pribilof, Alaska	1909	Brevard, Fla.	1925
Key West, Fla.	1908	Bogoslof, Alaska	1909	Upper Mississippi River	1926
Klamath Lake, Ore., Calif.	1908	Clear Lake, Cal.	1911	Columbia River	1926
Lake Malheur, Ore.	1908	Forrester Island, Alaska	1912	Johnston Island, Hawaii	1926
Chase Lake, N. D.	1908	Hazy Islands, Alaska	1912	Savannah River, So. Car.	1927
Pine Island, Fla.	1908	Niobrara, Neb.	1912	McKay Creek, Oregon	1927
Palma Sola, Fla.	1908	Green Bay, Wis.	1912	Curry, Alaska	1927
Matlacha Pass, Fla.	1908	Chamisso Island, Alaska	1912	Matanzas, Florida	1927
Island Bay, Fla.	1908	Pishkun, Mont.	1912	Pathfinder, Wyoming	1928
Hawaiian Islands	1909	Desecheo Island, P. R.	1912	Tule Lake, Calif.	1928
Salt River, Ariz.	1909	Gravel Island, Wis.	1913	Bear River, Utah	1928

On Dec. 22, 1921, the President signed an Executive Order creating bird refuges of the lands within the National Bison Range, Mont., Sullys Hill Game Preserve, N. D., and the Elk Refuge, Wyo.

The Yale Corporation has set aside 200 acres on the Ray Tompkins Memorial tract near the new Yale golf course as a preserve for the native plant and wild life of this region.

BIRD RESERVATIONS OF NAT. ASSOC. OF AUDUBON SOCIETIES.

Pass A'Loutre Mud Lumps, La.
Freeman's Rock, Me.
Stratton Island, Me.
Matinicus Rock, Me.
Great Duck Island, Me.
Moosehead Lake, Me.
Nash Island, Me.
Old Man's Lane, Me
Cranberry Island, Me
Huron Islands, Mich.
Cobb Island, Va.
Metiric Island, Me.
Orange Lake Fla
Micanopy Rookery, Fla.
Santee River, S. C.
Paul J. Rainey Sanctuary, La.
Orange Creek, Fla.
Sampson Lake, Fla.
Long Pond, Fla.
Buzzard Island, S. C.
Bird Island, La.
Ray's Lake, La.
Montgomery Prairie, Fla.
San Sebastian Rookeries, Fla.
Bird Pond, Fla.
Roosevelt Sanctuary, Oyster Bay,
Wallace Bay, Fla.
Green Island, Tex.
Rio Grande, Tex.
River North, N. C

Congress has established national game refuges (acreage in parenthesis) wholly or in part in the following National Forests—Cherokee No. 1 (30,000) Tenn.; Cherokee No. 2 (14,000) Ga.; Custer State Park (44,360) S. Dak.; Grand Canyon (886,208) Ariz.; Ozark (21,500) Ark.; Pisgah (98,513) N. Car.; Sequoia (15,770) Calif.; Medicine Bow (Sheep Mt.) (23,318) Wyo.; Wichita (60,800) Okla.; Black Hills (5,548) S. Dak.; Manzano (Zuni) (52,007) N. Mex.; Medicine Bow (Pole Mt.) (56,132) Wyo.; Mich. (Brady Dist.) (2,680 Mich.

Edward W. Bok, of Philadelphia, has established in Florida, and dedicated to public use a bird refuge, called the Mountain Lake Sanctuary and Singing Tower. The tract covers 48 acres and entirely covers Iron Mountain, the highest point of land in Florida. The Carillon has 61 bells, cast in England, ranging in weight from 16 lbs. to 23,000 lbs.

In Wisconsin, the 42,000-acre Horicon Marsh is being drained by the State and converted into a wild waterfowl refuge.

Georgia is establishing a chain of game refuges and public shooting grounds.

The heath hen has vanished except at Martha's Vineyard. The reclamation of marsh lands is exterminating the sandhill crane, the white pelican, the curlews and many species of sandpipers and plovers.

The establishment of extensive sanctuaries on the public lands and waters of Canada for preserving valuable varieties of game has long been an established policy in the Dominion. The total area so reserved exceeds 300,000 square miles and includes zones segregated for the protection of buffalo, elk, mountain sheep, moose, deer, caribou and birds.

There is much controversy in England as to whether a woodpecker actually makes a pecking noise with its beak, or with its throat.

The total number of foreign birds imported into the United States in 1928 was 682,308, including 458,449 canaries, 56,307 parrots, 84,915 quail and 82,637 representatives of miscellaneous species.

Permits were also issued for the entry of 4,956 eggs of game birds, as against 530 in 1927. These shipments were principally pheasant eggs from England. Eggs of ducks and grouse were also entered from Alberta.

Very few parrots breed in captivity in the United States, but some live for a number of years. The largest number come from Australia and tropical America, especially Cuba, Panama and Mexico.

Cage birds still come from Mexico, but in smaller numbers, because the Mexican Government now requires export permits for cardinals, mocking birds and certain other species, and authority for possession must also be obtained from the State to which they are consigned.

FEDERAL AND STATE FOREST LANDS IN THE UNITED STATES.

(The figures, compiled by the U. S. Forest Service, are revised as of April 1, 1929.)

State	Federal Forest Land			State Forest Land				
	National Forests.	Parks, Monuments and Military Reserv.	Other and Total.	Forests.	Parks.	Other and Total.	Munic. and County Forests and Parks.	Grand Total.
	Acres.	*Acres.*	*Acres.*	*Acres.*	*Acres.*	*Acres.*	*Acres.*	*Acres.*
Alabama	109,625	15,000	124,625	.....	.....	175,000	19,232	318,857
Arizona	11,349,835	116,000	13,416,835	.....	.....	41,255	.....	13,458,090
Arkansas	1,007,235	.....	1,225,235	.....	1,023	1,023	.....	1,226,258
California	19,007,370	874,000	20,159,504	.....	13,814	63,814	7,640	20,230,958
Colorado	13,278,233	156,600	14,301,433	.....	.....	100,000	44,449	14,445,882
Connecticut	.....	.....	.....	40,000	8,000	50,000	15,000	65,000
Delaware	.....	.....	.....	50	.....	50	.....	50
Dist. of Col	.....	.....	.....	.....	.....	.....	3,833	3,833
Florida	343,180	.....	343,180	.....	4,000	4,000	.....	347,180
Georgia	200,736	78,000	278,736	166	10	176	.....	278,912
Idaho	19,279,539	17,280	19,769,819	.....	7,200	992,000	160	20,761,979
Illinois	10,710	.....	10,710	.....	2,098	8,098	32,030	50,838
Indiana	.....	.....	.....	5,000	5,000	22,000	.....	22,000
Iowa	.....	.....	480	.....	7,000	12,000	.....	12,480
Kansas	.....	.....	.....	.....	245	245	200	445
Kentucky	.....	22,000	22,000	3,624	.....	18,624	.....	40,624
Louisiana	.....	.....	.....	5,900	250	288,150	1,000	289,150
Maine	33,130	7,500	40,630	100	25	330,125	835	371,590
Maryland	.....	4,000	4,000	9,082	.....	16,068	19,910	39,978
Massachusetts	.....	.....	.....	109,000	14,000	171,000	56,000	227,000
Michigan	178,885	.....	178,885	500,000	25,000	1,307,000	3,495	1,489,380
Minnesota	1,005,251	.....	1,216,251	420,000	38,279	1,038,279	7,635	2,262,165
Mississippi	.....	.....	.....	.....	.....	.....	.....	.....
Missouri	.....	.....	.....	.....	35,155	81,155	5,000	86,155
Montana	16,196,909	880,320	18,328,489	566,000	.....	566,000	.....	18,894,489
Nebraska	205,946	.....	205,946	.....	1,000	1,500	14,000	221,446
Nevada	4,979,019	.....	4,979,019	.....	.....	.....	.....	4,979,019
New Hampshire	450,890	.....	450,890	29,143	.....	30,743	10,612	492,245
New Jersey	.....	6,000	6,000	25,956	16,000	45,956	35,230	87,186
New Mexico	8,515,117	22,000	9,060,997	.....	.....	185,000	.....	9,245,997
New York	.....	16,000	16,000	2,107,328	140,000	2,262,828	175,000	2,453,828
North Carolina	381,018	.....	441,018	.....	1,724	87,324	37,257	565,599
North Dakota	.....	.....	.....	.....	250	17,550	.....	17,550
Ohio	.....	.....	.....	39,848	32,510	95,258	18,283	113,541
Oklahoma	61,480	.....	61,480	.....	.....	27,800	.....	89,280
Oregon	13,287,866	116,000	16,558,766	.....	3,694	81,562	166,406	16,806,734
Pennsylvania	274,827	.....	274,827	1,229,673	9,541	1,311,838	14,996	1,601,661
South Carolina	.....	.....	.....	.....	1,717	1,717	2,500	4,217
Rhode Island	42,111	20,000	62,111	967	.....	967	.....	63,078
South Dakota	1,059,512	.....	1,154,512	.....	.....	80,000	.....	1,234,512
Tennessee	366,409	.....	366,409	.....	.....	98,110	.....	464,519
Texas	.....	.....	.....	5,694	550	56,244	1,500	57,744
Utah	7,486,642	83,800	7,596,442	.....	.....	66,000	1,710	7,664,152
Vermont	.....	.....	.....	32,233	1,492	34,438	8,000	42,438
Virginia	590,166	11,000	601,166	588	.....	2,088	9,700	612,954
Washington	9,633,905	401,000	12,612,067	1,240,763	6,500	1,247,263	14,964	13,874,294
West Virginia	237,495	.....	237,495	15,620	.....	15,620	.....	253,115
Wisconsin	.....	.....	281,002	100,000	60,000	352,000	.....	633,002
Wyoming	8,548,275	1,494,720	10,540,995	.....	.....	23,000	.....	10,563,995
Continental U. S.	138,121,316	4,341,220	154,927,954	6,556,735	436,077	11,410,368	726,577	167,064,899
Alaska	21,347,097	.....	21,347,097	.....	.....	.....	.....	21,347,097
Hawaii	.....	.....	.....	598,576	.....	1,100,000	.....	1,100,000
Porto Rico	12,443	.....	12,443	40,000	.....	70,000	.....	82,443
Total U. S.	159,480,856	4,341,220	176,287,494	7,195,311	436,077	12,580,368	726,577	189,594,439

Areas of the National Forests are as of June 30, 1928. The true forest land in the National Parks totals about 81,200,000 acres.

In 1928 there were 177,362 forest fires in the United States, causing an estimated direct damage of $82,934,220.

These totals do not take into account the vast amount of intangible and indirect damage resulting from forest fires, such as that through decay of damaged timber, replacement of desirable species of trees by less desirable but more fire resistant ones, soil deterioration and erosion, loss of wild life, uncertain stream flow, interrupted tourist traffic and the like.

The two largest national forests are in Alaska—Tongass, 16,547,294 acres; Chugach, 4,799,803 acres.

Other large national forests (net acres in parenthesis) are: Tonto, Ariz., (2,261,792); Chelan, Wash., (1,809,072); Teton, Wyo., (1,881,212); Shoshone, Wyo., (1,619,657); Coconino, Ariz., (1,717,697); Santa Barbara, Calif., (1,775,098); Idaho, Idaho, (1,734,182); Nezperce, Idaho, (1,661,107); Salmon, Idaho, (1,708,015); Selway, Idaho (1,689,157); Flathead, Mont., (1,719,112); Toiyabe, Nev., (1,883,661).

Datil, N. M., (1,748,648); Gila, N. M., (1,596,234); Olympic, Wash., (1,529,530); Wyoming, Wyo., (1,668,048); Apache, Ariz.—N. M., (1,717,542); Coronado, Ariz.—N. M., (1,537,721); Inyo, Calif.—Nev., (1,631,285); Klamath, Calif.—Oreg., (1,743,558); Siskiyou, Calif.—Oreg., (1,669,522).

FOREST AREAS OF THE WORLD (ACRES).

(Compiled by U. S. Dept. of Agriculture from "Forest Resources of the World.")

Asiatic Russia, 1,136,153,150; India, 260,139,520; China, 190,000,000; Dutch East Indies, 154,339,000; Japan, 90,484,640; total Asia, 2,096,014,590.

Brazil, 1,000,000,000; Argentina, 264,000,000; Peru, 224,000,000; Colombia, 150,000,000; Bolivia, 128,000,000; Venezuela, 103,840,000; total South America, 2,092,690,000.

Canada, 596,746,000; United States, 550,000,000; Alaska, 95,000,000; Mexico, 74,100,000; total North America, 1,443,957,000.

Belgian Congo, 180,000,000; Rhodesia, 170,304,000; Nigeria, 139,776,000; French Congo, 80,000,000; Cameroon, 35,000,000; Ivory Coast, 30,000,000; total Africa, 797,458,000.

Russia, 440,000,000; Sweden, 55,550,000; Finland, 49,410,000; Germany, 30,905,840; France, 25,508,420; total Europe, 774,118,460.

New Guinea, 160,020,000; Australian Commonwealth, 90,291,500; New Zealand, 17,073,920; total Australia and Oceania, 283,458,720.

Total world divisions, 7,487,696,770.

PRODUCTION OF LUMBER IN THE UNITED STATES.

(Figures, by United States Census Bureau and United States Forest Service, show *millions of board feet.*)

1869	12,755	1905	30,503	1910	40,018	1915	37,012	1920	33,799	1925	38,339
1879	18,091	1906	37,551	1911	37,003	1916	39,807	1921	26,961	1926	36,936
1889	23,842	1907	40,256	1912	39,158	1917	35,831	1922	31,569	1927	34,532
1899	35,078	1908	33,224	1913	38,387	1918	31,980	1923	37,166	1928	34,142
1904	34,135	1909	44,510	1914	37,346	1919	34,552	1924	35,931		

Figures for 1889 and 1904, 1910 and since, exclude customs mills and other small plants, which, in 1924, cut about 53,680,000 board feet.

In 1927 there were sawed 2,372,333,000 lath and 6,443,868,000 shingles; 1928 production was less.

None of the above figures includes Alaska, where, in 1926, the lumber cut and sawed totaled 47,960,000,000 board feet, of which 40,871,000 was spruce, and 5,767,000 was hemlock; shingles, 5,420.000.

LUMBER CUT BY STATES, 1927. (Thousands of Board Feet.)

Preliminary figures for 1928 show a total of 34,142,123 m. ft., with smaller cost than in 1927 in most of the states.

United States	34,529,450	Illinois	28,663	Montana	396,267	South Car.	817,016
		Indiana	148,492	New Hamp.	215,912	South Dakota	46,909
Alabama	2,171,687	Iowa & Kans.	14.012	New Jersey	5,044	Tennessee	595,297
Arizona	169,085	Kentucky	197,618	New Mexico	172,517	Texas	1,446,460
Arkansas	1,229,481	Louisiana	2,385,724	New York	142.505	Utah	6,152
Calif. & Nev.	2,070,811	Maine	263,818	North Car.	1,055,222	Vermont	90,880
Colorado	67,321	Maryland	67,541	Ohio	127,880	Virginia	535,616
Connecticut	55,949	Mass.	88,298	Oklahoma	169,943	Washington	7,325,862
Delaware	16,824	Michigan	578,254	Oregon	3,992,852	West Virginia	541,870
Florida	907,128	Minnesota	396,891	Pa.	277,722	Wisconsin	819,507
Georgia	1,201,008	Mississippi	2,556,612	Rhode Island	6,815	Wyoming	12,863
Idaho	923,986	Missouri	189,136				

LUMBER CUT, BY SPECIES, 1927. (Thousands of Board Feet.)

Total	34,529,450	Chestnut	263,771	Lodgepole pine	13,255	Tupelo	267,192
		Cottonwood	103,215	Maple	774,000	Walnut	62,111
Ash	136,820	Cypress	609,682	Oak	2,013,053	West. yel. pine	2,798,754
Balsam fir	15,939	Douglas fir	8,443,053	Red gum	1,101,112	White fir	279,737
Basswood	145,921	Elm	160,536	Redwood	569,605	White pine	1,344,661
Beech	154,158	Hemlock	2,070,812	Spruce	529,294	Yellow pine	10,891,172
Birch	326,788	Hickory	51,584	Sugar pine	282,217	Yellow poplar	334,604
Cedar	305,964	Larch	288,377	Sycamore	29,487	All other	162,576

In 1928 the cost of yellow pine was slightly reduced.

Furniture manufactured in this country in 1927 was valued, the United States Census Bureau states, at $879,706,306, of which household articles accounted for $634,003,122.

Wood Pulp Production, net tons—(1920) 3,821,704; (1921) 2,875,601; (1922) 3,521,644; (1923) 3,788,672; (1924) 3,723,266; (1925) 3,962,217; (1926) 4,394,766; (1927) 4,313,403; (1928) 4,427,000.

The total American newsprint paper production in 1928 was 1,415,000 short tons.

Production of other kinds of paper in 1928 was, in net tons—book, 1,409,000; paper board, 4,000,000; wrapping 1,600,000; bag 204,618; fine, 525,000; tissue, 325,000; wall, 111,000; felts and building, 570,000; total, all grades—10,250,000 short tons.

Fires, storms, and insects destroy, each year, in the United States, 7,000,000,000 board feet of standing timber.

Timber sawn in the world in 1927 (cubic feet)—North America, 14,986,000,000; Europe, 9,160,000,000; Asia, 1,556,000,000; South America, 259,000,000; Africa, 62,000,000; Oceania, 93,000,000; world total—26,116,000,000 (exclusive of firewood cut, which totaled in that year, 30,106,000,000 cubic feet.

A cubic foot equals 12 board feet.

BIG GAME IN THE UNITED STATES, AND IN THE NATIONAL FORESTS.

About 70 per cent of total number of the wild deer, bears, goats and sheep in the United States live or range in the National Forests, according to estimates by Government Forestry experts.

In these forests, on January 1, 1929, there were living and ranging—antelope, 8,494; bear black or brown, 52,331; bear, grizzly, 3,447; caribou, 23; deer, 748,003; elk, 78,218; moose, 6,971; mountain goats, 19,298; mountain sheep, 13,824.

There are over 10,500 elk in Yellowstone Park.

Alaska forests contain (included in totals above) 6,100 black bear, 2,500 grizzlies, 20 caribou, 60,350 deer, 10 elk, 550 moose, 9,500 mountain goats, 2,000 mountain sheep.

California has 11,200 black or brown bears, 245,400 deer, and 191 elk. The rest of the big game are in the National forests in Alabama, Arizona, Arkansas, Colorado, Florida, Idaho, Michigan, Minnesota, Montana, Nebraska, New Hampshire, New Mexico, Nevada, North Carolina, Oklahoma, Oregon, Pennsylvania, South Dakota, Tennessee, Utah, Virginia, Washington, West Virginia and Wyoming.

There is no longer a grizzly bear in any National Forest in California.

Moose are becoming scarce. In New Brunswick, in 1928, hunters killed 885 moose and 7,757 deer.

Beaver are increasing in many sections of the West.

OVER SIX MILLION HUNTING LICENSES.

During the season of 1927–28 more than 6,450,000 hunting licenses for the taking of wild game were issued to sportsmen throughout the United States, including Alaska, and the revenue to the states amounted to more than $9,300,000.

New York State, with 675,780 licenses and $699,873 in money returns, and Pennsylvania, with 517,729 licenses and a revenue of $1,006,159, headed the list. Detailed figures of the season, compiled by the Bureau of Biological Survey of the United States Department of Agriculture, show substantial increases in numbers of licenses issued and fees received over the preceding three years.

In the 1924-25 season, 4,904,740 hunters paid for their licenses a total of $6,190,863, while in 1925-26 hunting licenses to the number of 5,168,353 were issued, bringing a revenue of $6,872,812 to the states. Licenses issued in 1926–27 numbered 5,897,505 and the fees paid were $8,155,535.

HOW LONG IT TAKES TREES TO GROW.

Species.	Pulp Fuel.	Species.	Pulp Fuel.
	Years		*Years*
Northern:		Maple, silver	20–30
Aspen	30–40	Walnut, black	20–30
Beech	80–95	*Southern:*	
Birch, paper	50–55	Cottonwood	10–20
Birch, yellow	60–70	Ash, white	20–30
Hemlock	35–50	Cedar, red	35–45
Maple, sugar	70–85	Cypress	20–30
Pine, jack	30–40	Gum, red	15–25
Pine, red	25–35	Pine, lobi	20–30
Pine, white	35–45	Pine, long	25–35
Spruce, red	45–55	Pine, scrub	20–30
Tamarack	45–55	Pine, short	15–25
Central hardwood:		Pine, slash	20–30
		Rocky Mountain:	
Chestnut	25–35	Fir, Douglas	25–35
Hickory	50–60	Pine, lodge	50–60
Oak, black	35–45	Pine, yellow	35–50
Oak, red	35–45	*Pacific:*	
Oak, white	40–50	Fir, white	70–80
Poplar, yellow	22–50	Hemlock	45–55
Catalpa	.....	Pine, sugar	45–55
Larch, Euro	25–35	Redwood	20–30

One northern hardwood tree of any variety 21 inches in diameter 5 feet above the ground will yield one cord of wood. A southern softwood tree 23 inches in diameter will yield a cord.

THE NATIONAL PARKS.

Administered by the National Park Service, Department of the Interior. They number 21; total area 12,113 square miles; visitors last year, over 2,000,000.

National Parks in Order of Creation.	Location.	Area in Sq. Miles	Distinctive Characteristics.
Hot Springs, 1832...	Middle Arkansas.....	1½	46 hot springs said to possess healing properties.
Yellowstone, 1872...	No'western Wyoming.	3,426	Geysers; boiling springs; mud volcanoes; petrified forests; Grand Canyon of the Yellowstone.
Sequoia, 1890.....	Middle eastern California.	604	Scores of sequoia trees 20 to 30 feet in diameter, and thousands over 10 feet in diameter; Mt. Whitney, highest point in continental United States.
Yosemite, 1890.....	Middle eastern California.	1,126	Valley of world-famed beauty; lofty cliffs; many waterfalls of extraord'y height; 3 groves of big trees.
General Grant, 1890.	Mid. east'n California.	4	Created to preserve Gen. Grant Tree, 40.3 ft. in diam.
Mount Rainier, 1899	W. central Washington	325	28 glaciers; 48 sq. miles of glacier, 50 to 500 ft. thick.
Crater Lake, 1902...	Southwestern Oregon..	249	Lake of extraordinary blue in crater of extinct volcano; sides 1,000 feet high; lava; fishing.
Wind Cave, 1903....	South Dakota.....	17	Miles of galleries and chambers containing peculiar formation.
Platt, 1902.....	Southern Oklahoma...	1⅓	Many sulph. and oth. springs possess medicinal value.
Sullys Hill, 1904....	North Dakota.....	1½	An important wild animal preserve.
Mesa Verde, 1906...	So'western Colorado..	77	Most notable, best preserved prehistoric cliff dwellings.
Glacier, 1910.....	No'western Montana..	1,534	250 glacier-fed lakes; 60 small glaciers; precipices thousands of feet deep.
Rocky Mount'n, 1915	North middle Colorado	378	Heart of the Rockies; snowy range, peaks 11,000 to 14,255 feet altitude.
Hawaii, 1916.....	Hawaii.....	245	Kilauea & Mauna Loa on Hawaii, Haleakala on Maui.
Lassen Volcano, 1916	Northern California...	163	Only active volcano in U. S. proper; hot springs; mud geysers.
Mt. McKinley, 1917.	South central Alaska..	2,645	Highest mountain in North America.
Grand Canyon, 1919.	North central Arizona.	1,009	Greatest example of erosion in the world.
Acadia, 1919.....	Maine coast.....	15	Group of granite mountains on Mt. Desert Island
Zion, 1919.....	Southwestern Utah....	120	Zion Canyon 1,500 to 2,500 feet deep.
Bryce Canyon, 1928..	Southwestern Utah....	22	Eroded pinnacles, vivid colorings.
Grand Teton, 1929...	Northwest Wyoming..	150	Spectacular Teton Mountains.

There are also eleven national military and other parks under the jurisdiction of the Secretary of War. They are as follows: Chickamauga and Chattanooga, Georgia and Tennessee: Shiloh, Tennessee: Gettysburg, Pennsylvania; Vicksburg, Mississippi: Antietam Battlefield, Maryland; Guilford Court House, Moores Creek, North Carolina, Petersburg, Va. Fredericksburg and Spotsylvania, Va., and Stone's River, Tenn.

There were in the Yellowstone National Park at a recent census, 13,309 elk, 1,060 deer, 77 mountain sheep, 1,061 buffalo, 350 black bear, 100 grizzly bear, 700 antelope, and 675 moose.

Wild animals in the National Parks are not included in the National Forest census.

NATIONAL MONUMENTS (YEAR IS THAT OF ESTABLISHMENT.)

Administered by the National Park Service—Devils Tower, Wyo., 1906; Montezuma Castle, Ariz., 1906; El Morro, New Mex., 1906; Petrified Forest, Ariz., 1906; Chaco Canyon (chä'kō), New Mex., 1907; Muir Woods (mūr), Calif., 1908; Pinnacles Calif., 1908; Natural Bridges, Utah, 1908.

Lewis and Clark Cavern, Mont., 1908; Tumacacori (Tū-ma-kä'-kō-rē), Ariz., 1908; Navajo (näv'-ä-hō), Ariz., 1909; Shoshone Cavern (shō-shō'-nē), Wyo., 1909; Gran Quivira (grän kē-vē'-rä), 1909; Sitka, Alaska, 1910; Rainbow Bridge, Utah, 1910; Colorado, Colo., 1910;

Papago Saguaro (pä'-pä-gō säg-wä'rō), Ariz., 1914; Dinosaur (di'nō-sôr), Utah, 1915; Capulin Mountain (käpū'lin), New Mex., 1916; Verendrye (vér-ron-drē), No. Da., 1917; Casa Grande (kä'-sä grän'dä), Ariz., 1918; Katmai (kät'mī), Alaska, 1918; Scotts Bluff, Neb., 1919.

Yucca House (yūc-cä), Colo., 1919; Fossil Cycad So. Da., 1922; Aztec Ruins, New Mex., 1923; Hovenweep, Utah-Colo., 1923; Pipe Spring, Ariz., 1923; Carlsbad Cave, New Mex., 1923; Craters of the Moon, Idaho, 1924; Wupatki, Ariz., 1924; Glacier Bay, Alaska, 1925; Wichos, Utah; Arches, Utah, 1929.

Administered by the Department of Agriculture—Gila Cliff Dwellings (he'lä), New Mex., 1907; Tonto, Ariz., 1907; Jewel Cave, So. Da., 1908; Wheeler, Colo., 1908; Mount Olympus, Wash., 1909; Oregon Caves, Ore., 1909; Devil Postpile, Calif., 1911.

Walnut Canyon, Ariz., 1915; Bandelier (Băn-dē-lēr'), New Mex., 1916; Old Kasaan (kä-sän), Alaska, 1916; Lehman Caves, Nev., 1922; Timpanogos Cave Utah, 1922; Chiricahua, Ariz., 1924; Lava Beds, Calif., 1925.

Administered by the War Department—Chalmette, La., 1907; Big Hole Battle Field, Mont., 1910; Cabrillo, Calif., 1913;

Mound City Group, Ohio, 1923; Fort Wood, N. Y., 1924; Castle Pickney, So. Caro., 1924; Fort Pulaski, Ga., 1924; Fort Marion, Fla., 1924; Fort Matanzas, Fl., 1924; Meriwether Lewis, Tenn., 1925; Fort Niagra, N. Y., 1924;

Fort McHenry, Md., 1925; White Plains Battle Field, N. Y., 1926; Kennesaw Mt., Ga., 1928; Lincoln Birthplace Memorial, Ky.

PERCENTAGE OF MINERAL ELEMENTS IN FLESH OF ANIMALS.

From a bulletin of the United States Bureau of Fisheries.

	Potassium.	Sodium.	Iron.	Calcium.	Magnesium.	Phosphorus.	Chlorine.	Sulphur.	Water
Man.....	1.1659	0.2906	0.0535	0.0273	0.0771	0.7406	0.2552	0.7576	72.53
Pig.....	.9363	.5752	.0218	.0298	.1042	.7848	.1787	.7536	72.89
Ox.....	1.5200	.2695	.1019	.0088	.1006	.7090	.2342	.7719	75.80
Calf.....	1.5444	.3492	.0356	.0587	.1237	.8928	.2733	.9178	75.39
Rabbit.....	1.7179	.1974	.0233	.0790	.1240	1.0922	.2206	.8500	76.83
Hen.....	1.4700	.3008	.0295	.0333	.1174	.8164	.1904	.9234	68.38
Frog.....	1.6756	.3005	.0339	.0852	.1280	1.0130	.2190	.8835	81.62
Haddock...	1.7281	.5118	.0300	.1138	.0863	.7067	1.2447	1.1514	80.64
Eel.....	.6519	.0812	.0148	.1061	.0483	.4796	.0935	.3657	63.10
Pike.....	2.0176	.1426	.0209	.1929	.1505	1.0285	.1548	1.0576	79.38

AVERAGE YEARLY FARM WAGES IN THIS COUNTRY.

Yr.	Per Month— Incl. Board.	Per Month— Excl. Board.	Per Day— Incl. Board.	Per Day— Excl. Board.	Yr.	Per Month— Incl. Board.	Per Month— Excl. Board.	Per Day— Incl. Board.	Per Day— Excl. Board.	Yr.	Per Month— Incl. Board.	Per Month— Excl. Board.	Per Day— Incl. Board.	Per Day— Excl. Board.
1906	$18.73	$26.19	$.83	$1.32	1915	$21.08	$29.97	$1.11	$1.45	1922	$29.31	$42.09	$1.64	$2.14
1909	20.48	28.09	1.03	1.31	1916	23.04	32.58	1.12	1.60	1923	33.09	46.74	1.91	2.45
1910	19.58	28.04	1.04	1.40	1917	28.64	40.19	1.56	2.00	1924	33.34	47.22	1.88	2.44
1911	19.85	28.33	1.07	1.40	1918	35.12	49.13	2.05	2.61	1925	33.88	47.80	1.89	2.46
1912	20.46	29.14	1.07	1.44	1919	40.14	56.77	2.44	3.10	1926	34.86	48.86	1.91	2.49
1913	21.27	30.21	1.12	1.48	1920	47.24	65.05	2.84	3.56	1927	34.58	48.63	1.90	2.46
1914	20.90	29.72	1.15	1.43	1921	30.25	43.58	1.66	2.17	1928	34.66	48.65	1.88	2.43

ANNUAL AVERAGE UNITED STATES EXPORT PRICES.

(Based by Government Authorities on Actual Cost or Value at Shipping Points.)

(Fisc. Yr.)	Beef, Veal, P'k'd, Lb.	Bacon and Hams Lb.	Pork, P'k'd, Lb.	Eggs, Doz.	Butter, Lb.	Ch'se, Lb.	Lard, Lb.	Sole L'th'r, Lb.	Corn, Bu.	Rye, Bu.	Wh't, Bu.	Wh't, Flour, Bbl.	Cotton'd, Oil, Lb.	Sugar, Lb.	Tobacco, Leaf, Lb.	Cot'n Un-M'n'f Lb.
	Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Dols.*	*Dols.*	*Dols.*	*Dols.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
1900.	5.7	7.9	6.2	16.6	17.2	10.2	6 3	18.9	0.41	0.61	0.72	3.62	30.1	4.5	8.7	7.7
1905.	5.5	10.5	7.9	21.9	16 4	10.7	7.7	21.4	.53	.84	.89	4.55	29.4	4:1	9.0	8.8
1906.	5.8	10.1	8.2	21.0	18 0	11.7	8.1	20.2	.53	.67	.82	4.25	31.2	3.8	9.5	11.0
1907.	6.0	10.1	9.1	22.1	19.4	11 6	9.2	22.0	.53	.75	.79	3.99	40.8	3.9	10.0	10.6
1908.	6.8	10.9	8.9	20.3	21 8	12 9	9 1	21.1	.65	.90	.99	4.61	42.0	3.8	10.6	11.4
1909.	7.7	10 9	8.8	23.0	21.2	12.6	10.0	20.9	.70	.82	1.02	4.86	40.8	3.5	10.9	9.4
1910.	7.5	10.8	11.1	23.7	25 0	15.5	11.9	21.7	.69	.77	1.02	5.27	6.6	4.3	10.8	14.0
1911.	8.7	12 1	10.8	20 9	21 7	2.4	11 0	21.5	.56	.95	.93	4.88	7 6	4.1	11.1	14 5
1912.	7 4	13.3	9 5	22 0	24 1	14.2	9.8	22 0	.72	.81	.94	4 63	6 0	4.6	11.5	10.2
913.	9.6	12.1	10.6	21.5	24 3	17.0	1 .2	24.0	.59	.69	.97	4 67	6.6	3.8	11 9	11.9
1914.	9.8	13.1	10.8	23.1	23.8	17.1	11.3	25.6	.75	.70	.95	4.61	7.2	3.6	12.1	12.8
1915.	10 6	13 8	10 8	24.1	24.3	15.3	11 0	29.7	.81	1.17	1.28	5.86	6 9	4.7	12 8	8.5
1916.	10 6	13 9	10.6	23.2	26.6	16.7	11.2	34 8	.81	1 06	1.24	5 63	8.5	4.9	12.1	12.3
1917.	11 6	17 6	14 8	30.4	32.6	23.1	17.3	43.6	1.12	1.63	1.99	7.80	12.5	6.2	14.7	18 1
1918.	14.1	26 7	22.7	37.8	38.6	24.3	25.0	53.8	1.84	1.99	2.37	11.19	18.2	6.9	24.1	28.7
(Cal. Yr.)																
1919.	20.5	31 5	25.3	48.5	50.7	37.8	31.3	44.7	1.66	1.88	2.41	11.09	21.2	7.8	33.9	33.9
1920.	14 2	25 2	19 8	50.6	58.0	31.0	23.4	53.4	1.49	2.14	2.73	11 .0	18 9	10.3	52.4	35.9
1921.	10.5	17 9	12.8	32 5	40.8	23.1	13.0	34 6	.72	1.48	1.55	7 01	9 6	5.2	39.7	16 2
1922.	8.9	17.3	12 0	26 3	37.2	24 9	11 9	24.6	.70	.97	1.25	5 69	9 7	3.8	33 9	21 6
1923.	10.2	14.4	11 7	27 5	43.9	26.2	12 5	26 5	.87	.91	1.18	5.40	10 6	6.5	32 1	29.6
1924.	10.2	14 2	11 9	26 5	41.5	26.0	13.3	22.6	.97	1.10	1.43	5.70	10.6	5.5	29 8	27.7
1925.	10.6	20 1	16 0	30 1	45.1	26.3	17.1	25 9	1.12	1.30	1.72	7.65	10.4	3.7	32 7	24.2
1926.	11.7	21 6	16.5	28 8	46.1	28.6	15.5	28 6	.86	1 03	1.46	7 02	10.0	3.5	28.3	17.4
1927.	10.9	15.8	14 3	27 0	46 3	30 1	13.5	32 0	.85	1.10	1.42	6 65	8.7	4.1	27.5	16 9
1928.	12.5	14.2	14.2	30 4	47.7	30.7	13.0	36.3	1.02	1.20	1.25	6.23	9.0	3.5	26 8	20.1

The 1928 figure for bacon and hams covers only bacon; ham and shoulder average price was 18.8.

The unit of quantity for cottonseed oil prior to 1910 was a gallon, (equals 7½ lbs.)

ANNUAL AVERAGE PRICES OF UNITED STATES IMPORTS.

The values are required by law to represent the values of the goods *in the foreign markets* whence exported to the United States. Ton signifies 2,240 pounds.

	Ch'se, Lb.	Fish, Cured, Bbl. 200 Lbs.		Hides and Skins, Lb.		Rice, Lb.	Wh't Bu.	Flax-seed, Bu.	Cocoa Lb.	Coffee, Lb.	Tea, Lb.	Cane Sugar, Lb.	Rub. Crude Lb.	Cigar Wr'p-per Lb.	Cotton, Raw Lb.
		Her'g	M'k'l	Goat.	Cattle										
(Fisc. Yr.)	*Cts.*	*Dols.*	*Dols.*	*Cts.*	*Cts.*	*Cts.*	*Dols.*	*Dols.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Dols.*	*Cts.*
1910.....	17.3	6.96	10.43	26.6	14.7	2.6	.92	1.71	10.5	7.9	16.0	2.59	100.0	.98	18.4
1911.....	17.4	7.24	9.50	25.0	14.4	2.8	.94	2.04	10.5	10.3	17.2	2.45	105.8	1.08	21.8
1912.....	18.9	7.79	12.19	24.4	15.3	2.4	.82	1.90	10.9	13.3	18.0	2.81	84.4	1.25	18.4
1913.....	18.6	8 24	10.35	25.7	17.3	3.7	.70	1.54	12.4	13.8	18.4	2.18	79.5	1.29	18.9
1914.....	17.3	7.21	10.98	26.2	18.6	3.2	.89	1.22	11.8	11.1	18.4	2.00	54.0	1.28	15.7
1915.....	18.7	6.57	12.27	24.3	18.3	2.4	1.10	1.25	11.9	9.5	18.1	3.21	48.3	1.28	12.5
1916.....	23.5	7.86	13.65	27.2	20.3	2.4	1.02	1.38	14.4	9.6	18.8	3.70	57.9	1.43	17.2
1917.....	30.8	9.44	16.14	52.5	25.9	2.8	1.74	2.03	11.8	10.1	18.6	4.33	56.8	1.34	27.5
1918.....	41.5	16.57	12.48	47.4	25.3	3.5	2.02	2.56	10.3	9.0	20.4	4.82	52.1	1.21	34.9
(Cal. Yr.)															
1919.....	35.9	13.65	25.00	71.5	30.8	7.0	1.88	3.16	14.8	19.6	24.9	5.60	40.2	1.40	41.0
1920.....	35.4	12.49	18.81	110.5	31.1	10.3	2.10	3.03	15.8	19.5	27.0	12.59	42.9	1.80	46 2
1921.....	32.3	11.05	15.32	37.5	12.9	3.4	1.54	1.66	7.6	10.7	18.6	3.94	17.8	2.00	23.7
1922.....	31.4	10.21	17.34	40.5	14.5	3.4	1.15	2.09	9.3	12.9	24.5	2.59	15.1	2.04	25.6
1923.....	32.4	9.95	15.91	43.9	16.0	3.3	.99	2.01	8.2	13.5	28.2	4.93	26.7	2.35	26.4
1924.....	29.2	12.09	17 37	39.3	13.1	4.0	1.00	1.81	7.3	17.6	29.3	4.39	23.7	2.56	30 3
1925.....	27.8	13.30	15.60	40.7	16.0	4.7	1.39	2.40	10.8	22.3	31.2	2.75	48.4	2.34	33.7
1926.....	26.9	12.09	12.05	44 6	14.7	4.5	1.39	1.84	10.0	21.6	32.7	2.47	54.6	2.25	25.5
1927.....	30.7	12.08	13.20	43 6	30.9	4.7	1.31	1.73	13.4	18.4	31.6	3.10	35.6	2.15	22.2
1928.....	30.3	.....	14.00	46.0	23.0	4.0	1.17	1.78	12.4	21.3	30.3	2.68	25.0	2.06	24.9

AVERAGE IMPORT PRICES (*Continued*).

Yr. Ended.	Hemp, Ton.	Jute Burlaps, Lb.	Wool, Lb. Carpet.	Wool, Lb. C'thing.	Silk, Raw, Lb.	Pulp-W'd, Cord.	B'ds, P'ks, Deals, M Ft.	Wood Pulp, Ton.	Printing, P'per, Lb.	Bit. Coal, Ton.	Petroleum, Crude Gal.	Bar Steel, Lb.	Tin & True-Plates Lb.	C'per, Pigs, Bars, Lb.	Tin Bars, Pigs Lb.
(Fisc. Yr.)	*Dols.*	*Cts.*	*Cts.*	*Cts.*	*Dols.*	*Dols.*	*Dols.*	*Dols.*	*Cts.*	*Dols.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
1910....	161.89	5.0	13	24	3.21	6.39	18.35	31 11	2.1	2.75	....	1 8	2.8	12 5	30 52
1911....	177 78	5.3	13	23	3.25	6.40	18 49	28.42	2.4	2.83	....	2.0	3.2	11 9	36.67
1912....	219 75	6.6	13	21	3.11	6.47	17.45	29.78	2.4	2.85	1.9	2.0	4.3	12.7	41.56
1913....	193 67	8.9	14	23	3.15	6.71	17.34	32.14	2.4	2.77	1.5	2.0	3.4	15.3	46 30
1914....	177.34	8.6	17	25	3.42	6.75	19.05	33.49	2.4	2.71	1.5	2.0	3.0	14.4	39 35
1915....	217.73	7.0	17	23	3.09	6.67	18 96	33.82	2.4	2.90	1.4	1.9	3.3	13 4	32 44
1916....	252.45	9.0	22	28	3.61	6 51	18 97	33.27	2.4	2.99	1.4	2.8	7.9	19.4	35.34
1917....	258.02	10.8	29	36	4.61	6.78	20 86	60.71	3 1	3.23	1.4	4.1	10.8	26.1	39 97
1918....	403.40	13.3	40	54	4.69	9.46	25.49	62.66	4.2	4.42	1.3	4.8	8.4	24.6	54.60
(Cal. Yr.)															
1919....	561.59	14.9	38	51	7.35	9 99	32 38	65 24	3.5	5.48	1.2	5.1	12.4	20.7	56.73
1920....	411.75	15.6	32	51	9.48	13 62	42.73	110.50	4.7	6.06	1.3	6.1	14.5	18 4	58.50
1921....	255.56	8.7	12	22	5.71	14.23	35 06	63.30	5.0	6.56	1.3	4.7	12.1	12.7	30.71
1922....	232 40	9.4	17	25	7.21	10.53	29.54	56.29	3.5	5.92	1.3	2.8	5.1	12.7	30.26
1923....	288.61	11.2	21	37	7.92	9 95	31.75	60.52	3.7	6.03	1.6	2.6	5.2	14 5	39.56
1924....	345.50	10.3	24	46	6 39	10.24	30.11	55.71	3.7	5.73	2.3	2.7	6.8	12.6	47 32
1925....	458 87	13.6	30	46	6 21	10.20	30 33	55.09	3.6	4.90	2.9	2.9	12.6	12 9	55.40
1926....	373 73	13.7	26	35	5.91	10.25	28.79	59 03	3.3	4.85	3.1	2.3	6.1	12 7	60.63
1927....	309 08	11 8	26	34 5	5.27	10.32	26.43	55.82	3.3	4.52	1.35	2.0	6.3	12 7	63.30
1928....	341 41	12 9	25.1	43.7	4 87	10.45	26 05	50 86	3.23	4.91	1.13	2 0.	5 0	12 4	49 80

Wood pulp quoted is sulphite, unbleached.

AVERAGE RETAIL FOOD PRICES IN THE UNITED STATES.

(Figures Show Cents per Pound, Quart or Dozen; by United States Bureau of Labor Statistics.)

Year.	Round Steak.	Pork Chops.	Bacon.	Ham.	Lard.	Hens.	Eggs.	Butter.	Milk.	Flour.	Corn meal.	Potatoes.	Sugar.
	Lb.	*Lb.*	*Lb.*	*Lb.*	*Lb.*	*Lb.*	*Doz.*	*Lb.*	*Qt.*	*Lb.*	*Lb.*	*Lb.*	*Lb.*
1893....	12.4	11.8	14.2	16.8	11.2	13.9	22.4	28.3	6.8	2.5	2.0	1.7	5.9
1894....	12.2	11.2	13.5	15.7	10.1	13.1	19.9	26.1	6.8	2.3	1.9	1.5	5.5
1895....	12.3	11.0	13.0	15.2	9.5	13.1	20.6	24.9	6.8	2.4	1.9	1.4	5.3
1896....	12.4	10.7	12.6	15.0	8.8	12.9	19.2	23.8	6.8	2.5	1.8	1.2	5.6
1897....	12.5	10.8	12.7	15.1	8.5	12.5	18.9	23.9	6.7	2.8	1.8	1.4	5.6
1898....	12.7	10.9	13.1	14.6	8.9	12.9	19.9	24.4	6.7	2.8	1.8	1.6	5.9
1899....	12.9	11.2	13.4	15.3	9.2	13.6	20.9	25.1	6.7	2.5	1.8	1.5	5.9
1900....	13.2	11.9	14.3	16.2	9.9	13.4	20.7	26.1	6.8	2.5	1.9	1.4	6.1
1901....	13.8	13.0	15.8	16.9	11.2	13.7	21.9	26.5	6.8	2.5	2.0	1.8	6.0
1902....	14.7	14.1	17.7	18.4	12.7	15.1	24.7	28.7	7.0	2.5	2.3	1.8	5.6
1903....	14.0	14.0	18.2	18.7	12.0	15.8	25.9	28.5	7.2	2.7	2.3	1.7	5.6
1904....	14.1	13.7	18.0	18.2	11.1	16.1	27.1	28.0	7.2	3.2	2.3	1.8	5.9
1905....	14.0	13.9	18.1	18.2	11.0	16.5	27.2	29.0	7.2	3.2	2.3	1.7	6.0
1906....	14.5	15.2	19.6	19.6	12.1	17.2	27.8	30.4	7.4	2.9	2.3	1.7	5.7
1907....	15.2	15.6	20.1	20.4	12.7	17.3	29.0	32.7	7.8	3.1	2.6	1.8	5.8
1908....	15.9	16.0	20.7	20.9	12.7	17.7	29.7	32.8	8.0	3.3	2.8	1.9	5.9
1909....	16.4	17.4	22.4	22.1	14.2	18.9	31.9	34.5	8.1	3.6	2.8	1.9	5.9
1910....	17.4	19.2	25.5	24.6	16.4	19.9	33.7	35.9	8.4	3.6	2.8	1.7	6.0
1911....	17.5	17.9	24.7	24.0	14.0	19.4	32.3	33.7	8.5	3.4	2.8	2.2	6.1
1912....	19.9	19.2	24.4	24.4	14.8	19.9	34.1	37.4	8.7	3.5	3.0	2.2	6.3
1913....	22.3	21.0	27.0	26.9	15.8	21.3	34.5	38.3	8.9	3.3	3.0	1.7	5.5
1914....	23.6	22.0	27.5	27.3	15.6	21.8	35.3	36.2	8.9	3.4	3.2	1.8	5.9
1915....	23.0	20.3	26.9	26.1	14.5	20.3	34.1	35.8	8.8	4.2	3.3	1.5	6.6
1916....	24.5	22.7	28.7	29.4	17.5	23.6	37.5	39.4	9.1	4.4	3.4	2.7	8.0
1917....	29.0	31.9	41.0	38.2	27.6	28.6	48.1	48.7	11.2	7.0	5.8	4.3	9.3
1918....	36.9	39.0	52.9	47.9	33.3	37.7	56.9	57.7	13.9	6.7	6.8	5.2	9.7
1919....	38.9	42.3	55.4	53.4	36.9	41.1	62.8	67.8	15.5	7.2	6.4	3.8	11.3
1920....	39.5	42.3	52.3	55.5	29.5	44.7	68.1	70.1	16.7	8.1	6.5	6.3	19.4
1921....	34.4	34.9	42.7	48.8	18.0	39.7	50.9	51.7	14.6	5.8	4.5	3.1	8.0
1922....	32.3	33.0	39.8	48.8	17.0	36.0	44.4	47.9	13.1	5.1	3.9	2.8	7.3
1923....	33.5	30.4	39.1	45.5	17.7	35.0	46.5	55.4	13.8	4.7	4.1	2.9	10.1
1924....	33.8	30.8	37.7	45.3	19.0	35.3	47.8	51.7	13.8	4.9	4.7	2.7	9.2
1925....	34.7	36.6	46.7	52.6	23.3	36.6	52.1	54.8	14.0	6.1	5.4	3.6	7.2
1926....	35.6	39.5	50.3	57.4	21.9	38.8	48.5	53.1	14.0	6.0	5.1	4.9	6.9
1927....	37.1	36.8	47.2	55.0	19.3	36.9	45.2	55.6	14.1	5.5	5.2	3.8	7.3
1928....	42.0	34.8	44.0	52.9	18.6	37.4	46.4	56.5	14.2	5.4	5.3	2.7	7.1

SEPARATE INDEX NUMBERS OF RETAIL FOOD PRICES IN THE UNITED STATES.

(By United States Bureau of Labor Statistics; 1913 = 100.)

Year.	Sirloin Steak.	Rib Roast.	Pork Chops.	Bacon.	Ham.	Hens.	Milk.	Butter.	Lard.	Eggs.	Flour.	Potatoes.	Sugar.
1908....	73.3	78.1	76.1	76.9	77.6	83.0	89.6	85.5	80.5	86.1	101.5	111.2	107.7
1909....	76.6	81.3	82.7	82.9	82.0	88.5	91.3	90.1	90.1	92.6	109.4	112.3	106.6
1910....	80.3	84.6	91.6	94.5	91.4	93.6	94.6	93.8	103.8	97.7	108.2	101.0	109.3
1911....	80.6	84.8	85.1	91.3	89.3	91.0	95.5	87.9	88.4	93.5	101.6	130.5	111.4
1912....	91.0	93.6	91.2	90.5	90.6	93.5	97.4	97.7	93.5	98.9	115.2	132.1	115.1
1913....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1914....	102.0	103.0	104.6	101.8	101.7	102.2	100.5	94.4	98.6	102.3	103.9	108.3	108.2
1915....	101.1	101.4	96.4	99.8	97.2	97.5	99.2	93.4	93.5	98.7	125.8	88.9	120.1
1916....	107.5	107.4	108.3	106.5	109.2	110.7	102.2	103.0	111.0	108.8	134.6	158.8	146.4
1917....	124.0	125.5	151.7	151.9	142.2	134.5	125.4	127.2	174.9	139.4	211.2	252.7	169.3
1918....	153.2	155.1	185.7	195.9	178.1	177.0	156.2	150.7	210.8	164.9	203.0	188.2	176.4
1919....	164.2	164.1	201.4	205.2	198.5	193.0	174.2	177.0	233.5	182.0	218.2	223.5	205.5
1920....	172.1	167.7	201.4	193.7	206.3	209.9	187.6	183.0	186.7	197.4	245.5	370.6	352.7
1921....	152.8	147.0	166.2	158.2	181.4	186.4	164.0	135.0	113.9	147.5	175.8	182.4	145.5
1922....	147.2	139.4	157.1	147.4	181.4	169.0	147.2	125.1	107.6	128.7	154.6	164.7	132.7
1923....	153.9	143.4	144.8	144.8	169.1	164.3	155.1	144.7	112.0	134.8	142.4	170.6	183.6
1924....	155.9	145.5	146.7	139.6	168.4	165.7	155.1	135.0	120.3	138.6	148.5	158.8	167.3
1925....	159.8	149.5	174.3	173.0	195.5	171.8	157.3	143.1	147.5	151.0	184.8	211.8	130.9
1926....	162.6	153.0	188.3	186.3	213.4	182.0	157.3	138.6	138.6	140.6	181.8	288.2	125.5
1927....	167.7	158.1	175.2	174.8	204.5	173.2	158.4	145.2	122.2	131.0	166.7	223.5	132.7
1928....	188.2	176.8	165.7	163.0	196.7	175.6	159.6	147.5	117.7	134.5	163.6	158.8	129.1

COMBINED INDEX NUMBERS OF RETAIL FOOD PRICES IN UNITED STATES.

(By United States Bureau of Labor Statistics; 1913 = 100.)

Yr.	*I. N.*	*Yr.*	*I. N.*	*Yr.*	*I. N.*	*Yr.*	*I. N.*	*Yr.*	*I. N.*	*Yr.*	*I. N.*
1890.....	69.6	1897.....	65.4	1904.....	76 0	1911.....	92 .0	1917.....	146 .4	1923.....	146 .2
1891.....	70.6	1898.....	67 .1	1905.....	76 .4	1912.....	97 .6	1918.....	168 .3	1924.....	145 .9
1892.....	69 .3	1899.....	67 .7	1906.....	78 .7	1913.....	100 .0	1919.....	185 .9	1925.....	157 .4
1893.....	71 .0	1900.....	68 .7	1907.....	82 .0	1914.....	102 .4	1920.....	203 .4	1926.....	160 .6
1894.....	67 .8	1901.....	71 .5	1908.....	84 .3	1915.....	101 .3	1921.....	153 .3	1927.....	155 .4
1895.....	66 .5	1902.....	75 .4	1909.....	88 .7	1916.....	113 .7	1922.....	141 .6	1928.....	154 .3
1896.....	64 .9	1903.....	75 .0	1910.....	93 .0						

The index numbers cover 30 articles in 1907; 15 in 1908-1912; 22 in 1913-1920; 43 in 1921-1927.

PURCHASING POWER OF WAGES AS MEASURED IN FOOD.

(By U. S. Bureau of Labor Statistics; figures are relative, with 1913 as 100.)

Year.	Wages Per Hour.	Hours Per Week.	Wages Per Week.	Retail Prices of Food.	Wage Purchase Power. Rates, Hour.	Rates, Week.	Year.	Wages Per Hour.	Hours Per Week.	Wages Per Week	Retail Prices of Food.	Wage Purchase Power. Rates, Hour.	Rates, Week.
1909...	91.9	101.9	93.3	88.7	103.6	105 2	1919...	154.5	94.7	147.8	185.9	83.1	79.5
1910...	94.4	101.1	95.2	93.0	101.6	102.4	1920...	199 .0	93.8	188.5	203.4	97.8	92.7
1911...	96.0	100.7	96.5	92.0	104.4	104.9	1921...	205 .3	93.9	193.3	153.3	134.0	126.2
1912...	97.6	100.3	97.7	97.6	100.0	100.2	1922...	193 .1	94.4	183.0	141.6	136.4	129.2
1913...	100.0	100.0	100.0	100.0	100.0	100.0	1923...	210 .6	94.3	198.6	146.2	144.0	135.8
1914...	101.9	99.6	101.6	102.4	99 .6	99 .3	1924...	228 .1	93.9	214 .3	145.9	156.4	146.9
1915...	102.8	99.4	102.3	101.3	101.5	101.0	1925...	237 .9	93 .0	222 .3	157.4	151.1	141.2
1916...	107.2	98.8	106.2	113.7	94.2	93.4	1926...	250 .3	92.8	233.4	160.6	155.9	145.3
1917...	114.2	98.4	112.4	146.4	78.0	76.8	1927...	259 .5	92.4	240.8	155.4	167.0	155.0
1918...	132.7	97.0	129.6	168.3	78.8	77.0	1928...	260.6	91.9	240.6	154.3	168.9	155.9

WHEAT AND CORN SUPPLY AND PRICES IN THE UNITED STATES.

(Compiled by Chicago Board of Trade; Canadian wheat is included from May 5, 1917 to July 2, 1921.)

Year.	Wheat.				Corn.			
	Largest.		Smallest.		Largest.		Smallest.	
	Date.	Bushels.	Date.	Bushels.	Date.	Bushels.	Date.	Bushels.
1910	Dec. 31	44,282,000	July 23	10,082,000	March 19	14,456,000	Nov. 26	1,451,000
1911	Dec. 16	71,738,000	July 1	23,863,000	March 11	12,614,000	Nov. 18	1,294,000
1912	Dec. 28	70,717,000	July 20	19,398,000	March 23	16,201,000	Sept. 7	1,422,000
1913	Dec. 27	74,737,000	July 19	30,826,000	March 22	22,260,000	Nov. 29	2,026,000
1914	Dec. 12	80,498,000	July 4	13,616,000	March 14	20,268,000	Aug. 15	2,070,000
1915	Dec. 31	92,123,000	July 24	5,416,000	Feb. 20	41,246,000	Sept. 11	1,710,000
1916	Jan. 1	92,123,000	July 22	44,232,000	March 25	28,191,000	Nov. 11	1,289,000
1917	Jan. 6	77,781,000	Aug. 25	4,399,000	March 3	12,931,000	Nov. 10	810,000
1918	Nov. 16	136,809,000	June 15	509,000	March 30	19,016,000	Dec. 7	2,216,000
1919	Feb. 1	130,613,000	July 12	5,297,000	Feb. 1	5,549,000	Aug. 30	956,000
1920	Jan. 3	75,363,000	July 17	16,149,000	Oct. 16	10,829,000	Sept. 4	2,564,000
1921	Nov. 5	56,595,000	July 2	8,061,000	Dec. 31	23,279,000	Jan. 1	5,409,000
1922	Jan. 7	47,839,000	July 15	15,309,000	March 25	49,596,000	Aug. 26	6,949,000
1923	Nov. 24	75,000,000	July 14	23,840,000	March 17	30,548,000	Nov. 4	809,000
1924	Nov. 29	100,363,000	July 19	34,175,000	March 29	26,074,000	July 19	3,771,000
1925	Jan. 3	91,492,000	July 18	25,233,000	March 21	35,287,000	Nov. 14	1,458,000
1926	Oct. 2	75,067,000	June 26	10,975,000	March 27	37,197,000	Oct. 16	16,918,000
1927	Nov. 26	91,117,000	June 25	21,155,000	March 19	48,837,000	Oct. 22	18,609,000
1928	Dec. 29	138,743,000	June 30	38,922,000	March 17	45,542,000	Oct. 27	1,284,000

HIGHEST AND LOWEST PRICES FOR WHEAT, CORN AND OATS, AT CHICAGO.

Year	Wheat.				Corn.			
	Low.		High.		Low.		High.	
	Dollars.	Month.	Dollars.	Month.	Dollars.	Month.	Dollars.	Month.
1910	.895	November	1.295	July	.455	December	.68	January
1911	.8325	April	1.17	October	.455	Jan., Feb., March	.76	November
1912	.85	Nov., Dec.	1.22	April, May	.475	December	.83	August
1913	.8075	October	1.15375	January	.465	January	.7825	Aug., Sept.
1914	.7775	July	1.33	September	.60	January	.86	August
1915	.98	August	1.68	February	.5975	October	.8225	August
1916	.9825	June	2.02	October	.69	May	1.11	October
1917	1.515	February	3.45	May	.9325	January	2.36	August
1918	2.17	Jan., Feb., March, April, May	2.42	December	1.30	November	1.85	January
1919	2.20	August	3.50	December	1.22	Jan., Feb.	2.10	July, Aug.
1920	1.58	November	3.50	January	.67	November	2.17	May
1921	1.005	November	2.0675	January	.42	October	.78	January
1922	1.00	Aug., Sept.	1.73	May	.46	January	.775	December
1923	.965	July	1.38	March	.695	January	1.14	October
1924	1.02	March	1.91	December	.715	January	1.365	December
1925	1.3525	April	2.205	January	.75	November	1.345	January
1926	1.30	September	1.94	January	.68	June, November	.875	July
1927	1.2175	October	1.58	May	.67	March	1.16	August
1928	1.0650	August	2.15	April	.83	December	1.550	May

American hogs eat 40% of the corn crop; horses and mules, 20%; cattle, 15%; human beings, 3½%. The rest is fed to poultry and sheep or exported.

Year.	Oats.				Year.	Oats.			
	Low.		High.			Low.		High.	
	Dollars.	Month.	Dollars.	Month.		Dollars.	Month.	Dollars.	Month.
1910	.2975	October	.49	February	1920	.4675	November	1.29	June
1911	.28875	March	.47625	November	1921	.32	Aug., Nov.	.495	January
1912	.3025	November	.585	April	1922	.31	August	.50	December
1913	.31625	March	.48375	September	1923	.37	August	.495	December
1914	.335	August	.51125	September	1924	.445	January	.635	December
1915	.3575	October	.60125	March	1925	.3725	September	.620	January
1916	.37375	June	.57	November	1926	.3675	August	.55	December
1917	.51	August	.85	July	1927	.4350	August	.59	December
1918	.66375	October	.93	February	1928	.3650	August	.78	June
1919	.54	January	.89	December					

STATES WHICH SUPPLY THIS COUNTRY WITH FRESH FRUITS AND VEGETABLES.

Commodity.	First.	Second.	Third.
Apples	Washington 31.2%	New York 17.4%	Idaho 7.5%
Grapes	California 93.8%	New York 2.7%	Michigan 2.3%
Peaches	Georgia 44.4%	California 13.1%	No. Carolina 7.1%
Pears	California 54.1%	Oregon 16.4%	Washington 11.9%
Plums and Prunes	California 56.6%	Idaho 27.3%	Oregon 8.8%
Grapefruit	Florida 92.1%	California 3.7%	Texas 3.0%
Lemons	California 99.7%		
Oranges	California 66.4%	Florida 32.7%	Alabama 0.5%
Strawberries	No. Carolina 14.8%	Tennessee 12.9%	Louisiana 10.6%
Cantaloupes	California 63.1%	Arizona 13.6%	Colorado 10.8%
Watermelons	Georgia 37.6%	Florida 20.6%	California 10.9%
Cabbage	New York 30.4%	Texas 14.9%	Virginia 10.7%
Celery	Florida 31.9%	California 30.3%	New York 23.4%
Lettuce	California 58.6%	Arizona 17.1%	New York 9.3%
Onions	Indiana 14.1%	Texas 13.9%	New York 12.7%
White Potatoes	Maine 19.6%	Virginia 11.3%	Minnesota 7.5%
Sweet Potatoes	Virginia 24.6%	Tennessee 22.8%	Maryland 9.2%
Tomatoes	Florida 36.2%	Mississippi 14.7%	California 14.4%

THE FARMER'S DOLLAR: ITS INDEX VALUE.

(By the Department of Agriculture, 1910-1914 = 100.)

RATIOS ON COMMODITIES PURCHASED.

Date.	Prices. Rec. for farm products.	Prices. Pd. for commodities.	Prices received to prices paid.	Farm wages paid to hired labor.	Com'odities bought for product'n & farm wages.	Taxes on farm property (1914 = 100).	Val. per acre of farm real estate (1912-14 = 100).
1917	176	150	118	140	149	106	117
1918	200	178	112	176	176	118	129
1919	209	205	102	206	196	130	140
1920	205	206	99	239	189	155	169
1921	116	156	75	150	144	217	157
1922	124	152	81	146	142	232	139
1923	135	153	88	166	147	246	135
1924	134	154	87	166	148	249	130
1925	147	159	92	168	154	250	127
1926	136	156	87	171	150	253	124
1927	131	154	85	170	150	258	119
1928	139	156	90	169	151	...	...

INDEX NUMBERS OF PRICES PAID FOR COMMODITIES FOR MAINTENANCE.

Date.	Food.	Clothing.	Operating expenses.	Furniture and furnishings.	Building materials for house.	All commodities used for family maintenance.
1917	157.6	155.1	127.7	152.4	133.4	148.1
1918	176.0	206.7	145.6	210.6	159.9	180.3
1919	207.1	254.2	159.8	254.0	201.1	213.9
1920	207.6	265.4	190.6	279.0	212.3	227.4
1921	141.8	181.0	162.2	221.2	157.9	165.4
1922	141.8	174.1	148.8	212.0	165.1	159.5
1923	149.0	178.4	139.0	220.5	166.9	161.4
1924	147.8	183.9	132.4	223.8	167.2	161.5
1925	159.3	183.2	134.0	221.1	171.6	165.3
1926	156.7	180.9	136.5	215.4	172.8	164.1
1927	154.2	176.8	133.2	210.1	176.0	160.9
1928	155.3	180.7	132.6	208.0	173.0	162.2

INDEX NUMBERS OF PRICES PAID FOR COMMODITIES USED IN PRODUCTION.

Date.	Feed.	Machinery.	Fertilizer.	Bldg. materials for other than house.	Equipment and supplies.	Seed.	All commodities used in production.
1917	186.0	132.1	139.1	136.7	150.6	141.1	152.2
1918	196.2	159.7	172.7	161.2	180.3	188.1	175.7
1919	208.3	177.7	184.7	189.3	170.4	264.1	192.5
1920	133.2	188.2	189.3	205.0	180.4	149.2	174.9
1921	91.4	174.6	158.7	156.2	150.7	124.6	141.8
1922	118.1	156.5	131.3	159.2	130.4	132.7	140.4
1923	128.2	151.3	127.6	160.3	130.7	141.6	141.6
1924	135.3	154.8	122.0	159.3	130.1	148.4	142.8
1925	145.4	157.5	131.0	162.8	130.4	169.6	149.4
1926	120.1	155.9	128.8	162.7	142.4	189.9	144.3
1927	124.4	156.8	122.9	163.5	133.7	191.8	143.7
1928	133.1	157.7	132.8	161.1	130.9	178.8	145.6

AVERAGE PRICES RECEIVED BY AMERICAN FARMERS.

Jan. 15.	Hogs.	Beef Cattle.	Veal Calves.	Sheep.	Lambs.	Wool.	Milch Cows.	Horses.	Clover Seed	Timothy Seed.	Alfalfa Seed.	Cotton Seed.	Wheat.	Corn.
1918	15.26	8.33	11.16	10.55	13.83	58.1	76.54	130	14.48	3.57	10.14	67.51	201.6	136.8
1919	15.69	9.65	12.39	9.68	12.71	55.2	86.10	120	21.55	4.34	10.07	64.93	206.2	141.4
1920	13.36	8.99	12.89	9.34	12.91	53.3	94.42	118	28.06	5.35	16.60	69.88	233.8	143.6
1921	8.72	6.32	9.34	5.30	8.44	19.6	66.82	96	10.82	3.04	9.95	18.96	149.2	64.6
1922	6.89	4.75	7.23	4.57	7.33	18.0	52.83	82	10.69	2.70	7.39	29.24	95.2	74.6
1923	7.77	5.51	8.05	6.88	10.69	35.3	54.01	81	11.16	3.06	9.58	43.35	104.6	70.2
1924	6.59	5.38	8.36	6.71	10.19	36.6	55.57	73	12.51	3.37	10.43	44.37	96.7	73.6
1925	9.31	5.63	8.50	7.86	12.69	42.8	54.81	73	16.17	3.04	10.52	37.50	162.1	112.0
1926	10.99	6.31	9.44	7.95	12.79	38.9	62.06	75	16.04	3.38	9.51	28.40	158.1	69.6
1927	10.97	6.45	9.75	6.87	10.65	30.9	66.77	73	19.07	2.62	10.12	18.55	122.2	64.3
1928	7.81	8.48	10.88	7.52	11.34	33.2	83.11	77.17	15.97	1.78	9.55	37.40	115.2	75.2
1929	8.18	8.97	12.20	7.84	12.23	35.9	91.54	77.11	16.96	2.41	12.67	38.05	98.5	80.2

The figures represent cents per pound or dollars per 100 pounds in the cases of hogs, cattle, calves, sheep and lambs; cents per pound as to wool; dollar, per head for cows and horses; dollars per bushel as to beans and all seeds but cotton; dollars per ton as to cottonseed meal.

Jan. 15.	Oats.	Barley.	Rye.	Buckwheat.	Potatoes.	Sweet Potatoes.	Flaxseed.	Apples.	Hay.	Cotton	Butter.	Eggs.	Chickens.
1918	76.3	129.2	172.6	162.3	122.0	123.1	318.8	132.9	18.48	29.3	43.4	47.8	18.4
1919	67.6	89.0	145.6	160.5	115.2	137.8	318.9	148.9	19.86	26.8	52.2	52.8	21.6
1920	80.4	133.6	153.4	152.8	198.1	151.1	445.0	215.9	21.16	36.0	59.6	60.8	23.4
1921	43.7	60.8	128.1	122.0	100.6	126.3	160.0	130.8	15.70	11.6	47.0	55.4	21.3
1922	31.9	44.0	70.0	84.4	112.0	102.3	162.1	183.5	11.34	15.9	37.4	38.4	18.6
1923	41.5	56.8	71.7	88.5	62.0	92.5	229.9	131.5	11.98	25.2	43.0	38.8	17.4
1924	43.4	56.5	63.5	92.7	86.4	112.5	218.8	121.3	13.59	32.5	44.9	35.4	17.5
1925	54.0	82.4	126.2	107.0	70.2	145.5	271.8	144.9	12.70	22.7	41.3	48.6	18.5
1926	40.0	59.5	88.2	85.7	220.5	149.3	224.5	146.3	13.31	17.4	44.3	36.3	20.9
1927	42.6	58.0	83.6	83.6	139.1	97.8	193.0	97.0	13.38	10.6	44.0	36.9	20.1
1928	49.3	73.6	88.0	82.0	93.6	93.4	188.4	162.0	10.60	18.6	45.2	38.2	19.6
1992	43.7	56.2	87.9	91.2	58.9	104.2	211.1	124.0	11.61	17.9	45.3	33.0	21.6

WHOLESALE PRICE INDEX IN UNITED STATES SINCE 1861.

(Known as Dun's Index Number; prepared by R. G. Dun & Co., N. Y.)

July 1.	Bread-stuffs.	Meat.	Dairy and Garden.	Other Food.	Cloth-ing.	Metals.	Miscel-laneous.	Total.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
1861	15.749	7.435	10.813	7.653	21.147	22.500	16.573	101.910
1862	18.057	7.150	13.406	10.987	28.413	23.207	17.290	118.510
1863	26.154	10.115	13.530	16.359	45.679	37.079	24.264	173.180
1864	45.616	15.685	26.053	27.303	73.485	59.192	31.653	278.987
1865	25.404	16.112	18.049	21.057	49.307	38.956	25.551	194.436
1866	31.471	17.153	23.472	20.821	45.377	41.762	27.922	207.978
1867	36.537	14.278	18.418	20.167	38.169	35.426	25.529	188.524
1868	38.416	13.210	23.614	19.720	35.694	27.385	24.786	182.825
1869	29.116	13.181	18.121	16.347	35.309	28.355	24.201	164.630
1870	25.322	14.161	16.112	13.308	31.480	26.612	21.786	148.781
1871	24.809	12.177	20.799	13.823	30.624	27.371	21.907	151.510
1872	22.171	11.055	16.019	14.845	32.427	32.643	21.319	150.479
1873	20.460	10.114	15.629	13.625	29.411	32.298	21.552	143.089
1874	25.657	11.560	19.142	13.678	27.260	25.254	19.582	143.133
1875	24.848	13.287	14.918	14.418	25.318	23.515	18.398	134.702
1876	18.777	10.726	15.912	12.914	21.747	20.452	15.951	116.479
1877	21.812	10.036	11.790	13.321	21.850	15.578	15.160	109.547
1878	15.672	8.181	10.608	11.346	19.836	15.789	14.836	96.268
1879	17.054	8.239	10.253	9.884	20.420	15.149	16.286	97.285
1880	17.461	9.230	12.594	11.539	21.984	18.708	17.139	108.655
1881	20.369	11.381	11.311	11.663	20.982	19.295	16.900	111.901
1882	25.494	13.740	14.685	11.627	21.202	19.832	16.650	123.230
1883	19.018	11.210	12.250	10.726	20.209	18.071	15.764	107.248
1884	17.871	11.172	11.369	9.323	19.014	16.272	14.685	99.706
1885	16.370	9.205	10.872	8.712	17.740	14.132	13.666	90.697
1886	15.311	8.906	10.241	8.570	18.063	14.466	13.669	89.226
1887	15.156	8.667	11.188	9.252	18.174	16.035	15.153	93.624
1888	16.984	9.416	11.849	9.917	17.447	15.366	14.155	95.134
1889	14.351	8.244	9.695	10.912	17.107	14.782	14.600	89.691
1890	14.867	8.036	10.711	9.749	17.264	15.506	15.416	91.549
1891	19.782	9.217	12.455	9.339	16.501	15.107	13.691	96.092
1892	17.426	8.700	10.403	8.733	15.648	14.827	14.252	90.105
1893	14.963	10.135	11.710	9.188	15.871	14.030	14.716	90.613
1894	15.115	9.389	10.394	8.478	13.860	12.015	14.041	83.292
1895	14.765	8.622	9.874	8.689	15.315	11.021	13.233	81.519
1896	10.504	7.058	7.872	8.529	13.602	13.232	13.520	74.317
1897	10.587	7.529	8.714	7.887	13.808	11.642	12.288	72.455
1898	12.783	7.694	9.437	8.826	14.663	11.843	12.522	77.768
1899	13.483	7.988	10.974	9.157	15.021	15.635	12.969	85.227
1900	14.898	8.906	10.901	9.482	16.324	14.834	16.070	91.415
1901	14.904	9.430	11.030	9.086	15.098	15.344	16 617	91.509
1902	20.534	11.628	12.557	8.748	15.533	16.084	16.826	101.910
1903	17.473	9 209	13.083	9.186	17.136	16.544	16.765	99.456
1904	18.244	9 033	10.648	10.406	16.514	15.428	16 919	97.192
1905	18.833	8 614	9 982	9.922	17.986	15.916	17.061	98.312
1906	17.923	9 677	12.590	9.645	19.177	16.649	19.555	105 216
1907	20.306	10.196	14.767	10.013	20.355	17.688	20.335	113.660
1908	22.826	10.197	12.552	10.465	17.233	16.542	18.359	108.174
1909	25.854	9.955	15.268	10.628	20.062	16.426	20.828	119.021
1910	21.690	11.406	14.663	10.556	21.173	16.744	22.936	119 168
1911	21.283	9.414	17.473	11.384	19.324	16.583	22 669	118 130
1912	25.964	10.715	15.501	11.828	20.449	16.349	21.471	122.277
1913	21.192	13.090	13.039	10.213	20.534	16.512	21.739	116.319
1914	21.086	12.979	17.244	10.449	20.834	15.691	21.425	119.708
1915	26.467	12.134	15.563	10.724	20.902	16.607	22.561	124.958
1916	26.378	14 400	19 435	12.156	25.800	21.174	25 799	145.142
1917	53.918	18 824	26 449	14.225	36.527	32.390	29.617	211.950
1918	51.420	23.719	24.750	21.929	45.238	30.170	35.349	232.575
1919	51.728	25.660	26.160	23.342	45.623	25.759	35.435	233.707
1920	57.170	22.019	28.044	25.521	50.268	31.172	46.220	260.414
1921	26.573	13.114	18.012	17.268	28.034	23.037	33.795	159.833
1922	27.022	17.469	20.061	18.427	34.459	21.450	34.855	173.743
1923	29.854	16.707	19.802	20.036	39.929	23.796	38.587	188.711
1924	33 523	16.047	20.205	19.419	37.925	22.515	35.851	185.485
1925	36 059	22 397	21.236	19.916	38.334	21.908	36 049	195 899
1926	29.717	21.301	21.199	20.163	33.741	22.734	37 159	186.014
1927	33.519	19.329	20.733	18.928	33.187	22.351	37.551	185.598
1928	38.385	22.102	20.905	19 806	36.543	20.796	36 646	195.183
1929	32 398	23.591	21.058	19 110	34.578	21.314	36.640	188.689

UNITED STATES AND FOREIGN WHOLESALE PRICE INDEX.

(Compiled by the Federal Reserve Board, Washington, D. C.)

Year.	U. S.	Can.	Engl.	Fr'nce	Ger.	Italy.	Denm.	Holl.	Spain.	Swed.	Jap'n.	China	A'str'l	India
1913	70	100	100	100	100	100	100	100	100	100	100	100	100	100
1919	139	209	242	356	.....	.....	.....	304	204	.....	236	145	180	196
1920	154	244	295	510	.....	.....	.....	292	221	359	259	152	218	201
1921	98	172	182	345	.....	.....	.....	182	190	222	200	150	167	178
1922	97	152	154	327	.....	508	.....	160	176	173	196	146	154	176
1923	101	153	152	419	.....	512	.....	151	172	163	199	156	170	172
1924	98	155	164	489	137	512	.....	156	183	162	206	154	165	173
1925	104	160	170	550	142	596	230	155	188	161	202	159	159	159
1926	100	156	150	703	134	602	163	144	181	149	179	164	161	148
1927	95	152	144	617	138	495	154	148	172	146	170	170	159	148
1928	98	150	142	620	140	462	153	150	168	148	171	161	157	145

The above index numbers are compiled by governmental agencies in the respective countries shown. Figures for England are those of the Statist; those for China cover Shanghai; those for Japan are for Tokio; those for India cover Calcutta; those for Denmark, revised official index.

UNITED STATES POPULATION (OFFICIAL CENSUSES) 1790-1920.

STATE.	1790.	1800.	1810.	1820.	1830.	1840.	1850.
Alabama				127,901	309,527	500,756	771,623
Arkansas			1,062	14,273	30,388	97,574	209,897
California							92,597
Connecticut	237,946	251,002	261,942	275,248	297,675	309,978	370,792
Delaware	59,096	64,273	72,674	72,749	76,748	78,085	91,532
District of Columbia		14,093	24,023	33,039	39,834	43,712	51,687
Florida					34,730	54,477	87,445
Georgia	82,548	162,686	252,433	340,989	516,823	691,392	906,185
Illinois			12,282	55,211	157,445	476,189	851,470
Indiana		5,641	24,520	147,178	348,031	685,866	988,416
Iowa						43,112	192,214
Kentucky	73,677	220,955	406,511	564,317	687,917	779,828	982,405
Louisiana			76,556	153,407	215,739	352,411	517,762
Maine	96,540	151,719	228,705	298,335	399,455	501,793	583,169
Maryland	319,728	341,548	380,546	407,350	447,040	470,019	583,034
Massachusetts	378,787	422,845	472,040	523,287	610,408	737,699	994,514
Michigan			4,762	8,896	31,639	212,267	397,654
Minnesota							6,077
Mississippi		8,850	40,352	75,448	136,621	375,651	606,526
Missouri			19,783	66,586	140,455	383,702	682,044
New Hampshire	141,885	183,858	214,460	244,161	269,328	284,574	317,976
New Jersey	184,139	211,149	245,562	277,575	320,823	373,306	489,555
New Mexico							61,547
New York	340,120	589,051	959,049	1,372,812	1,918,608	2,428,921	3,097,394
North Carolina	393,751	478,103	555,500	638,829	737,987	753,419	869,039
Ohio		45,365	230,760	581,434	937,903	1,519,467	1,980,329
Oregon							13,294
Pennsylvania	434,373	602,365	810,091	1,049,458	1,348,233	1,724,033	2,311,786
Rhode Island	68,825	69,122	76,931	83,059	97,199	108,830	147,545
South Carolina	249,073	345,591	415,115	502,741	581,185	594,398	668,507
Tennessee	35,691	105,602	261,727	422,823	681,904	829,210	1,002,717
Texas							212,592
Utah							11,380
Vermont	85,425	154,465	217,895	235,981	280,652	291,948	314,120
Virginia	747,610	880,200	974,600	1,065,366	1,211,405	1,239,797	1,421,661
Wisconsin						30,945	305,391
Total	3,929,214	5,308,483	7,239,881	9,638,453	12,866,020	17,069,453	23,191,876

POPULATION OF THE UNITED STATES, 1790-1920—CONTINUED.

STATE.	1860.	1870.	1880.	1890.	1900.	1910.	1920.
Alabama	964,201	996,992	1,262,505	1,513,401	1,828,697	2,138,093	2,348,174
Arizona		9,658	40,440	88,248	122,931	204,354	334,162
Arkansas	435,450	484,471	802,525	1,128,211	1,311,564	1,574,449	1,752,204
California	379,994	560,247	864,694	1,213,398	1,485,953	2,377,549	3,426,861
Colorado	34,277	39,864	194,327	413,249	539,700	799,024	939,629
Connecticut	460,147	537,454	622,700	746,258	908,420	1,114,756	1,380,631
Delaware	112,216	125,015	146,608	168,493	184,735	202,322	223,003
District of Columbia	75,080	131,709	177,624	230,392	278,718	331,069	437,571
Florida	140,424	187,748	269,493	391,422	528,542	752,619	968,470
Georgia	1,057,286	1,184,109	1,542,180	1,837,353	2,216,331	2,609,121	2,895,832
Idaho		14,999	32,610	88,548	161,772	325,594	431,866
Illinois	1,711,951	2,539,891	3,077,871	3,826,352	4,821,550	5,638,591	6,485,280
Indiana	1,350,428	1,680,637	1,978,301	2,192,404	2,516,462	2,700,876	2,930,390
Iowa	674,913	1,194,020	1,624,615	1,912,297	2,234,858	2,224,771	2,404,021
Kansas	107,206	364,399	996,096	1,428,108	1,470,495	1,690,949	1,769,257
Kentucky	1,155,684	1,321,011	1,648,690	1,858,635	2,147,174	2,289,905	2,416,630
Louisiana	708,002	726,915	939,946	1,118,588	1,381,625	1,656,388	1,798,509
Maine	628,279	626,915	648,936	661,086	694,466	742,371	768,014
Maryland	687,049	780,894	934,943	1,042,390	1,188,044	1,295,346	1,449,661
Massachusetts	1,231,066	1,457,351	1,783,085	2,238,947	2,805,346	3,366,416	3,852,356
Michigan	749,113	1,184,059	1,636,937	2,093,890	2,420,982	2,810,173	3,668,412
Minnesota	172,023	439,706	780,773	1,310,283	1,751,394	2,075,708	2,387,125
Mississippi	791,305	827,922	1,131,597	1,289,600	1,551,270	1,797,114	1,790,618
Missouri	1,182,012	1,721,295	2,168,380	2,679,185	3,106,665	3,293,335	3,404,055
Montana		20,595	39,159	142,924	243,329	376,053	548,889
Nebraska	28,841	122,993	452,402	1,062,656	1,066,300	1,192,214	1,296,372
Nevada	6,857	42,491	62,266	47,355	42,335	81,875	77,407
New Hampshire	326,073	318,300	346,991	376,530	411,588	430,572	443,083
New Jersey	672,035	906,096	1,131,116	1,444,933	1,883,669	2,537,167	3,155,900
New Mexico	93,516	91,874	119,565	160,282	195,310	327,301	360,350
New York	3,880,735	4,382,759	5,082,871	6,003,174	7,268,894	9,113,614	10,385,227
North Carolina	992,622	1,071,361	1,399,750	1,617,949	1,893,810	2,206,287	2,559,123
North Dakota				190,983	319,146	577,056	646,872
Ohio	2,339,511	2,665,260	3,198,062	3,672,329	4,157,545	4,767,121	5,759,394
Oklahoma				258,657	790,391	1,657,155	2,028,283
Oregon	52,465	90,923	174,768	317,704	413,536	672,765	783,389
Pennsylvania	2,906,215	3,521,951	4,282,891	5,258,113	6,302,115	7,665,111	8,720,017
Rhode Island	174,620	217,353	276,531	345,506	428,556	542,610	604,397
South Carolina	703,708	705,606	995,577	1,151,149	1,340,316	1,515,400	1,683,724
South Dakota	4,837	14,181	135,177	348,600	401,570	583,888	636,547
Tennessee	1,109,801	1,258,520	1,542,359	1,767,518	2,020,616	2,184,789	2,337,885
Texas	604,215	818,579	1,591,749	2,235,527	3,048,710	3,896,542	4,663,228
Utah	40,273	86,786	143,963	210,779	276,749	373,351	449,396
Vermont	315,098	330,551	332,286	332,422	343,641	355,956	352,428
Virginia	1,596,318	1,225,163	1,512,565	1,655,980	1,854,184	2,061,612	2,309,187
Washington	11,594	23,955	75,116	357,232	518,103	1,141,990	1,356,621
West Virginia		442,014	618,457	762,794	958,800	1,221,119	1,463,701
Wisconsin	775,881	1,054,670	1,315,497	1,693,330	2,069,042	2,333,860	2,632,067
Wyoming		9,118	20,789	62,555	92,531	145,965	194,402
Total	31,443,321	38,558,371	50,155,783	62,947,714	75,994,575	91,972,266	105,710,620

Population (1920) of outlying possessions—*Alaska*, 55,036; *American Samoa*, 8,056; *Guam*, 13,275; *Hawaii*, 255,912; *Panama Canal Zone*, 22,858; *Porto Rico*, 1,299,809; *Philippines* (Dec. 31, 1918), 10,350,640; *Virgin Islands of the United States* (Nov. 1, 1917), 26,051.

The total in the table includes for 1920, 117,238 persons in military and naval service abroad.

ESTIMATED UNITED STATES POPULATION JULY 1, 1928.

The Department of Commerce announces an estimate of the population of the United States by the Bureau of the Census. This gives a total estimated population of 120,013,000 on July 1, 1928, as compared with 105,710,620 on January 1, 1920.

The total is arrived at by estimating the increase since 1920 upon the basis of the available data regarding births, deaths, immigration and emigration.

The population of the several states is then estimated by distributing the total increase for the United States upon the basis of the increase by states from 1910 to 1920 or, where there has been a state census, from 1920 to 1925, except that where there was a decrease between 1910 and 1920 or between 1920 and 1925, the 1920 or 1925 census figure is retained, and no estimate is made.

	Jan. 1, 1920	July 1, 1928		Jan. 1, 1920	July 1, 1928		Jan. 1, 1920	July 1, 1928
U. S.	105,710,620	120,013,000	Ky.	2,416,630	2,553,000	N. D.	646,872	641,192
			La.	1,798,509	1,950,000	Ohio	5,759,394	6,826,000
Ala.	2,348,174	2,573,000	Me.	768,014	795,000	Okla.	2,028,283	2,426,000
Ariz.	334,162	474,000	Md.	1,449,661	1,616,000	Ore.	783,389	902,000
Ark.	1,752,204	1,944,000	Mass.	3,852,356	4,290,000	Penn.	8,720,017	9,854,000
Calif.	3,426,861	4,556,000	Mich.	3,668,412	4,591,000	R. I.	604,397	716,000
Col.	939,629	1,090,000	Minn.	2,387,125	2,722,000	S. C.	1,683,724	1,864,000
Conn.	1,380,631	1,657,000	Miss.	1,790,618	1,790,618	S. D.	636,547	704,000
Dela.	223,003	244,000	Mo.	3,404,055	3,523,000	Tenn.	2,337,885	2,502,000
D. of C.	437,571	552,000	Mont.	548,889	548,889	Texas	4,663,228	5,487,000
Fla.	968,470	1,411,000	Neb.	1,296,372	1,408,000	Utah	449,396	531,000
Ga.	2,895,832	3,203,000	Nev.	77,407	77,407	Vt.	352,428	352,428
Idaho	431,866	546,000	N. H.	443,083	456,000	Va.	2,309,187	2,575,000
Ill.	6,485,280	7,396,000	N. J.	3,155,900	3,821,000	Wash.	1,356,621	1,587,000
Ind.	2,930,390	3,176,000	N. M.	360,350	396,000	W. Va.	1,463,701	1,724,000
Iowa.	2,404,021	2,428,000	N. Y.	10,385,227	11,550,000	Wis.	2,632,067	2,953,000
Kansas.	1,769,257	1,835,000	N. C.	2,559,123	2,938,000	Wyo.	194,402	247,000

ESTIMATED UNITED STATES POPULATION JULY 1, 1920 TO 1927.
(Based on Federal Censuses 1910 and 1920; by the Bureau of the Census.)

State.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.
U. S.	106,418,284	107,833,284	109,248,393	110,663,502	112,078,611	115,378,094	117,135,817	118,628,000
Alabama	2,358,993	2,380,632	2,402,273	2,423,912	2,445,551	2,498,581	2,526,001	2,549,000
Arizona	340,848	354,219	367,589	380,960	394,331	427,658	444,708	459,000
Arkansas	1,761,358	1,779,668	1,797,978	1,816,287	1,834,596	1,879,846	1,903,048	1,923,000
California	3,480,902	3,588,986	3,697,070	3,805,153	3,913,236	4,179,708	4,316,459	4,433,000
Colorado	946,870	961,353	975,837	990,320	1,004,803	1,040,442	1,058,722	1,074,000
Conn	1,394,324	1,421,710	1,449,097	1,476,483	1,503,869	1,571,688	1,608,491	1,636,000
Delaware	224,068	226,197	228,330	230,460	232,590	237,637	237,274	243,000
Dis. of Col.	437,571	437,571	437,571	475,966	486,936	513,994	527,880	540,000
Florida	979,586	1,001,820	1,024,054	1,046,287	1,068,520	1,263,549	1,317,160	1,363,000
Georgia	2,910,598	2,940,131	2,969,664	2,999,196	3,028,728	3,101,523	3,138,962	3,171,000
Idaho	437,339	448,286	459,233	470,179	481,125	508,289	522,175	534,000
Illinois	6,528,886	6,616,099	6,703,312	6,790,524	6,877,737	7,092,598	7,202,983	7,296,000
Indiana	2,942,210	2,965,851	2,989,493	3,013,134	3,036,775	3,094,618	3,124,499	3,150,000
Iowa	2,413,252	2,431,716	2,450,180	2,468,643	2,487,106	2,419,927	2,422,915	2,425,000
Kansas	1,773,289	1,781,356	1,789,423	1,797,489	1,805,555	1,812,986	1,820,896	1,328,000
Kentucky	2,423,156	2,436,210	2,449,263	2,462,317	2,475,370	2,507,687	2,524,210	2,538,000
Louisiana	1,805,927	1,820,467	1,835,106	1,849,746	1,864,385	1,900,135	1,918,591	1,934,000
Maine	769,334	771,976	774,617	777,259	779,900	786,713	786,053	793,000
Maryland	1,457,608	1,473,504	1,489,399	1,505,295	1,521,190	1,560,230	1,580,268	1,597,000
Mass	3,877,382	3,927,436	3,977,490	4,027,545	4,077,599	4,144,205	4,197,288	4,242,000
Michigan	3,712,613	3,801,016	3,889,418	3,977,821	4,066,223	4,283,860	4,395,651	4,490,000
Minnesota	2,403,164	2,435,241	2,467,318	2,499,396	2,531,473	2,610,703	2,651,306	2,686,000
Miss.	1,790,618	1,790,618	1,790,618	1,790,618	1,790,618	1,790,618	1,790,618	1,790,618
Missouri	3,409,758	3,421,162	3,432,566	3,433,971	3,455,376	3,483,730	3,498,143	3,516,000
Montana	557,791	575,593	593,396	611,199	629,003	672,466	694,965	714,000
Nebraska	1,301,737	1,312,465	1,323,193	1,333,922	1,344,652	1,371,169	1,384,703	1,396,000
Nevada	77,406	77,407	77,407	77,407	77,407	77,407	77,407	77,407
N. Hamp.	443,407	445,016	446,304	447,592	448,882	451,026	453,608	455,000
N. Jersey	3,187,767	3,251,499	3,315,231	3,378,963	3,442,695	3,599,803	3,680,482	3,749,000
N. Mex.	362,053	365,457	368,861	372,265	375,669	383,927	388,146	392,000
New York	10,450,718	10,581,700	10,712,680	10,843,661	10,974,642	11,162,151	11,303,296	11,423,000
N. Car.	2,577,296	2,613,639	2,649,982	2,686,325	2,722,669	2,811,969	2,857,846	2,897,000
N. Dak.	650,468	657,659	664,850	672,041	679,232	641,192	641,192	641,192
Ohio	5,810,498	5,912,706	6,014,914	6,117,122	6,219,330	6,470,777	6,600,146	6,710,000
Oklahoma	2,047,397	2,085,624	2,123,851	2,162,079	2,200,307	2,294,137	2,342,474	2,397,000
Oregon	789,087	800,481	811,857	823,270	834,665	864,064	877,477	890,000
Penn.	8,774,347	8,883,006	8,991,666	9,100,326	9,208,986	9,476,116	9,613,570	9,730,000
R. Isl.	607,580	613,944	620,308	626,672	633,036	679,260	692,794	704,000
S. Car.	1,692,394	1,709,732	1,727,070	1,744,408	1,761,746	1,804,049	1,826,021	1,845,000
S. Dak.	639,260	644,684	650,108	655,532	660,956	681,260	689,346	696,000
Tenn	2,345,770	2,361,539	2,377,308	2,393,077	2,408,846	2,447,641	2,467,679	2,485,000
Texas	4,702,714	4,781,686	4,860,658	4,939,630	5,018,602	5,212,822	5,312,661	5,397,000
Utah	453,313	461,146	468,979	476,812	484,645	503,868	513,711	522,000
Vermont	352,428	352,428	352,428	352,428	352,428	352,428	352,428	352,428
Virginia	2,321,938	2,347,439	2,372,940	2,398,441	2,423,942	2,486,423	2,518,589	2,546,000
Wash	1,367,675	1,389,782	1,411,890	1,433,998	1,456,106	1,510,280	1,538,228	1,562,000
W. Va.	1,476,195	1,501,182	1,526,169	1,551,156	1,576,143	1,637,685	1,669,324	1,696,000
Wis.	2,647,426	2,678,142	2,708,858	2,739,574	2,770,291	2,845,888	2,884,734	2,918,000
Wyoming	196,897	201,875	206,875	211,864	216,853	229,361	235,689	241,000

ESTIMATED POPULATION OF THE UNITED STATES, 1911-1919.
(Bureau of Census Figures For Continental United States.)

(1911), 93,792,509; (1912), 95,410,503; (1913), 97,028,497; (1914), 98,646,491. (1915), 100,264,485; (1916), 101,882,479; (1917), 103,500,473; (1918), 105,253,300; (1919), 106,871,294.

ESTIMATED POPULATION OF BIG U. S. CITIES, JULY 1, 1928

City.	Pop.	City.	Pop.	City.	Pop.
Akron, Ohio	240,000	Harrisburg, Pa	86,900	Pensacola, Fla. (1925)	25,305
Albany, N. Y	120,400	Hartford, Conn	172,300	Peoria, Ill	84,500
Allentown, Pa	99,400	Haverhill, Mass. (1925)	49,232	Perth Amboy, N. J	50,100
Altoona, Pa	69,100	Hazleton, Pa	38,300	Petersburg, Va	37,800
Amarillo, Tex	39,200	Highland Park, Mich	83,400	Philadelphia, Pa	2,064,200
Amsterdam, N. Y	36,200	Hoboken, N. J	68,000	Pittsburgh, Pa	673,800
Atlantic, Ga	255,100	Holyoke, Mass	60,400	Pittsfield, Mass	50,000
Atlantic City, N. J	54,700	Houston, Tex	275,000	Pontiac, Mich	61,500
Auburn, N. Y (1925)	35,677	Huntington, W. Va	68,600	Portland, Me	78,600
Augusta, Ga	56,700	Indianapolis, Ind	382,000	Portland, Ore	354,600
Aurora, Ill	47,100	Jackson, Mich	63,700	Portsmouth, Ohio	41,200
Austin, Tex	45,133	Jacksonville, Fla	140,700	Portsmouth, Va	61,600
Baltimore, Md	830,400	Jamestown, N. Y	46,000	Poughkeepsie, N. Y	39,100
Battle Creek, Mich	47,200	Jersey City, N. J	324,700	Providence, R. I	286,300
Bay City, Mich	49,600	Johnstown, Pa	73,700	Pueblo, Colo	44,200
Bayonne, N. J	95,300	Joliet, Ill	41,900	Quincy, Ill	38,900
Berkeley, Calif	57,295	Kalamazoo, Mich	56,400	Quincy, Mass	67,600
Bethlehem, Pa	67,600	Kansas City, Kan	118,300	Racine, Wisc	74,400
Binghamton, N. Y	74,800	Kansas City, Mo	391,000	Reading, Pa	115,400
Birmingham, Ala	224,000	Kenosha, Wisc	56,500	Revere, Mass	36,000
Boston, Mass	779,620	Knoxville, Tenn	105,400	Richmond, Va	194,400
Bridgeport, Conn	160,000	Kokomo, Ind	40,400	Roanoke, Va	64,600
Brockton, Mass. (1925)	65,343	La Crosse, Wisc	30,400	Rochester, N. Y	322,200
Brookline (town), Mass	45,700	Lakewood, Ohio	65,00	Rockford, Ill	82,800
Buffalo, N. Y	555,800	Lancaster, Pa	58,300	Rock Island, Ill	42,700
Butte, Mont	43,600	Lansing, Mich	79,600	Sacramento, Calif	75,700
Cambridge, Mass	125,800	Lawrence, Mass (1925)	93,527	Saginaw, Mich	75,600
Camden, N. J	135,400	Lewiston, Me	36,600	St. Joseph, Mo	78,500
Canton, Ohio	116,800	Lexington, Ky	48,700	St. Louis, Mo	848,000
Cedar Rapids, Iowa	58,200	Lima, Ohio	49,700	St. Paul, Minn	358,162
Charleston, So. Car	75,900	Lincoln, Nebr	71,100	St. Petersburg, Fla	53,300
Charleston, W. Va	55,200	Little Rock, Ark	79,200	Salem, Mass	43,000
Charlotte, No. Car	82,100	Long Beach, Calif	156,000	Salt Lake City, Utah	138,000
Chattanooga, Tenn	73,500	Lorain, Ohio	44,900	San Antonio, Tex	213,100
Chelsea, Mass	49,800	Los Angeles, Calif	1,420,000	San Diego, Calif	119,700
Chester, Pa	74,200	Louisville, Ky	329,400	San Francisco, Calif	585,300
Chicago	3,157,400	Lowell, Mass (1925)	110,295	San Jose, Calif	45,500
Chicopee, Mass	45,400	Lynchburg, Va	38,600	Savannah, Ga	99,900
Cicero, Ill	71,600	Lynn, Mass	105,500	Schenectady, N. Y	93,300
Cincinnati, Ohio	413,700	Macon, Ga	61,200	Scranton, Pa	144,700
Cleveland, Ohio	1,010,300	Madison, Wisc	50,500	Seattle, Wash	383,200
Colorado Springs, Colo	35,000	Malden, Mass	53,400	Sheboygan, Wisc	35,100
Columbia, So. Car	50,600	Manchester, New Hamp	85,700	Shreveport, La	81,300
Columbus, Ga	46,600	McKeesport, Pa	50,400	Sioux City, Iowa	80,000
Columbus, Ohio	299,000	Medford, Mass	52,900	Somerville, Mass	102,700
Council Bluffs, Iowa	42,300	Memphis, Tenn	190,200	South Bend, Ind	85,100
Covington, Ky	59,000	Meriden, Conn	37,100	Spokane, Wash	109,100
Cranston, R. I	37,500	Miami, Fla. ('25 census)	109,754	Springfield, Ill	67,200
Dallas, Tex	217,800	Milwaukee, Wisc	544,200	Springfield, Mass	149,800
Danville, Ill	38,800	Minneapolis, Minn	455,900	Springfield, Mo	51,700
Davenport, Iowa	67,200	Mobile, Ala	69,600	Springfield, Ohio	73,000
Dayton, Ohio	184,500	Moline, Ill	35,600	Stamford, Conn	43,800
Decatur, Ill	57,100	Montgomery, Ala	63,100	Stockton, Calif	51,000
Denver, Colo	294,200	Mt. Vernon, N. Y	54,700	Superior, Wis	40,000
Des Moines, Iowa	151,900	Muncie, Ind	46,800	Syracuse, N. Y	199,300
Detroit, Mich	1,378,900	Muskegon, Mich	46,600	Tacoma, Wash	110,500
Dubuque, Iowa	42,300	Muskogee, Okla	33,200	Tampa, Fla	113,400
Duluth, Minn	116,800	Nashville, Tenn	139,600	Taunton, Mass	40,600
Durham, No. Car	47,600	Newark, N. J	473,600	Terre Haute, Ind	73,500
E. Chicago, Ind	50,800	New Bedford, Mass. ('25)	119,539	Toledo, Ohio	313,200
East Orange, N. J	65,000	New Britain, Conn	72,800	Topeka, Kan	52,800
E. St. Louis	74,000	New Brunswick, N. J	40,800	Trenton, N. J	139,000
Easton, Pa	38,400	Newburgh, N. Y	30,400	Troy, N. Y	72,300
Elgin, Ill	36,000	New Castle, Pa	52,300	Tulsa, Okla	170,500
Elizabeth, N. J	117,000	New Haven, Conn	187,900	Union City, N. J	64,400
Elmira, N. Y	50,000	New Orleans, La	429,400	Utica, N. Y	104,200
El Paso, Tex	117,600	Newport, R. I	32,000	Waco, Tex	46,600
Erie, Pa	142,000	Newport News, Va	53,300	Waltham, Mass	37,100
Evanston, Ill	47,600	New Rochelle, N. Y	48,800	Washington, D. C	552,000
Evansville, Ind	98,100	Newton, Mass	57,300	Waterbury, Conn	107,000
Everett, Mass	43,300	New York, N. Y	6,017,000	Waterloo, Iowa	37,100
Fall River, Mass	134,300	Niagara Falls, N. Y	68,300	Watertown, N. Y	33,700
Fitchburg, Mass	45,200	Norfolk, Va	184,200	Wichita, Kan	99,300
Flint, Mich	148,800	Norristown, Pa	36,200	Wichita Falls, Tex	60,000
Ft. Wayne, Ind	105,300	Oakland, Calif	274,100	Wilkes-Barre, Pa	91,900
Fort Worth, Tex	170,600	Oak Park, Ill	57,700	Williamsport, Pa	44,000
Fresno, Calif	64,000	Ogden, Utah	39,100	Wilmington, Del	128,500
Galveston, Tex	50,600	Oklahoma City, Okla	160,000	Wilmington, No. Car	39,100
Gary, Ind	89,100	Omaha, Nebr	222,800	Winston-Salem, No. Car	80,000
Grand Rapids, Mich	164,200	Orange, N. J	36,500	Woonsocket, R. I	53,400
Green Bay, Wisc	36,100	Oshkosh, Wisc	33,200	Worcester, Mass	197,600
Greensboro, No. Car	51,900	Pasadena, Calif	62,100	Yonkers, N. Y	121,300
Hamilton, Ohio	44,200	Passaic, N. J	71,800	York, Pa	49,900
Hammond, Ind	56,000	Paterson, N. J	144,900	Youngstown, Ohio	174,200
Hamtramck, Mich	99,800	Pawtucket, R. I	73,100		

Baltimore (1752), 200; (1775), 5,934; (1780), 8,000; (1790), 13,502; (1800), 26,514; (1810), 46,555; (1820), 62,738; (1830), 80,620; (1840), 102,313; (1850), 169,054.

Boston (1680), 4,500; (1690), 7,000; (1700), 6,700; (1710), 9,000; (1720), 11,000; (1730), 13,000; (1740), 17,000; (1750), 15,731; (1760), 15,631; (1770), 15,520; (1780), 10,000; (1790), 18,320; (1800), 24,937; (1810), 33,787; (1820), 43,298; (1830), 61,392; (1840), 93,383; (1850), 136,881.

Philadelphia (1683), 500; (1700), 4,400; (1730), 8,500; (1740), 10,500; (1750), 13,400; (1760), 18,756; (1770), 28,000; (1780), 30,000; (1790), 28,522; (1800), 41,220; (1810), 53,722; (1830), 80,462; (1840), 93,665; (1850), 121,376.

The United States Census Bureau made no estimates of the 1929 population of states or cities.

This, the bureau explained, was because of the impending official census of 1930, preliminary figures from which will be available this year.

RANK OF THE STATES IN POPULATION, 1790-1920.

STATE.	1790.	1800.	1810.	1820.	1830.	1840.	1850.	1860.	1870.	1880.	1890.	1900.	1910.	1920.
Alabama	.....	.....	.....	19	15	12	12	13	16	17	17	18	18	18
Arizona	.....	.....	.....	.....	.....	.....	.....	.....	46	44	47	47	46	46
Arkansas	.....	.....	26	26	28	25	26	25	26	25	24	25	25	25
California	.....	.....	.....	.....	.....	.....	29	26	24	24	22	21	12	8
Colorado	.....	.....	.....	.....	.....	.....	.....	38	41	35	31	32	32	33
Connecticut	8	8	9	14	16	20	21	24	25	28	29	29	31	29
Delaware	16	17	19	22	24	26	30	32	35	38	43	45	47	47
Dist. of Columbia	.....	19	22	25	25	28	33	35	34	36	40	41	43	42
Florida	.....	.....	.....	.....	26	27	31	31	33	34	32	33	33	32
Georgia	13	12	11	11	10	9	9	11	12	13	12	11	10	12
Idaho	.....	.....	.....	.....	.....	.....	.....	.....	44	46	46	46	45	43
Illinois	.....	.....	24	24	20	14	11	4	4	4	3	3	3	3
Indiana	.....	21	21	18	13	10	7	6	6	6	8	8	9	11
Iowa	.....	.....	.....	.....	.....	29	27	26	11	10	10	10	15	16
Kansas	.....	.....	.....	.....	.....	.....	.....	33	29	20	19	22	22	24
Kentucky	14	9	7	6	6	6	8	9	8	8	11	12	14	15
Louisiana	.....	.....	18	17	19	19	18	17	21	22	25	23	24	22
Maine	11	14	14	12	12	13	16	22	23	27	30	31	34	35
Maryland	6	7	8	10	11	15	17	19	20	23	27	26	27	28
Massachusetts	4	5	5	7	8	8	6	7	7	7	6	7	6	6
Michigan	.....	.....	25	27	27	23	20	16	13	9	9	9	8	7
Minnesota	.....	.....	.....	.....	.....	.....	36	30	28	26	20	19	19	17
Mississippi	.....	20	20	21	22	17	15	14	18	18	21	20	21	23
Missouri	.....	.....	23	23	21	16	13	8	5	5	5	5	7	9
Montana	.....	.....	.....	.....	.....	.....	.....	.....	43	45	45	43	40	39
Nebraska	.....	.....	.....	.....	.....	.....	.....	39	36	30	26	27	29	31
Nevada	.....	.....	.....	.....	.....	.....	.....	41	40	43	49	49	49	49
New Hampshire	10	11	16	15	18	22	22	27	31	31	33	37	39	41
New Jersey	9	10	12	13	14	18	19	21	17	19	18	16	11	10
New Mexico	.....	.....	.....	.....	.....	.....	32	34	37	41	44	44	44	44
New York	5	3	2	1	1	1	1	1	1	1	1	1	1	1
North Carolina	3	4	4	4	5	7	10	12	14	15	16	15	16	14
North Dakota	.....	.....	.....	.....	.....	.....	.....	42	45	40	42	40	37	36
Ohio	.....	18	13	5	4	3	3	3	3	3	4	4	4	4
Oklahoma	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	39	30	23	21
Oregon	.....	.....	.....	.....	.....	.....	34	36	38	37	38	36	35	34
Pennsylvania	2	2	3	3	2	2	2	2	2	2	2	2	2	2
Rhode Island	15	16	17	20	23	24	28	29	32	33	36	35	38	38
South Carolina	7	6	6	8	9	11	14	18	22	21	23	24	26	26
South Dakota	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	35	38	36	37
Tennessee	17	15	10	9	7	5	5	10	9	12	13	14	17	19
Texas	.....	.....	.....	.....	.....	.....	25	23	19	11	7	6	5	5
Utah	.....	.....	.....	.....	.....	.....	35	37	39	39	41	42	41	40
Vermont	12	13	15	16	17	21	23	28	30	32	37	39	42	45
Virginia	1	1	1	2	3	4	4	5	10	14	15	17	20	20
Washington	.....	.....	.....	.....	.....	.....	.....	40	42	42	34	34	30	30
West Virginia	.....	.....	.....	.....	.....	.....	.....	.....	27	29	28	28	28	27
Wisconsin	.....	.....	.....	.....	.....	30	24	15	16	14	13	13	13	13
Wyoming	.....	.....	.....	.....	.....	.....	.....	.....	47	47	43	48	48	48

POPULATION OF THE AMERICAN COLONIES, 1610-1790.

Total—(1610), 210; (1620), 2,499; (1630), 5,700; (1640), 27,947; (1650), 51,700; (1660), 84,800; (1670), 114,500; (1680), 155,600; (1690), 213,500; (1700), 275,000; (1710), 357,500; (1720), 474,388; (1730), 654,950; (1740), 889,000; (1750), 1,207,000; (1760), 1,610,00; (1770), 2,205,000; (1780), 2,781,000.

The population in 1790 was composed as follows—free white males, 16 yrs. and over, 807,094; free white males under 16 yrs., 791,850; free white females, 1,541,263; all other free persons, 59,166; slaves, 694,264.

New Hampshire, not including Vermont towns—(1641), 1,000; (1675), 4,000; (1689), 6,000; (1716), 9,000; (1732), 12,500; (1742), 24,000; (1761), 38,000; (1767), 52,700; (1773), 79,092; (1775), 81,000; (1786), 96,755. Figures, 1767-1786 are censuses.

Massachusetts, including Maine—(1632), 2,300; (1643), 16,500; (1675), 33,000; (1692), 60,000; (1721), 94,000; (1735), 145,000; (1742), 165,000; (1755), 200,000. The 1735 figures include 2,600 Negroes. Census figures were—(1764-'5), 269,711; (1776), 338,667; (1784), 408,059.

Maine, estimate based on the Massachusetts census of 1764-1784—(1764-5), 23,993; (1776), 47,520; (1784), 61,406.

Connecticut—(1643), 5,500; (1665), 9,000; (1679), 14,000; (1689), 20,000; (1713), 34,000; (1730), 51,600; (1749), 100,000; (1756), 130,612; (1761), 146,520; (1774), 196,088; (1782), 208,870. Figures 1756-1782 are censuses. Figures for 1761 include 930 Indians.

New York, including Vermont—(1664), 7,000; (1673), 10,500; (1689), 20,000; (1771), 168,006; (1775), 190,000. Figures for 1771 are census, and include 4,669 for Vermont towns.

New York, census figures—(1698), 18,067; (1703), 20,748; (1712), 22,608; (1723), 40,564; (1731), 50,289; (1737), 60,437; (1746), 70,000; (1749), 73,448; (1756), 96,790; (1786), 238,895.

New Jersey—(1702), 15,000; (1726, census), 32,442; (1737, census), 47,369; (1745, census), 61,383; (1749), 60,000; (1754), 78,500; (1774), 120,000; (1784), 149,434. The 1745 figures include 4,606 slaves; 1749 figures exclude slaves; 1754 figures include 5,500 Negroes; 1784 figures include 10,500 Negroes.

Pennsylvania and Delaware—(1681), 500, mainly Swedes on the banks of the Delaware; (1685), 7,200; (1700), 20,000; (1715), 45,800; (1730), 49,000; (1731), 69,000; (1740), 100,000; (1750), 150,000; (1757), 200,000; (1760), 220,000.

Pennsylvania—(1770), 250,000; (1775), 302,000; (1782), 350,000.

Delaware—(1770), 25,000; (1780), 37,000.

Maryland—(1660), 8,000; (1676), 16,000; (1701), 32,258; (1712, census), 46,073; (1715), 50,200; (1719), 61,000; (1748), 130,000; (1755, census), 153,564; (1761), 164,007; (1775), 200,000; (1783), 254,000. The 1712 figures include 8,330 Negroes; those for 1755 include 42,764 Negroes and 3,592 mulattoes; those for 1761 include 49,675 Negroes.

Virginia—(1616), 351; (1620), 2,400; (1628), 3,000; (1635, census), 5,119; (1640), 7,647; (1648), 15,000; (1659), 30,000; (1671), 40,000; (1689), 60,000; (1717), 100,000; (1754), 284,000; (1772), 475,000; (1775), 550,000; (1782, census), 567,614. In 1782, according to returns gathered by Thomas Jefferson, there were in all but 8 of the counties, 53,289 free males, 21 yrs. and over 211,698 slaves, and 23,766 "tithable slaves."

North Carolina—(1677), 4,000; (1701), 5,000; (1710), 7,000; (1717), 10,000; (1732), 36,000; (1754), 90,000; (1764), 135,000; (1774), 260,000. The 1732 figures include 6,000 Negroes; those for 1754 include 20,000 Negroes.

South Carolina—(1682), 2,200; (1708), 9,500; (1714), 16,300; (1720), 20,328; (1749), 64,000; (1763), 105,000; (1773), 175,000. The 1708 figures include 5,500 Negroes; those for 1773 include 110,000 Negroes.

Georgia—(1752), 5,000; (1760), 9,000; (1766), 18,000; (1773), 33,000; (1776), 50,000. The Negroes in 1790 numbered 29,662.

DENSITY OF POPULATION PER SQUARE MILE IN UNITED STATES.

The areas and population of Alaska, Hawaii, and Porto Rico in 1900, 1910, and 1920, of Alaska and Hawaii in 1890, and of Indian Territory in 1860, 1870, and 1880, are not considered.

STATE.	1800.	1810.	1820.	1830.	1840.	1850.	1860.	1870.	1880.	1890.	1900.	1910.	1920.
Alabama	.....	.....	2.5	6.0	11.5	15.0	18.8	19.4	24.6	29.5	35.7	41.7	45.8
Alaska	.....	.....	.....	.....	.....	.....	.....	.....	.....	.1	.1	.1	.1
Arizona	.....	.....	.....	.....	.....	.....	.1	.4	.8	1.1	1.8	2.9	
Arkansas	.....	.....	.1	.6	1.9	4.0	8.3	9.2	15.3	21.5	25.0	30.0	33.4
California	.....	.....	.....	.....	.....	.6	2.4	3.6	5.5	7.8	9.5	15.3	22.0
Colorado	.....	.....	.....	.....	.....	.....	.3	.4	1.9	4.0	5.2	7.7	9.1
Connecticut	52.1	54.3	57.1	61.8	64.3	76.9	95.5	111.5	129.2	154.8	188.5	231.3	281.4
Delaware	32.7	37.0	37.0	39.1	39.7	43.6	57.1	63.6	74.6	85.7	94.0	103.0	113.5
Dist. Columbia	156.6	266.9	367.1	442.6	485.7	891.2	1,294.5	2,270.7	3,062.5	3,972.3	4,645.3	5,517.8	7,202.9
Florida	.....	.....	.....	.6	1.0	1.6	2.6	3.4	4.9	7.1	9.6	13.7	17.7
Georgia	1.5	4.3	5.8	8.8	11.8	15.4	18.0	20.2	26.3	31.3	37.7	44.4	49.3
Hawaii	.....	.....	.....	.....	.....	.....	.....	.....	.....	14.0	23.9	29.8	39.7
Idaho	.....	.....	.....	.....	.....	.....	.....	.2	.4	1.1	1.9	3.9	5.2
Illinois	.....	.1	1.0	2.8	8.5	15.2	30.6	45.4	55.0	68.3	86.1	100.6	115.7
Indiana	.....	.6	4.1	9.6	19.1	27.5	37.6	46.8	55.1	61.1	70.1	74.9	81.3
Iowa	.....	.....	.....	.....	.2	3.5	12.1	21.5	29.2	34.4	40.2	40.0	43.2
Kansas	.....	.....	.....	.....	.....	.....	1.3	4.5	12.2	17.5	18.0	20.7	21.6
Kentucky	5.5	10.1	14.0	17.1	19.4	24.4	28.8	32.9	41.0	46.3	53.4	57.0	60.1
Louisiana	.....	2.2	3.4	4.8	7.8	11.4	15.6	16.0	20.7	24.6	30.4	36.5	39.6
Maine	5.1	7.7	10.0	13.4	16.8	19.5	21.0	21.0	21.7	22.1	23.2	24.8	25.7
Maryland	34.4	38.3	41.0	45.0	47.3	58.6	69.1	78.6	94.0	104.9	119.5	130.3	145.8
Massachusetts	52.6	58.7	65.1	75.9	91.7	123.7	153.1	181.3	221.8	278.5	349.0	418.8	479.2
Michigan	.....	.1	.....	.2	3.7	6.9	13.0	20.6	28.5	36.4	42.1	48.9	63.8
Minnesota	.....	.....	.....	.....	.....	2.1	5.4	9.7	16.2	21.7	25.7	29.5	
Mississippi	.3	.4	1.6	2.9	8.1	13.1	17.1	17.9	24.4	27.8	33.5	38.8	38.6
Missouri	.....	.....	.....	2.1	5.6	9.9	17.2	25.0	31.6	39.0	45.2	47.9	49.5
Montana	.....	.....	.....	.....	.....	.....	.....	.1	.3	1.0	1.7	2.6	3.8
Nebraska	.....	.....	.....	.....	.....	.....	.2	1.6	5.9	13.8	13.9	15.5	16.9
Nevada	.....	.....	.....	.....	.....	.....	.1	.4	.6	.4	.5	.7	.7
New Hampsh'e	20.4	23.7	27.0	29.8	31.5	35.2	36.1	35.2	38.4	41.7	45.6	47.7	49.1
New Jersey	28.1	32.7	36.9	42.7	49.7	65.2	89.4	120.6	150.5	192.3	250.7	337.7	420.0
New Mexico	.....	.....	.....	.....	.....	.3	.4	.7	1.0	1.3	1.6	2.7	2.9
New York	12.4	20.1	28.8	40.3	51.0	65.0	81.4	92.0	106.7	126.0	152.5	191.2	217.9
North Carolina	9.8	11.4	13.1	15.1	15.5	17.8	20.4	22.0	28.7	33.2	38.9	45.3	52.5
North Dakota	.....	.....	.....	.....	.....	.....	.....	.....	.....	2.7	4.5	8.2	9.2
Ohio	1.1	5.7	14.5	23.3	37.3	48.6	57.4	65.4	78.5	90.1	102.1	117.0	141.4
Oklahoma	.....	.....	.....	.....	.....	.....	.....	.....	.....	2.0	10.3	23.9	29.2
Oregon	.....	.....	.....	.....	.....	.5	1.0	1.8	3.3	4.3	7.0	8.2	
Pennsylvania	13.4	18.1	23.4	30.1	38.5	51.6	64.8	78.6	95.5	117.3	140.6	171.0	194.5
Porto Rico	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	277.5	325.5	377.8
Rhode Island	64.8	72.1	77.8	91.1	102.0	138.3	163.7	203.7	259.2	323.8	401.6	508.5	566.4
South Carolina	11.3	13.6	16.5	19.1	19.5	21.9	23.1	23.1	32.6	37.7	44.0	49.7	55.2
South Dakota	.....	.....	.....	.....	.....	.....	.....	.....	.....	4.5	5.2	7.6	8.3
Tennessee	2.5	6.3	10.1	16.4	19.9	24.1	26.6	30.2	37.0	42.4	48.5	52.4	56.1
Texas	.....	.....	.....	.....	.....	.8	2.3	3.1	6.1	8.5	11.6	14.8	17.8
Utah	.....	.....	.....	.....	.....	.....	.3	1.1	1.8	2.6	3.4	4.5	5.5
Vermont	16.9	23.9	25.9	30.8	32.0	34.4	34.5	36.2	36.4	36.4	37.7	39.0	38.6
Virginia	13.7	15.2	16.6	18.9	19.3	22.1	24.8	30.4	37.6	41.1	46.1	51.2	57.4
Washington	.....	.....	.....	.....	.....	.....	.1	.4	1.1	5.3	7.8	17.1	20.3
West Virginia	.....	.....	.....	.....	.....	.....	.....	18.4	25.7	31.9	39.9	50.8	60.9
Wisconsin	.....	.....	.....	.....	.4	5.5	14.0	19.1	23.8	30.6	37.4	42.2	47.6
Wyoming	.....	.....	.....	.....	.....	.....	.....	.1	.2	.6	.9	1.5	2.0
United States	6.1	4.3	5.5	7.3	9.7	7.9	10.6	13.0	16.9	21.2	25.6	30.9	35.5

POPULATION, URBAN AND RURAL, 1920.

(U. S. Census Returns. Urban includes places of 2,500 or more inhabitants.)

STATE.	Urban.	Rural.	PCT. URBAN	
			1920.	1910.
United States	54,304,603	51,406,017	51.4	45.8
Alabama	509,317	1,838,857	21.7	17.3
Arizona	117,527	216,635	35.2	31.0
Arkansas	290,497	1,461,707	16.6	12.9
California	2,331,729	1,095,132	68.0	61.8
Colorado	453,259	486,370	48.2	50.7
Connecticut	936,339	444,292	67.8	65.6
Delaware	120,767	102,236	54.2	48.0
Dist. of Columbia	437,571	.....	100.0	100.0
Florida	355,825	612,645	36.7	29.1
Georgia	727,859	2,167,973	25.1	20.6
Idaho	119,037	312,829	27.6	21.5
Illinois	4,403,153	2,082,127	67.9	61.7
Indiana	1,482,855	1,447,335	50.6	42.4
Iowa	875,495	1,528,526	36.4	30.6
Kansas	617,964	1,151,293	34.9	29.2
Kentucky	633,543	1,783,087	26.2	24.3
Louisiana	628,163	1,170,346	34.9	30.0
Maine	299,559	468,445	39.0	35.3
Maryland	869,422	580,239	60.0	50.8
Massachusetts	3,650,248	202,108	94.8	92.8
Michigan	2,241,560	1,426,852	61.1	47.2
Minnesota	1,051,593	1,335,532	44.1	41.0
Mississippi	240,121	1,550,497	13.4	11.5
Missouri	1,586,903	1,817,152	46.6	42.5
Montana	172,011	376,878	31.3	35.5
Nebraska	405,306	891,066	31.3	26.1
Nevada	15,254	62,153	19.7	16.3
New Hampshire	279,761	163,322	63.1	59.2
New Jersey	2,474,936	680,964	78.4	75.2
New Mexico	64,960	295,390	18.0	14.2
New York	8,589,844	1,795,383	82.7	78.8
North Carolina	490,370	2,068,753	19.2	14.4
North Dakota	88,239	554,633	13.6	11.0
Ohio	3,677,136	2,082,258	63.8	55.9
Oklahoma	539,480	1,488,803	26.6	19.3
Oregon	391,019	392,370	49.9	45.6
Pennsylvania	5,607,815	3,112,202	64.3	60.4
Rhode Island	589,180	15,217	97.5	96.7
South Carolina	293,987	1,380,737	17.5	14.8
South Dakota	101,872	534,675	16.0	13.1
Tennessee	611,226	1,726,659	26.1	20.2
Texas	1,512,689	3,150,539	32.4	24.1
Utah	215,584	233,812	48.0	46.3
Vermont	109,976	242,452	31.2	27.8
Virginia	673,984	1,635,203	29.2	23.1
Washington	748,735	607,886	55.2	53.0
West Virginia	369,007	1,094,694	25.2	18.7
Wisconsin	1,244,568	1,387,499	47.3	43.0
Wyoming	57,348	137,054	29.5	29.6

Population (1910) urban, 42,166,120; rural, 49,806,146; (1900) urban, 30,797,185; rural, 45,197,390.

U. S. POPULATION, MALE AND FEMALE.

(U. S Census Returns, Jan. 1, 1920.)

State.	Total Population.		Native Whites.		Foreign-Born Whites.		Negroes.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Alabama	1,173,105	1,175,069	722,414	706,956	16,625	7,037	439,779	460,873
Arizona	183,602	150,560	114,688	98,662	44,657	33,442	5,859	2,146
Arkansas	895,228	856,976	649,578	616,204	8,591	5,384	236,895	235,325
California	1,813,591	1,613,270	1,308,373	1,274,676	401,850	279,812	19,837	18,926
Colorado	492,731	446,898	416,026	391,123	68,219	48,735	5,834	5,434
Connecticut	695,335	685,296	483,946	498,273	199,891	176,622	10,778	10,268
Delaware	113,755	109,248	86,680	86,125	11,369	8,441	15,655	14,680
District of Columbia	203,543	234,028	136,889	161,423	15,142	13,466	50,855	59,111
Florida	495,320	473,150	303,041	292,104	24,603	18,405	167,156	162,331
Georgia	1,444,823	1,451,009	844,105	828,823	10,004	6,182	590,443	615,922
Idaho	233,919	197,947	205,259	181,446	24,877	14,086	585	335
Illinois	3,304,833	3,180,447	2,250,509	2,541,873	657,264	549,687	93,835	88,438
Indiana	1,489,074	1,441,316	1,3 8,645	1,339,558	88,180	62,688	41,817	38,993
Iowa	1,229,392	1,174,629	1,091,646	1,066,888	127,065	98,582	10,121	8,884
Kansas	909,221	860,036	815,472	782,856	62,678	47,900	29,739	28,186
Kentucky	1,227,494	1,189,136	1,091,374	1,058,406	17,479	13,301	118,548	117,390
Louisiana	903,335	895,174	530,699	521,050	26,808	18,063	344,794	355,463
Maine	388,752	379,262	331,648	326,698	55,807	51,542	716	594
Maryland	729,455	720,206	550,973	551,587	54,628	47,549	123,453	121,026
Massachusetts	1,890,014	1,962,342	1,330,998	1,394,992	533,319	544,215	22,912	22,554
Michigan	1,928,436	1,739,976	1,476,459	1,398,533	413,806	312,829	34,249	25,833
Minnesota	1,245,537	1,141,588	957,140	925,632	278,588	207,576	4,851	3,958
Mississippi	897,124	893,494	428,428	417,515	4,968	3,051	462,829	472,355
Missouri	1,723,319	1,680,736	1,528,279	1,510,739	103,418	82,608	90,991	87,250
Montana	299,941	248,948	233,363	207,277	8,229	35,391	962	696
Nebraska	672,805	623,567	578,963	550,614	84,277	65,375	7,309	5,933
Nevada	46,240	31,167	31,571	24,326	10,737	4,065	196	150
New Hampshire	222,112	220,971	174,823	176,275	46,844	44,389	333	288
New Jersey	1,590,075	1,565,825	1,139,491	1,158,983	391,655	346,958	57,432	59,700
New Mexico	190,456	169,894	158,505	147,091	16,845	12,232	4,593	1,140
New York	5,187,350	5,197,877	3,638,435	3,747,480	1,442,5 5	1,343,537	85,418	103,065
North Carolina	1,279,062	1,280,061	894,690	881,990	13,341	2,758	373,965	389,442
North Dakota	341,673	305,199	262,645	245,806	75,386	55,117	276	191
Ohio	2,955,980	2,803,414	2,463,320	2,429,876	391,344	287,353	100,160	86,027
Oklahoma	1,058,044	970,239	927,760	853,466	24,931	15,037	76,294	73,114
Oregon	416,334	367,055	344,849	322,146	62,310	39,841	1,197	947
Pennsylvania	4,429,020	4,290,997	3,494,996	3,549,880	783,336	604,514	148,297	136,271
Rhode Island	297,524	306,873	205,967	214,514	86,164	87,335	5,096	4,940
South Carolina	838,293	845,431	411,728	450,409	4,095	2,306	422,185	442,534
South Dakota	337,120	299,427	280,587	256,169	47,610	34,781	475	357
Tennessee	1,173,967	1,163,918	942,203	928,312	9,021	6,457	222,639	229,119
Texas	2,409,222	2,254,006	1,835,072	1,722,574	260,447	160,072	371,474	370,220
Utah	232,051	217,345	196,357	189,089	30,875	25,580	834	612
Vermont	178,854	173,574	154,793	152,498	23,711	20,815	320	252
Virginia	1,168,492	1,140,695	806,082	781,042	19,051	11,734	42,536	347,481
Washington	734,701	621,920	558,575	511,147	153,118	96,937	3,957	2,926
West Virginia	763,100	700,601	673,959	641,370	41,910	19,996	47,129	[39,216
Wisconsin	1,356,718	1,275,349	1,089,782	1,067,028	258,740	201,388	2,965	2,236
Wyoming	110,359	84,043	90,567	74,324	16,934	8,321	863	512
United States	53,900,431	51,810,189	40,902,333	40,205,828	7,528,322	6,184,432	5,209,436	5,253,659

NUMBER OF MALES TO 100 FEMALES IN U. S. POPULATION.

States.	1920.	1910.	1900.	States.	1920.	1910.	1900.	States.	1920.	1910.	1900.
Ala	99.8	101.0	100.5	Me	102.5	103.2	102.2	Okla	109.0	113.7	115.3
Ariz	121.9	138.2	140.4	Md	101.3	98.9	98.4	Ore	113.4	133.2	129.0
Ark	104.5	106.0	106.1	Mass	96.3	96.7	95.1	Pa	103.2	105.9	103.5
Cal	112.4	125.5	123.5	Mich	110.8	107.3	106.6	R. I	97.0	99.3	96.5
Col	110.3	116.9	120.9	Minn	109.1	114.6	113.9	S. C	99.2	98.5	98.4
Conn	101.5	102.3	100.0	Miss	100.4	101.6	101.5	S. Dak	112.6	118.9	116.6
Del	104.1	104.6	104.0	Mo	102.5	105.1	105.6	Tenn	100.9	102.1	102.2
D. C	87.0	91.3	90.0	Mont	120.5	152.1	160.3	Tex	106.9	107.4	107.4
Fla	104.7	110.0	108.7	Neb	107.9	111.2	112.5	Utah	106.8	111.5	104.9
Ga	99.6	100.1	99.1	Nev	148.4	179.2	153.0	Vt	103.0	105.3	103.9
Idaho	118.2	132.5	136.5	N. H	100.5	100.9	99.6	Va	102.4	100.9	99.7
Ill	103.9	106.8	105.3	N. J	101.5	102.9	100.0	Wash	118.1	136.3	142.2
Ind	103.3	105.0	104.4	N. Mex	112.1	115.3	114.4	W. Va	108.9	111.6	108.6
Iowa	104.7	106.6	107.6	N. Y	99.8	101.2	98.9	Wis	106.4	107.4	106.6
Kan	105.7	110.0	109.5	N. C	99.9	99.2	98.3	Wyo	131.3	168.8	169.4
Ky	103.2	103.0	103.1	N. Dak	112.0	122.4	125.3				
La	100.9	101.7	101.1	Ohio	105.4	104.4	102.3	Whole U. S.	104.0	106.0	104.4

MARITAL CONDITION OF UNITED STATES POPULATION.

Sex and Census Year.	Tot. Pop. 15 Years of Age and Over.	Single.		Married.		Widowed.		Divorced.	
		Number.	Pct. Tot.	Number.	Pct. Tot.	Number.	Pct. Tot.	Number.	Pct. Tot.
Both sexes: 1920	72,098,178	22,584,467	31.3	43,168,199	59.9	5,675,933	7.9	568,588	0.7
1910	62,473,130	21,483,299	34.4	35,777,287	57.3	4,647,618	7.4	341,230	0.5
Male: 1920	36,920,663	12,967,565	35.1	21,849,266	59.2	1,758,308	4.8	235,284	0.6
1910	32,425,805	12,550,129	38.7	18,092,600	55.8	1,471,390	4.5	156,162	0.5
Female: 1920	35,177,515	9,616,902	27.3	21,318,933	60.6	3,917,625	11.1	273,304	0.8
1910	30,047,325	8,933,170	29.7	17,684,687	58.9	3,176,228	10.6	185,068	0.6

The U. S. Census figures of Jan. 1, 1920, show that there has been an increase during recent years in the proportion of married persons among the younger element of the population.

U. S. POPULATION BY COLOR AND RACE, 1910-1920.

State.	White.		Negro.		Indian.		Chinese.		Japanese.	
	1920.	1910.	1920.	1910.	1920.	1910.	1920.	1910.	1920.	1910.
Alabama	1,447,032	1,228,832	900,652	908,282	405	909	59	62	18	4
Arizona	291,449	171,468	8,005	2,009	32,989	29,201	1,137	1,305	550	371
Arkansas	1,279,757	1,131,026	472,220	442,891	106	460	113	62	5	9
California	3,264,711	2,259,672	38,763	21,645	17,360	16,371	28,812	36,248	71,952	41,356
Colorado	924,103	783,415	11,318	11,453	1,383	1,482	291	373	2,464	2,300
Connecticut	1,358,732	1,098,897	21,046	15,174	159	152	566	462	102	71
Delaware	192,615	171,102	30,335	31,181	2	5	43	30	8	4
Dist. of Columbia	326,860	236,128	109,966	94,446	37	68	461	369	105	47
Florida	638,153	443,634	329,487	308,669	518	74	181	191	106	50
Georgia	1,689,114	1,431,802	1,206,365	1,176,987	125	95	211	233	9	4
Idaho	425,668	319,221	920	651	3,098	3,488	585	859	1,569	1,363
Illinois	6,299,333	5,526,962	182,274	109,049	194	188	2,776	2,103	472	285
Indiana	2,849,071	2,659,961	80,810	60,320	125	279	283	276	81	38
Iowa	2,384,181	2,209,191	19,005	14,973	529	471	235	97	29	36
Kansas	1,708,906	1,634,352	57,925	54,030	2,276	2,444	68	16	52	107
Kentucky	2,180,560	2,027,951	235,938	261,656	57	234	62	52	9	12
Louisiana	1,096,611	941,086	700,257	713,874	1,066	780	387	507	57	31
Maine	765,695	739,995	1,310	1,363	839	892	161	108	7	13
Maryland	1,204,737	1,062,639	244,479	232,250	32	55	371	378	29	24
Massachusetts	3,803,524	3,324,926	45,466	38,055	555	688	2,544	2,582	191	151
Michigan	3,601,627	2,785,247	60,082	17,115	5,614	7,519	792	241	184	49
Minnesota	2,368,936	2,059,227	8,809	7,084	8,761	9,053	508	275	85	67
Mississippi	853,962	786,111	935,184	1,009,487	1,105	1,253	364	257	.....	2
Missouri	3,225,044	3,134,932	178,241	157,452	171	313	412	535	135	99
Montana	534,260	360,580	1,658	1,834	10,956	10,745	872	1,285	1,074	1,585
Nebraska	1,279,219	1,180,293	13,242	7,689	2,888	3,502	189	112	804	590
Nevada	70,699	74,276	346	513	4,907	5,240	689	927	754	864
New Hampshire	442,331	429,906	621	564	28	34	95	67	8	1
New Jersey	3,037,087	2,445,894	117,132	89,760	100	168	1,190	1,139	325	206
New Mexico	334,673	304,594	5,733	1,628	19,512	20,573	171	248	251	258
New York	10,172,027	8,966,845	198,483	134,191	5,503	6,046	5,793	5,266	2,686	1,247
North Carolina	1,783,779	1,500,511	763,407	697,843	11,824	7,851	88	80	24	2
North Dakota	639,954	569,855	467	617	6,254	6,486	124	39	72	59
Ohio	5,571,893	4,654,897	186,187	111,452	161	127	941	569	130	76
Oklahoma	1,821,194	1,444,531	149,408	137,612	57,337	74,825	261	139	67	48
Oregon	769,146	655,090	2,144	1,492	4,590	5,090	3,090	7,363	4,151	3,418
Pennsylvania	8,432,726	7,467,713	284,568	193,919	337	1,503	1,829	1,784	255	190
Rhode Island	593,980	532,492	10,036	9,529	110	284	225	272	35	33
South Carolina	818,538	679,161	864,719	835,843	304	331	93	57	15	8
South Dakota	619,147	563,771	832	817	16,384	19,137	142	121	38	42
Tennessee	1,885,993	1,711,432	451,758	473,088	56	216	57	43	8	8
Texas	3,918,165	3,204,848	741,694	690,049	2,109	702	773	595	449	340
Utah	441,901	366,583	1,446	1,144	2,711	3,123	342	371	2,936	2,110
Vermont	351,817	354,298	572	1,621	24	26	11	8	4	3
Virginia	1,617,909	1,389,809	690,017	671,096	824	539	278	154	56	14
Washington	1,319,777	1,109,111	6,883	6,058	9,061	10,997	2,363	2,709	17,387	12,929
West Virginia	1,377,235	1,156,817	86,345	64,173	7	36	98	90	10	3
Wisconsin	2,616,938	2,320,555	5,201	2,900	9,611	10,142	251	226	60	34
Wyoming	190,146	140,318	1,375	2,235	1,543	1,486	252	246	1,194	1,596
United States	94,820,915	81,731,957	10,463,131	9,827,763	244,437	265,683	61,639	71,531	111,010	72,157

Not included in the above are (1910 figures in parentheses): Filipinos, 5,603 (160); Hindus, 2,507 (2,545); Koreans, 1,224 (462); Siamese, Hawaiians, Malays, Maoris, and Samoans, 154 (8)—Total, 9,488.

NATIVE AND FOREIGN-BORN WHITE POPULATION.

State.	Native White.		Foreign-Born White.		State.	Native White.		Foreign-Born White.	
	1920.	1910.	1920.	1910.		1920.	1910.	1920.	1910.
Ala.	1,429,370	1,209,876	17,662	18,956	Nev.	55,897	56,277	14,802	17,999
Ariz.	213,350	124,644	78,099	46,824	N. H.	351,098	333,348	91,233	96,558
Ark.	1,265,782	1,114,117	13,975	16,909	N. J.	2,298,474	1,787,706	738,613	658,188
Cal.	2,583,049	1,742,422	681,662	517,250	N. M.	305,596	281,940	29,077	22,654
Col.	807,149	656,564	116,954	126,851	N. Y.	7,385,915	6,237,573	2,786,112	2,729,272
Conn.	982,219	770,138	376,513	328,759	N. C.	1,776,680	1,494,569	7,099	5,942
Del.	172,805	153,682	19,810	17,420	N. D.	508,451	413,697	131,503	156,158
D. of C.	298,312	211,777	28,548	24,351	Ohio	4,893,196	4,057,652	678,697	597,245
Fla.	595,145	409,792	43,008	33,842	Okla.	1,781,226	1,404,447	39,968	40,684
Ga.	1,672,928	1,416,730	16,186	15,072	Ore.	666,995	552,089	102,151	103,001
Idaho	386,705	278,794	38,963	40,427	Pa.	7,044,876	6,028,994	1,387,850	1,438,719
Ill.	5,092,382	4,324,402	1,206,951	1,202,560	R. I.	420,481	354,467	173,499	178,025
Ind.	2,698,203	2,480,639	150,868	159,322	S. C.	812,137	673,107	6,401	6,054
Iowa	2,158,534	1,935,707	225,647	273,484	S. D.	536,756	463,143	82,391	100,628
Kan.	1,598,328	1,499,162	110,578	135,150	Tenn.	1,870,515	1,692,973	15,478	18,459
Ky.	2,149,780	1,987,898	30,780	40,053	Tex.	3,557,646	2,964,864	360,519	239,984
La.	1,051,740	889,304	44,871	51,782	Utah	385,446	303,190	56,455	63,393
Me.	658,346	629,862	107,349	110,133	Vt.	307,291	304,437	44,526	49,861
Md.	1,102,560	958,465	102,177	104,174	Va.	1,587,124	1,363,181	30,785	26,628
Mass.	2,725,990	2,273,876	1,077,534	1,051,050	Wash.	1,069,722	867,914	250,055	241,197
Mich.	2,874,992	2,189,723	726,635	595,524	W. Va.	1,315,329	1,099,745	61,906	57,072
Minn.	1,882,772	1,516,217	486,164	543,010	Wis.	2,156,810	1,807,986	460,128	512,569
Miss.	845,943	776,722	8,019	9,389	Wyo.	164,891	113,200	25,255	27,118
Mo.	3,639,018	2,906,036	186,026	228,896	U. S.	81,108,161	68,386,412	13,712,754	13,345,545
Mont.	440,640	268,936	93,620	91,644					
Neb.	1,129,567	1,004,428	149,652	175,865					

AMERICAN CITIZENS, 21 YEARS OF AGE AND OVER, 1920.

(U. S. Census Returns, as of Jan. 1, 1922.)

STATE.	MALE CITIZENS (ALL RACES).			FEMALE CITIZENS (ALL RACES).		
	Total.	Native.	Foreign-Born Naturalized.	Total.	Native.	Foreign-Born Naturalized.
Alabama	568,886	563,808	5,078	566,643	563,150	3,493
Arizona	80,387	74,298	6,089	60,431	55,629	4,802
Arkansas	448,497	443,883	4,614	413,078	410,092	2,986
California	998,095	831,252	166,843	930,152	802,577	127,575
Colorado	274,921	240,249	34,672	244,993	217,276	27,717
Connecticut	309,143	238,191	70,952	321,451	253,204	68,247
Delaware	64,232	59,895	4,337	62,001	58,296	3,705
District of Columbia	132,988	125,137	7,851	159,949	152,981	6,968
Florida	262,751	253,361	9,390	243,909	236,185	7,724
Georgia	707,198	702,125	5,073	707,574	704,266	3,308
Idaho	122,475	108,272	14,203	97,705	87,991	9,714
Illinois	1,754,451	1,412,206	342,245	1,708,428	1,410,649	297,779
Indiana	860,834	825,916	34,918	841,818	813,093	28,725
Iowa	700,356	616,167	84,189	666,856	597,734	69,122
Kansas	509,133	476,063	33,070	474,414	446,548	27,866
Kentucky	651,260	640,967	10,293	627,158	618,930	8,228
Louisiana	453,051	443,621	9,430	443,827	437,930	5,897
Maine	210,236	192,163	18,073	210,798	188,292	22,506
Maryland	408,887	382,671	26,216	408,867	385,143	23,724
Massachusetts	888,782	674,635	214,147	966,468	737,841	228,627
Michigan	984,716	808,778	175,938	896,881	741,128	155,753
Minnesota	648,433	471,006	177,427	588,770	446,670	142,100
Mississippi	438,733	436,372	2,361	433,361	432,037	1,324
Missouri	998,139	940,503	57,636	970,947	924,017	46,930
Montana	163,057	128,967	34,090	126,774	104,080	22,694
Nebraska	358,789	309,731	49,058	327,558	286,767	40,791
Nevada	26,195	22,063	4,132	17,224	15,105	2,119
New Hampshire	116,059	98,656	17,403	119,407	100 175	19,232
New Jersey	756,600	597,607	158,993	768,590	621,548	147,042
New Mexico	92,254	88,831	3,423	76,354	73,893	2,511
New York	2,521,382	1,915,309	606,073	2,587,163	2,036,121	551,042
North Carolina	601,422	599,515	1,907	605,921	604,562	1,359
North Dakota	159,262	107,866	51,396	133,368	93,669	39,899
Ohio	1,639,619	1,482,578	157,041	1,588,675	1,451,760	136,915
Oklahoma	538,299	526,998	11,301	466,217	458,066	8,151
Oregon	240,083	208,129	31,954	210,484	186,866	23,618
Pennsylvania	2,158,549	1,855,616	302,933	2,168,185	1,905,032	263,153
Rhode Island	138,721	100.391	38,330	149,839	109,799	40,040
South Carolina	387,149	385,211	1,938	389,820	388,676	1,144
South Dakota	174,486	143,435	31,051	147,397	123,253	24,144
Tennessee	605,445	600,988	4,457	602,774	599,980	3,294
Texas	1,169,423	1,129,933	39,490	1,064,431	1,031,543	32,888
Utah	106,448	90,058	16,390	100,681	83,857	16,824
Vermont	99,440	89,895	9,545	99,173	88,884	10,289
Virginia	603,808	595,439	8,459	588,652	582,915	5,737
Washington	406,087	328,805	77,282	340,871	284,009	56,862
West Virginia	373,288	364,947	8,341	337,596	331,759	5,837
Wisconsin	689,048	554,283	134,765	652,933	538,462	114,471
Wyoming	60,293	52,986	7,307	43,186	38,461	4,725
United States	27,661,880	24,339,776	3,822,104	26,759,952	23,860,351	2,899,601

POPULATION OF MASSACHUSETTS—1925 (MARCH 31) STATE CENSUS.

County.	Pop.	Voters.	County.	Pop.	Voters.	County.	Pop.	Voters.
Barnstable	29,782	12,514	Hampden	327,088	95,944	Plymouth	164,257	63,424
Berkshire	121,255	44,058	Hampshire	75,122	25,592	Suffolk	876,286	276,682
Bristol	383,795	113,857	Middlesex	860,414	307,504	Worcester	489,697	165,697
Dukes	4,862	1,964	Nantucket	3,152	1,267			
Essex	496,832	179,439	Norfolk	262,065	99,698	Tot. State	4,144,205	2,352,076
Franklin	49,598	18,398						

ENUMERATION, 1925, PLACES OF 10,000 OR MORE INHABITANTS.

Place.	Pop.	Place.	Pop.	Place.	Pop.	Place.	Pop.
Adams	13,525	Everett	42,072	Methuen	20,606	Salem	42,821
Amesbury	11,229	Fairhaven	10,827	Milford	14,781	Saugus	12,743
Andover	10,291	Fall River	128,993	Milton	12,861	Somerville	99,032
Arlington	24,943	Fitchburg	43,609	Natick	12,871	Southbridge	15,489
Attleboro	20,623	Framingham	21,078	New Bedford	119,539	Springfield	142,065
Belmont	15,256	Gardner	18,730	Newburyport	15,656	Taunton	39,255
Beverly	22,685	Gloucester	23,375	Newton	53,003	Wakefield	15,611
Boston	779,620	Greenfield	15,246	No. Adams	22,717	Waltham	34,746
Braintree	13,193	Haverhill	49,232	Northampton	24,145	Watertown	25,480
Brockton	65,343	Holyoke	60,335	Northridge	10,051	Webster	13,389
Brookline	42,681	Lawrence	93,527	Norwood	14,151	Westfield	19,342
Cambridge	119,669	Leominster	22,120	Palmer	11,044	W. Springfield	15,326
Chelsea	47,247	Lowell	110,296	Peabody	19,870	Weymouth	17,253
Chicopee	41,882	Lynn	103,081	Pittsfield	46,877	Winchester	11,565
Clinton	14,180	Malden	51,739	Plymouth	13,176	Winthrop	16,158
Danvers	11,798	Marlborough	16,236	Quincy	60,055	Woburn	18,370
Dedham	13,918	Medford	47,627	Revere	33,261	Worcester	190,757
Easthampton	11,587	Melrose	20,165				

Legal voters in 1925 in chief Massachusetts cities—Boston, 245,795; Cambridge, 36,918; Fall River, 39,086; Lawrence, 25,822; Lowell, 36,004; Lynn, 35,412; New Bedford, 31,867; Somerville, 35 082: Springfield, 40,647; Worcester, 66,030.

COUNTRY OF BIRTH OF FOREIGN-BORN WHITES, 1920.

STATE.	Austria.	Canada.	Cz'cho-Slovak.	England.	Germany.	Hungary.	Ireland.	Italy.	Norway.	Poland.	Russia.	Sweden.
Ala.....	583	892	232	1,942	2,427	372	809	2,732	215	394	1,582	748
Ariz....	486	1,962	148	2,882	1,516	210	1,206	1,261	337	261	816	859
Ark.....	636	880	492	1,137	3,979	108	676	1,314	99	529	662	331
Cal.....	13,264	59,562	3,377	58,572	67,180	5,252	45,308	88,502	11,460	7,082	27,224	31,925
Colo....	5,722	7,621	1,953	9,584	11,992	1,157	6,191	12,579	1,525	1,867	16,669	10,112
Conn....	12,699	24,631	6,558	22,708	22,614	13,222	45 464	80,322	1,414	46,623	38,719	17,697
Del.....	615	446	122	1,497	1,632	226	2,895	4,136	65	3,847	2,244	316
D. of C.	525	1,688	122	2,990	3,382	219	4,320	3,764	219	716	5,181	481
Fla.....	525	4,121	189	4,451	3,534	383	1,304	4,745	610	428	1,243	1,399
Ga.....	401	955	123	1,593	1,936	246	1,112	700	132	917	3,452	299
Idaho...	781	4,954	420	4,451	4,143	233	1,410	1,323	2,482	287	1,458	5,112
Ill.....	46,457	38,375	66,709	54,247	205,491	34,437	74,274	94,407	27,785	162,405	117,899	105,577
Ind.....	9,100	5,096	3,941	8,522	37,377	9,351	7,271	6,712	544	17,791	7,673	4,942
Iowa....	4,334	8,929	9,150	13,036	70,642	747	10,686	4,956	17,344	2,028	7,319	22,493
Kan.....	5,133	5,019	3,466	7,899	23,380	622	4,825	3,355	970	2,418	12,050	10,337
Ky.....	906	885	240	1,863	11,137	1,084	3,422	1,932	75	1,037	2,736	214
La.....	725	1,165	302	1,819	5,147	305	2,000	16,264	555	377	1,928	522
Me.....	305	74,150	410	5,149	932	72	5,748	2,797	581	1,717	3,763	2,026
Md.....	3,620	1,864	3,553	5,095	22,032	1,947	6,580	9,543	536	12,061	24,791	630
Mass....	8,098	262,021	2,238	86,895	22,113	1,387	183,171	117,007	5,491	69,157	92,034	38,012
Mich....	22,004	164,502	11,161	47,149	86,047	22,607	16,531	30,216	6,888	103,926	45,313	24,707
Minn....	11,550	33,732	12,626	10,958	74,634	4,277	10,289	7,432	90,188	18,537	16,100	112,117
Miss....	136	397	33	590	929	47	412	1,841	97	318	828	247
Mo.....	8,676	6,503	4,971	10,400	55,776	8,080	15,022	14,609	610	7,636	18,769	4,741
Mont....	3,298	14,316	1,895	8,159	7,873	935	7,260	3,842	9,962	1,219	5,203	7,179
Neb.....	4,551	5,758	15,818	6,000	40,969	810	5,422	3,547	2,165	4,615	15,718	18,821
Nev.....	190	1,178	85	1,271	1,069	40	970	2,641	206	104	124	545
N. H....	389	52,274	75	4,367	1,714	66	7,908	2,074	427	3,997	3,467	1,886
N. J....	36,917	10,292	16,747	46,781	92,382	40,470	65,971	157,285	5,343	90,419	73,527	10,675
N. M....	423	732	113	888	1,178	130	434	1,678	128	153	254	310
N. Y....	151,172	111,974	38,247	135,305	295,650	78,374	284,747	545,173	27,573	247,519	529,240	53,025
N. C....	149	650	20	967	703	66	301	453	70	210	932	170
N. D....	2,059	15,550	2,056	2,287	11,960	2,519	1,660	170	38,190	2,236	29,617	10,543
Ohio....	48,073	24,176	42,121	43,140	111,893	73,181	29,262	60,658	1,487	67,579	43,690	7,266
Okla....	1,393	2,475	1,825	2,686	7,029	311	1,321	2,122	297	1,253	5,005	931
Ore.....	2,798	13,774	1,132	7,953	13,740	909	4,203	4,324	6,955	1,480	6,979	10,532
Penn....	122,755	14,828	68,869	90,666	120,194	71,380	121,601	222,764	2,446	177,770	161,124	19,847
R. I....	1,307	36,412	264	25,782	3,126	176	22,253	32,241	545	8,158	8,055	6,542
S. C....	206	268	45	491	1,079	56	442	344	85	251	1,187	133
S. D....	1,151	4,453	2,819	2,943	15,674	585	1,954	413	16,813	792	11,193	8,573
Tenn....	398	972	82	1,665	2,159	326	1,291	2,079	63	841	2,262	305
Tex.....	6,441	4,175	12,819	7,685	31,062	940	4,333	8,024	1,746	8,047	7,057	4,536
Utah....	987	1,466	163	14,836	3,589	179	1,207	3,225	2,109	240	1,384	6,073
Vt.....	283	24,868	108	2,197	630	264	2,884	4,067	106	1,726	1,333	1,123
Va.....	921	1,923	397	3,752	2,802	1,293	1,732	2,435	491	1,103	5,421	664
Wash....	6,494	42,988	1,792	20,806	22,315	1,056	8,927	10,813	30,304	3,906	11,124	34,793
W. Va...	5,115	957	1,549	3,433	3,798	6,260	1,459	14,147	51	5,799	3,911	326
Wis.....	19,641	19,331	19,811	10,834	151,250	10,016	7,809	11,187	45,433	50,558	21,447	22,896
Wyo.....	1,183	1,438	518	2,505	2,292	349	956	1,948	651	544	1,482	2,042

Those from countries not named in the above table numbered: Albania, 5,608; Alsace-Lorraine, 34,321; Armenia, 36,626; Asia Minor, 2,404; Other Asia, viz., Hedjaz, India, China, Japan and Asia not specified, 7,708; Atlantic Islands (including Azores and Cape Verde) 38,984; Australia, 10,801; Belgium, 62,686; Bulgaria, 10,477; Central and South America, 20,929; Denmark, 189,154; Finland, 149,-824; France, 118,569; Greece, 175,972; Jugo-Slavia, 169,437; Lithuania, 135,068; Luxemburg, 12,585; Mexico, 478,383; Netherlands, 131,766; New Found-land, 13,242; Norway, 363,562; Palestine, 3,202; Portugal, 77,453; Roumania, 102,823; Scotland, 254,567; Spain, 49,247; Switzerland, 118,659; Syria, 51,900; Turkey in Asia, 8,610; Turkey in Europe, 5,284; Wales, 67,066; West Indies (except Porto Rico) 26,369; Other Europe (Danzig, Fiume, Saar Basin and Europe not specified) 5,901; all other Africa, Pacific Islands, country not specified, and at sea, 17,727.

TOTAL FOREIGN-BORN POPULATION, BY STATES, 1920.

State.	Total.	State.	Total.	State.	Total.	State.	Total.	State.	Total.
Ala.....	18,027	Ill.....	1,210,584	Minn....	486,795	N. C....	7,272	Tex.....	363,832
Ariz....	80,566	Ind.....	151,328	Miss....	8,408	N. D....	131,863	Utah....	59,200
Ark.....	14,137	Iowa....	225,994	Mo.....	186,835	Ohio....	680,452	Vt.....	44,558
Cal.....	757,625	Kan.....	110,967	Mont....	95,591	Okla....	40,432	Va.....	31,705
Colo....	119,138	Ky.....	30,906	Neb.....	150,665	Ore.....	107,644	Wash....	265,292
Conn....	378,439	La.....	46,427	Nev.....	16,003	Pa.....	1,392,557	W. Va...	62,105
Del.....	19,901	Me.....	107,814	N. H....	91,397	R. I....	175,189	Wis.....	460,485
D. of C..	29,365	Md.....	103,179	N. J....	742,486	S. C....	6,582	Wyo.....	26,567
Fla.....	53,864	Mass....	1,088,548	N. M....	29,808	S. D....	82,534		
Ga.....	16,564	Mich....	729,292	N. Y....	2,825,375	Tenn....	15,648	Tot. U.S.	13,920,692
Idaho...	40,747								

FOREIGN-BORN WHITE POPULATION OF U. S. OF VOTING AGE, 1920.

State.	Males.	Females.	State.	Males	Females.	State.	Males.	Females.
Alabama..	9,814	6,291	Maine.....	49,355	44,974	Oklahoma...	22,817	13,290
Arizona....	33,582	22,391	Maryland...	50,363	43,261	Oregon	58,580	36,227
Arkansas...	8,166	5,000	Mas'chuset's	491,107	497,804	Pen'sylvania	727,194	546,844
California...	367,340	247,041	Michigan...	381,808	281,352	Rhode Isl'nd	78,118	78,748
Colorado...	62,089	42,928	Minnesota..	266,856	195,726	So. Carolina.	3,850	2,091
Connecticut	184,568	160,334	Mississippi..	4,628	2,702	So. Dakota..	45,340	32,687
Delaware...	10,614	7,631	Missouri....	97,345	76,206	Tennessee..	8,428	5,891
Dist. of Col.	14,042	12,334	Montana....	54,250	31,459	Texas.....	152,600	114,118
Florida	22,282	16,088	Nebraska ..	79,821	61,078	Utah	28,791	23,463
Georgia....	9,319	5,536	Nevada	10,203	3,692	Vermont...	20,462	17,770
Idaho.....	23,366	12,804	N'w Hamp..	42,432	39,617	Virginia....	17,431	10,422
Illinois....	613,797	504,131	New Jersey..	360,902	314,320	Washington.	143,258	87,177
Indiana....	82,908	57,465	New Mexico	13,244	8,689	W. Virginia.	38,471	16,994
Iowa	121,392	93,087	New York ..	1,318,883	1,209,614	Wisconsin ..	245,711	188,880
Kansas	57,876	43,333	No. Carolina	4,035	2,453	Wyoming ..	15,796	7,261
Kentucky...	16,827	12,661	No. Dakota	70,043	51,004			
Louisiana .	24,848	16,380	Ohio.....	363,500	259,017	UnitedStates	6,928,452	5,570,268

Of the foreign-born white males in 1920 of voting age, 2,138,237 were aliens; of the women, 2,226,672 were aliens.

UNITED STATES ALIEN IMMIGRATION STATISTICS.

TOTAL IMMIGRANTS ADMITTED FROM ALL COUNTRIES, BY FISCAL YEARS.

Year.	Number.	Year.	Number.	Year.	Number.	Year.	Number.	Year.	Number
1820	8,385	1843	52,496	1865	180,339	1887	490,109	1909	751,786
1821	9,127	1844	78,615	1866	332,577	1888	546,889	1910	1,041,570
1822	6,911	1845	114,371	1867	303,104	1889	444,427	1911	878,587
1823	6,354	1846	154,416	1868	282,189	1890	455,302	1912	838,172
1824	7,912	1847	234,968	1869	352,768	1891	560,319	1913	1,197,892
1825	10,199	1848	226,527	1870	387,203	1892	579,663	1914	1,218,480
1826	10,837	1849	297,024	1871	321,350	1893	439,730	1915	326,700
1827	18,875	1850	369,980	1872	404,806	1894	285,631	1916	298,826
1828	27,382	1851	379,466	1873	459,803	1895	258,536	1917	295,403
1829	22,520	1852	371,603	1874	313,339	1896	343,267	1918	110,618
1830	23,322	1853	368,645	1875	227,498	1897	230,832	1919	141,132
1831	22,633	1854	427,833	1876	169,986	1898	229,299	1920	430,001
1832	60,482	1855	200,877	1877	141,857	1899	311,715	1921	805,228
1833	58,640	1856	195,857	1878	138,469	1900	448,572	1922	309,556
1834	65,365	1857	112,123	1879	177,826	1901	487,918	1923	522,919
1835	45,374	1858	191,942	1880	457,257	1902	648,743	1924	706,896
1836	76,242	1859	129,571	1881	669,431	1903	857,046	1925	294,314
1837	79,340	1860	133,143	1882	788,992	1904	812,870	1926	304,488
1838	38,914	1861	142,877	1883	603,322	1905	1,026,499	1927	335,175
1839	68,069	1862	72,183	1884	518,592	1906	1,100,735	1928	307,255
1840	84,066	1863	132,925	1885	395,346	1907	1,285,349	1929	279,678
1841	80,289	1864	191,114	1886	334,203	1908	782,870	Total	37,495,613
1842	104,565								

The above table covers only immigrant aliens and does not include non-immigrant aliens.

Alien immigrants *debarred* in 1929 numbered 18,127; *deported*, 12,908.

NET INCREASE OF U. S. POPULATION BY ARRIVAL AND DEPARTURE OF ALIENS

Year. (Fiscal).	Admitted.			Departed.			Net Increase.
	Immigrant.	Non-Immig.	Total.	Emigrant.	Non-Emig.	Total.	
1909	751,786	192,449	944,235	225,802	174,590	400,392	543,843
1910	1,041,570	156,467	1,198,037	202,436	177,982	380,418	817,619
1911	878,587	151,713	1,030,300	295,666	222,549	518,215	512,085
1912	838,172	178,983	1,017,155	333,262	282,030	615,292	401,863
1913	1,197,892	229,335	1,427,227	308,190	303,734	611,924	815,303
1914	1,218,480	184,601	1,403,081	303,338	330,467	633,805	769,271
1915	326,700	107,544	434,244	204,074	180,100	384,174	50,076
1916	298,826	67,922	366,748	129,765	111,042	240,807	125,940
1917	295,403	67,474	362,877	66,277	80,102	146,379	216,498
1918	110,618	101,235	211,853	94,585	98,683	193,268	18,585
1919	141,132	93,889	237,021	123,522	92,709	216,231	20,790
1920	430,001	191,575	621,576	288,315	139,747	428,062	193,514
1921	805,228	172,935	978,163	247,718	178,313	426,031	552,132
1922	309,556	122,949	432,505	198,712	146,672	345,384	87,121
1923	522,919	150,487	673,406	81,450	119,136	200,586	472,820
1924	706,896	172,406	879,302	76,789	139,956	216,745	662,557
1925	294,314	164,121	458,435	92,728	132,762	225,490	232,945
1926	304,488	191,618	496,106	76,992	150,783	227,755	268,351
1927	335,175	202,826	538,001	73,366	180,142	253,508	284,493
1928	307,255	193,376	500,631	77,457	196,899	274,356	226,275
1929	279,678	199,649	479,327	69,203	183,295	252,498	226,829

ALIEN IMMIGRATION, BY CHIEF PORTS.

Year (Fiscal).	New York.	Philadelphia.	Boston.	Baltimore.	San Fran.	Year (Fiscal).	New York.	Philadelphia.	Boston.	Baltimore.	San Fran.
1904	606,019	19,467	60,278	55,940	9,036	1917	129,446	274	11,828	231	7,269
1905	788,219	23,824	65,107	62,314	6,377	1918	28,867	386	3,392	268	9,812
1906	880,036	23,186	62,229	54,064	4,138	1919	26,731	333	374	260	9,121
1907	1,004,756	30,501	70,164	66,910	3,539	1920	225,206	4,205	15,820	301	8,830
1908	585,970	16,458	41,363	31,489	3,698	1921	560,971	24,432	51,565	265	8,361
1909	580,617	14,294	36,318	18,966	3,103	1922	209,778	3,257	4,924	163	6,734
1910	786,094	37,641	53,617	30,563	4,233	1923	295,473	2,382	12,212	376	6,719
1911	637,003	45,023	45,865	22,866	3,419	1924	315,587	8,711	36,320	480	7,659
1912	605,151	43,749	38,782	21,667	3,958	1925	137,492	409	9,023	68	1,927
1913	892,653	59,466	54,740	32,833	5,554	1926	149,289	66	8,025	36	2,144
1914	878,052	56,857	69,365	39,048	6,716	1927	165,510	100	8,080	45	2,512
1915	178,416	7,114	15,983	3,017	8,055	1928	157,887	96	5,680	52	2,312
1916	141,390	229	12,428	124	7,955	1929	158,238	76	5,002	50	2,590

Other ports (1929)—Portland, Me., 10; New Bedford, Mass., 2; Providence, R. I., 1,719; Norfolk, Va., 2; Savannah, Ga., 11; Miami, Fla., 108; Key West, Fla., 1,428; Tampa, Fla., 394; Pensacola, Fla., 5; Mobile, Ala., 17; New Orleans, 817; Galveston, 330; Portland, Oreg., 6; Seattle, Wash., 584.

Of those who in 1929 went abroad 431,842 were American citizens; of those who arrived from abroad 449,955 were American citizens.

During the year, 299,528 aliens of all classes were admitted at New York, the major portion of whom, or 266,515, were of European birth, while 25,452 were natives of the Western Hemisphere, 5,202 of Asia, 842 of Africa, and 1,517 of Australia and the Pacific Islands.

Over two-thirds of the 74,386 aliens entering the country via the northern land border were of Canadian birth, 51,571 coming in that way giving Canada as their country of birth, and of the remainder 21,089 were born in Europe and 1,726 in other countries.

The bulk of the Mexican border arrivals were Mexicans, 43,078 aliens coming in that way, of whom 40,544 were natives of Mexico, while 1,329 were born in Europe, and 1,205 in China and the other countries.

Nearly three-fourths of the 24,632 aliens admitted at Gulf of Mexico and Pacific coast ports came in under the act of 1924 as visitors, transients and returning residents.

Immigration from the Irish Free State dropped from 24,544 in 1928 to 17,672 in 1929, or 28 per cent; from Canada it dropped from 73,154 to 64,440, or 12 per cent; and from Mexico from 59,016 to 40,154, or 32 per cent.

There was an increase from nearly all of the other countries, particularly from England, Scotland, and Sweden, the total immigrants from all Europe being 158,513 in 1928 and 158,598 in 1929.

IMMIGRATION QUOTAS.

The following table shows the number of immigrant aliens admissible to the United States in each fiscal year, ending June 30.

The "new" column gives the number allowable in each year beginning on July 1, 1929.

The "old" column shows the number admissible in the fiscal years up to and ending on June 30, 1929.

Country.	New Quota	Old Quota	Country.	New Quota	Old Quota	Country.	New Quota	Old Quota
Afghanistan	100	100	Hungary	869	473	Poland	6,524	5,982
Albania	100	100	Iceland	100	100	Portugal	440	503
Andorra	100	100	India	100	100	Ruanda and Urundi (Belg. mand.)	100	100
Arabian Peninsula	100	100	Iraq (Mesopot.)	100	100	Rumania	295	603
Armenia	100	124	Irish Free State	17,853	28,567	Russian (Euro. and Asia)	2,784	2,248
Australia (incl. Tasmania, Papua)	100	121	Italy	5,802	3,845	Samoa, Western	100	100
Austria	1,413	785	Japan	100	100	San Marino	100	100
Belgium	1,304	512	Latvia	236	142	Siam	100	100
Bhutan	100	100	Liberia	100	100	So. Africa, Un. of	100	100
Bulgaria	100	100	Liechtenstein	100	100	S. W. Africa	100	100
Cameroon:			Lithuania	386	314	Spain	252	131
(Br. mand.)	100	100	Luxemburg	100	100	Sweden	3,314	9,561
(Fr. mand.)	100	100	Monaco	100	100	Switzerland	1,707	2,081
China	100	100	Morocco (Fr. and Sp. and Tangier)	100	100	Syria, Lebanon (Fr. mand.)	123	100
Czechoslovakia	2,874	3,073	Muscat (Oman)	100	100	Tanganyika (Brit. mand.)	100	100
Danzig, Free City	100	228	Nauru (Br. mand.)	100	100	Togoland—		
Denmark	1,181	2,789	Nepal	100	100	(Brit. mand.)	100	100
Egypt	100	100	Netherlands	3,153	1,648	(Fr. mand.)	100	100
Estonia	116	125	New Zealand	100	100	Turkey	226	100
Ethiopia (Abyssinia)	100	100	Norway	2,377	6,453	Yap and other Pacific Is. (Jap. mand.)	100	100
Finland	569	471	New Guinea (Austral. mandate)	100	100	Yugoslavia	845	671
France	3,086	3,954	Palestine, Trans-Jordan (Br. mandate)	100	100			
Germany	25,957	51,227	Persia	100	100			
Gr. Brit. and No. Ireland	65,721	34,007						
Greece	307	100						

The quotas as above are and were available only for persons eligible to citizenship in the United States and admissible under the immigration laws of the United States.

Immigrant aliens arriving in the year ended June 30, 1929, were from the following countries:

Europe, total	158,598	Hungary	1,045	Yugoslavia	1,369	Canada	64,440
		Irish Free St	17,672	Other Europe	4,697	Newfoundland	2,011
Austria	1,256	Italy	18,008			Mexico	40,154
Belgium	669	Lithuania	625	**Asia, total**	3,758	West Indies	4,306
Czechoslovakia	4,411	Netherlands	1,742			Central Amer	1,557
Denmark	2,525	Norway	5,977	China	1,446	South America	3,703
France	4,428	Poland	9,002	Japan	771	Other America	6
Germany	46,751	Portugal	623	Palestine	600		
Gr. Britain:		Rumania	1,707	Syria	469	**Others, total**	1,145
England	8,008	Russia	934	Other Asia	472		
Scotland	11,892	Spain	547			Africa	509
Wales	1,427	Sweden	8,877	**America, total**	116,177	Australia, N. Z	619
Greece	2,266	Switzerland	2,140			Pacific Islands	17

Immigrant aliens arriving in the year ending June 30, 1929, were, by race, sex, age, as follows:

Race or People		Hebrew	12,479	Slovak	2,443	16 to 21 years	69,072
African (black)	1,254	Irish	30,922	Spanish	899	22 to 29 years	85,222
Armenian	929	Italian	19,083	Spanish Amer	3,259	30 to 37 years	36,907
Bohem., Morav. (Czech.)	1,427	Japanese	716	Welsh	1,659	38 to 44 years	16,789
Chinese	1,071	Magyar	1,342	All others	5,600	45 yrs. and over	23,753
Cuban	2,141	Mexican	38,980	**Sex**		**Conjugal.**	
Dutch, Flem	2,949	Polish	3,507	Male	142,132	Single	182,307
English	29,846	Portuguese	853	Female	137,546	Married	88,673
French	16,957	Russian	1,352			Widowed	7,976
German	55,631	Scand. (Norweg., Danes, Swed.)	19,428	**Age.**		Divorced	722
Greek	3,025	Scotch	21,926	Under 16 years	47,935		

The occupations of the immigrant aliens admitted in the year ended June 30, 1929, were:

All Occupations, total	279,678	Physicians	398	Locksmiths	1,730	Misc'l. total	98,505
		Teachers	2,036	Machinists	1,629		
Professional, total	10,138	**Skilled, total**	51,341	Mariners	1,414	Agents, bankers	1,514
				Masons	1,129	Draymen, hackmen, teamst	891
		Bakers	1,622	Mechanics	3,227	Farmers	8,309
Actors	222	Barbers, hairdr	1,176	Metal workers	328	Farm laborers	19,849
Architects	200	Blacksmiths	634	Miners	1,844	Fishermen	1,045
Clergy	915	Carpenters, join	3,505	Painters andglaz	1,569	Laborers	26,192
Electricians	1,105	Clersk, account	13,927	Plasterers	201	Merchants, d'l'rs	2,884
Engineers (prof.)	1,604	Dressmakers	1,346	Plumbers	356	Servants	31,841
Literary & scient.	378	Engineers	421	Printers	527		
Musicians	575	Gardeners	636	Seamstresses	1,006		
Officials (Govt.)	394	Iron, steel work	1,440	Shoemakers	976	No occup't'n (includ. women and children)	119,694
		Jewelers	155	Tailors	1,569		
				Weavers, spin	692		

Of the 479,327 aliens admitted during the year ending June 30, 1929 there were 146,918 who came in under the Immigration Act of 1924 as immigrants charged to the quota; 101,007 as returning residents; and 97,251 as natives of non-quota countries, principally Canada and Mexico.

Temporary visitors for business or pleasure and transits numbered 92,086; and husbands, wives, and children of American citizens, 30,313.

The others included 1,898 students, 1,252 ministers and professors, and their wives and children, and 8,602 of the miscellaneous classes.

Of the 146,918 quota immigrants admitted, 123,095, or 83.8 per cent, entered at New York, mainly from Europe; 9,509, or 6.5 per cent, at the other seaports; 13,891, or 9.4 per cent, at points along the northern land border; the remaining 423 coming in over the Mexican border.

Of the 97,251 aliens admitted as natives of non-quota countries, 48,939, or 50.3 per cent, entered via the Canadian border; 38,750, or 39.9 per cent, via the Mexican border; 5,547, or 5.7 per cent, at New York; and 4,015, or 4.1 per cent, at the other seaports.

AMERICAN CITIZENS RESIDING ABROAD.

(Based by the Department of Commerce on material supplied in 1928 by the Department of State.)

South America: Argentina, 3,619; Bolivia, 360; Brazil, 2,153; British Guiana, 34; Chile, 1,522; Colombia, 771; Ecuador, 232; Paraguay, 46; Peru, 946; Surinam (Dutch Guiana), 14; Uruguay, 224; Venezuela, 2,215; total, 12,136.

Mexico and Central America: British Honduras, 30; Costa Rica, 424; Guatemala, 626; Honduras, 1,310; Mexico, 14,607; Nicaragua, 482· Panama, 1,932; El Salvador, 203; total, 19,614.

West Indies and Bermuda: Bahamas, 186; Barbados, 24; Bermuda, 27; Cuba, 9,234; Dominican Republic, 9,205; French West Indies, 17; Haiti, 515; Jamaica, 214; Netherland West Indies, 26; Trinidad, 131· total 19,579.

Canada: Alberta, 98,030. British Columbia, 14,617; Manitoba, 53,333; New Brunswick, 451; Nova Scotia, 718; Ontario, 29,599; Prince Edward Island, 19; Quebec, 13,055; Saskatchewan, 24,147; Yukon Territory, 70; total 234,039.

Newfoundland, 108.

Europe: Austria, 979; Belgium, 857; Great Britain and Northern Ireland, 11,717; Bulgaria, 62; Czechoslovakia, 2,600; Danzig, Free City of, 18; Denmark, 406; Estonia, 18; Finland, 236; France, 25,860; Germany, 3,027; Gibraltar, 11; Greece, 3,146; Hungary, 1,200; Irish Free State, 1,193; Italy, 10,000; Latvia, 86; Lithuania, 750; Malta, 26; Netherlands, 241; Norway, 600; Poland, 6,000; Portugal, including Madeira and the Azores, 479; Rumania, 2,000; Russia, 150; Serbs, Croats and Slovenes, Kingdom of (Yugoslavia), 2,500; Spain and Canary Islands, 805; Sweden, 658; Switzerland, 1,438; total, 77,063.

Africa: Algeria, 57; Angola (Portuguese West Africa), 765; Egypt, 664; Ethiopia (Abyssinia), 25; Kenya, 240; Liberia, 187; Madagascar, 89; Morocco, 96; Mozambique (Portuguese East Africa), 50; South Africa, Union of, 1,125; Cape Province, 167; Natal, 230; Transvaal and Orange Free State, 728; Tunisia, 25; West Africa (French and British colonies and Mandated Territories), 350; total 3,673.

Asia: Arabia, 24; Ceylon, 61; China, 12,233; French Indo China, 51; Hong Kong, 418; India, 3,723; Japanese Empire, 3,136; Netherland East Indies, 375; Palestine, 1,964; Persia, 254; Siam, 173; Straits Settlements, 392; Syria, 859; Turkey (including Turkey in Europe), 456; total, 24,119.

Australia, 2,143: New Zealand, 55; Oceania (exclusive of territory of the United States), 139; total, 2,337.

World total, 392,668.

Exclusive of the 7,482 civilian Americans reported in 1928 to be residents in the Canal Zone.

Dominican figure includes a large number of Porto Rican citizens of the United States.

POPULATION OF UNITED STATES BY RACES IN 1790.

(As classified in "A Century of Population Growth," published by the Bureau of the Census in 1909.)

Nationality as indicated by name.	United States.		Maine.		New Hamp.		Vermont.		Mass.		Rhode Isl.	
	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
All nationalities.	3,172,444	100.0	96,107	100.0	141,112	100.0	85,072	100.0	373,187	100.0	64,670	100.0
English	2,605,699	82.1	89,515	93.1	132,726	94.1	81,149	95.4	354,528	95.0	62,079	96.0
Scotch	221,562	7.0	4.154	4.3	6.648	4.7	2.562	3.0	13.435	3.6	1.976	3.1
Irish	61,534	1.9	1,334	1.4	1.346	1.0	597	.7	3.732	1.0	459	.7
Dutch	78,959	2.5	279	.3	153	.1	428	.5	373	.1	19	.....
French	17,619	.6	115	.1	142	.1	153	.3	746	.2	88	.1
German	176,407	5.6	436	.5	.....	.....	35	.....	75	.....	33	.1
Hebrew	1,243	.....	44	.....	.....	.....	.....	.....	67	.....	9	.....
All other	9,421	.3	230	.2	97	.1	148	.2	231	.1	7	.....

	Connecticut.		New York.		New Jersey.		Pennsyl.		Delaware.		Maryland.	
All nationalities...	232,236	100.0	314,366	100.0	169,954	100.0	423,373	100 0	46,310	100.0	208,649	100.0
English	223,437	96.2	245,901	78.2	98,620	58.0	249,656	59.0	39,966	86.3	175,265	84.0
Scotch	6,425	2.8	10,034	3.2	13.156	7.7	49,567	11.7	3.473	7.5	13,562	6.5
Irish	1,589	.7	2,525	.8	12,009	7.1	8,614	2.0	1,806	3.9	5,008	2.4
Dutch	258	.1	50,600	16.1	21,581	12.7	2,623	.6	463	1.0	209	.1
French	512	.2	2,424	.8	3,565	2.1	2,341	.6	232	.5	1,460	.7
German	4	.....	1,103	.4	15,678	9.2	110,357	26.1	185	.4	12,310	5.9
Hebrew	5	.....	385	.1	.....	.....	21	.....	.....	.....	626	.3
All other	6	.....	1,394	.4	5,255	3.1	194	.....	185	.4	209	.1

	Virginia		No. Carolina.		So. Carolina.		Georgia.		Kentucky.		Tennessee.	
All nationalities...	442,117	100.0	289,181	100.0	140,178	100.0	52,886	100.0	61,133	100.0	31,913	100.0
English	375,799	85.0	240,309	82.1	115,480	82.4	43,948	83.1	50,802	83.1	26,519	83.1
Scotch	31,391	7.1	32,388	11.2	16,447	11.7	5.923	11.2	6,847	11.2	3,574	11.2
Irish	8,842	2.0	6.651	2.3	3.576	2.6	1.216	2.3	1.406	2.3	734	2.3
Dutch	884	.2	578	.2	219	.2	106	.2	122	.2	64	.2
French	2,653	.6	868	.3	1,882	1.3	159	.3	183	.3	96	.3
German	21,664	4.9	8,097	2.8	2,343	1.7	1,481	2.8	1.712	2.8	894	2.8
Hebrew	.....	.....	1	.....	85	.1	.....	.....	.....	.....	.....	.....
All other	884	.2	289	.1	146	.1	53	.1	61	.1	32	.1

ROMAN ROADS.

The Romans had roads exclusively military, as well as all those which are known among ourselves.

Their military roads were called Praetorian roads, as being under the immediate government of the Praetors, or military superiors; while their public or high-roads were called Consular, because made and maintained by the authority of the Consuls: and to each of these respectively was usually given the name of the particular Consul under whom it was first made; as in the examples of the *Via Aurelia*, or Aurelian road, made under the Consul Aurelius; and the *Via Appia*, or Appian road, made under the Consul Appius.

Their by-roads, or roads leading from the Consular roads only to small places, or vicinities, or neighborhoods out of the great lines, were called Vicinal roads, or *Viae Vicinales*.

What was peculiar consisted in the usage of keeping the Praetorian, or military roads, or roads designed for the marching of soldiery and armies, entirely distinct from the Consular, or public, or high-roads—roads designed for traffic and for general purposes

The objects of the first were military dominion, and the immediate affairs of state, while the objects of the second concerned commerce and the general intercourse of Romans and strangers; and the separation was so strict, that where roads for all these purposes were wanted to and from the same places, still the two different descriptions of road were formed and carried more or less by the side of each other; as in the modern world we may now sometimes see our roads and canals, common roads and railroads, running side by side.

But the manner of making the Praetorian and Consular roads differed as much as the purposes for which they were made. The Consular roads were often more remarkable for their magnitude and breadth, for the persevering boldness with which they were carried in straight lines.

The Via Appia, which departing from Rome extended to the distance of 350 miles, and then terminated at Naples, had a causeway or pavement twelve feet broad, composed of square blocks of freestone, each for the most part a foot and a half in measure; and this road is still, for several miles together, in many parts of its line, as sound as when first made.

It is not everywhere the smoothest of roads, but this it never was. Horace himself was of opinion that it was best to go slowly over it; and this was at all times the case with the Consular roads in general.

GROWTH OF BIGGEST UNITED STATES CITIES, 1860-1920.

	1920.	1910.	1900.	1890.	1880.	1870.	1860.
New York	5,620,048	4,766,883	3,437,202	2,507,414	1,911,698	1,478,103	1,174,779
Chicago	2,701,705	2,185,283	1,698,575	1,099,850	503,185	298,977	109,260
Philadelphia	1,823,779	1,549,008	1,293,697	1,046,964	847,170	674,022	565,529
Detroit	993,678	465,766	285,704	205,876	116,340	79,577	45,619
Cleveland	796,841	560,663	381,768	261,353	160,146	92,829	43,417
St. Louis	772,897	687,029	575,238	451,770	350,518	310,864	160,773
Boston	748,060	670,585	560,892	448,477	362,839	250,526	177,840
Baltimore	733,826	558,485	508,957	434,439	332,313	267,354	212,418
Pittsburgh	588,343	533,905	451,512	343,904	235,071	139,256	77,923
Los Angeles	576,673	319,198	102,479	50,395	11,183	5,728	4,385
Buffalo	506,775	423,715	352,387	255,664	155,134	117,714	81,129
San Francisco	506,676	416,912	342,782	298,997	233,959	149,473	56,802
Milwaukee	457,147	373,857	285,315	204,468	115,587	71,440	45,246
Washington, D. C.	437,571	331,069	278,718	230,392	177,624	131,700	75,080
Newark	414,524	347,469	246,070	181,830	136,508	105,059	71,941
Cincinnati	401,247	363,591	325,902	296,908	255,139	216,239	161,044
New Orleans	387,219	339,075	287,104	242,039	216,090	191,418	168,675
Minneapolis	380,582	301,408	202,718	164,738	46,887	13,066	2,564
Kansas City, Mo.	324,410	248,381	163,752	132,716	55,785	32,260	4,418
Seattle	315,312	237,194	80,671	42,837	3,533	1,107	.....
Indianapolis	314,194	233,650	169,164	105,436	75,056	48,244	18,611
Jersey City	298,103	267,779	206,433	163,003	120,722	82,546	29,226
Rochester, N. Y.	295,750	218,149	162,608	133,896	89,366	62,386	48,204
Portland, Ore.	258,288	207,214	90,426	46,385	17,577	8,293	2,874
Denver	256,491	213,381	133,859	106,713	35,629	4,759	.....
Toledo	243,164	168,497	131,822	81,434	50,137	31,584	13,768
Providence, R. I.	237,595	224,326	175,597	132,146	104,857	68,904	50,666
Columbus, Ohio	237,031	181,511	125,560	88,150	51,647	31,274	18,554
Louisville	234,891	223,928	204,731	161,129	123,758	100,753	68,033
St. Paul	234,698	214,744	163,065	133,156	41,473	20,030	10,401
Oakland, Cal.	216,261	150,174	66,960	48,682	34,555	10,500	1,543
Akron, Ohio	208,435	69,067	42,728	27,601	16,512	10,006	3,477
Atlanta, Ga.	200,616	154,839	89,872	65,533	37,409	21,789	9,554
Omaha, Neb.	191,601	124,096	102,555	140,452	30,518	16,083	1,883
Worcester, Mass.	179,754	145,986	118,421	84,655	58,291	41,105	24,960
Birmingham, Ala.	178,806	132,685	38,415	26,178	3,086	.....	.....
Syracuse, N. Y.	171,717	137,249	108,374	88,143	51,792	43,051	28,119
Richmond, Va.	171,667	127,628	85,050	81,388	63,600	51,038	37,910
New Haven, Conn.	162,537	133,605	108,027	81,298	Not separately returned		
Memphis, Tenn.	162,351	131,105	102,320	64,495	33,592	40,226	22,623
San Antonio, Tex.	161,379	96,614	53,321	37,673	20,550	12,256	8,235
Dallas, Tex.	158,976	92,104	42,638	38,067	10,358	.....	.....
Dayton, Ohio	152,559	116,577	85,333	61,220	38,678	30,473	20,081
Bridgeport, Conn.	143,355	102,054	70,996	48,866	27,643	18,969	no sep. fig.
Houston, Tex.	138,276	78,800	44,633	27,557	16,513	9,382	4,845
Hartford, Conn.	138,036	98,915	79,850	53,230	42,015	37,180	no sep. fig.
Scranton, Pa.	137,783	129,837	102,026	75,215	45,850	35,092	9,223
Grand Rapids, Mich.	137,634	112,571	87,565	60,278	32,016	16,507	8,085
Paterson, N. J.	135,875	125,600	105,171	78,347	51,031	33,579	19,586
Youngstown, Ohio	132,358	79,066	44,885	33,220	15,435	8,075	2,759
Springfield, Mass.	129,614	88,926	62,059	44,179	33,340	26,703	15,199
Des Moines, Iowa	126,468	86,368	62,139	50,093	22,408	12,035	3,965
New Bedford, Mass.	121,217	96,652	62,442	40,733	26,845	21,320	22,300
Fall River, Mass.	120,485	119,295	104,863	74,398	48,961	26,766	14,026
Trenton, N. J.	119,289	98,815	73,307	57,458	29,910	22,874	17,228
Nashville, Tenn.	118,342	110,364	80,865	76,168	43,350	25,865	16,988
Salt Lake City	118,110	92,777	53,531	44,843	20,768	12,854	8,236
Camden, N. J.	116,309	94,538	75,935	58,313	41,659	20,045	14,358
Norfolk, Va.	115,777	67,452	46,624	34,871	21,966	19,229	14,620
Albany, N. Y.	113,344	100,253	94,152	94,923	90,758	69,422	62,367

Baltimore (1752), 200; (1775), 5,934; (1780), 8,000; (1790), 13,502; (1800), 26,514; (1810), 46,555; (1820), 62,738; (1830), 80,620; (1840), 102,313; (1850), 169,054.

Boston (1638), 700; (1675), 4,000; (1680), 4,500; (1690), 7,000; (1700) 6,700; (1710) 9,000; (1720), 11,000; (1730), 13,000; (1740), 17,000; (1750), 15,731; (1760), 15,520; (1770), 15,520; (1780), 10,000; (1790), 18,320; (1800), 24,937; (1810), 33,787; (1820) 43,298; (1830), 61,392; (1840), 93,383; (1850), 136,881.

New York City, in 1750, had about 10,000 people, of whom 2,000 were slaves, according to figures published at the time. In 1790, the Federal Census gave Manhattan Island 33,131 population, with 1,761 in what is now the Bronx; 4,495 in what is now Brooklyn; 6,159 in Queens; and 3,835 in Staten Island—total, 49,401 of the inhabitants in 1790 in Manhattan. Negroes numbered 3,262, of whom 2,184 were slaves.

Philadelphia (1683), 500; (1700), 4,400; (1730), 8,500; (1740), 10,500; (1750), 13,400; (1760) 18,756) (1770), 28,000; (1780), 30,000; (1790), 28,522; (1800: 41,220; (1810), 53,722; (1820), 3,802; (1830), 80,462; (1840), 93,665; (1850), 121,376.

ORIGIN OF FAMILIAR FOODS.

(From the General-Famer, Published in 1838.)

The potato is a native of South America, and is still found wild in Chili, Peru, and Monte Video. In its native state the root is small and bitter. The first mention of it by European writers is in 1582—it is now spread over the world.

Wheat and rye originated in Tartary and Siberia, where they are still indigenous (natural production).

The only country where the oat is found wild is in Abyssinia, and thence may be considered a native.

Maize or Indian corn is a native of Mexico, and was unknown in Europe until after the discoveries of Columbus.

The bread-fruit tree is a native of the South Sea Islands, particularly Otaheite.

Tea is found a native nowhere except in China and Japan, from which countries the world is supplied.

The cocoanut is a native of most equinoctial countries.

Coffee is a native of Arabia Felix, but is now spread into both the East and West Indies. The best coffee is brought from Mocha, in Arabia, whence about fourteen millions of pounds are annually exported. St. Domingo furnishes from sixty to seventy millions of pounds yearly.

All the varieties of the apple are derived from the crab-apple, which is found native in most parts of the world.

The peach is derived from Persia, where it still grows in a native state, small, bitter, and with poisonous qualities.

Tobacco is a native of Mexico and South America, and lately one species has been found in New Holland.

Tobacco was first introduced into England from North Carolina in 1586, by Walter Raleigh.

Asparagus was brought from Asia; cabbage and lettuce from Holland; horseradish from China; rice from Ethiopia; beans from the East Indies;—onions and garlic are natives of various places, both Asia and Africa.

The sugar-cane is a native of China, and the art of making sugar from it has been practised from the remotest antiquity.

POPULATION OF INCORP. PLACES OF 5,000 OR MORE PEOPLE.

(U. S. Census of Jan. 1, 1920. See also 1925 censuses of Fla., Kan., Mass., N. Y., R. I., Dak., and Wyo.)

ALABAMA.

Place.	1920.	1910.
Alabama City	5,432	4,313
Albany	7,652	6,118
Anniston	17,734	12,794
Bessemer	18,674	10,864
Birmingham	178,806	132,685
Dothan	10,034	7,016
Florence	10,529	6,689
Gadsden	14,737	10,557
Huntsville	8,018	7,611
Mobile	60,777	51,521
Montgomery	43,464	38,136
Selma	15,589	13,649
Sheffield	6,682	4,865
Talladega	6,546	5,854
Troy	5,696	4,961
Tuscaloosa	11,996	8,407

ARIZONA.

Bisbee	9,205	9,019
Douglas	9,916	6,437
Globe	7,044	7,083
Miami	6,689	.....
Nogales	5,199	3,514
Phoenix	29,053	11,134
Prescott	5,010	5,092
Tucson	20,292	13,193

ARKANSAS.

Blytheville	6,447	3,849
Fayetteville	5,362	4,471
Fort Smith	28,870	23,975
Helena	9,112	8,772
Hot Springs	11,695	14,434
Jonesboro	9,384	7,123
Little Rock	65,142	45,941
N. Little Rock	14,048	11,138
Paragould	6,306	5,248
Pine Bluff	19,280	15,102
Texarkana	8,257	5,655
Van Buren	5,224	3,878
West Helena	6,226	.....

CALIFORNIA.

Alameda	28,806	23,383
Alhambra	9,096	5,021
Anaheim	5,526	2,628
Bakersfield	18,638	12,727
Berkeley	56,036	40,434
Brawley	5,389	881
Calexico	6,223	797
Chico	9,339	3,750
El Centro	5,464	1,610
Eureka	12,923	11,845
Fresno	45,086	24,892
Glendale	13,536	2,746
Hanford	5,888	4,829
Long Beach	55,593	17,809
Los Angeles	576,673	319,198
Marysville	5,481	5,430
Modesto	9,241	4,034
Monrovia	5,480	3,576
Monterey	5,479	4,923
Napa	6,757	5,791
Oakland	216,261	150,174
Ontario	7,280	4,274
Palo Alto	5,900	4,486
Pasadena	45,354	30,291
Petaluma	6,226	5,880
Pomona	13,505	10,207
Redlands	9,571	10,449
Richmond	16,843	6,802
Riverside	19,341	15,212
Sacramento	65,908	44,696
SanBernardino	18,721	12,779
San Diego	74,683	39,578
San Francisco	506,676	416,912
San Jose	39,642	28,946
San Leandro	5,703	3,471
San LuisObispo	5,895	5,157
San Mateo	5,979	4,384
San Raphael	5,512	5,934
Santa Ana	15,485	8,429
Santa Barbara	19,441	11,659
Santa Clara	5,220	4,348
Santa Cruz	10,917	11,146
Santa Monica	15,252	7,847
Santa Rosa	8,758	7,817
S. Pasadena	7,652	4,649
Stockton	40,296	23,253
Vallejo	21,107	11,340
Venice	10,385	3,119
Visalia	5,753	4,550
Watsonville	5,013	4,446
Whittier	7,997	4,550

COLORADO.

Place.	1920.	1910.
Boulder	11,006	9,539
Colorado Spgs.	30,105	29,078
Denver	256,491	213,381
Fort Collins	8,755	8,210
Grand Junc.	8,665	7,754
Greeley	10,958	8,179
Longmont	5,848	4,256
Loveland	5,005	3,651
Pueblo	45,581	44,395
Sterling	6,415	3,044
Trinidad	10,906	10,204

CONNECTICUT.

Ansonia	17,643	15,152
Branfordtown	6,627	6,047
Bridgeport	143,555	102,054
Bristol	20,620	9,527
Danbury	18,943	20,234
Derby	11,238	8,991
East Hartford	11,648	8,138
Enfield	11,719	9,719
Fairfield	11,475	6,134
Greenwich	5,939	3,885
Hamden	8,611	5,850
Hartford	138,036	98,915
Huntington (Shelton)	9,475	6,545
Killingly	8,178	6,564
Manchester	18,370	13,641
Meriden	29,867	27,265
Middletown	13,638	11,851
Milford	10,193	4,366
Naugatuck	15,051	12,722
New Britain	59,316	43,916
New Haven	162,537	133,605
New London	25,688	19,659
New Milford	4,781	5,010
Norwalk	27,743	6,954
Norwich	22,304	20,367
Plainfield	7,926	6,719
Plymouth	5,942	5,021
Putnam	7,711	6,637
Rockville	7,726	7,977
Seymour	6,781	4,786
Southington	5,085	3,714
S. Norwalk (See Note.		8,968
Stafford	5,407	5,233
Stamford	35,096	25,138
Stonington	10,236	9,154
Stratford	12,347	5,712
Torrington (boro)	20,623	15,483
Wallingford	9,648	8,690
Waterbury	91,715	73,141
West Hartford	8,594	4,808
Willimantic	12,230	11,230
Winsted	8,248	7,754

DELAWARE.

Wilmington	110,168	87,411

DISTRICT OF COLUMBIA.

Washington	437,571	331,069

FLORIDA.

Daytona	5,445	3,082
Fernandina	5,457	3,482
Gainesville	6,860	6,183
Jacksonville	91,558	57,699
Key West	18,749	19,945
Lakeland	7,062	3,719
Miami	29,571	5,471
Orlando	9,282	3,894
Palatka	5,102	3,779
Pensacola	31,035	22,982
St. Augustine	6,192	5,494
St. Petersburg	14,237	4,127
Sanford	5,588	3,570
Tallahassee	5,637	5,018
Tampa	51,608	37,782
W.Palm Beach	8,659	1,743
West Tampa	8,463	8,258

GEORGIA.

Albany	11,555	8,190
Americus	9,010	8,063
Athens	16,748	14,913
Atlanta	200,616	154,839
Augusta	52,548	41,040
Brunswick	14,413	10,182
Columbus	31,125	20,554
Cordele	6,538	5,883
Dalton	5,222	5,324
Decatur	6,150	2,466
Dublin	7,707	5,795
East Point	5,241	3,682

GEORGIA—*Continued.*

Place.	1920.	1910.
Elberton	6,475	6,483
Fitzgerald	6,870	5,795
Gainesville	6,272	5,925
Griffin	8,240	7,478
La Grange	17,038	5,587
Macon	52,995	40,665
Marietta	6,190	5,949
Moultrie	6,789	3,349
Newman	7,037	5,548
Rome	13,252	12,099
Savannah	83,252	65,064
Thomasville	8,196	6,727
Valdosta	10,783	7,656
Waycross	18,068	14,485

IDAHO.

Boise	21,393	17,358
Burley	5,408	.....
Caldwell	5,106	3,543
Coeur d'Alene	6,447	7,291
Idaho Falls	8,064	4,827
Lewiston	6,574	6,043
Nampa	7,621	4,205
Pocatello	15,001	9,110
Twin Falls	8,324	5,258

ILLINOIS.

Alton	24,682	17,528
Aurora	36,397	29,807
Beardstown	7,111	6,107
Belleville	24,823	21,122
Belvidere	7,804	7,253
Benton	7,201	2,675
Berwyn	14,150	5,841
Bloomington	28,725	25,768
Blue Island	11,424	8,043
Cairo	15,203	14,548
Canton	10,928	10,453
Carbondale	6,267	5,411
Carlinville	5,212	3,616
Centralia	12,491	9,680
Champaign	15,873	12,421
Charleston	6,615	5,884
Chicago	2,701,705	2,185,283
Chicago Hts	19,653	14,525
Cicero	44,995	14,557
Clinton	5,398	5,165
Collinsville	9,753	7,478
Danville	33,776	27,871
Decatur	43,818	31,140
De Kalb	7,871	8,102
Dixon	8,191	7,216
Duquoin	7,285	5,454
East Moline	8,675	2,665
East St. Louis	66,767	58,547
Edwardsville	5,336	5,014
Eldorado	5,004	3,366
Elgin	27,454	25,978
Evanston	37,234	24,978
Forest Park	10,768	6,594
Freeport	19,669	17,567
Galesburg	23,834	22,089
Granite	14,757	9,903
Harrisburg	7,125	5,309
Harvey	9,216	7,227
Herrin	10,986	6,861
Highland Park	6,167	4,209
Hillsboro	5,074	3,424
Hoopeston	5,451	4,698
Jacksonville	15,713	15,326
Johnston	7,137	3,248
Joliet	38,442	34,670
Kankakee	16,753	13,986
Kewanee	16,026	9,307
La Grange	6,525	5,282
La Salle	13,050	11,537
Lincoln	11,882	10,892
Litchfield	6,215	5,971
Macomb	6,714	5,774
Marion	9,582	7,093
Mattoon	13,552	11,456
Maywood	12,072	8,033
Melrose Park	7,147	4,806
Metropolis	5,055	4,655
Moline	30,734	24,199
Monmouth	8,116	9,128
Mt. Carmel	7,456	6,934
Mt. Vernon	9,815	8,007
Murphysboro	10,703	7,485
No. Chicago	5,839	3,306
Oak Park	39,858	19,444
Ottawa	10,816	9,535
Pana	6,122	6,055
Paris	7,985	7,664

Note—South Norwalk in 1920 was an incorporated part of Norwalk.

ILLINOIS—*Continued.*

PLACE.	1920.	1910.
Pekin	12,086	9,897
Peoria	76,121	66,950
Peru	8,869	7,984
Pontiac	6,664	6,090
Quincy	35,978	36,587
Rockford	65,651	45,401
Rock Island	35,177	24,335
Savanna	5,237	3,691
Springfield	59,183	51,678
Spring Valley	6,493	7,035
Staunton	6,027	5,048
Sterling	8,182	7,467
Streator	14,779	14,253
Taylorville	5,806	5,446
Urbana	10,244	8,245
Waukegan	19,226	16,069
W. Frankfort	8,478	2,111
W. Hammond	7,492	4,948
Wilmette	7,814	4,943
Winnetka	6,694	3,168
Woodstock	5,523	4,331
Zion	5,580	4,789

INDIANA.

Alexandria	4,172	5,096
Anderson	29,767	22,476
Bedford	9,076	8,716
Bicknell	7,635	2,794
Bloomington	11,595	8,838
Bluffton	5,391	4,987
Brazil	9,293	9,340
Clinton	10,962	6,229
Columbus	8,990	8,813
Connersville	9,901	7,738
Crawfordsville	10,139	9,371
E. Chicago	35,967	19,098
Elkhart	24,277	19,282
Elwood	10,790	11,028
Evansville	85,264	69,647
Fort Wayne	86,549	63,933
Frankfort	11,585	8,634
Gary	55,378	16,802
Goshen	9,525	8,514
Greenburg	5,345	5,420
Hammond	36,004	20,925
Hartford	6,183	6,187
Huntington	14,000	10,272
Indianapolis	314,194	233,650
Jeffersonville	10,098	10,412
Kokomo	30,067	17,010
Lafayette	22,486	20,081
Laporte	15,158	10,525
Lebanon	6,257	5,474
Linton	5,856	5,906
Logansport	21,626	19,050
Madison	6,711	6,934
Marion	23,747	19,359
Michigan City	19,457	19,027
Mishawaka	15,195	11,886
Mt. Vernon	5,284	5,563
Muncie	36,524	24,005
New Albany	22,992	20,629
New Castle	14,458	9,446
Peru	12,410	10,910
Portland	5,958	5,130
Princeton	7,132	6,448
Richmond	26,765	22,324
Rushville	5,498	4,925
Seymour	7,348	6,305
Shelbyville	9,701	9,500
South Bend	70,983	53,684
Terre Haute	66,083	58,157
Valparaiso	6,518	6,987
Vincennes	17,160	14,895
Wabash	9,872	8,687
Warsaw	5,478	4,430
Washington	8,743	7,854
Whiting	10,145	6,587

IOWA.

Albia	5,067	4,969
Ames	6,270	4,223
Atlantic	5,329	4,560
Boone	12,451	10,347
Burlington	24,057	24,324
Cedar Falls	6,316	5,012
Cedar Rapids	45,566	32,811
Centerville	8,486	6,936
Charlton	5,175	3,794
Charles City	7,350	5,892
Clinton	24,151	25,577
Council Bluffs	36,162	29,292
Creston	8,034	6,924
Davenport	56,727	43,028
Des Moines	126,468	86,368
Dubuque	39,141	38,494
Fairfield	5,948	4,970
Fort Dodge	19,347	15,543
Fort Madison	12,066	8,900

IOWA—*Continued.*

PLACE.	1920.	1910.
Grinnell	5,362	5,036
Iowa City	11,267	10,091
Keokuk	14,423	14,008
Marshalltown	15,731	13,374
Mason City	20,065	11,230
Muscatine	16,068	16,178
Newton	6,627	4,616
Oelwein	7,455	6,028
Oskaloosa	9,427	9,466
Ottumwa	23,003	22,012
Perry	5,642	4,630
Red Oak	5,578	4,830
Shenandoah	5,255	4,976
Sioux City	71,227	47,828
Waterloo	36,230	26,693
Webster City	5,657	5,208

KANSAS.

Arkansas City	11,253	7,508
Atchison	12,630	16,429
Chanute	10,286	9,272
Coffeyville	13,452	12,687
Concordia	4,705	4,415
Dodge City	5,061	3,214
Eldorado	10,995	3,129
Emporia	11,273	9,058
Fort Scott	10,693	10,465
Galena	4,712	6,096
Hutchinson	23,298	16,364
Independence	11,920	10,486
Iola	8,513	9,032
Junction	7,533	5,598
Kansas City	101,177	82,331
Lawrence	12,456	12,374
Leavenworth	16,912	19,363
Manhattan	7,989	5,722
Newton	9,781	7,862
Ottawa	9,018	7,650
Parsons	16,028	12,463
Pittsburg	18,052	14,755
Pratt	5,183	3,302
Rosedale	7,674	5,960
Salina	15,085	9,688
Topeka	50,022	43,684
Wellington	7,048	7,034
Wichita	72,217	52,450
Winfield	7,933	6,700

KENTUCKY.

Ashland	14,729	8,688
Bellevue	7,379	6,683
Bowling Green	9,638	9,173
Covington	57,121	53,270
Danville	5,099	5,420
Dayton	7,646	6,979
Fort Thomas	5,028	.....
Frankfort	9,805	10,465
Henderson	12,169	11,452
Hopkinsville	9,696	9,419
Lexington	41,534	35,099
Louisville	234,891	223,928
Mayfield	6,583	5,916
Maysville	6,107	6,141
Middlesboro	8,041	7,305
Newport	29,317	30,309
Owensboro	17,424	16,011
Paducah	24,735	22,760
Paris	6,310	5,859
Richmond	5,622	5,340
Winchester	8,333	7,156

LOUISIANA.

Alexandria	17,510	11,213
Baton Rouge	21,782	14,897
Bogalusa	8,245	.....
Crowley	6,108	5,090
Gretna	7,197	.....
Houma	5,160	5,024
Lafayette	7,855	6,392
Lake Charles	13,088	11,449
Minden	6,105	3,002
Monroe	12,675	10,209
Morgan City	5,429	5,477
New Iberia	6,278	7,490
New Orleans	387,219	339,075
Shreveport	43,874	28,015

MAINE.

Auburn	16,985	15,064
Augusta	14,114	13,211
Bangor	25,978	24,803
Bath	14,731	9,396
Belfast	5,083	4,618
Biddeford	18,008	17,079
Brewer	6,064	5,667
Brunswick	5,784	5,341
Calais	6,084	6,116
Caribou	6,018	5,377
Gardiner	5,475	5,311

MAINE—*Continued.*

PLACE.	1920.	1910.
Houlton	6,191	5,845
Lewiston	31,791	26,247
Old Town	6,956	6,317
Portland	69,272	58,571
Rockland	8,109	8,174
Rumford	7,016	5,427
Saco	6,817	6,583
Sanford	10,691	9,049
Skowhegan	5,981	5,341
S. Portland	9,254	7,471
Waterville	13,351	11,458
Westbrook	9,453	8,281

MARYLAND.

Annapolis	11,214	8,609
Baltimore	733,826	558,485
Cambridge	7,467	6,407
Cumberland	29,837	21,839
Frederick	11,066	10,411
Frostburg	6,017	6,028
Hagerstown	28,064	16,507
Salisbury	7,553	6,690

MASSACHUSETTS.

Abington	5,787	5,455
Adams	12,967	13,026
Agawam	5,023	3,501
Amesbury	10,036	9,894
Amherst	5,550	5,112
Andover	8,268	7,301
Arlington	18,768	11,187
Athol	9,792	8,536
Attleboro	19,731	16,215
Belmont	10,749	5,542
Beverly	22,561	18,650
Boston	748,060	670,585
Braintree	10,580	8,066
Bridgewater	8,438	7,688
Brockton	66,254	56,878
Brookline	37,748	27,792
Cambridge	109,694	104,839
Canton	5,945	4,797
Chelmsford	5,682	5,010
Chelsea	43,184	32,452
Chicopee	36,214	25,401
Clinton	12,779	13,075
Concord	6,461	6,421
Danvers	11,108	9,407
Dedham	10,792	9,284
Dracut	5,280	3,461
Easthampton	11,261	8,524
Easton	5,041	5,139
Everett	40,120	33,484
Fairhaven	7,291	5,122
Fall River	120,485	119,295
Fitchburg	41,029	37,826
Framingham	17,033	12,948
Franklin	6,497	5,641
Gardner	16,971	14,699
Gloucester	22,947	24,398
Grafton	6,887	5,705
Gt. Barrington	6,315	5,926
Greenfield	15,462	10,427
Haverhill	53,884	44,115
Hingham	5,604	4,965
Holyoke	60,203	57,730
Hudson	7,607	6,743
Hyde Park	(Boston)	15,507
Ipswich	6,201	5,777
Lawrence	94,270	85,892
Leominster	19,745	17,580
Lexington	6,350	4,918
Lowell	112,759	106,294
Ludlow	7,470	4,918
Lynn	99,148	89,336
Malden	49,103	44,404
Mansfield	6,255	5,183
Marblehead	7,324	7,338
Marlboro	15,028	14,579
Maynard	7,086	6,390
Medford	39,038	23,150
Melrose	18,204	15,715
Methuen	15,189	11,448
Middleboro	8,453	8,214
Milford	13,471	13,055
Millbury	5,652	4,740
Milton	9,382	7,924
Montague	7,675	6,866
Natick	10,907	9,866
Needham	7,012	5,026
New Bedford	121,217	96,652
Newburyport	15,618	14,949
Newton	46,054	39,806
No. Adams	22,282	22,019
No. Andover	6,265	5,529
No. Attleboro	9,238	9,562
Northampton	21,951	19,431
Northbridge	10,174	8,807
Norwood	12,627	8,014

MASSACHUSETTS—*Con.*		
PLACE.	1920.	1910.
Orange	5,393	5,282
Palmer	9,896	8,610
Peabody	19,552	15,724
Pittsfield	41,763	32,121
Plymouth	13,045	12,141
Quincy	47,876	32,642
Reading	7,439	5,818
Revere	28,823	18,219
Rockland	7,544	6,928
Salem	42,529	43,697
Saugus	10,874	8,047
Somerville	93,091	77,236
Southbridge	14,245	12,592
South Hadley	5,527	4,894
Spencer	5,930	6,740
Springfield	129,614	88,926
Stoneham	7,873	7,090
Stoughton	6,865	6,316
Swampscott	8,101	6,204
Taunton	37,137	34,259
Uxbridge	5,384	4,671
Wakefield	13,025	11,404
Walpole	5,446	4,892
Waltham	30,915	27,834
Ware	8,525	8,774
Watertown	21,457	12,875
Webster	13,258	11,509
Wellesley	6,224	5,413
W. Springfield	13,443	9,224
Westboro	5,789	5,446
Westfield	18,604	16,044
Weymouth	15,057	12,895
Whitman	7,147	7,292
Winchendon	5,904	5,678
Winchester	10,485	9,369
Winthrop	15,455	10,132
Woburn	16,574	15,308
Worcester	179,754	145,986
MICHIGAN.		
Adrian	11,878	10,763
Albion	8,354	5,833
Alma	7,542	2,757
Alpena	11,101	12,706
Ann Arbor	19,516	14,817
Battle Creek	36,164	25,267
Bay City	47,554	45,166
Benton Harbor	12,233	9,185
Bessemer	5,482	4,583
Cadillac	9,750	8,373
Charlotte	5,126	4,886
Cheboygan	5,642	6,859
Coldwater	6,114	5,945
Detroit	993,678	465,766
Dowagiac	5,440	5,088
Escanaba	13,103	13,194
Flint	91,599	38,550
Grand Haven	7,205	5,856
Grand Rapids	137,634	112,571
Hamtramck	48,615	3,559
Hancock	7,527	8,981
Hastings	5,132	4,383
Highland Park	46,499	4,120
Hillsdale	5,476	5,001
Holland	12,183	10,490
Ionia	6,935	5,030
Iron Mountain	8,251	9,216
Ironwood	15,739	12,821
Ishpeming	10,500	12,448
Jackson	48,374	31,433
Kalamazoo	48,487	39,437
Lansing	57,327	31,229
Laurium	6,096	8,537
Ludington	8,810	9,132
Manistee	9,694	12,381
Manistique	6,380	4,722
Marquette	12,718	11,503
Menominee	8,907	10,507
Midland	5,483	2,527
Monroe	11,573	6,893
Munising	5,037	2,952
Mt. Clemens	9,488	7,707
Muskegon	36,570	24,062
Muskegon Hts	9,514	1,690
Negaunee	7,419	8,460
Niles	7,311	5,156
Owasso	12,575	9,639
Petoskey	5,064	4,778
Pontiac	34,273	14,532
Port Huron	25,944	18,863
River Rouge	9,822	4,163
Saginaw	61,903	50,510
St. Joseph	7,251	5,936
S. S. Marie	12,096	12,615
Sturgis	5,995	3,635
Three Rivers	5,209	5,072
Traverse City	10,925	12,115
Wyandotte	13,851	8,287
Ypsilanti	7,413	6,230

MINNESOTA.		
PLACE.	1920.	1910.
Albert Lea	8,056	6,192
Austin	10,118	6,960
Bemidji	7,086	5,099
Brainerd	9,591	8,526
Chisholm	9,039	7,684
Cloquet	5,127	7,031
Crookston	6,317	7,559
Duluth	98,917	78,466
Eveleth	7,205	7,036
Faribault	11,089	9,001
Fergus Falls	7,581	6,887
Hibbing	15,089	8,832
Little Falls	5,500	6,078
Mankato	12,469	10,365
Minneapolis	380,582	301,408
Moorhead	5,720	4,840
New Ulm	6,745	5,648
Owatonna	7,252	5,658
Red Wing	8,637	9,048
Rochester	13,722	7,844
St. Cloud	15,873	10,600
St. Paul	234,698	214,744
So. St. Paul	6,860	4,510
Stillwater	7,735	10,198
Virginia	14,022	10,473
Willmar	5,892	4,135
Winona	19,143	18,583
MISSISSIPPI.		
Biloxi	10,937	8,049
Clarksdale	7,552	4,079
Columbus	10,501	8,988
Corinth	5,468	5,020
Greenville	11,560	9,610
Greenwood	7,793	5,836
Gulfport	8,157	6,386
Hattiesburg	13,270	11,733
Jackson	22,817	21,262
Laurel	13,037	8,465
McComb	7,775	6,237
Meridian	23,399	23,285
Natchez	12,608	11,791
Pascagoula	6,082	3,379
Tupelo	5,055	3,381
Vicksburg	18,072	20,814
Yazoo	5,244	6,796
MISSOURI.		
Brookfield	6,304	5,749
C. Girardeau	10,252	8,475
Carthage	10,068	9,483
Chillicothe	6,772	6,265
Clinton	5,098	4,992
Columbia	10,392	9,662
De Soto	5,003	4,721
Flat River (Unincorp.)		5,112
Fulton	5,595	5,228
Hannibal	19,306	18,341
Independence	11,686	9,859
Jefferson City	14,490	11,850
Joplin	29,902	32,073
Kansas City	324,410	248,381
Kirksville	7,213	6,347
Maplewood	7,431	4,976
Marshall	5,200	4,869
Mexico	6,013	5,939
Moberly	12,808	10,923
Nevada	7,139	7,176
Poplar Bluff	8,042	6,916
St. Charles	8,503	9,437
St. Joseph	77,939	77,939
St. Louis	772,897	687,029
Sedalia	21,144	17,822
Springfield	39,631	35,201
Trenton	6,951	5,656
University	6,792	2,417
Webb City	7,807	11,817
Webster Gr'ves	9,474	7,080
MONTANA.		
Anaconda	11,668	10,134
Billings	15,100	10,031
Bozeman	6,183	5,107
Butte	41,611	39,165
Great Falls	24,121	13,948
Havre	5,429	3,924
Helena	12,037	12,515
Kalispell	5,147	5,549
Lewiston	6,120	2,992
Livingston	6,311	5,359
Miles City	7,937	4,697
Missoula	12,668	12,869
NEBRASKA.		
Beatrice	9,664	9,356
Columbus	5,410	5,014
Fairbury	5,454	5,294
Fremont	9,605	8,718
Grand Island	13,947	10,326

NEBRASKA—*Continued.*		
PLACE.	1920.	1910.
Hastings	11,647	9,338
Kearney	7,702	6,202
Lincoln	54,948	43,973
Nebraska City	6,279	5,488
Norfolk	8,634	6,025
North Platte	10,466	4,793
Omaha	191,601	124,090
Scotts Bluff	6,912	1,746
So. Omaha	(Omaha)	26,259
York	5,388	6,235
NEVADA.		
Reno	12,016	10,867
NEW HAMPSHIRE.		
Berlin	16,104	11,780
Claremont	9,524	7,529
Concord	22,167	21,497
Derry	5,382	5,123
Dover	13,029	13,247
Franklin	6,318	6,132
Keene	11,210	10,068
Laconia	10,897	10,183
Lebanon	6,162	5,718
Manchester	78,384	70,063
Nashua	28,379	26,005
Portsmouth	13,569	11,269
Rochester	9,673	8,868
Somersworth	6,688	6,704
NEW JERSEY.		
(For population of *all* incorporated places in the State, see the 1922 Almanac.)		
Asbury Park	12,400	10,150
Atlantic City	50,707	46,150
Bayonne	76,754	55,545
Belleville (t'n)	15,660	
Bloomfield (t)	22,019	15,070
Boonton (t'n)	5,372	4,930
Bound B'k (b)	5,906	3,970
Bridgeton	14,323	14,209
Burlington	9,049	8,336
Camden	116,309	94,538
Cliffside Pk (b)	5,709	3,394
Clifton	26,470	
Collingsw'd (b)	8,714	4,795
Dover (town)	9,803	7,468
East Orange	50,710	34,371
E. Ruth'f'd (b)	5,463	4,275
Elizabeth	95,783	73,409
Englewood	11,627	9,924
Fort Lee (b)	5,761	4,472
Garfield	19,381	10,213
Gloucester	12,162	9,462
Guttenberg (t)	6,726	5,647
Hackensack (t)	17,077	14,050
Haddonf'd (b)	5,646	4,142
Ham'ton (t)	6,417	5,088
Harrison (t)	15,721	14,498
Hawthorne (b)	5,135	3,400
Hoboken	68,166	70,324
Irvington (t)	25,480	11,877
Jersey City	298,103	267,779
Kearny (t)	26,724	18,659
Lodi (bor)	8,175	4,138
Long Branch	13,521	13,298
Madison (b)	5,523	4,658
Millville	14,691	12,451
Montclair (t)	28,810	21,550
Morristown (t)	12,548	12,507
New Brunsw'k	32,779	23,388
Newark	414,524	347,469
N. Plainf'd (b)	6,916	6,117
Nutley (t)	9,421	6,009
Orange	33,268	29,630
Passaic	63,841	54,773
Paterson	135,875	125,600
Pennsgrove (b)	6,060	2,118
Perth Amboy	41,707	32,121
Phillipsb'g (t)	16,923	13,906
Plainfield	27,700	20,550
Pleasantville	5,887	4,390
Princeton (b)	5,917	5,136
Rahway	11,042	9,337
Red Bank (b)	9,251	7,398
Ridgef'dPk (v)	8,575	
Ridgewood (v)	7,580	5,416
Roosevelt (b)	11,947	5,786
Roselle (bor)	5,737	2,725
Roselle P'k (b)	5,438	3,138
Rutherford (b)	9,497	7,045
Salem	7,435	6,614
Secaucus (t)	5,423	4,740
Somerville (b)	6,718	5,060
S. Amboy	7,897	7,007
S. Orange (v)	7,274	6,014
S. River (b)	6,596	4,772
Summit	10,174	7,500

NEW JERSEY—*Continued.*		
PLACE.	1920.	1910.
Trenton	119,289	96,815
Union (town)	20,651	21,023
Vineland (b)	6,799	5,282
Wallington (b)	5,715	3,448
W. Hoboken (t)	40,074	35,403
W. N. Y. (t)	29,926	13,560
W. Orange (t)	15,573	10,980
Westfield (t)	9,063	6,420
Woodbury	5,801	4,642
NEW MEXICO.		
Albuquerque	15,157	11,020
Raton	5,544	4,539
Roswell	7,033	6,172
Santa Fe	7,236	5,072
NEW YORK.		
(Cities are in *Italics*. For population of *all* incorporated places in the Empire State, see 1922 Almanac.)		
Albany	113,344	100,253
Amsterdam	33,524	31,267
Auburn	36,192	34,668
Batavia	13,541	11,613
Beacon	10,996	10,629
Binghamton	66,800	48,443
Buffalo	506,775	423,715
Canandaigua	7,356	7,217
Cohoes	22,987	24,709
Corning	15,820	13,730
Cortland	13,294	11,504
Depew	5,850	3,921
Dunkirk	19,336	17,221
Elmira	45,393	37,176
Endicott	9,500	2,408
Fredonia	6,051	5,285
Freeport	8,599	4,836
Fulton	13,043	10,480
Geneva	14,648	12,446
Glen Cove	8,664	.....
Glens Falls	16,638	15,243
Gloversville	22,075	20,642
Hastings	5,526	4,552
Haverstraw	5,226	5,669
Hempstead	6,382	4,964
Herkimer	10,453	7,520
Hornell	15,025	13,617
Hudson	11,745	11,417
Hudson Falls	5,761	5,189
Ilion	10,169	6,588
Ithaca	17,004	14,802
Jamestown	38,917	31,297
Johnson City	8,587	3,775
Johnstown	10,908	10,447
Kingston	26,688	25,908
Lackawanna	17,918	14,549
Lancaster	6,059	4,364
Little Falls	13,029	12,273
Lockport	21,308	17,970
Malone	7,556	6,467
Mamaroneck	6,571	5,699
Massena	5,993	2,951
Mechanicsville	8,166	6,634
Medina	6,011	5,683
Middletown	18,420	15,313
Mt. Vernon	42,726	30,919
New Rochelle	36,213	28,867
New York City	5,620,048	4,766,883
Bronx	732,016	430,980
Brooklyn	2,018,356	1,634,351
Manhattan	2,284,103	2,331,542
Queens	469,042	284,041
Richmond	116,531	85,969
Newark	6,964	6,227
Newburgh	30,366	27,805
Niagara Falls	50,760	30,445
N. Tarrytown	5,927	5,421
N. Tonawanda	15,482	11,955
Norwich	8,268	7,422
Ogdensburg	14,609	15,933
Olean	20,506	14,743
Oneida	10,541	8,317
Oneonta	11,582	9,491
Ossining	10,739	11,480
Oswego	23,626	23,368
Peekskill	15,868	15,245
Plattsburg	10,909	11,138
Port Chester	16,573	12,809
Port Jervis	10,171	9,564
Poughkeepsie	35,000	27,936
Rensselaer	10,823	10,711
Rochester	295,750	218,149
Rockville Cent	6,262	3,667
Rome	26,341	20,497
Rye	5,308	3,964
Salamanca	9,276	6,322
Saranac Lake	5,174	4,983
Saratoga Spgs	13,181	12,693
Schenectady	88,723	72,826
Seneca Falls	6,389	6,588
Solvay	7,352	5,139
Syracuse	171,717	137,249
Tarrytown	5,807	5,600
Tonawanda	10,068	8,290
Troy	72,013	76,813
Utica	94,156	74,419
Walden	5,493	4,004
Watertown	31,285	26,731
Watervliet	16,073	15,074
Waverly	5,270	4,855
White Plains	21,031	15,949
Whitehall	5,258	4,917
Yonkers	100,176	79,803
NORTH CAROLINA.		
Asheville	28,504	18,762
Burlington	5,952	4,808
Charlotte	46,338	34,014
Concord	9,903	8,715
Durham	21,719	18,214
Elizabeth City	8,925	8,412
Fayetteville	8,877	7,045
Gastonia	12,871	5,759
Goldsboro	11,296	6,107
Greensboro	19,861	15,895
Greenville	5,772	4,101
Henderson	5,222	4,503
Hickory	5,076	3,716
High Point	14,302	9,525
Kinston	9,771	6,995
Lexington	5,254	4,163
Newbern	12,198	9,961
Raleigh	24,418	19,218
Reidsville	5,333	4,828
Rocky Mount	12,742	8,051
Salem (Winston-Salem)		5,533
Salisbury	13,884	7,153
Statesville	7,895	4,599
Thomasville	5,676	3,877
Washington	6,314	6,211
Wilmington	33,372	25,748
Wilson	10,612	6,717
Winston	48,395	22,700
NORTH DAKOTA.		
Bismarck	7,122	5,443
Devil's Lake	5,140	5,157
Fargo	21,961	14,331
Grand Forks	14,010	12,478
Jamestown	6,627	4,358
Minot	10,476	6,188
OHIO.		
Akron	208,435	69,067
Alliance	21,603	15,083
Ashland	9,249	6,795
Ashtabula	22,082	18,266
Athens	6,418	5,463
Barberton	18,811	9,410
Bellaire	15,061	12,946
Bellefontaine	9,336	8,238
Bellevue	5,776	5,209
Bowling Green	5,788	5,222
Bucyrus	10,425	8,122
Cambridge	13,104	11,327
Canal Dover	8,101	6,621
Canton	87,091	50,217
Chillicothe	14,831	14,508
Cincinnati	401,247	363,591
Circleville	7,049	6,741
Cleveland	796,841	560,663
Cleveland Hts	15,236	2,955
Columbus	237,031	181,511
Conneaut	9,343	8,319
Coshocton	10,847	9,603
Cuyahoga Falls	10,200	4,020
Dayton	152,559	116,577
Defiance	8,876	7,327
Delaware	8,756	9,076
Delphos	5,745	5,038
Dennison	5,524	4,008
E. Cleveland	27,292	9,179
E. Liverpool	21,411	20,387
E. Palestine	5,750	3,537
E. Youngstown	11,237	4,972
Elyria	20,474	14,825
Findlay	17,021	14,858
Fostoria	9,987	9,597
Fremont	12,468	9,939
Galion	7,374	7,214
Gallipolis	6,070	5,560
Girard	6,556	3,736
Greenville	7,104	6,237
Hamilton	39,675	35,279
Ironton	14,007	13,147
Jackson	5,842	5,468
Kenmore	12,683	1,561
Kent	7,070	4,488
Kenton	7,690	7,185
Lakewood	41,732	15,181
Lancaster	14,706	13,093
Lima	41,326	30,508
Logan	5,493	4,850
Lorain	37,295	28,883
Mansfield	27,824	20,768
Marietta	15,140	12,923
Marion	27,891	18,232
Martin's Fy	11,634	9,133
Massillon	17,428	13,879
Middletown	23,594	13,152
Mt. Vernon	9,237	9,087
Nelsonville	6,440	6,082
New Philadel	10,718	8,542
Newark	26,718	25,404
Niles	13,080	8,361
Norwalk	7,379	7,858
Norwood	24,966	16,185
Painesville	7,272	5,501
Piqua	15,042	13,388
Portsmouth	33,011	23,481
Ravenna	7,219	5,310
St. Bernard	6,312	5,002
St. Mary's	5,679	5,732
Salem	10,305	8,943
Sandusky	22,897	19,989
Shelby	5,578	4,903
Sidney	8,590	6,607
Springfield	60,840	46,921
Steubenville	28,508	22,391
Struthers	5,847	3,370
Tiffin	14,375	11,894
Toledo	243,164	168,497
Troy	7,260	6,122
Urbana	7,621	7,739
Ulrichsville	6,428	4,751
Van Wert	8,100	7,157
Wapakoneta	5,295	5,349
Warren	27,050	11,081
Wash. Ct. Hse	7,962	7,277
Wellston	6,687	6,875
Wellsville	8,849	7,769
West Park	8,581	3,179
Wilmington	5,037	4,401
Wooster	8,204	6,136
Xenia	9,110	8,706
Youngstown	132,358	79,066
Zanesville	29,569	28,026
OKLAHOMA.		
Ada	8,012	4,349
Ardmore	14,181	8,618
Bartlesville	14,417	6,181
Blackwell	7,174	3,266
Chickasha	10,179	10,320
Cushing	6,326	1,072
Drumright	6,460	.....
Durant	7,340	5,330
El Reno	7,737	7,872
Enid	16,576	13,799
Guthrie	11,757	11,654
Henryetta	5,889	1,671
Hugo	6,368	4,582
Lawton	8,930	7,788
McAlester	12,095	12,954
Miami	6,803	2,907
Muskogee	30,277	25,278
Norman	5,004	3,724
Oklahoma City	91,295	64,205
Okmulgee	17,430	4,176
Pawhuska	6,414	2,776
Picher	9,676	.....
Ponca City	7,051	2,521
Sapulpa	11,634	8,283
Shawnee	15,348	12,474
Tulsa	72,075	18,182
Vinita	5,010	4,082
OREGON.		
Astoria	14,027	9,599
Baker City	7,729	6,742
Bend	5,415	536
Corvallis	5,752	4,552
Eugene	10,593	9,009
La Grande	6,913	4,843
Medford	5,756	8,840
Oregon City	5,686	4,287
Pendleton	7,387	4,460
Portland	258,288	207,214
Salem	17,679	14,094
The Dalles	5,807	4,880
PENNSYLVANIA.		
Allentown	73,502	51,913
Altoona	60,331	52,127
Ambridge	12,730	5,205
Archbald	8,603	7,194
Arnold	6,120	1,818

PENNSYLVANIA—*Continued.* PLACE.	1920.	1910.
Ashland	6,666	6,855
Ashley	6,520	5,601
Avalon	5,277	4,317
Bangor	5,402	5,369
Beaver Falls	12,862	12,191
Bellevue	8,198	6,323
Berwick	12,181	5,357
Bethlehem	50,358	12,837
Blakely	6,564	5,345
Bloomsburg	7,819	7,413
Braddock	20,879	19,357
Bradford	15,525	14,544
Bristol	10,273	9,256
Butler	23.778	20,728
Canonsburg	10,632	3,891
Carbondale	18,640	17,040
Carlisle	10,916	10,303
Carnegie	11,516	10,009
Carrick	10,504	6,117
Chambersburg (boro)	13,171	11,800
Charleroi	11,516	9,615
Cheltenham	11,015	8,434
Chester	58,030	38,537
Clairton	6,264	3,326
Clearfield	8,529	6,851
Coaldale	6,336	5,154
Coatesville	14,515	11,084
Columbia	10,836	11,454
Connellsville	13,804	12,845
Conshohocken	8,481	7,480
Coraopolis	6,162	5,252
Corry	7,228	5,991
Crafton	5,954	4,583
Danville	6,952	7,517
Darby	7,922	6,305
Dickson City	11,049	9,331
Donora	14,131	8,174
Dormont	6,455	1,115
Dorranceton	6,334	4,046
Dubois	13,681	12,623
Dunmore	20,250	17,615
Duquesne	19,011	15,727
Duryea	7,776	7,487
E. Conemaugh	5,256	5,046
E. Pittsburgh	6,527	5,615
Easton	33,813	28,523
Edwardsville	9,027	8,407
Elw'd City (b)	8,958	3,902
Erie	93,372	66,525
Etna	6,341	5,830
Farrell	15,586	10,190
Ford City	5,605	4,850
Forest City	6,004	5,749
Frackville	5,590	3,118
Franklin	9,970	9,767
Freeland	6,666	6,197
Glassport	6,059	5,540
Greater Punxsutawney	10,311	9,058
Greensburg	15,033	13,012
Greenville	8,101	5,909
Hanover	8,664	7,057
Harrisburg	75,917	64,186
Haverford T'p	6,631	3,989
Hazelton	32,277	25,452
Homestead	20,452	18,713
Huntingdon	7,051	6,861
Indiana	7,043	5,749
Jeannette	10,627	8,077
Jersey Shore	6,103	5,381
Johnsonburg	5,400	4,334
Johnstown	67,327	55,482
Juniata	7,660	5,285
Kane	7,283	6,626
Kingston	8,952	6,449
Kittanning	7,153	4,311
Knoxville	7,201	5,651
Lancaster	53,150	47,227
Lansford	9,625	8,321
Larksville	9,438	9,288
Latrobe	9,484	8,777
Lebanon	24,643	19,240
Lehighton	6,102	5,316
Lewiston	9,849	8,166
Lock Haven	8,557	7,772
Luzerne	5,998	5,426
Marcus Hook	5,324	1,573
McKees Rocks	16,713	14,703
McKeesport	46,781	42,694
Mahanoy City	15,599	15,936
Meadville	14,568	12,780
Middlet'n (b)	5,920	5,374
Midland	5,452	1,244
Millvale	8,031	7,861
Milton	8,638	7,460
Minersville	7,845	7,240
Monessen	18,179	11,775
Monongahela	8,688	7,598

PENNSYLVANIA—*Continued.* PLACE.	1920.	1910.
Mt. Carmel	17,469	17,532
Mt. Oliver	5,575	4,241
Mt. Pleasant	5,862	5,812
Munhall	6,418	5,185
Nanticoke	22,614	18,877
Nantyglo	5,028	.....
New Brighton	9,361	8,329
New Castle	44,938	36,280
N'wKensingt'n	11,987	7,707
Norristown	32,319	27,875
No. Braddock	14,928	11,824
Northampton	9,349	8,729
Oil City	21,274	15,657
Old Forge	12,237	11,324
Olyphant	10,236	8,505
Palmerton	7,168	.....
Parsons	5,28	4,338
Philadelphia	1,823,779	1,549,008
Phoenixville	10,484	10,743
Pittcairn	5,734	4,975
Pittsburgh	588,343	533,905
Pittston	18,497	16,267
Plymouth	16,500	16,996
Pottstown	17,431	15,599
Pottsville	21,785	20,236
Punxsutawney	10,311	9,058
Rankin	7,301	6,042
Reading	107,784	96,071
Renovo	5,877	4,621
Ridgway	6,037	5,408
Rochester	6,957	5,903
St. Clair	6,585	5,640
St. Mary's	6,967	6,346
Sayre	8,078	6,426
Schuylkill H'n.	5,437	4,747
Scottdale	5,768	5,456
Scranton	137,783	129,867
Shamokin	21,204	19,588
Sharon	21,747	15,270
Sharpsburg	8,921	8,153
Shenandoah	24,726	25,774
S. Bethlehem	(Beth.)	19,973
S. Sharon	(Sharon)	10,190
Steelton	13,428	14,246
Stroudsburg	5,278	4,379
Summithill	5,499	4,205
Sunbury	15,721	13,770
Swissvale	10,908	7,381
Swoyersville	6,876	5,396
Tamaqua	12,363	9,462
Tarentum	8,925	7,414
Taylor	9,876	9,060
Throop	6,672	5,133
Titusville	8,432	8,533
Turtle Creek	8,138	4,995
Tyrone	9,084	7,176
Uniontown	15,692	13,344
Vandergrift	9,531	3,876
Warren	14,272	11,080
Washington	21,480	18,787
Waynesboro	9,720	7,199
W. Chester	11,717	11,767
W. Hazleton	5,354	4,715
W. Pittston	6,968	6,848
Wilkes-Barre	73,833	67,105
Wilkinsburg	24,403	18,924
Williamsport	36,198	31,860
Wilmerding	6,441	6,133
Windber	9,462	8,013
Winton	7,583	5,280
Woodlawn	12,495	1,398
York	47,512	44,750

RHODE ISLAND. PLACE.	1920.	1910.
Bristol	11,375	8,565
Burrillville	8,606	7,878
Central Falls	24,174	22,754
Coventry	5,670	5,848
Cranston	29,407	21,107
Cumberland	10,077	10,107
E. Providence	21,793	15,808
Johnston	6,855	5,935
Lincoln	9,543	9,825
Newport	30,255	27,149
N. Providence	7,697	5,200
Pawtucket	64,248	51,622
Providence	237,595	224,326
S. Kingstown	5,181	5,176
Warren	7,841	6,585
Warwick	13,481	26,629
W. Warwick	15,461	.....
Westerly	9,952	8,696
Woonsocket	43,496	38,125

SOUTH CAROLINA. PLACE.	1920.	1910.
Anderson	10,570	9,654
Charleston	67,957	58,833
Chester	5,557	4,754

SOUTH CAROLINA—*Con.* PLACE.	1920.	1910.
Columbia	37,524	26,319
Florence	10,968	7,057
Gaffney	5,065	4,767
Greenville	23,127	15,741
Greenwood	8,703	6,614
Newberry	5,894	5,028
Orangeburg	7,290	5,906
Rockhill	8,809	7,216
Spartanburg	22,638	17,517
Sumter	9,508	8,109
Union	6,141	5,623

SOUTH DAKOTA. PLACE.	1920.	1910.
Aberdeen	14,537	10,753
Huron	8,302	5,791
Lead	5,013	8,392
Mitchell	8,478	6,515
Rapid City	5,777	3,854
Sioux Falls	25,202	14,094
Watertown	9,400	7,010
Yankton	5,024	3,787

TENNESSEE. PLACE.	1920.	1910.
Bristol	8,047	7,148
Chattanooga	57,895	44,604
Clarksville	8,110	8,548
Cleveland	6,522	5,549
Columbia	5,526	5,754
Dyersburg	6,444	4,149
Jackson	18,860	15,779
Johnson City	12,442	8,502
Kingsport	5,692	.....
Knoxville	77,818	36,346
Memphis	162,351	131,105
Morristown	5,875	4,007
Murfreesboro	5,367	4,679
Nashville	118,342	110,364

TEXAS. PLACE.	1920.	1910.
Abilene	10,274	9,204
Amarillo	15,494	9,957
Austin	34,876	29,860
Beaumont	40,422	20,640
Belton	5,098	4,164
Bonham	6,008	4,844
Brenham	5,066	4,718
Brownsville	11,791	10,517
Brownwood	8,223	6,967
Bryan	6,307	4,132
Burkburnett	5,300	.....
Cleburne	12,820	10,364
Childress	5,003	3,818
Cisco	7,422	2,410
Corpus Christi	10,522	8,222
Corsicana	11,356	9,749
Dallas	158,976	92,104
Del Rio	10,589	.....
Denison	17,065	13,632
Denton	7,626	4,732
Eagle Pass	5,765	3,536
Eastland	9,368	855
El Paso	77,560	39,279
Ennis	7,224	5,669
Fort Worth	106,482	73,312
Gainesville	8,648	7,624
Galveston	44,255	36,981
Greenville	12,384	8,850
Hillsboro	6,952	6,115
Houston	138,276	78,800
Houston Hts.	(Houston)	6,984
Laredo	22,710	14,855
Longview	5,713	5,155
Marshall	14,271	11,452
McAllen	5,331	.....
McKinney	6,677	4,714
Mineral Wells	7,890	3,950
Navasota	5,060	3,284
Orange	9,212	5,527
Palestine	11,039	10,482
Paris	15,040	11,269
Port Arthur	22,251	7,663
Ranger	16,205	.....
San Angelo	10,050	10,321
San Antonio	161,379	96,614
San Benito	5,070	.....
Sherman	15,031	12,412
Sulphur Spgs.	5,558	5,151
Taylor	5,965	5,314
Temple	11,033	10,993
Terrell	8 349	7,050
Texarkana	11,480	9,790
Tyler	12,085	10,400
Vernon	5,142	3,195
Victoria	5,957	3,673
Waco	38,500	26,425
Waxahachie	7,958	6,205
Weatherford	6,203	5,074
Wichita Falls	40,079	8,200
Yoakum	6,184	4,657

UTAH.		
PLACE.	1920.	1910.
Brigham	5,282	3,685
Logan	9,439	7,522
Ogden	32,804	25,580
Provo	10,303	8,925
Salt Lake City	118,110	92,777
VERMONT.		
Barre	10,008	10,734
Bennington (t)	9,982	8,698
Bennington (v)	7,230	6,211
Brattleboro (t)	8,332	7,541
Brattleboro (v)	7,324	6,517
Burlington	22,779	20,486
Colchester	6,627	6,450
Montpelier	7,125	7,856
Rockingham	6,231	6,207
Rutland	14,954	13,546
St. Albans	7,688	6,381
St. Johnsb'y (t)	8,708	8,098
St. Johnsb'y (v)	7,163	6,693
Springfield	5,283	3,250
VIRGINIA.		
Alexandria	18,060	15,329
Bristol	6,729	6,247
Charlottesville	10,688	6,765
Clifton Forge	6,164	5,748
Covington	5,623	4,234
Danville	21,539	19,020
Fredericksburg	5,882	5,874
Hampton	6,138	5,505
Harrisonburg	5,875	4,879
Lynchburg	30,070	29,494
Newport News	35,596	20,205
Norfolk	115,777	67,452
Petersburg	31,012	24,127
Portsmouth	54,387	33,190
Pulaski	5,282	4,807
Richmond	171,667	127,628
Roanoke	50,842	34,874
S. Norfolk	7,724	
Staunton	10,623	10,604
Suffolk	9,123	7,008
Winchester	6,883	5,864

WASHINGTON.		
PLACE.	1920.	1910.
Aberdeen	15,337	13,660
Anacortes	5,284	4,168
Bellingham	25,585	24,298
Bremerton	8,918	2,993
Centralia	7,549	7,311
Everett	27,644	24,814
Hoquiam	10,058	8,171
Olympia	7,795	6,996
Port Angeles	5,351	2,286
Puyallup	6,323	4,544
Seattle	315,312	237,194
Spokane	104,437	104,402
Tacoma	96,965	83,743
Vancouver	12,637	9,300
Walla Walla	15,503	19,364
Wenatchee	6,324	4,050
Yakima	18,539	14,082
WEST VIRGINIA.		
Bluefield	15,282	11,188
Charleston	39,608	22,996
Clarksburg	27,869	9,201
Elkins	6,738	5,260
Fairmont	17,851	9,711
Grafton	8,517	7,563
Huntington	50,177	31,161
Keyser	6,003	3,705
Martinsburg	12,515	10,698
Morgantown	12,127	9,150
Moundsville	10,669	8,918
Parkersburg	20,050	17,842
Princeton	6,224	3,027
Wheeling	56,208	41,641
Williamson	3,819	3,561
WISCONSIN.		
Antigo	8,451	7,196
Appleton	19,561	15,773
Ashland	11,334	11,594
Baraboo	5,538	6,324
Beaver Dam	7,992	6,758
Beloit	21,284	15,125
Chippewa Falls	9,130	8,893

WISCONSIN—*Continued.*		
PLACE.	1920.	1910.
Cudahy	6,725	3,691
De Pere	5,165	4,477
Eau Claire	20,906	18,310
Fond du Lac	23,427	18,797
Green Bay	31,017	25,236
Janesville	18,293	13,894
Kaukauna	5,951	4,717
Kenosha	40,472	21,371
La Crosse	30,421	30,417
Madison	38,378	25,531
Manitowoc	17,563	13,027
Marinette	13,610	14,610
Marshfield	7,394	5,783
Menasha	7,214	6,081
Menominee	5,104	5,036
Merrill	8,068	8,689
Milwaukee	457,147	373,857
Neenah	7,171	5,734
Oconto	4,920	5,629
Oshkosh	33,162	33,062
Portage	5,582	5,540
Racine	58,593	38,002
Rhinelander	6,654	5,637
Sheboygan	30,955	26,398
S. Milwaukee	7,598	6,092
Stevens Point	11,370	8,692
Stoughton	5,101	4,761
Superior	39,671	40,384
Two Rivers	7,305	4,850
Watertown	9,299	8,329
Waukesha	12,558	8,740
Wausau	18,661	16,560
Wauwatosa	5,818	3,346
West Allis	13,745	6,645
Wisconsin R's	7,243	6,521
WYOMING.		
Casper	11,447	2,639
Cheyenne	13,829	11,320
Laramie	6,301	8,237
Rock Springs	6,456	5,778
Sheridan	9,175	8,408

POPULATION OF KANSAS—1925 STATE CENSUS.

COUNTY.	Pop.	COUNTY.	Pop.	COUNTY.	Pop.	COUNTY.	Pop.
Allen	23,541	Finney	8,293	Logan	3,884	Rooks	10,104
Anderson	13,224	Ford	15,262	Lyon	26,680	Rush	8,781
Atchison	25,455	Franklin	20,580	Marion	22,190	Russell	11,324
Barber	9,467	Geary	13,244	Marshall	23,112	Saline	25,581
Barton	20,151	Gove	5,470	McPherson	21,055	Scott	3,512
Bourbon	24,010	Graham	7,992	Meade	5,593	Sedgwick	109,908
Brown	21,213	Grant	1,882	Miami	18,287	Seward	5,990
Butler	35,316	Gray	5,125	Mitchell	12,702	Shawnee	76,195
Chase	6,891	Greeley	1,440	Montgomery	50,148	Sheridan	6,073
Chautauqua	10,417	Greenwood	18,553	Morris	11,147	Sherman	6,204
Cherokee	33,999	Hamilton	2,512	Morton	3,440	Smith	14,130
Cheyenne	6,205	Harper	12,886	Nemaha	18,295	Stafford	10,988
Clark	4,716	Harvey	20,505	Neosho	22,667	Stanton	1,434
Clay	15,107	Haskell	2,026	Ness	7,636	Stevens	4,193
Cloud	18,020	Hodgeman	3,611	Norton	11,421	Sumner	28,385
Coffey	15,014	Jackson	15,016	Osage	22,744	Thomas	6,860
Commanche	4,936	Jefferson	14,412	Osborne	12,317	Trego	6,338
Cowley	41,854	Jewell	15,697	Ottawa	10,482	Wabunsee	10,710
Crawford	60,051	Johnson	21,815	Pawnee	9,219	Wallace	2,538
Decatur	8,483	Kearny	2,816	Phillips	12,563	Washington	17,463
Dickinson	25,067	Kingman	11,573	Pottawatomie	15,331	Wichita	2,210
Doniphan	13,420	Kiowa	6,006	Pratt	12,771	Wilson	19,581
Douglas	23,806	Labette	31,979	Rawlins	7,360	Woodson	8,799
Edwards	7,022	Lane	3,071	Reno	46,580	Wyandotte	131,688
Elk	9,101	Leavenworth	41,362	Republic	15,405		
Ellis	15,433	Lincoln	10,035	Rice	14,187	1925 total	1,812,986
Ellsworth	10,058	Linn	13,922	Riley	19,719	1915 total	1,672,545

1925 POPULATION OF CHIEF KANSAS CITIES AND TOWNS.

PLACE.	Pop.,	PLACE.	Pop.,	PLACE.	Pop.,	PLACE.	Pop.
Kansas City	116,053	Coffeyville	16,229	Emporia	12,243	Newton	9,831
Wichita	88,367	Salina	15,624	Fort Scott	11,763	Chanute	9,829
Topeka	55,411	Atchison	15,028	Winfield	11,483	El Dorado	9,500
Hutchinson	25,970	Parsons	14,839	Independence	10,900	Ottawa	8,498
Leavenworth	20,889	Arkansas City	14,003	Manhattan	10,112	Iola	7,990
Pittsburg	19,182	Lawrence	12,341				

Kansas City, Mch. 1, 1927 (est. by State B'd. Agric.) 117,751; whole state, 1,837,514.

POPULATION OF RHODE ISLAND—1925 STATE CENSUS.

Counties.	Pop.	Places.	Pop.	Places.	Pop.	Places.	Pop.
Bristol	25,642	Bristol	12,707	Newport	27,757	Warwick	18,273
Kent	47,431	Central Falls	25,403	Providence	267,918	W. Warwick	18,215
Newport	41,565	Cranston	34,471	E. Providence	26,088	Westerly	11,177
Providence	534,842	Cumberland	10,238	N. Providence	9,055	Woonsocket	49,681
Washington	29,780	Lincoln	10,581	Pawtucket	69,760	Tot. State	679,260

POPULATION OF FLORIDA—1925 STATE CENSUS.

County.	Total.	County.	Total.	County.	Total.	County.	Total.
Alachua	32,584	Escambia	43,457	Lee		Polk	63,925
Baker	5,561	Flagler	2,203	Leon	20,049	Putnam	17,027
Bay	11,873	Franklin	5,239	Levy	10,636	Santa Rosa	14,599
Bradford	7,024	Gadsden	24,935	Liberty	4,849	St. Johns	16,426
Brevard	12,841	Glades	2,467	Madison	15,549	St. Lucie	11,778
Broward	14,242	Hamilton	9,904	Manatee	23,056	Sarasota	10,050
Calhoun	11,365	Hardee	10,178	Marion	27,152	Seminole	14,738
Charlotte	3,390	Hendry	1,111	Monroe	14,260	Sumter	7,916
Citrus	5,374	Hernando	4,723	Nassau	9,643	Suwannee	16,205
Clay	4,855	Highlands	6,752	Okaloosa	9,793	Taylor	13,113
Collier	1,256	Hillsborough	133,384	Okeechobee	4,163	Union	4,873
Columbia	15,551	Holmes	12,422	Orange	38,325	Volusia	40,165
Dade	111,332	Jackson	33,122	Osceola	10,755	Wakulla	5,811
DeSoto	8,061	Jefferson	13,827	Palm Beach	37,137	Walton	13,664
Dixie	4,236	Lafayette	4,694	Pasco	11,599	Washington	10,420
Duval	123,396	Lake	18,870	Pinellas	51,714		

Total for state—whites, 854,585; Negroes, 401,733; all colors, 1,263,549.

Population, 1925, of chief places—Jacksonville, 95,450; Tampa, 94,743; Miami, 69,754; St. Petersburg 26,847; Pensacola, 25,305; Orlando, 22,255; West Palm Beach, 19,146; Lakeland, 17,051; Key West, 13,701; St. Augustine, 10,458. Daytona, 9,592; Gainesville, 8,466; Bradenton, 7,306.

POPULATION OF SOUTH DAKOTA—1925 STATE CENSUS.

County.	Pop.	County.	Pop.	County.	Pop.	County.	Pop.
Armstrong	313	Day	15,175	Jerauld	6,268	Roberts	16,255
Aurora	7,534	Deuel	9,004	Jones	3,662	Sanborn	7,704
Beadle	22,268	Dewey	5,682	Kingsbury	13,068	Shannon	2,211
Bennett	3,186	Douglas	7,156	Lake	12,916	Spink	16,054
Bon Homme	11,885	Edmunds	8,743	Lawrence	14,665	Stanley	2,627
Brookings	17,320	Fall River	6,903	Lincoln	14,218	Sully	3,611
Brown	30,533	Faulk	6,969	Lyman	7,432	Todd	4,758
Brule	8,110	Grant	11,114	McCook	10,392	Tripp	14,032
Buffalo	2,241	Gregory	13,091	McPherson	8,173	Turner	14,876
Butte	6,438	Haakon	4,545	Marshall	9,740	Union	11,951
Campbell	5,532	Hamlin	8,232	Meade	9,486	Walworth	8,043
Chas. Mix	18,254	Hand	9,960	Mellette	5,117	Washabaugh	2,826
Clark	11,364	Hanson	6,354	Miner	8,329	Washington	2,965
Clay	10,569	Harding	3,508	Minnehaha	47,493	Yankton	16,037
Codington	17,760	Hughes	6,860	Moody	9,974	Ziebach	4,010
Corson	8,656	Hutchinson	13,769	Pennington	14,624		
Custer	4,354	Hyde	4,000	Perkins	7,055	Total	681,550
Davison	16,015	Jackson	2,539	Potter	5,053		

Aberdeen, 15,035; Huron, 10,204; Mitchell, 10,119; Sioux Falls, 30,127; Watertown, 10,319.

POPULATION OF WYOMING—1925 STATE CENSUS.

County.	Pop.	County.	Pop.	County.	Pop.	County.	Pop.
Albany	12,740	Fremont	8,066	Natrona	35,101	Sweetwater	15,742
Big Horn	10,452	Goshen	7,284	Niobrara	3,906	Uinta	6,797
Campbell	5,220	Hot Springs	4,668	Park	5,947	Washakie	3,386
Carbon	11,743	Johnson	3,991	Platte	7,023	Weston	4,035
Converse	7,225	Laramie	18,651	Sheridan	15,314		
Crook	4,973	Lincoln	10,805	Sublette	1,739	Total	206,381

Population, 1925, of chief towns—Casper, 23,228; Cheyenne, 13,202; Laramie, 9,629; Sheridan, 8,436.

ACRES PER INHABITANT IN THE UNITED STATES.

Division and State.	1920.	1910.	1900.
GEOGRAPHIC DIVISIONS.			
New England	5.4	6.1	7.1
Middle Atlantic	2.9	3.3	4.1
East North Central	7.3	8.6	9.8
West North Central	26.1	28.1	31.6
South Atlantic	12.3	14.1	16.5
East South Central	12.9	13.7	15.2
West South Central	26.9	31.3	42.1
Mountain	164.8	208.8	328.3
Pacific	36.6	48.6	64.4
NEW ENGLAND.			
Maine	24.9	25.8	27.6
New Hampshire	13.0	13.4	14.0
Vermont	16.6	16.4	17.0
Massachusetts	1.3	1.5	1.8
Rhode Island	1.1	1.3	1.6
Connecticut	2.2	2.8	3.4
MIDDLE ATLANTIC.			
New York	2.9	3.3	4.2
New Jersey	1.5	1.9	2.6
Pennsylvania	3.3	3.7	4.6
EAST NORTH CENTRAL.			
Ohio	4.5	5.5	6.3
Indiana	7.9	8.5	9.1
Illinois	5.5	6.4	7.4
Michigan	10.0	13.1	15.2
Wisconsin	13.4	15.2	17.1
WEST NORTH CENTRAL.			
Minnesota	21.7	24.9	29.5
Iowa	14.8	16.0	15.9
Missouri	12.9	13.4	14.2
North Dakota	69.4	77.8	140.7
South Dakota	77.3	84.3	122.5
Nebraska	37.9	41.2	46.1
Kansas	29.6	31.0	35.6
SOUTH ATLANTIC.			
Delaware	5.6	6.2	6.8
Maryland	4.4	4.9	5.4
District of Columbia	0.1	0.1	0.1
Virginia	11.2	12.5	13.9
West Virginia	10.5	12.6	16.0
North Carolina	12.2	14.1	16.5
South Carolina	11.6	12.9	14.6
Georgia	13.0	14.4	17.0
Florida	36.3	46.7	66.4
EAST SOUTH CENTRAL.			
Kentucky	10.6	11.2	12.0
Tennessee	11.4	12.2	13.2
Alabama	14.0	15.3	17.9
Mississippi	16.6	16.5	19.1
WEST SOUTH CENTRAL.			
Arkansas	19.2	21.4	25.6
Louisiana	16.2	17.5	21.0
Oklahoma	21.9	26.8	56.2
Texas	36.0	43.1	55.1
MOUNTAIN.			
Montana	170.4	248.8	384.5
Idaho	123.5	163.8	329.8
Wyoming	321.1	427.9	675.0
Colorado	70.6	83.0	122.9
New Mexico	217.6	239.5	401.4
Arizona	218.0	356.4	592.7
Utah	117.0	140.9	190.1
Nevada	908.0	858.4	1,660.2
PACIFIC.			
Washington	31.5	37.5	82.6
Oregon	78.1	91.0	148.0
California	29.1	41.9	67.3
UNITED STATES	18.0	20.7	25.0

DWELLINGS AND FAMILIES IN THE UNITED STATES, 1920.

STATE.	Dwellings.	Families.	STATE.	Dwellings.	Families.	STATE.	Dwellings.	Families.
Ala	480,392	508,769	Me	162,304	186,106	Okla	418,557	444,524
Ariz	73,673	80,208	Md	288,261	324,742	Ore	185,081	202,890
Ark	375,316	390,960	Mass	597,052	874,798	Pa	1,726,224	1,922,114
Cal	778,861	900,232	Mich	755,931	862,745	R. I	98,861	137,160
Col	211,103	230,843	Minn	469,652	526,026	S. Car	330,500	349,126
Conn	228,405	311,610	Miss	387,402	403,198	S. Dak	136,512	142,793
Del	47,868	52,070	Mo	717,256	829,043	Tenn	488,392	519,108
Dist. of Col.	72,175	96,194	Mont	130,670	139,912	Tex	946,629	1,017,413
Fla	217,871	234,133	Neb	288,390	303,436	Utah	89,587	98,346
Ga	586,509	628,525	Nev	20,709	21,862	Vt	77,158	85,804
Idaho	95,299	100,500	N. H	92,184	108,334	Va	450,229	483,363
Ill	1,190,414	1,534,077	N. J	515,211	721,841	Wash	304,735	342,228
Ind	696,466	737,707	N. Mex	78,024	83,706	W. Va	293,002	310,098
Iowa	559,188	586,070	N. Y	1,325,114	2,441,125	Wis	526,188	595,316
Kan	416,065	435,600	N. Car	495,269	513,377	Wyo	44,710	48,476
Ky	510,981	546,306	N. Dak	129,905	134,881			
La	370,377	389,913	Ohio	1,216,542	1,414,068	U. S	20,697,204	24,351,676

The term "family," as used in the census, signifies a group of persons, whether related by blood or not, who live together as one household, usually sharing the same table. One person living alone is counted as a family, and, on the other hand, all the occupants and employees of a hotel or boarding house, or lodging house, if that is their usual place of abode, and all the inmates of an institution, however numerous, are treated as constituting a single family.

The members of a natural family, in many cases do not live together in the same private family. In particular, the older sons and daughters are likely to be members of other households.

DWELLINGS AND FAMILIES IN BIG UNITED STATES CITIES, 1920.

CITY.	Dwellings.	Families.	CITY	Dwellings.	Families.	CITY.	Dwellings.	Families.
Baltimore, Md.	136,324	166,857	Los Angeles	125,004	159,476	Richmond	18,274	23,781
Boston, Mass.	79,597	164,785	Louisville, Ky.	47,449	60,490	Newark, N. J.	41,535	93,274
Buffalo, N. Y.	73,880	116,201	Milwaukee, Wis.	66,915	106,101	Philad'phia, Pa.	352,944	402,946
Chicago, Ill.	335,777	623,912	Minneapolis	65,568	91,843	Pittsburgh, Pa.	93,890	130,274
Cincin'ati, Ohio.	62,885	106,239	Nashville, Tenn.	24,992	30,220	Portland, Ore.	54,664	67,045
Cleveland, Ohio.	116,545	182,692	New Orleans, La	76,969	85,188	Richmond, Va.	30,753	39,191
Denver, Col	50,636	61,916	New York, N.Y.	365,963	1,278,341	St. Louis, Mo.	118,102	190,640
Detroit, Mich.	153,206	218,973	Bronx	33,985	166,260	St. Paul, Minn.	42,462	54,409
Indianap's, Ind.	71,648	81,256	Brooklyn	173,847	453,587	Salt Lake City.	23,685	28,216
Jersey City, N.J.	31,145	67,288	Manhattan	75,534	525,154	San Francisco.	90,132	123,349
Kansas C'y, Mo.	61,321	82,056	Queens	64,323	109,559	Wash'gt'n, D.C.	72,175	96,194

DISTRIBUTION OF POPULATION IN URBAN AND RURAL TERRITORY.

CLASS OF PLACES.	1920.		1910.		1900.		1890.	
	No. Places.	Population.	No. Places.	Population.	No. Places.	Population.	No. Places.	Population.
Total pop. of the U. S.	.....	105,710,620	.....	91,972,266	.....	75,994,575	.....	62,947,714
Urban territory	2,787	54,304,603	2,313	42,166,120	1,801	30,380,433	1,417	22,298,359
Places of 1,000,000 or more	3	10,145,532	3	8,501,174	3	6,429,474	3	3,662,115
Places of 500,000-1,000,000	9	6,223,769	5	3,010,667	3	1,645,087	1	806,343
Places of 250,000 to 500,000	13	4,540,838	11	3,949,838	9	2,861,296	7	2,447,608
Places of 100,000 to 250,000	43	6,519,187	31	4,840,458	23	3,272,490	17	2,781,894
Places of 50,000 to 100,000	76	5,265,747	59	4,178,915	40	2,709,338	30	2,022,822
Places of 25,000 to 50,000	143	5,075,041	119	4,026,045	82	2,800,627	66	2,268,786
Places of 10,000 to 25,000	459	6,942,742	367	5,524,434	280	4,338,250	228	3,429,247
Places of 5,000 to 10,000	721	4,997,794	612	4,254,856	468	3,220,766	339	2,372,717
Places of 2,500 to 5,000	1,320	4,593,953	1,106	3,879,732	893	3,103,105	726	2,506,827
Rural territory	.....	51,406,017	.....	49,806,146	.....	45,614,142	.....	40,649,355
Inc. places less than 2,500	12,905	8,969,241	11,832	8,169,149	8,930	6,301,533	6,490	4,757,974
Other rural territory	.....	42,436,776	.....	41,636,997	.....	39,312,609	.....	35,891,381

AGE GROUPS IN U. S. POPULATION, 1880-1920.

The total population in 1920 included 2,257,255 infants under 1 year. The percentage for infants under 1 was 2.1 in 1920, as against 2.4 in 1910. The decrease in the proportions of young children and infants between 1910 and 1920 is due, in whole or in part, to decline in the birth rate.

The proportion of persons at and above the age of 25 has become larger from census to census since 1880, the increase between 1910 and 1920 having been noteworthy in the case of persons aged 45 and over.

The number of centenarians reported in 1920 was 4,267, as against 3,555 in 1910. Of the persons reported as centenarians in 1920, 1,561 were men and 2,706 were women.

AGE PERIOD.	POPULATION.				
	1920.	1910.	1900.	1890.	1880.
All ages numbered	105,710,620	91,972,266	75,994,575	62,622,250	50,155,783
Under 5 years	11,573,230	10,631,364	9,170,628	7,634,693	6,914,516
5 to 14 years	22,039,212	18,867,772	16,954,357	14,607,507	12,194,246
15 to 24 years	18,707,577	18,120,587	14,881,105	12,754,239	10,099,187
25 to 44 years	31,278,522	26,809,875	21,297,427	16,858,086	12,918,794
45 to 64 years	17,030,165	13,424,089	10,399,976	8,188,272	6,304,981
65 years and over	4,933,215	3,949,524	3,080,498	2,417,288	1,723,459
Age unknown	148,699	169,055	200,584	162,165	.....
All ages, per cent	100.0	100.0	100.0	100.0	100.0
Under 5 years	10.9	11.6	12.1	12.2	13.8
5 to 14 years	20.8	20.5	22.3	23.3	24.3
15 to 24 years	17.7	19.7	19.6	20.4	20.0
25 to 44 years	29.6	29.1	28.0	26.9	25.8
45 to 64 years	16.1	14.6	13.7	13.1	12.6
65 years and over	4.7	4.3	4.1	3.9	3.4
Age unknown	0.1	0.2	0.3	0.3	.....

INDIAN POPULATION OF UNITED STATES.

The Indian population in the present century as compared with their numbers when first the white men came in contact with them is shown in the following data, supplied by the Smithsonian Institution at Washington.

The first date in each case is that of original contact with the whites.

North Atlantic States, including New England, New York, New Jersey, and Pennsylvania—(1600) 55,600; (1907) 21,900.

South Atlantic States, including Maryland, Delaware, Virginia, North Carolina, South Carolina —(1600) 52, 00; (1907) 2,170.

Gulf States, including Georgia, Alabama, Tennessee, Florida, Mississippi, Arkansas and Louisiana—(1650) 114,400; (1907) 62,700.

Central States, including Ohio Valley and Lake region, from the Alleghenies to the Mississippi—(1650) 73,300; (1907) 46,126.

Plains territory, from Canada border to the Gulf—Northern (1780) 100,000; (1907) 50,477; Southern, (1690) 41,000; (1907) 2,861.

Columbia region, including Washington, Montana, Idaho, and Oregon—(1780) 89,300; (1907) 15,431.

California—(1769) 260,000; (1907) 18,797.

Control Mountain region, including Nevada, Utah, Western Colorado and Wyoming, Southern Idaho, Southeast Oregon, Southwest Montana, and small parts of New Mexico and Arizona—(1845) 19,300; (1907) 11,544.

New Mexico and Arizona—(1680) 72,000; (1907) 53,832.

Greenland—(1721) 10,000; (1907) 11,000.

Eastern Canada—(1600) 54,200; (1906) 27,000.

Central Canada—(16 0) 50,950; (1906) 28,770.

British Columbia—(1780) 85,800; (1906) 25,588.

Alaska—(1740) 72,600; (1900) 28,310.

There are now two theories as to the origin of the North American Indians: (1) They came across Bering Strait from North Asia, and moved South; (2) They came from the South Seas to South America and spread north.

The number of Indians in 1492 in the territory now constituting the Continental United States was estimated at 846,000 by James Mooney of the Smithsonian Institution at Washington.

The number of Indians in the United States as it was constituted in 1789 was estimated at 76,000 by Gen. Henry Knox, secretary of war under President Washington. Of this number he located 20,000 between the Great Lakes and the Ohio River, and 56,000 south of the Ohio and east of the Mississippi.

The warriors—or gun men, as they were termed at that time—were assumed to represent one fourth of the total Indian population.

The Creeks in 1789, were estimated at 22,000, including 11,000 Seminoles, Choctaws, 15,000; Chickasaws, 3,500; Cherokees, 3,000; Senecas, 2,000; Delawares, 1,300; rest, scattering.

The figures in the following table are compiled from his own sources by the United States Commissioner of Indian affairs.

Year.	Number.	Year.	Number.	Year.	Number.	Year.	Number.	Year.	Number.	Year.	Number.
1865..	294,574	1883..	331,972	1893..	249,366	1902..	270,238	1911..	322,715	1920..	333,703
1870..	313,712	1884..	330,776	1894..	251,907	1903..	263,233	1912..	327,425	1921..	336,332
1875..	305,068	1885..	344,064	1895..	248,340	1904..	274,206	1913..	330,639	1922..	340,837
1876..	291,882	1886..	334,735	1896..	248,354	1905..	284,079	1914..	331,250	1923..	340,918
1877..	276,540	1887..	243,299	1897..	248,813	1906..	291,581	1915..	333,010	1924..	344,307
1878..	276,595	1888..	246,036	1898..	262, 65	1907..	298,472	1916..	335,758	1925..	346,903
1879..	278,628	1889..	250,483	189 ..	267,905	1908..	300,412	1917..	335,998	1926..	349,962
1880..	322,534	1890..	248,253	1900..	270,544	1909..	300,545	1918..	349,964	1927..	354,940
1881..	328,258	1891..	246,834	1901..	269,388	1910..	304,950	1919..	336,244	1928..	355,481
1882..	326,039	1892..	248,340								

The Indian population in 1920, as enumerated by the Census Bureau was 244,437. They do not include mixed breeds to much extent.

WHENCE CAME THE REDSKINS?

Members of the International Congress of Americanists held at N. Y. City in 1928 were unable to agree whether the North American Indian's ancestors wandered from Asia over the islands connecting Siberia and Alaska, or came in canoes from the South Sea Islands.

It was contended by some scientists that the Indian was indigenous, by others that he was distinctly Asiatic in origin and by still others that his source, like that of mankind in general, was likely to remain an enigma.

In opposition to the opinion of Dr. Max Uhle, of the Academy of History, of Ecuador, that the Indian's progenitor came from China and India by way of Siberia and Alaska, and of the opinion of Dr. Franz Boas, anthropologist of Columbia University, that the culture of prehistoric tribes in Central America showe devidence of being independently developed, Dr. Wilhelm Koppers, of the University of Vienna, told the congress he believed Australia and the South Sea Islands had been the base from which the aboriginal Indians pushed off for America.

Dr. Koppers said there were strong resemblances between the tribes of southeastern Australia and the tribes of Terra del Fuego, southernmost South America. The resemblances existed in industry, family customs, social organizations and religious rites, he said, and they were supported by similarities in body structure and linguistic traits.

"The common basis of ancient Australian and Tierra del Fuegian culture requires a single point of origin somewhere in southern or southeastern Asia," said Koppers. Resemblances between tribes in California and those of Terra del Fuego were not the result of mere chance, he added, the tribes from South America gradually pushing themselves northward.

The finding among American Indian relics of an ax similar to those used in Polynesia and New Zealand, said Dr. J. Imbelloni, of the University of Argentina, seemed to support the theory of a South Sea origin for the Indian.

Blowguns, arrows and quivers used by primitive tribes in Indonesia, Oceania and South America indicated a common origin, Dr. N. G. Sprinzin, of the Academy of Sciences, Leningrad, said.

Dr. George F. Kunz, research curator of precious stones in the American Museum of Natural History, told the congress that the early natives of North America were far behind those of Eurasia and Africa in the working of precious stones and metals.

"The exceptions," said Dr. Kunz, "were the wonderful gold ornaments in Costa Rica and Florida. In each region they adapted themselves to the materials obtainable. In Alaska they had jade, in the Lake Superior region copper, in Minnesota catalinite, in the Ohio Valley pearls, in New Mexico turquoise and in Chile lapis-lazuli.

"Ignorant of powder or dynamite, the natives did little mining. The copper and gold were those which were picked up in streams.

Diamonds, Dr. Kunz said, were found in thirty-five localities in the United States, but were never worked by prehistoric Indians; and pearls by the bushel were found along the Ohio Valley.

COAL-MINE FATALITIES AND PRODUCTION.

Year (Cal.)	Men Employed.	Men Killed.	Prod. Per Death.	Year (Cal.)	Men Employed.	Men Killed.	Prod. Per Death.	Year (Cal.)	Man Employed.	Men Killed.	Prod. Per Death.
	No.	*No.*	*Sh.tons.*		*No.*	*No.*	*Sh.tons.*		*No.*	*No.*	*Sh.tons.*
1910	725,030	2,821	177,808	1917.....	757,317	2,696	241,618	1923.....	862,536	2,462	267,223
1911	728,348	2,656	186,887	1918.....	762,426	2,580	262,373	1924.....	779,613	2,402	237,974
1912	722,662	2,419	220,945	1919.....	776,569	2,323	238,464	1925.....	748,805	2,234	260,461
1913	747,644	2,785	204,685	1920.....	784,621	2,272	289,729	1926.....	759,033	2,518	261,241
1914.....	763,185	2,454	209,261	1921.....	823,253	1,995	253,832	1927.....	759,177	2,231	267,978
1915.....	734,008	2,269	234,297	1922.....	844,807	1,984	240,399	1928.....	682,831	2,176	264,479
1916.....	720,971	2,226	265,094								

SLAVERY IN THE UNITED STATES.

The following table shows the number of slaves, by states, at each federal census, 1790–1860.

States	1790	1800	1810	1820	1830	1840	1850	1860
Alabama	.....	494	2,565	41,879	117,549	253,532	342,844	435,080
Arkansas	.....	.....	136	1,617	4,576	19,935	47,100	111,115
Connecticut	2,648	951	310	97	25	17	.....	.....
Delaware	8,887	6,153	4,177	4,509	3,292	2,605	2,290	1,798
Florida	.....	.....	.....	.....	15,501	25,717	39,310	61,745
Georgia (east)	29,264	59,232	91,154	110,055	124,345	124,145	149,489	158,080
Georgia (west)	.....	174	14,064	39,601	93,186	156,799	232,193	304,118
Illinois	.....	107	168	917	747	331	.....	.....
Indiana	.....	28	237	190	3	3	.....	.....
Iowa	.....	.....	.....	.....	.....	16	.....	.....
Kansas	.....	.....	.....	.....	.....	.....	.....	2
Kentucky	12,430	40,343	80,561	126,732	165,213	182,258	210,981	225,483
Louisiana	.....	.....	34,660	69,064	109,588	168,452	244,809	331,726
Maine	.....	.....	.....	.....	2	.....	.....	.....
Maryland	103,036	107,707	115,056	111,917	107,499	93,057	94,055	90,374
Massachusetts	.....	.....	.....	.....	1	.....	.....	.....
Michigan	.....	.....	24	.....	1	.....	.....	.....
Mississippi	.....	2,995	14,523	32,814	65,659	195,211	309,878	436,631
Missouri	.....	.....	2,875	10,222	25,091	58,240	87,422	114,931
Nebraska	.....	.....	.....	.....	.....	.....	.....	15
N. Hampshire	157	8	.....	.....	3	1	.....	.....
New Jersey	11,423	12,422	10,851	7,557	2,254	674	236	18
New York	21,193	20,903	15,017	10,088	75	4	.....	.....
No. Carolina	100,783	133,296	168,824	204,917	245,601	245,817	288,548	331,059
Ohio	.....	.....	.....	.....	6	3	.....	.....
Pennsylvania	3,707	1,706	795	211	403	64	.....	.....
Rhode Island	958	380	108	48	17	5	.....	.....
So. Carolina	107,094	146,151	196,365	258,475	315,401	327,038	384,984	402,406
Tennessee	3,417	13,584	44,535	80,107	141,603	183,059	239,459	275,719
Texas	.....	.....	.....	.....	.....	.....	58,161	182,566
Utah	.....	.....	.....	.....	.....	.....	26	29
Virginia	287,959	339,796	383,521	411,886	453,698	431,873	452,028	472,494
W. Virginia	4,668	7,172	10,836	15,119	17,673	18,488	20,500	18,371
Wisconsin	.....	.....	.....	.....	31	11	.....	.....
Totals	697,624	893,602	1,191,362	1,538,022	2,009,043	2,487,355	3,204,313	3,953,760

Connecticut figures for 1840 exclude 37 slaves captured in the slave trader Amistad.

New Jersey figures for 1860 relate to "colored apprentices for life" by the act to abolish slavery, passed April 18, 1846.

Maryland figures include the District of Columbia.

Maryland and Virginia figures, 1800-1840, include Alexandria County, Va., which then was a part of the District of Columbia.

Illinois figures for 1800 related to Randolph County, then in Indiana Territory.

Wisconsin figures for 1830 were for Brown, Crawford and Iowa Counties, then in Michigan territory.

Alabama figures for 1800 were for Washington County, then in Mississippi territory; the figures for 1810 were for Baldwin, Madison and Washington Counties, then in Mississippi territory.

Louisiana in 1810 was called Orleans territory.

Arkansas figures for 1810 were for certain settlements then in Louisiana territory.

Missouri figures for 1810 were for settlements in Louisiana territory other than those covered by the Arkansas figures.

There were, in 1790, in the United States, 168 slaveholding families, or 17.2 per cent of the entire number of families.

Each slaveholding family had, on an average, 7.3 slaves.

The slaveholding families in 1850 numbered 347,725, or 9.7 per cent of all families; and the slaves averaged 9.2 per cent per slaveholding family.

There were, in 1790, seven families owning 300 slaves and over per family. In 1850 there were 67 families each of which owned 300 slaves and over.

The average value of a slave in 1790 varied from $150 to $200.

At the former figure the slaves in the United States, in 1790, were worth $104,643,600.

Slavery was introduced into the American colonies in August, 1619, when 20 African negroes were brought into Jamestown, Va., by Dutch traders and sold to the planters.

It is estimated that 333,000 slaves were imported to the United States between 1619 and 1808, when slave trading was barred by Congress. By 1790 the survivors and descendants of the African slaves imported numbered 757,208.

By 1750 negro slavery was recognized by law in every North American colony.

The table does not include free colored people, who numbered as follows—(1790) 59,557; (1800) 108,435; (1810) 186,446; (1820) 233,634; (1830) 319,599; (1840) 386,293; (1850) 434,495; (1860) 488,070.

Ohio disfranchised free negroes in 1803, Connecticut in 1818, Illinois in 1819, Rhode Island in 1822, North Carolina in 1835, Indiana in 1851.

Minnesota voted against negro suffrage in 1865 and in 1867, but voted for it in 1868, when there were 411 negroes in the State.

All the anti-slavery movements of early date were launched by religious sects. The first was set going by the Quakers, but it was peaceful. They spent much money, not in helping slaves to escape from their masters, but to transport free negroes and in bringing suits, where necessary, to guarantee freedom to slaves already manumitted. They preached emancipation, but they lived, hundreds of them, in Virginia and North Carolina, in peace and friendliness with their slave-holding neighbors.

The first forcible effort to free the slaves was begun at Baltimore at the first national conference of Methodist leaders in 1780, and was thereafter kept going. This was aided by the Presbyterian Synod in 1787. The Baptists became active, and shortly thereafter the Congregationalists, at their Hartford convention added slavery to the vices of "profanity, Sabbath breaking, use of intoxicating drinks, covetousness, gambling, breaches of the Seventh Commandment, attendance upon the theater, dancing, gayety and extravagance in dress, novel reading, and sleeping in church."

In 1811, Lilburn Lewis and his brother, Isham, said to be nephews of Thomas Jefferson, planters in the county of Livingston, Ky., cut off the feet and legs of a living slave and burned the members before the slave's eyes, afterwards dispatching him and burning the rest of the body. Lilburn Lewis killed himself to avoid trial and Isham was convicted and sentenced to be hung.

In 1834, at New Orleans, a woman known as Mme. La Loire, or Laurie, beat and mauled a number of negro slaves and chained them in a room to die.

In 1850, out of 3,204,313 slaves, 1,011 were fugitives, and 1,467 were, in the year, voluntarily freed by their owners. The yearly number of manumitted slaves, until 1831, exceeded the runaways.

William Lloyd Garrison, the Abolitionist, in the initial issue of his paper, the Liberator, Jan. 1, 1831, said his efforts in the north had met "contempt more bitter, opposition more active, detraction more relentless, prejudice more stubborn, and apathy more frozen, than among the slave owners themselves."

Garrison, in his early days of crusading, was mobbed at Boston and dragged through the streets. Many New England textile mill owners then believed that slave labor kept down the price of raw cotton.

In the Civil War conscription days at New York City, a negro orphan asylum was burned and adult negroes were strung up on lamp posts.

LYNCHINGS IN THE UNITED STATES SINCE 1885.

(Compiled for the ALMANAC by Monroe N. Work, head of the Research and Record Department of the Tuskegee Normal and Industrial Institute and editor of the Negro Year Book.)

LYNCHINGS, WHITES AND NEGROES, 1885-1928. W.—WHITES; N.—NEGROES.

YEAR.	W.	N.	Total	YEAR.	W.	N.	Total	YEAR.	W.	N.	Total	YEAR.	W.	N.	Total
1885..	106	78	184	1897..	44	122	166	1908..	7	93	100	1919..	7	76	83
1886..	67	71	138	1898..	25	102	127	1909..	14	73	87	1920..	8	53	61
1887..	42	80	122	1899..	23	84	107	1910..	9	65	74	1921..	5	59	64
1888..	47	95	142	1900..	8	107	115	1911..	8	63	71	1922..	6	51	57
1889..	81	95	176	1901..	28	107	135	1912..	4	60	64	1923..	4	29	33
1890..	37	90	127	1902..	10	86	96	1913..	1	51	52	1924..	0	16	16
1891..	71	121	192	1903..	18	86	104	1914..	3	49	52	1925..	0	17	17
1892..	100	155	255	1904..	4	83	87	1915..	13	54	67	1926..	7	23	30
1893..	46	154	200	1905..	5	61	66	1916..	4	50	54	1927..	0	16	16
1894..	56	134	190	1906..	8	64	72	1917..	2	36	38	1928..	1	10	11
1895..	59	112	171	1907..	3	60	63	1918..	4	60	64	Total	1,046	3,221	4,277
1896..	51	80	131												

According to the records compiled in the Department of Records and Research of the Tuskegee Institute, there were 11 persons lynched in 1928. This is 5 less than the number 16 for 1927, 19 less than the number 30 for 1926, 6 less than the number 17 for 1925 and 5 less than the number 16 for 1924. Six of the persons lynched were taken from the hands of the law, one from jail and 5 from officers of the law outside of jails.

There were 24 instances in which officers of the law prevented lynchings. 3 of these were in Northern States and 21 in Southern States. In 23 of the cases the prisoners were removed or the guards augmented or other precautions taken. In 1 other instance, armed force was used to repel the would-be lynchers. 14 white men, 1 white woman and 25 negro men were thus saved from death at the hands of mobs.

Of the 11 persons lynched 10 were negroes and 1 white (Mexican). The offenses charged were: murder, 2; rape, 3; wounding men in altercation, 2; killing officers of the law, 3; charge not reported, 1.

The States in which lynchings occurred and the number in each State are as follows: Louisiana, 2; Mississippi, 5; Missouri, 1; New Mexico, 1; Texas 2.

LYNCHINGS, BY STATES, 1889-1928.

STATE.	W.	N.	STATE.	W.	N.	STATE.	W	N.	STATE.	W.	N.	STATE.	W.	N.
Ala.....	35	267	Idaho.....	12	1	Mich.....	1	4	N. Y.....	1	1	Tenn.....	35	164
Ariz.....	13	1	Ill.....	12	13	Minn.....	4	3	N. C.....	8	56	Tex.....	58	285
Ark.....	41	208	Ind.....	10	14	Miss.....	26	421	N. D.....	19	1	Utah.....	...	1
Cal.....	30	4	Iowa.....	...	...	Mo.....	33	57	Ohio.....	3	8	Vt.....	...	...
Colo.....	24	5	Kan.....	13	12	Mont.....	30	1	Okla.....	88	40	Va.....	7	76
Conn.....	...	...	Ky.....	46	123	Nebr.....	22	4	Oreg.....	9	3	Wash.....	19	...
Del.....	...	1	La.....	50	290	Nev.....	11	...	Penn.....	...	3	W. Va.....	7	27
D. of Col...	...	...	Me.....	...	...	N. Hamp...	...	...	R. I.....	...	...	Wis.....	4	...
Fla.....	14	218	Md.....	3	19	N. J.....	...	...	S. C.....	4	132	Wyo.....	33	7
Ga.....	24	433	Mass.....	...	...	N. Mex...	19	3	S. D.....	18	...			

WHEN NEW JERSEY WAS A "FOREIGN STATE".

(Contributed by the State Library at Trenton.)

Various writers on early New Jersey history say that New Jersey was called a foreign state, not an outlaw state, and sometimes was called New Spain, because of the fact that in 1817 the Legislature passed a law authorizing aliens to purchase and hold real estate within the state.

It seems to be the opinion of these writers that this law was passed specifically to meet the case of Joseph Bonaparte, oldest brother of Napoleon I, who had been made King of Spain, but who subsequently fled to this country.

He acquired a tract of about 1,400 acres of land at Bordentown near Trenton, where he made his home for many years. Prior to the passage of this act the law of New Jersey permitting aliens to own property required them to declare their purpose of becoming naturalized.

Under the 1817 act it was not necessary for Joseph Bonaparte to become naturalized and there is no record that he ever did.

While in New Jersey Bonaparte went by the title Count de Survilliers. He lived in this country until about 1840, when he returned to Europe and died at Florence, Italy, in 1844.

He was still a resident on this side of the Atlantic when he visited Europe in 1832.

Louis Napoleon, who was a nephew of Joseph Bonaparte, was in this country for a time, but only on a visit to his uncle, and he does not figure in the legislation referred to, nor in the characterizing of New Jersey as a foreign state.

THE "BONAPARTE LAW."

Following is a copy of the act to enable Napoleon's brother to become a landed proprietor of New Jersey. The law was passed on Jan. 22, 1817.

An Act to authorize aliens to purchase and hold real estate within this state.

Sec. 1. BE IT ENACTED by the Council and General Assembly of this State, and it is hereby enacted by the authority of the same, That it shall and may be lawful for any alien, not being the subject of any state or power which shall be at the time of such purchase at war with the United States, to purchase lands, tenements, and hereditaments, within this state, and to have and to hold the same to them, their heirs and assigns forever, as fully to all intents and purposes as any natural born citizen of the United States may or can do:

Provided always, That nothing in this act shall be so construed, as to entitle any alien to be elected into any office of trust or profit in this state, or to vote at any town-meeting or election of members of the legislative Council and General Assembly, sheriff and coroners within this state, or for representatives in Congress, or electors of the President and Vice-President of the United States.

Sec. 2. And be it enacted, That all purchases of lands, tenements, and hereditaments within this state, which may have been made by aliens before the passing of this act, shall be deemed, and held, as good and effectual, to all intents and purposes as if the same had been made after the passing thereof.

Napoleon was next to Joseph in age.

The third brother was Lucien, who was captured in 1810 by the British when on the way to the United States, and whose oldest son Charles Lucien, lived at Philadelphia (1822-1828) and was known as a naturalist.

Charles Lucien's brother, Pierre, lived for a while in the United States but returned to France in 1848 and in 1870 killed Victor Noir, Paris journalist, in a duel.

Next youngest was Marie Bonaparte, sister of Napoleon, and next was Louis, sometime King of Holland. Napoleon had two younger sisters, Marie and Caroline.

His youngest brother was Jerome (later King of Westphalia) who in 1803 fled from the West Indies to New York City and married Elizabeth Patterson, daughter of William Patterson of Baltimore. By her he had one child, Jerome, who was born in England in 1805, and died at Baltimore in 1870.

This Jerome married, in 1829, Susan Williams of Baltimore. The couple had two children, Jerome and Charles Joseph. The latter became U. S. Secretary of the Navy, and U. S. Attorney General.

The youngest brother of Napoleon, Jerome, returned in 1805 from America to France where Napoleon annulled the union with Miss Patterson.

Jerome, in 1807, married a daughter of the King of Wurttemberg. Out of this alliance came the line of Napoleonic Pretenders to the throne of France.

PRISON CENSUS, 1904-1927.

Division and State.	Prisoners Present on a Given Date.					Number per 100,000 of General Population.				
	Jan. 1, 1927.	Jan. 1, 1926.	Jan. 1, 1923.	Jan. 1, 1910.	June 30, 1904.	1927.	1926.	1923	1910	1904.
United States	96,125	90,047	81,959	68,735	57,070	85.0	82.7	74.0	74.7	69.1
Federal prisons and reformatories	6,803	6,430	4,664	1,904	1,641	5.8	5.5	4.2	2.1	2.0
State prisons and reformatories.	89,322	83,617	77,295	66,831	55,429	79.3	75.2	70.2	73.1	68.5
New England	4,164	3,979	3,638	3,510	3,500	.....	.....	.....	.....	.....
Maine	412	451	379	201	183	52.1	57.2	48.7	27.1	25.6
New Hampshire	133	150	138	147	160	29.3	33.1	30.8	34.1	38.1
Vermont	388	346	316	170	274	110.1	98.2	89.7	47.8	78.6
Massachusetts	1,923	1,769	1,448	1,966	1,958	45.6	42.4	36.0	58.4	64.5
Rhode Island	388	315	466	421	451	55.5	45.9	72.0	77.6	94.8
Connecticut	920	948	891	605	474	56.8	59.7	60.2	54.3	47.7
Middle Atlantic	13,851	12,993	12,526	12,422	9,890	.....	.....	.....	.....	.....
New York	7,298	6,820	6,316	7,073	5,732	64.2	60.7	58.4	77.6	71.4
New Jersey	2,383	2,213	1,912	1,839	1,470	64.1	60.8	56.5	72.5	68.2
Pennsylvania	4,170	3,960	4,298	3,510	2,688	43 1	41.5	47.2	45.8	39.2
East North Central	22,524	20,130	15,751	9,981	8,799	.....	.....	.....	.....	.....
Ohio	6,209	5,398	4,234	2,561	2,348	93.3	82.6	69.1	53.7	53.2
Indiana	3,615	3,402	2,302	2,362	1,792	115.2	109.4	76.4	87.5	69.1
Illinois	6,038	5,287	4,416	2,509	2,419	83.3	74.0	64.9	44.5	46.9
Michigan	5,168	4,687	3,641	1,596	1,398	116.3	108.0	91.3	56.8	54.1
Wisconsin	1,494	1,356	1,158	953	842	51.5	47.3	42.2	40.8	38.6
West North Central	12,179	11,037	8,566	6,526	6,134	.....	.....	.....	.....	.....
Minnesota	2,240	1,906	1,634	1,092	917	83.9	72.4	65.3	52.6	48.6
Iowa	2,044	2,018	1,794	963	860	84.3	83.4	74.3	43.3	38.6
Missouri	3,442	3,059	2,205	2,307	2,163	98.2	87.6	64.0	70.1	67.9
North Dakota	309	304	244	212	151	48.2	47.4	37.9	36.7	35.5
South Dakota	469	445	326	207	196	67.7	65.0	49.2	35.5	41.1
Nebraska	1,000	936	789	481	327	71.9	67.9	59.1	40.3	29.2
Kansas	2,675	2,369	1,574	1,264	1,520	146.7	130.4	87.7	74.8	97.3
South Atlantic	.....	.....	11,751	10,384	8,416	.....	.....	.....	.....	.....
Delaware	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Maryland	1,921	1,886	1,483	1,675	1,502	120.9	120.1	98.4	129.3	121.9
District of Columbia	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Virginia	1,979	1,920	1,960	2,145	1,546	78.2	76.7	81.6	104.0	79.7
West Virginia	1,799	1,768	1,628	1,071	1,014	106.9	106.9	104.8	87.7	95.0
North Carolina	1,579	1,490	1,046	710	674	54.9	52.6	38.9	32.2	33.3
South Carolina	504	528	528	848	660	27.5	29.1	30.2	56.0	46.7
Georgia	2,945	3,007	3,738	2,638	1,915	93.3	96.4	124.5	101.1	80.1
Florida	.....	.....	1,368	1,297	1,105	.....	.....	119.9	172.3	177.9
East South Central	.....	.....	8,498	8,912	6,519	.....	.....	.....	.....	.....
Kentucky	2,248	2,170	2,079	2,028	1,943	88.8	86.2	84.4	88.6	88.1
Tennessee	2,023	1,916	1,630	1,813	1,637	81.7	77.9	68.1	83.0	78.4
Alabama	.....	.....	3,169	3,381	1,890	.....	.....	130.6	158.1	96.6
Mississippi	1,563	1,471	1,620	1,690	1,049	87.3	82.2	90.5	94.0	63.5
West South Central	8,947	8,933	8,379	7,426	6,313	.....	.....	.....	.....	.....
Arkansas	1,383	1,449	1,410	794	792	72.3	76.6	77.5	50.4	55.8
Louisiana	1,686	1,575	1,593	1,999	1,331	87.5	82.5	86.1	120.7	89.0
Oklahoma	2,677	2,513	1,799	1,110	.....	113.3	108.4	83.1	67.0	.....
Texas	3,201	3,396	3,577	3,523	4,190	58.8	64.5	72.3	90.4	123.3
Mountain	.....	.....	2,933	3,396	2,447	.....	.....	.....	.....	.....
Montana	437	420	331	691	444	62.0	61.4	54.0	183.8	148.9
Idaho	.....	.....	284	220	142	.....	.....	60.3	67.6	61.9
Wyoming	264	282	335	257	192	110.9	121.0	157.3	176.1	167.5
Colorado	1,129	1,185	1,015	851	864	105.9	112.9	102.3	106.5	133.6
New Mexico	358	353	239	313	247	91.8	91.5	64.1	95.6	98.8
Arizona	444	473	355	405	294	98.2	108.5	92.9	198.2	187.7
Utah	210	206	200	270	173	40.5	40.5	41.8	72.3	54.6
Nevada	232	203	174	199	91	209.7	262.5	224.8	243.1	155.1
Pacific	8,022	7,267	5,253	4,464	3,411	.....	.....	.....	.....	.....
Washington	1,552	1,504	1,010	1,249	694	100.1	98.7	70.3	109.4	89.4
Oregon	572	478	406	399	334	64.7	54.9	49.2	59.3	64.1
California	5,898	5,285	3,837	2,816	2,383	134.8	124.4	100.5	118.4	128.5

1904 figures are exclusive of prisoners committed for non-payment of fine.
In Delaware and District of Columbia there are no state prisons or reformatories.

FEDERAL PRISONS.

The Federal prisons are located at Leavenworth, Kan., at Atlanta, Ga., and at McNeil Island, State of Washington.

The Federal Industrial Reformatory for Men is at Chillicothe, O. The Federal Industrial Institution for Women is at Alderson, W. Va.

There is a Federal Prison Farm on the Missouri River, in Platte County, Nebr.

No federal prisoners would be kept in city prisons, the United States Department of Justice announced, after October 1, 1928.

The Federal House of Detention, opened in March, 1919, is at West and 11th Streets, New York City.

DOES CRIME PAY?

Answering this question in 1929, at New York City, at the Boys' Work Conference of the Welfare Council at the Town Hall Club, Warden Lewis E Lawes of Sing Sing, fixed the net haul in the "average robbery during 1927" at $30.75.

"The total haul," said Lawes, "of approximately 900 men committed to Sing Sing in 1927 was $368,574.

The sentences imposed for these offences totaled 12,389 years, an average of $29.07 a year.

Sentences for robbery totaled 6,545 years, or at the rate of $1.30 a year; for larceny, 1,680 years, or $38 a year; for forgery, 448 years, or $642 a year, and for burglary 3,716 years, or $2 a year.

12,000 MURDERS A YEAR?

Wade H. Ellis, of the American Bar Association's Crime Commission, in an address given over the radio at Washington, D. C., on June 24, 1929, said that crime costs the United States $13,000,000,000 a year; that 12,000 murders were committed in America annually, fifty times the number recorded in Great Britain; and that 30,000 criminals are at large in New York and 10,000 in Chicago.

The annual murder rate in this country has increased 350 per cent since 1900, he said. In other words, while two persons in every 100,000 were murdered in 1900, the proportion is now seven in every 100,000.

PATIENTS IN STATE HOSPITALS FOR MENTAL DISEASES.

(Data, as of Jan. 1, 1927, assembled by the U. S. Bureau of the Census.)

States.	No. pat'nts.	States.	No. pat'nts.	States.	No. pat'nts.	States.	No. pat'nts.	States.	No. pat'nts.	States.	No. pat'nts.
Ala.	3,228	Georgia	4,848	Md.	1,910	Nev.	221	Okla.	3,566	Utah	773
Ariz.	684	Idaho	279	Mass.	16,846	N. Ham.	1,560	Oreg.	1,877	Vt.	835
Ark.	1,990	Illinois	20,690	Mich.	7,765	N. Jer.	5,850	Pa.	12,138	Va.	5,603
Calif.	13,047	Ind.	6,441	Minn.	7,259	N. Mex.	392	R. I.	1,735	Wash.	4,150
Colo.	2,324	Iowa	5,347	Miss.	2,854	N. Y.	43,538	S. C.	2,558	W. Va.	2,315
Conn.	4,829	Kan.	3,697	Mo.	5,753	N. C.	4,665	S. D.	1,317	Wisc.	1,778
Dela.	575	Ky.	4,831	Mont.	1,460	N. D.	1,400	Tenn.	3,084	Wyo.	380
D. of C.	4,121	La.	3,458	Nebr.	3,258	Ohio	13,844	Tex.	7,619	U. S.	250,890
Fla.	2,584	Me.	1,903								

The figures are exclusive of the State psychopathic hospitals, and the Federal hospitals operated by the Veterans' Bureau, the Public Health Service, the Army, and the Navy.

Mental diseases in the United States cause an economic loss of $300,000,000 a year, according to L. M. Black, Jr., of New York, a member of the House of Representatives.

IMPORTS, EXPORTS AND DOMESTIC SALES OF NARCOTIC DRUGS.

Fiscal Year.	Opium.		Morphine.		Codeine.	Heroin.	Dionin. Cocaine.		Coca Leaves.
	Net Quant.	Taxable.	Net Quant.	Taxable.	Net Quant.	Net Quant.	Net Quant.	Taxable.	Net Quant.
Imports:	*Pounds.*	*Ounces.*	*Ounces.*	*Ounces.*	*Ounces.*	*Ounces.*	*Ounces.*	*Ounces.*	*Pounds.*
1921	47,024.25	755,381	317	2,152	131	2	1	14,078	387,195.00
1922	135,093.00	2,161,488	2,124	2,124	1,547	305	110	4,462	33,080.00
1923	99,353.50	1,589,662							286,932.50
1924	87,343.50	1,397,498							208,862.00
1925	100,478.00	1,607,648							109,920.00
1926	107,747.50	1,723,960							262,670.50
1927	142,139.25	2,274,228							265,669.00
1928	140,172.50	2,242,760							234,282.00
Exports:									
1921	2,013.50	49,869	2,569	95,119	1,546	402	82	99,346	940.00
1922	1,271.75	41,012	2,767	48,758	2,665	1,123	25	28,312	605.75
1923	242.75	39,523	630	40,938	355	450	58	39,229	444.00
1924	129.50	11,260	794	47,533	297	487	23	31,518	147.50
1925	192.75	30,869	642	47,041	429	524	24	28,235	214.00
1926	183.75	38,779	803	57,291	387	126	23	50,444	60.00
1927	177.50	31,666	606	44,067	426	10	13	31,606	643.50
1928	129.25	20,053	569	40,928	608	3	8	19,201	443.25
Domestic Sales:									
1921	19,727.25	1,273,680	321,715	3,456,118	94,507	16,635	5,512	738,270	886.25
1922	63,952.75	1,838,225	183,671	2,410,222	107,408	18,009	4,302	428,127	1,274.50
1923	53,946.50	1,881,612	195,577	2,681,980	165,776	31,173	5,229	436,608	66,972.50
1924	10,766.00	610,944	77,597	1,313,428	75,895	16,985	4,638	273,551	176.75
1925	11,429.25	1,036,346	106,164	2,606,305	96,896	4,958	4,554	344,143	561.25
1926	11,496.75	997,404	106,871	2,487,769	127,127	1,550	4,878	335,344	410.00
1927	8,715.75	934,250	105,434	2,686,665	114,726	462	6,067	370,828	452.75
1928	8,132.25	865,265	105,155	2,724,684	139,137	71	7,400	289,673	876.00

Figures reported in the columns headed "Net quantity" represent exact quantities of narcotic drugs both in pure state and as part content of compounds and preparations. Tax is paid by stamps at the rate of 1 cent per ounce or fraction thereof for the entire contents of each package or bottle.

A compound or preparation containing a narcotic drug in a quantity exceeding the statutory exemption is taxed the same as the pure drug.

The number of "taxable" ounces reported has been determined from the value of stamps required.

100,000 DRUG ADDICTS IN UNITED STATES.

The Prohibition Commissioner, in his report to the Secretary of the Treasury, for the year ending June 30, 1928, said:

"The consensus of opinion among these officers, who may well be termed experts as to this field of inquiry, is that the total number of narcotic drug addicts in the United States is decreasing, and that the average age of such addicts is increasing, indicating that few if any recruits are being made to the ranks of the habitues and perhaps none of the more youthful.

"Based upon the particular inquiry mentioned, and the result of two surveys made by field officers some two to four years ago, the Government is inclined to the opinion that there are not more than 100,000 narcotic drug addicts in the continental United States at present, these figures representing a very liberal estimate."

CENSUS OF THE BLIND IN 1920 BY STATES.

States	Male	Female	Total	States	Male	Female	Total	States	Male	Female	Total
Ala.	590	436	1,026	Me.	317	266	583	Okla.	510	350	860
Ariz.	63	38	101	Md.	447	316	763	Ore.	218	136	354
Ark.	520	399	919	Mass.	1,390	1,199	2,589	Pa.	2,408	1,686	4,094
Cal.	939	565	1,504	Mich.	894	685	1,579	R. I.	113	118	231
Col.	444	262	706	Minn.	532	338	870	S. Carolina	334	263	597
Conn.	436	283	719	Miss.	502	338	840	So. Dak.	127	84	211
Del.	91	48	139	Mo.	1,221	1,005	2,226	Tenn.	844	585	1,429
Dist. of Col.	185	173	358	Mon.	122	58	180	Texas.	999	755	1,754
Fla.	263	200	463	Neb.	229	176	405	Utah	89	76	165
Ga.	790	546	1,336	Nev.	24	17	41	Vt.	102	93	195
Idaho	74	57	131	N. H.	213	169	382	Va.	691	470	1,161
Ill.	1,814	1,432	3,246	N. J.	596	479	1,075	Wash.	293	205	498
Ind.	1,257	966	2,223	N. Mex.	332	220	552	W. Va.	376	271	647
Ia.	659	500	1,159	N. Y.	2,254	1,951	4,205	Wis.	801	512	1,313
Kan.	674	421	1,095	No. Car.	690	540	1,230	Wyo.	21	9	30
Ky.	968	672	1,640	No. Dak.	87	58	145				
La.	418	307	725	Ohio	2,199	1,674	3,873	U. S.	30,160	22,407	52,567

Total enumerated blind census in previous years—(1830) 5,444; (1840) 6,936; (1850) 9,794; (1860) 12,658; (1870) 20,320; (1880) 48,928; (1890) 50,568; 01900) 64,763; (1910) 57,272.

The total *estimated* number of blind—(1880) 49,000; (1890) 56,600; (1900) 63,000; (1910) 70,300; (1920) 74,400.

Of the *enumerated* blind in 1920, whites numbered 45,737; negroes, 6,302; Indian, 488; other (Chinese, Japanese, etc.) 40.

Of the blind enumerated in 1920 over one-third (36.9 per cent) of the blind lost their sight in childhood or youth, or before 20 years; over two-fifths (43.4 per cent) during early and middle adult life, or between 20 and 64.

REGISTERED HOSPITALS IN THE UNITED STATES AND THEIR CAPACITY.

(From 1928 data gathered by the Amer. Medical Assoc., and Published in its Journal.)

State	Hospitals	Beds	Bassinets	Tot. Capac.	State	Hospitals	Beds	Bassinets	Tot. Capac.
Alabama	105	9,105	402	9,507	North Dakota	55	4,550	303	4,853
Arizona	84	4,452	123	4,665	Ohio	289	44,288	2,021	46,309
Arkansas	75	7,350	226	7,576	Oklahoma	118	10,369	357	10,726
California	424	51,680	2,759	54,439	Oregon	95	8,637	520	9,157
Colorado	123	12,562	522	13,084	Pennsylvania	416	72,848	3,728	76,576
Connecticut	90	14,514	882	15,396	Rhode Island	32	6,527	310	6,837
Delaware	16	1,558	103	1,661	South Carolina	66	6,006	233	6,239
Dist. of Col.	36	10,199	349	10,548	South Dakota	65	4,984	252	5,236
Florida	85	7,944	512	8,456	Tennessee	107	13,210	353	13,563
Georgia	114	12,260	398	12,658	Texas	286	25,359	966	26,325
Idaho	59	2,883	185	3,068	Utah	38	2,513	183	2,696
Illinois	364	62,992	3,170	66,162	Vermont	35	2,931	155	3,086
Indiana	153	19,752	984	20,736	Virginia	117	15,882	449	16,331
Iowa	184	18,168	962	19,130	Washington	123	14,458	898	15,356
Kansas	142	10,949	517	11,466	West Virginia	79	8,561	386	8,947
Kentucky	123	11,921	492	12,413	Wisconsin	225	25,187	1,284	26,471
Louisiana	68	11,188	299	11,487	Wyoming	33	2,124	107	2,231
Maine	71	6,054	391	6,445					
Maryland	87	14,222	494	14,716	Totals (1928)	6,825	892,934	43,313	936,247
Massachusetts	307	48,905	3,011	51,916	(1927)	6,807	853,318	41,961	895,279
Michigan	233	35,555	1,746	37,301	(1923)	6,830	755,722	34,511	790,233
Minnesota	231	25,153	1,384	26,537					
Mississippi	74	7,139	235	7,374	Territory				
Missouri	159	24,341	1,087	25,428	Alaska	25	599	25	624
Montana	66	4,795	301	5,096	Canal Zone	10	1,757	34	1,791
Nebraska	107	9,379	500	9,879	Hawaii	48	4,489	82	4,571
Nevada	22	931	36	967	Philippine Is.	87	10,725	159	10,884
New Hampshire	50	4,510	357	4,867	Porto Rico	56	2,416	67	2,483
New Jersey	175	30,784	1,585	32,369	Guam	1	157		157
New Mexico	52	3,485	76	3,561	Virgin Islands	2	128	12	140
New York	623	125,504	6,066	131,570					
North Carolina	171	14,176	654	14,830	Totals	229	20,271	379	20,650

Since 1918, in the United States, the medical schools have graduated 71,015 physicians; in 1908 they numbered 7,376.

There are more than 85,000 physicians regularly connected with hospitals in this country.

AVERAGE NO. PATIENTS IN HOSPITALS.

Control of Hospital	No. Hospitals 1928	No. Beds 1928	Aver. P. Ct. Beds Occup. 1927	Aver. No. Pat'ts (not inc N-Born 1928
Federal	294	61,765	69.7	43,050
State	595	369,759	92.9	343,506
County	489	63,231	80.9	51,154
City	372	65,126	73.2	47,672
City and county	63	7,553	67.3	5,083
Church	1,056	114,613	67.0	76,791
Fraternal	87	5,298	64.7	3,428
Industrial	157	7,047	52.5	3,700
Ind. or partnership	1,699	39,710	55.6	22,078
Indp'd't associat'ns.	2,040	158,832	67.4	107,053
Totals	6,852	892,934	78.7	702,738

Results in the column at the right are obtained by applying the percentages to the number of beds given in the column at the left. It is assumed that the average percentage of beds occupied in 1928 would be the same as in 1927, since that percentage varies little (less than 1) from one year to another.

GROWTH OF HOSPITALS, 1909 TO 1928.

Year	Federal Hospitals		State Hospitals		Other and Totals	
	Hospitals	Beds	Hospitals	Beds	Hospitals	Beds
1909	71	8,827	232	189,049	4,359	421,065
1914	93	12,602	294	232,834	5,037	532,481
1918	110	18,815	303	262,254	5,323	612,251
1923	220	53,869	601	302,208	6,830	755,722
1927	301	60,444	592	354,786	6,807	853,318
1928	294	61,765	595	369,759	6,852	892,934

THE ROMANCE OF QUININE.

(From a Bulletin of the New York City Department of Health.)

In Astorga, Spain, in the year 1599, at the palace of her father, the Marquis de Astorga, was born the Lady Ana de Osorio and became by marriage the Countess of Chinchon, a judicial district southeast of Madrid. In 1628 the Count was appointed Viceroy of Peru, his jurisdiction extending over all of South America except Brazil.

After ten years' residence in Lima, the Vice-Queen fell ill of ague. News of her illness reached the ears of Don Francisco Lopez de Canizares, who was then Mayor of Loxa, a town in the Andes. Canizares had learned shortly before from an Indian the virtues of a bark which had wrought a cure upon a Jesuit in 1600. He accordingly sent a parcel of this bark to the Vice-Queen. In the hands of her physician, Don Juan de Vigo, the powdered bark accomplished a cure.

When the Count and Countess returned to Spain in 1640 they carried with them a large supply of the precious bark, which the Countess had the avowed intention of distributing among the poor peasants at Chinchon, where the river marshes were rife with malarial infection.

While Juan de Vigo was selling the powdered bark to druggists in Seville at 100 reals a pound, this lady was distributing it gratis all over her husband's estate, and earning the gratitude of the peasant population. Not only to these impoverished tenants did she give freely of her powders, but also to the students at the University of Alcala, that they might be the means of its wider spread.

By degrees the fame of the *pul·vera Comitessæ*, or Countess's powders, as they came to be called, spread all over the kingdom, and thence to other countries of Western Europe. Their merits were also proclaimed throughout France by members of the Jesuit Order, among whom the Cardinal de Lugo, Procurator of the Order, was notable.

Under the name of Jesuits' or Cardinals' powders, missionaries actively promoted their sale, developing a trade, which reached its height about 1649. The remedy was introduced into English practice by Sydenham and Morton.

The tree from whose powdered bark cinchona was obtained remained unclassified by scientists until it was brought to the attention of Linnaeus in 1742 by Condamine, who with scientific men had visited the forests of Loxa and brought back samples, which he asked Linnaeus to name.

Through a misunderstanding of the Countess's true name, which he desired to honor, Linnaeus called the plant Cinchona officinalis,* omitting the first *h*. It is said that he died without learning of his error. To the Indians of Peru it became known as quinquina. Spanish botanists of the eighteenth century spelt it correctly, and in the South American regions where it grows it is to this day called Chinchona.

Gomez of Lisbon succeeded in 1810 in obtaining a mixture of alkaloids from cinchona, to which he gave the name cinchonino. From this mixture quinine and cinchonine were isolated in 1820 by Pelletier and Caventou, and the other alkaloids somewhat later.

The demand for quinine was so great and the price so exorbitant that within 6 years of its isolation no less than 132 substitutes were offered on the market.

EXPECTATION OF LIFE IN THE UNITED STATES.

The following Life Tables, prepared by the Bureau of the Census, are based on the 1920 enumerated population and on the births and deaths that occurred in 1919 and 1920 in registration area and relate to about 74 per cent. of the total number of inhabitants.

State.	At Birth.		At 22 Yrs.		At 32 Yrs.		At 42 Yrs.		At 52 Yrs.		At 62 Yrs.	
	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.
California	54.51	58.44	41.73	44.77	34.40	37.45	27.32	29.85	20.21	22.22	13.89	15.17
Connecticut	53.38	56.84	42.44	43.82	34.70	36.23	27.18	28.48	19.81	20.78	13.52	14.09
Illinois	55.17	57.76	43.43	44.58	35.57	37.06	27.90	29.29	20.46	21.57	13.83	14.63
Indiana	56.91	57.55	44.97	44.21	37.12	37.02	29.33	29.46	21.49	21.76	14.33	14.50
Kansas	59.82	61.02	46.62	46.44	38.70	38.80	30.73	31.08	22.59	23.07	15.16	15.68
Kentucky	57.71	57.67	45.17	44.14	37.54	37.32	29.73	29.92	21.87	22.17	14.67	15.03
Maryland	53.76	55.99	42.18	43.38	34.51	36.05	27.00	28.42	19.64	20.78	13.19	13.98
Massachusetts	54.97	56.56	42.93	43.91	35.01	36.23	27.24	28.46	19.74	20.85	13.11	14.00
Michigan	55.12	56.01	44.24	43.59	36.42	36.44	28.67	28.88	20.90	21.28	13.93	14.25
Minnesota	58.57	60.59	44.98	45.71	37.15	38.26	29.39	30.60	21.58	22.79	14.59	15.69
Missouri	56.80	59.04	44.61	45.43	36.90	38.09	29.22	30.49	21.55	22.69	14.71	15.47
New Jersey	53.86	56.56	42.11	43.42	34.39	35.92	26.76	28.07	19.47	20.40	13.07	13.65
New York	52.82	55.76	41.40	42.98	33.74	35.44	26.25	27.63	19.08	20.11	12.88	13.52
North Carolina	57.76	58.03	44.79	43.94	37.19	36.70	29.45	29.59	21.64	21.93	14.48	14.64
Ohio	56.23	58.34	43.92	44.81	36.04	37.33	28.39	29.64	20.74	21.83	13.77	14.69
Oregon	57.90	60.45	44.10	45.10	36.45	37.71	28.86	30.05	21.02	22.27	13.99	15.11
Pennsylvania	53.27	55.96	42.02	43.39	34.32	35.93	26.87	28.21	19.58	20.67	13.14	13.94
South Carolina	56.04	57.70	43.37	43.75	35.76	36.36	28.19	29.15	20.56	21.40	13.71	14.40
Tennessee	58.61	58.48	45.28	44.28	37.53	37.19	28.84	29.92	22.02	22.35	14.84	15.12
Utah	55.39	58.61	42.23	44.10	34.88	36.99	27.87	30.09	20.57	22.32	13.67	14.97
Virginia	56.97	58.52	44.37	44.52	36.71	36.99	28.98	29.47	21.03	21.62	13.84	14.49
Washington	57.84	60.45	44.35	45.65	36.95	38.10	29.28	30.32	21.55	22.52	14.55	15.43
Wisconsin	58.81	60.73	45.98	46.28	37.95	38.63	29.98	30.71	22.00	22.69	14.83	15.44
U. S. Average	55.33	57.52	43.35	44.21	35.62	36.77	28.02	29.11	20.53	21.43	13.85	14.50

Expectation of life at birth in England, based on the 1921 census, is—for males, 55.62 years; for females, 59.58 years.

THE SPAN OF LIFE IS NOT LENGTHENING.

In an address on Oct. 3, 1929, to the American Public Health Association, at Minneapolis, Dr. Louis I. Dublin, insurance statistician, of New York City, said:

"The expectation of life has increased, but the span of life has remained stationary.

"A fundamental distinction must be made between these two. The former, which is the average length of life of people in a stationary population, has shown appreciable gains and will continue to increase as public health improves and more and more diseases are brought under control.

"The latter has remained stationary for a long time and it is altogether unlikely that man will be able to do anything to change it.

"The span of life seems to be fixed by the nature of man himself. His internal structure wears out after so many years of work and use and he appears unable to master its weakness or give it stamina to last longer.

"The breakdown of the human body occurs well on this side of the century mark, except in a few isolated instances. We hear much about the number of centenarians in the United States. There are about 5,000 persons in this country claiming they have reached this age, but the great majority are mistaken as to their age—most of them honestly so.

"Practically every investigation of centenarians has disclosed the woeful lack of reliable records of their true ages.

"The span of life for the great majority of persons seems to be closer to eighty years than a hundred. In the population of the United States, which numbers 120,000,000, there are only a little more than 700,000 who have attained the age of 80, or six-tenths of 1 per cent of the population—and this proportion will probably grow less.

"That twenty years have been added to the average length of human life, since public health work began to be actively practiced in the early 80's of the last century, is true.

"But this gain can be traced to the reduced mortality of infants and to the cutting down of the unnecessary and preventable deaths of young people from typhoid fever, diphtheria, scarlet fever, smallpox and a host of other diseases which, for the most part, affects persons under 40 years of age.

"Improvement, after the age of 40, has been slight, and almost altogether limited to women.

"Such campaigns as center around the annual physical examination are very desirable, but their value, so far as they go to extending the life span, is questionable. Their greatest worth is in making old age freer of discomfort."

AMERICAN EXPERIENCE TABLE OF (INSURED) MORTALITY.

Age	No. Living.	Dths Each Year.	Death-Rte Per 1,000.	Expect. of Life.	Age	No. Living.	Dths Each Year.	Death-Rte Per 1,000.	Expect. of Life.	Age	No. Living.	Dths Each Year.	Death-Rte Per 1,000.	Expect. of Life.
10..	100.000	749	7.49	48.72	39..	78.862	756	9.59	28.90	68..	43.133	2.243	52.00	9.47
11..	99.251	746	7.52	48.08	40..	78.106	767	9.79	28.18	69..	40.890	2.321	56.76	8.97
12..	98.505	743	7.54	47.45	41..	77.341	774	10.01	27.45	70..	38.569	2.391	61.99	8.48
13..	97.762	740	7.57	46.80	42..	76.567	785	10.25	26.72	71..	36.178	2.448	67.66	8.00
14..	97.022	737	7.60	46.16	43..	75.782	797	10.52	26.00	72..	33.730	2.487	73.73	7.55
15..	96.285	735	7.63	45.50	44..	74.985	812	10.83	25.27	73..	31.243	2.505	80.18	7.11
16..	95.550	732	7.66	44.85	45..	74.173	828	11.16	24.54	74..	28.738	2.501	87.03	6.68
17..	94.818	729	7.69	44.19	46..	73.345	848	11.56	23.81	75..	26.237	2.476	94.37	6.27
18..	94.089	727	7.73	43.53	47..	72.497	870	12.00	23.08	76..	23.761	2.431	102.31	5.88
19..	93.362	725	7.76	42.87	48..	71.627	896	12.51	22.36	77..	21.330	2.369	111.06	5.49
20..	92.637	723	7.80	42.20	49..	70.731	927	13.11	21.63	78..	18.961	2.291	120.83	5.11
21..	91.914	722	7.85	41.53	50..	69.804	962	13.78	20.91	79..	16.670	2.196	131.73	4.74
22..	91.192	721	7.91	40.85	51..	68.842	1.001	14.54	20.20	80..	14.474	2.091	144.47	4.39
23..	90.471	720	7.96	40.17	52..	67.841	1.044	15.39	19.49	81..	12.383	1.964	158.60	4.05
24..	89.751	719	8.01	39.49	53..	66.797	1.091	16.33	18.79	82..	10.419	1.816	174.30	3.71
25..	89.032	718	8.06	38.81	54..	65.706	1.143	17.40	18.09	83..	8.603	1.648	191.56	3.39
26..	88.314	718	8.13	38.12	55..	64.563	1.199	18.57	17.40	84..	6.955	1.470	211.36	3.08
27..	87.596	718	8.20	37.43	56..	63.364	1.260	19.88	16.72	85..	5.485	1.292	235.55	2.77
28..	86.878	718	8.26	36.73	57..	62.104	1.325	21.33	16.05	86..	4.193	1.114	265.68	2.47
29..	86.160	719	8.34	36.03	58..	60.779	1.394	22.94	15.39	87..	3.079	933	303.02	2.18
30..	85.441	720	8.43	35.33	59..	59.385	1.468	24.72	14.74	88..	2.146	744	346.69	1.91
31..	84.721	721	8.51	34.63	60..	57.917	1.546	26.69	14.10	89..	1.402	555	395.86	1.66
32..	84.000	723	8.61	33.93	61..	56.371	1.628	28.88	13.47	90..	847	385	454.54	1.42
33..	83.277	726	8.72	33.21	62..	54.743	1.713	31.29	12.86	91..	462	246	532.47	1.19
34..	82.551	729	8.83	32.50	63..	53.030	1.800	33.94	12.26	92..	216	137	634.26	.98
35..	81.822	732	8.95	31.78	64..	51.230	1.889	36.87	11.67	93..	79	58	734.18	.80
36..	81.090	737	9.09	31.07	65..	49.341	1.980	40.13	11.10	94..	21	18	857.14	.64
37..	80.353	742	9.23	30.35	66..	47.361	2.070	43.71	10.54	95..	3	3	1000.00	.50
38..	79.611	749	9.41	29.62	67..	45.291	2.158	47.65	10.00					

ALCOHOLISM DEATH RATE (PER 100,000 POPULATION) IN UNITED STATES.

States.	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927
California	8.6	8.0	7.5	6.9	6.2	6.6	6.5	4.3	2.6	1.0	2.0	2.9	2.9	3.4	2.9	3.2	3.8
Colorado	9.1	8.1	7.6	8.3	7.2	3.0	2.3	1.4	0.8	0.7	3.2	4.2	3.7	2.9	1.7	2.3	2.4
Connecticut	6.6	7.7	8.6	4.9	5.7	8.2	9.6	5.2	1.8	1.0	1.6	1.9	3.9	4.2	3.7	4.2	5.0
Delaware	....	....	....	....	....	....	....	....	2.3	0.9	1.8	6.1	5.2	5.6	5.5	5.0	4.5
Dist. of Col.	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2.7	2.6
Florida	....	....	....	....	....	....	....	....	1.4	1.9	2.9	4.2	3.6	4.4	4.9	6.8	4.9
Idaho	....	....	....	....	....	....	....	....	....	....	....	2.2	2.8	1.7	3.0	3.8	1.9
Illinois	....	....	....	....	....	....	....	1.8	1.5	0.7	1.9	3.1	4.2	3.5	4.2	4.7	5.6
Indiana	3.6	4.0	4.0	3.5	3.2	5.1	3.9	1.2	0.8	0.5	1.1	1.7	1.6	1.5	1.6	1.8	2.1
Iowa	....	....	....	....	....	....	....	....	....	....	....	....	1.5	1.2	1.4	2.1	2.2
Kansas	....	....	....	1.3	1.2	2.2	1.0	0.8	0.2	0.7	0.8	1.3	0.9	0.9	1.3	1.8	1.4
Kentucky	2.0	2.3	2.7	3.2	2.5	3.0	2.3	1.6	1.4	0.4	1.3	1.0	1.6	1.6	1.8	1.5	2.2
Louisiana	....	....	....	....	....	....	....	1.7	0.7	0.5	1.0	1.2	1.2	1.3	1.6	1.8	2.1
Maine	4.2	4.9	3.9	3.5	3.8	5.1	3.0	2.2	1.7	1.3	2.1	2.2	1.7	2.3	2.8	2.5	2.1
Maryland	4.0	5.1	5.8	5.1	4.3	5.5	5.0	3.7	1.7	0.7	2.9	3.0	5.7	5.3	6.1	7.6	11.0
Massachusetts	6.5	8.5	8.2	7.8	6.4	8.2	8.1	5.0	2.5	1.8	3.2	5.9	6.6	6.6	7.3	6.4	6.2
Michigan	3.2	3.8	4.6	3.6	3.1	7.1	7.5	2.5	1.1	1.5	2.2	3.7	5.3	3.8	4.2	4.8	4.4
Minnesota	4.4	4.2	6.1	6.2	4.9	4.3	4.3	2.4	1.4	0.8	1.8	2.6	3.2	2.4	3.3	4.0	3.1
Mississippi	....	....	....	....	....	....	....	....	0.6	0.3	0.6	0.6	1.0	0.4	0.9	0.9	1.4
Missouri	2.4	3.9	5.2	3.7	3.2	3.2	2.8	2.1	1.1	0.4	1.0	2.3	2.9	2.9	2.7	3.2	3.1
Montana	10.1	15.2	17.1	14.6	14.1	17.7	24.6	11.5	1.9	1.8	3.3	3.7	4.1	2.4	6.1	3.9	8.1
Nebraska	....	....	....	....	....	....	....	....	....	0.5	1.1	0.9	1.8	1.5	1.8	1.4	1.5
New Hampshire	4.6	8.3	6.4	6.2	4.3	7.8	5.5	3.2	1.6	1.8	2.7	5.2	5.6	3.8	4.2	3.1	4.2
New Jersey	5.4	5.7	7.0	5.3	4.5	6.6	5.2	2.5	1.5	0.9	1.5	3.3	4.0	4.0	4.6	4.6	4.4
New York	5.7	6.1	7.3	5.9	5.2	8.2	6.4	3.0	2.0	1.2	1.5	2.9	4.3	5.2	6.4	7.0	7.4
North Carolina	2.4	4.1	2.7	3.8	2.3	1.3	0.9	0.5	0.8	1.0	1.3	1.0	0.9	1.5	1.6	1.8	1.3
North Dakota	....	....	....	....	....	....	....	....	....	....	....	....	....	1.1	1.1	1.9	0.9
Ohio	4.8	5.2	6.5	4.3	4.2	6.3	7.4	4.0	2.6	1.2	2.1	2.7	2.3	2.1	2.2	3.4	3.2
Oregon	....	....	....	....	....	....	....	0.9	0.8	1.6	2.6	3.1	1.8	2.5	2.4	2.9	2.4
Pennsylvania	3.6	3.9	4.4	3.8	3.7	6.0	6.8	3.7	2.1	1.2	2.2	2.8	4.3	4.2	5.2	5.0	5.6
Rhode Island	8.0	5.2	7.3	6.7	5.2	8.9	9.2	4.2	2.7	1.3	3.3	4.8	6.7	7.8	5.7	7.1	6.8
South Carolina	....	....	....	....	....	1.2	0.8	0.5	0.5	0.5	0.8	0.9	0.9	1.2	1.4	1.1	1.5
Tennessee	....	....	....	....	....	....	1.0	0.9	0.9	0.9	1.4	1.1	1.3	1.0	1.4	1.5	1.4
Utah	5.2	4.9	7.5	7.4	3.6	5.2	4.9	0.7	0.7	1.1	1.7	1.7	2.1	2.3	2.2	2.5	1.5
Vermont	4.8	5.1	5.1	4.8	4.5	2.8	3.4	3.1	2.3	1.4	1.7	3.7	3.7	2.8	2.6	3.1	2.3
Virginia	....	....	3.0	3.3	3.0	2.7	1.0	1.0	0.7	0.8	1.8	2.1	2.1	1.5	1.8	1.5	1.9
Washington	6.5	6.6	8.2	8.4	5.9	2.8	1.8	2.4	2.3	2.6	2.7	2.6	3.1	2.9	3.9	4.1	3.3
Wisconsin	4.2	3.6	4.8	4.1	4.2	5.6	4.2	3.8	1.5	0.8	1.6	1.8	2.8	2.9	2.6	3.2	3.4
Wyoming	....	....	....	....	....	....	....	....	....	....	....	3.9	8.0	9.2	5.7	8.9	5.8
United States	4.9	5.3	5.9	4.9	4.4	5.8	5.2	2.7	1.6	1.0	1.8	2.6	3.2	3.2	3.6	3.9	4.0

Deaths from alcoholism in Death Registration Area—(1910) 2,909; (1911) 2,875; (1912) 3,183; (1913) 3,744; (1914) 3,257; (1915) 2,945; (1916) 4,161; (1917) 3,907; (1918) 2,198; (1919) 1,367; (1920) 900; (1921) 1,611; (1922) 2,467; (1923) 3,148; (1924) 3,155; (1925) 3,694; (1926) 4,109; (1927) 4,372.

CIRRHOSIS OF THE LIVER DEATH RATE (PER 100,000 POPULATION) IN THE U. S.

Cirrhosis of the liver—"hob-nail" liver—is a disease due to alcoholism.)

States	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927
California	20.1	20.0	17.7	15.4	14.6	15.4	15.1	14.2	12.5	9.5	9.8	10.5	10.0	11.1	10.2	11.8	12.2
Colorado	11.3	8.4	7.5	7.2	7.3	7.1	7.0	6.2	4.2	4.1	5.6	6.4	5.4	6.2	4.7	4.8	6.3
Connecticut	14.4	12.2	12.1	13.7	11.5	11.7	11.0	10.7	9.3	6.7	7.0	7.6	7.5	5.9	6.2	6.1	6.8
Delaware	....	....	....	....	....	....	....	....	5.9	5.4	8.0	7.9	5.2	11.2	8.8	5.8	4.1
Dist. of Col.	13.4	12.4	10.6	11.7	13.7	8.5	10.2	7.1	6.5	4.7	6.6	6.9	7.4	6.0	8.8	7.6	8.7
Florida	....	....	....	....	....	....	....	....	6.6	7.1	8.7	10.4	10.3	9.1	8.0	6.4	9.0
Idaho	....	....	....	....	....	....	....	....	....	....	....	2.4	3.6	2.9	3.3	4.2	3.9
Illinois	....	....	....	....	....	....	....	10.9	9.9	8.7	8.3	9.8	10.1	9.1	9.9	9.2	10.0
Indiana	12.6	13.1	12.1	12.9	13.8	13.6	12.8	11.3	8.9	9.8	9.6	9.4	8.3	9.5	8.5	8.8	8.2
Iowa	....	....	....	....	....	....	....	....	....	....	....	....	4.8	4.9	5.5	5.7	5.9
Kansas	....	....	....	7.7	8.0	8.8	7.6	7.4	7.1	6.3	7.0	5.4	6.0	6.8	6.5	6.2	7.5
Kentucky	8.7	8.8	8.3	8.3	6.7	7.6	7.2	5.8	4.5	4.1	5.3	5.7	4.2	5.4	5.2	4.8	5.0
Louisiana	....	....	....	....	....	....	....	10.2	8.2	8.9	9.6	9.9	8.8	8.9	9.3	9.8	9.2
Maine	5.4	6.7	7.7	6.9	8.5	8.4	6.7	4.3	6.1	4.4	4.4	6.5	6.0	4.1	5.5	5.1	7.1
Maryland	12.6	10.1	10.3	9.8	9.1	10.9	11.4	9.5	8.2	6.2	6.2	7.0	6.8	6.8	6.7	6.1	5.6
Massachusetts	9.9	10.0	10.3	9.3	9.3	9.7	8.3	7.5	5.7	5.4	5.3	5.8	5.2	5.4	5.5	5.7	5.3
Michigan	11.6	12.0	10.6	12.2	11.8	13.2	10.9	9.5	8.0	8.3	7.6	7.1	7.8	7.9	8.3	7.3	7.5
Minnesota	8.5	7.6	7.5	9.2	7.6	6.6	6.9	7.0	6.3	4.8	6.6	4.9	5.6	5.5	4.5	6.3	5.4
Mississippi	....	....	....	....	....	....	....	....	3.7	5.0	4.2	4.0	4.9	5.8	4.1	5.7	7.0
Missouri	14.1	15.8	13.5	13.1	12.9	12.2	13.1	10.9	9.5	8.0	9.3	10.3	9.1	9.4	9.6	9.7	9.8
Montana	11.1	8.7	12.5	12.0	9.8	10.9	13.1	8.0	5.7	6.6	6.1	6.2	4.7	6.7	5.7	6.2	6.3
Nebraska	....	....	....	....	....	....	....	....	....	4.5	5.1	5.4	6.4	6.5	5.6	5.1	4.7
New Hampshire	11.8	10.4	11.3	13.1	12.1	14.6	13.2	11.1	9.0	7.4	9.2	9.4	5.4	6.9	6.6	9.3	6.4
New Jersey	15.2	15.8	15.6	15.4	15.8	15.4	14.9	11.0	8.8	7.8	8.5	9.0	9.0	10.3	8.9	8.9	8.5
New York	18.2	16.6	16.9	16.8	15.7	16.2	14.4	11.6	9.1	11.3	9.0	9.3	8.4	9.4	9.7	9.2	9.7
North Carolina	8.2	7.9	8.7	5.7	8.2	4.8	4.1	4.4	3.3	3.7	3.9	4.1	3.7	3.4	3.6	3.3	3.7
North Dakota	....	....	....	....	....	....	....	....	....	....	....	....	....	2.9	3.0	2.8	3.9
Ohio	14.8	14.0	14.6	14.9	13.7	14.0	14.2	12.0	9.7	9.1	8.2	8.2	8.0	8.1	7.9	7.5	8.3
Oregon	....	....	....	....	....	....	....	4.7	7.6	6.3	6.6	5.8	6.2	6.7	5.0	5.6	5.5
Pennsylvania	13.7	13.0	14.3	12.9	13.0	13.5	12.8	11.6	8.9	8.8	8.3	8.4	9.4	9.0	8.9	8.9	9.2
Rhode Island	15.1	15.4	14.9	10.7	13.4	12.7	11.4	9.1	9.1	6.3	9.4	5.0	8.1	7.0	5.2	6.8	5.5
South Carolina	....	....	....	....	....	3.1	2.6	2.7	2.4	2.7	2.7	3.4	2.2	3.5	2.4	2.5	2.6
Tennessee	....	....	....	....	....	....	5.5	4.8	5.2	4.0	4.2	3.5	2.9	2.7	3.9	4.1	3.8
Utah	5.5	6.1	6.8	7.4	7.5	7.1	5.1	3.4	4.9	3.5	5.4	4.5	5.9	3.7	2.4	3.3	4.2
Vermont	11.5	8.7	9.9	11.9	13.3	5.7	10.2	4.5	4.3	6.2	9.1	5.7	5.1	3.1	7.7	5.7	6.5
Virginia	....	....	7.7	7.2	6.9	6.1	5.5	5.6	4.8	4.4	4.8	5.2	5.2	5.4	5.3	3.9	5.0
Washington	6.2	8.0	6.1	7.8	9.3	6.9	5.4	6.0	4.2	4.2	5.4	4.3	4.4	5.8	5.8	4.4	4.4
Wisconsin	12.4	9.7	13.4	12.1	11.3	11.4	11.2	8.2	8.0	7.1	6.9	7.4	7.4	7.7	6.9	6.9	8.6
Wyoming	....	....	....	....	....	....	....	....	....	....	....	4.8	4.2	5.5	5.2	5 5	4.6
United States	14.0	13.5	13.4	13.0	12.6	12.3	11.4	9.6	7.9	7.1	7.4	7.5	7.2	7.4	7.3	7.2	7.5

Deaths from cirrhosis of the liver in U. S. Death Registration Area—(1910) 7,485; (1911) 8,310; (1912) 8,176; (1913) 8,497; (1914) 8,526; (1915) 8,439; (1916) 8,799; (1917) 8,567; (1918) 7,794; (1919) 6,704; (1920) 6,241; (1912) 6,598; (1922) 6,977; (1923) 7,027; (1924) 7,344; (1925) 7,549; (1926) 7,591; (1927) 8,098.

ARE AMERICANS GROWING HEALTHIER?

The following death rates per 100,000 population, have been compiled by the Bureau of the Census, and cover the death registration area in continental United States and are exclusive of stillbirths.

Year.	All Causes.	Suicide.	Homicide	Auto. Fatal	Other External Accident	Typhoid &Paraty.	Malaria	Measles.	Scarlet Fever.	Whoop. Cough.
1911.....	1,418.1	.....	.....	.....	.....	21.0	3.0	10.0	8.9	11.3
1912.....	1,388.8	16.0	6.6	2.9	79.5	16.5	3.1	7.0	6.7	9.3
1913.....	1,409.6	15.8	7.2	3.9	81.6	17.9	2.5	12.8	8.7	10.0
1914.....	1,364.6	16.6	7.4	4.3	74.4	15.5	2.2	6.8	6.6	10.4
1915.....	1,355.0	16.7	7.0	5.9	70.7	12.4	2.3	5.4	3.6	8.1
1916.....	1,404.3	14.2	7.1	7.3	76.9	13.3	3.0	11.1	3.3	10.2
1917.....	1,425.5	13.4	7.7	9.0	79.2	13.5	3.2	14.3	4.2	10.5
1918.....	1,809.1	12.2	6.8	9.3	73.0	12.6	3.1	10.8	3.0	16.9
1919.....	1,287.4	11.4	7.5	9.4	62.5	9.2	3.8	3.9	2.8	5.5
1920.....	1,306.0	10.2	7.1	10.4	61.0	7.8	3.6	8.8	4.6	12.5
1921.....	1,163.9	12.6	8.5	11.5	57.2	9.0	3.6	4.3	5.3	9.1
1922.....	1,181.7	11.9	8.4	12.5	57.5	7.5	3.6	4.3	3.5	5.6
1923.....	1,230.1	11.6	8.1	14.9	61.5	6.8	2.8	10.3	3.5	9.7
1924.....	1,183.5	12.2	8.5	15.7	60.7	6.7	2.5	8.6	3.1	8.3
1925.....	1,182.3	12.1	8.6	17.0	61.4	8.0	2.1	2.3	2.7	6.7
1926.....	1,222.7	12.8	8.8	17.9	60.7	6.5	1.9	8.2	2.5	8.9
1927.....	1,141.9	13.3	8.7	19.5	58.9	5.5	2.7	4.1	2.3	6.9

Year.	Diphtheria.	Influenza.	Tuberc. Lungs.	Tuberc. Meng.	Other Tuberc.	Rheumatism.	Cancer, Malig. Tumor.	Diabetes Mellit.	Meningitis.	Apopl, Brain Soft'g.	Heart Dis., Organic.
1911..	18.9	15.7	.....	.....	.....	.....	.....	.....	.....	.....	.....
1912..	18.2	10.3	130.0	8.4	11.3	6.7	77.1	15.0	11.5	77.5	142.8
1913..	18.9	12.2	127.9	8.7	11.3	7.1	79.0	15.3	10.4	76.5	138.9
1914..	17.9	9.1	128.2	8.2	10.8	6.6	79.6	16.2	8.8	79.6	142.2
1915..	15.7	16.0	128.2	8.1	10.1	6.2	81.4	17.5	7.4	81.1	147.6
1916..	14.5	26.5	124.3	8.0	9.8	5.8	82.1	17.1	7.1	82.9	150.6
1917..	16.6	17.3	129.4	8.1	9.5	5.9	82.0	17.0	9.2	84.4	153.8
1918..	13.9	300.8	133.2	7.3	9.5	5.1	80.3	15.9	9.9	81.2	153.3
1919..	14.7	98.8	111.3	6.1	8.3	4.6	80.5	14.9	6.5	78.6	131.0
1920..	15.3	71.0	100.8	5.6	7.8	4.9	83.4	16.1	6.0	81.9	141.9
1921..	17.7	11.5	86.0	4.8	8.6	4.8	86.0	16.8	4.2	83.6	140.9
1922..	14.6	31.4	84.8	4.4	7.8	4.4	86.8	18.4	3.6	86.0	148.4
1923..	12.1	44.7	82.0	4.1	7.5	4.2	89.4	17.9	3.8	90.5	157.3
1924..	9.4	19.5	78.7	4.0	7.7	4.6	91.9	16.6	3.4	92.7	159.1
1925..	7.8	29.6	75.7	3.6	7.3	4.0	92.6	16.9	3.3	84.4	163.6
1926..	7.5	40.7	76.4	3.6	7.1	4.0	94.9	18.0	3.1	86.3	175.8
1927..	7.8	22.6	71.3	3.3	6.2	3.9	95.6	17.5	2.8	84.0	171.9

Year.	Bronchitis.	Pneumonia.	Other Respir. Dis.	Infant Diarrh., Ent.	Appendicitis.	Hernia, Etc.	Liver, Cirrhosis.	Acute Kidney, Bright's.	Puerperal Septic.	Other Puerperal.	Congen Debility, Etc.
1912..	19.3	132.4	14.4	70.4	11.6	11.9	13.5	103.2	6.5	8.5	80.5
1913..	18.0	132.6	13.9	75.3	12.1	11.6	13.4	103.0	7.2	8.7	83.2
1914..	17.4	127.3	13.4	66.1	12.3	11.7	13.0	102.6	7.1	8.9	79.5
1915..	17.4	133.1	12.6	59.8	12.5	11.3	12.6	105.1	6.3	9.0	76.2
1916..	16.2	137.8	11.9	65.8	12.8	11 3	12.3	105.6	6.7	9.6	77.8
1917..	16.4	150.5	12.3	64.3	12.6	11.6	11.4	107.9	6.9	9.8	76.0
1918..	15.7	286.2	12.8	58.7	12.2	11.5	9.6	97.6	6.5	15.9	77.9
1919..	12.8	123.5	10.4	44.2	11.8	10.4	7.9	88.1	5.8	11.2	66.6
1920..	13.3	137.3	11.6	44.0	13.4	10.6	7.1	89.4	6.6	12.5	69.8
1921..	9.0	88.2	9.9	41.9	14.4	10.7	7.4	85.4	6.8	10.1	68.0
1922..	9.4	102.1	9.9	32.5	14.2	10.6	7.5	88.5	5.7	10.0	63.2
1923..	9.1	109.0	9.8	32.4	14.8	10.5	7.2	90.1	5.8	9.8	62.9
1924..	7.3	98.2	9.0	27.8	14.9	10.6	7.4	89.6	5.8	9.7	62.4
1925..	6.5	93.5	8.6	31.5	15.1	10.8	7.3	96.4	5.5	9.4	58.8
1926..	6.6	102.5	8.8	27.0	15.0	11.2	7.2	98.3	5.2	9.1	57.4
1927..	5.4	80.6	8.3	21.6	15.0	10.4	7.5	92.4	5.3	8.4	53.6

Accidents snuffed out the lives of nearly 96,000 persons during 1928 in the United States, according to the report to the National Safety Council presented at Chicago, in September, 1929, by Dr. Louis I. Dublin, insurance statistician:

"The fatal accident experience of the United States is made up of five important factors," the speaker said. "Automobile accidents come first with 28 per cent of the accident toll; falls account for 18 per cent; these are followed by drowning with 9 per cent; then by burns with 7 per cent, and by railroad accidents with 6 per cent of the accident total."

One-fourth of the fatal accidents in the United States happen to persons in their own homes, according to officials of the New York State Insurance Fund.

DEPTH OF CHEST DETERMINES HUMAN WEIGHT.

The theory behind weight machine diagrams and medical charts which for years have dictated what a person should weigh according to his height, is inaccurate, Dr. Mary Louise Boillin, research worker at Teachers College, Columbia University, reported in September, 1929, adding that a survey had shown that height is an almost negligible factor in determining weight.

Working in cooperation with the American Child Health Association, she observed a group of 815 students of Wellesley College.

The only accurate method for determining weight, she discovered, is from a combination of five skeletal dimensions, shoulder width, width of hips, chest width, chest depth and height.

Of all the measurements used, chest depth was found to be more closely associated with weight than any other factor.

Shoulder width was the least important, and height the next lowest.

Shoulder width and depth, Dr. Boillin declared, are responsible for more than one-half of the difference in weight between persons of approximately the same height.

Chest depth alone, she said, is twice as important in determining average weight as any other factor.

If a person is underweight according to his chest dimensions, there is more indication of malnutrition than if he is underweight according to his height, Dr. Boillin asserted.

Underweight, as indicated by the height charts, usually means that the person has small chest dimensions. Consequently, she explained, he usually is not underweight at all.

A chart prepared by Dr. Boillin to coincide with the findings of her study reveals the importance of each weight determining factor, as follows:

Biacromial or shoulder width, 9 per cent; height, 16 per cent; width of hips, 20 per cent; width of chest, 23 per cent, and depth of chest, 32 per cent.

DEATH RATES THROUGHOUT THE WORLD.

(Compiled from published data by John K. Gore, Vice Pres. and Actuary, Prudential Life Ins. Co., of Amer.)

Death rates "all causes" are per 1,000 population; all the others are per 100,000 population.

Country.	All Causes.		Tuberculosis.		Heart Diseases.		Diabetes.		Cancer.		Nerves.		Respiratory.		Digestive.	
	1921-1925.	1901-1905.	1921-1925.	1901-1905.	1921-1925.	1901-1905.	1921-1925.	1901-1905.	1921-1925.	1901-1905.	1921-1925.	1901-1905.	1921-1925.	1901-1905.	1921-1925.	1901-1905.
Australia	9.4	12.3	60	77	112	115	12	6	92	65	90	106	106	133	90	141
Austria	15.0	22.6	....	....	....	....	....	....	128	75	....	....	....	....	....	....
Belgium	13.9	15.7	103	138	161	155	11	....	82	59	120	118	198	279	118	173
Ceylon	29.4	28.0	75	103	13	2	6	3	9	6	367	308	270	188	422	564
Chile	30.4	30.6	250	281	166	138	....	....	39	34	323	187	....	....	....	....
Costa Rica	....	....	74	85	....	....	3	....	40	30	201	362	231	215	527	685
England, Wales	10.9	16.0	108	175	154	145	11	9	128	87	125	185	206	281	74	139
France	14.2	16.3	175	247	136	154	....	....	68	94	....	....	209	282	....	....
Germany	13.3	18.7	....	....	....	....	....	....	93	76	122	166	....	....	123	334
Hawaii	16.0	17.7	145	191	99	100	8	3	62	20	95	158	255	93	271	159
Hungary	18.9	24.1	....	....	121	73	....	....	77	41	198	163	267	233	228	225
Ireland	12.3	15.5	....	....	165	179	7	7	70	68	131	166	208	291	....	....
Japan	20.0	19.1	218	186	63	51	2	3	70	53	334	342	327	287	382	273
Netherlands	9.4	14.3	121	192	113	66	18	8	113	96	119	181	175	252	77	121
New Zealand	8.1	10.4	59	93	150	154	13	9	89	68	91	106	83	116	51	90
Norway	9.5	12.0	202	268	70	77	10	....	110	94	116	....	115	168	43	....
Ontario	10.3	12.2	64	119	131	85	12	9	92	51	98	152	119	146	96	115
Philippines	19.0	....	231	....	....	....	1	....	9	7	155	....	250	....	165	....
Porto Rico	22.0	23.5	....	....	77	73	2	2	31	22	60	90	348	275	514	555
Portugal	....	18.0	....	....	....	....	....	....	....	....	....	....	142	187	....	....
Scotland	12.8	16.7	118	217	147	164	10	7	129	85	177	111	221	150	79	115
Spain	19.4	25.1	155	198	201	192	7	4	61	45	287	383	339	452	421	477
Straits Settlements	34.8	44.4	312	....	83	36	4	13	9	440	557	515	....	190	229	
Sweden	9.6	12.7	156	199	76	114	13	11	113	102	101	103	125	167	54	72
Switzerland	11.4	16.5	149	262	....	....	9	6	132	123	77	103	136	191	75	191
Uruguay	13.3	14.6	160	130	80	71	6	3	73	53	96	122	140	145	130	136
United States	11.7	16.7	91	194	167	153	17	2	89	68	125	184	116	221	103	196

The figures in heavy black type are annual averages of the period, 1911-1915.

All the other figures are annual averages of the periods indicated.

INFANT DEATH RATES IN FIRST YEAR OF LIFE.

(Rates are per 1,000 born alive, and in United States cover registration area.)

The figures are annual averages for the period named.

Countries.	1901-05.	1910-14.	1921-25.
New Zealand	75	56	43
Norway	81	66	52
Australia	97	72	58
Sweden	91	72	60
Netherlands	92	103	64
Switzerland	134	102	65
United States	**123**	**106**	**72**
Union South Africa	....	88	73
Ireland	98	86	75
England, Wales	138	109	76
Denmark	119	99	82
Ontario	**115**	**112**	**84**
Scotland	120	109	92
France	139	119	95
Finland	131	111	96
Belgium	148	131	100
Dutch Guiana	134	137	105

Countries.	1901-05.	1910-14.	1921-25.
Uruguay	98	105	106
Hawaii	....	186	119
Germany	199	163	122
Italy	167	139	127
Austria	216	191	142
Spain	172	151	143
Porto Rico	....	154	147
Philippine Islands	197	171	156
Bulgaria	148	149	156
Japan	152	157	159
Jamaica	176	183	176
British India	....	208	184
Hungary	212	197	187
Ceylon	169	203	189
Straits Settlements	254	284	204
Roumania	208	194	205
Chile	....	285	265

INFANT DEATH RATES IN U. S., IN FIRST YEAR OF LIFE, BY NATIONALITIES.

(Rates are per 1,000 born alive, and cover registration area).

Birthplace of Mother.	Total.	Males.	Females.
White.			
Austria-Hungary	90.2	99.2	80.7
Canada	89.2	99.6	78.2
England, Scotland, Wales	67.7	75.2	59.8
Germany	72.0	80.4	63.1
Ireland	79.2	88.5	69.4
Italy	79.2	87.2	70.8
Poland	104.3	116.6	91.3
Russia	61.0	68.5	53.2

Birthplace of Mother.	Total.	Males.	Females
Scandinavia	60.4	65.3	55.3
Other Foreign Countries	102.2	112.3	91.4
Total Foreign Countries	84.5	93.6	74.9
United States	68.9	76.6	60.8
Total White	73.6	81.7	65.0
Negro	118.4	128.9	107.5
Other Colored	87.8	94.6	80.6
Grand Total	77.1	85.4	68.4

EXPECTATION OF LIFE IN FOREIGN COUNTRIES.

(Number of survivors, out of 100,000 born alive, based on yearly averages, 1901-1910.)

Countries.	At One Year.		At 20 Years.		At 30 Years.		At 40 Years.		At 50 Years.		At 60 Years.	
	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.
Australia	90,490	92,047	84,493	86,459	80,844	82,909	75,887	78,001	68,221	71,945	56,782	63,247
Denmark	87,934	90,229	82,207	84,180	78,862	80,598	74,773	76,341	68,284	70,990	57,639	62,958
Germany	79,766	82,952	70,645	73,564	67,092	69,848	62,598	65,288	55,340	59,812	43,807	50,780
India	71,002	71,540	43,833	44,828	35,831	36,745	27,126	28,139	18,658	19,714	11,229	12,165
Italy	83,229	84,789	68,579	68,891	64,108	64,103	59,669	59,215	52,799	54,097	44,902	46,638
Norway	91,855	93,321	82,817	84,459	75,866	79,064	70,408	73,449	64,366	67,660	55,962	60,032
England	85,566	88,257	76,112	78,756	72,741	75,779	67,668	71,308	59,908	64,742	47,564	54,157
" "	91,004	93,058	82,748	85,938	80,549	83,019	76,294	79,381	69,916	74,246	58,804	65,202
United States	87,262	89,449	77,957	80,581	73,222	76,009	66,996	70,383	58,963	66,539	47,701	53,104
" "	91,567	93,268	84,283	86,577	79,793	81,580	74,224	76,054	67,440	69,856	56,772	59,967

BIRTHS AND DEATHS IN THE UNITED STATES.

Figures cover birth registration area, including the Dist. of Col., and are exclusive of still births.

Year.	Births.				Deaths.				Population of Area.
	Males	Females	Total		Males	Females	Total		
			Number.	Rate.			*Number.*	Rate	
1915.....	398,615	377,689	776,304	25.1	234,871	201,722	436,593	14.1	30,936,179
1916.....	420,881	398,102	818,983	25.0	264,498	222,184	486,682	14.8	32,788,670
1917.....	696,101	657,691	1,353,792	24.7	433,359	352,863	776,222	14.2	54,771,416
1918.....	701,164	662,485	1,363,649	24.6	534,720	461,907	996,627	18.3	55,515,241
1919.....	705,593	667,845	1,373,438	22.3	422,252	375,852	798,104	13.0	61,483,423
1920.....	775,322	733,552	1,508,874	23.7	438,201	397,933	836,134	13.1	63,659,441
1921.....	881,591	832,670	1,714,261	24.3	434,019	391,492	825,511	11.7	70,425,705
1922.....	911,831	863,080	1,774,911	22.5	497,967	440,578	938,545	11.9	78,885,852
1923.....	921,020	871,626	1,792,646	22.4	528,429	463,808	992,237	12.4	79,952,425
1924.....	992,431	938,183	1,930,614	22.6	542,637	464,357	1,006,994	11.8	85,424,653
1925.....	966,973	911,907	1,878,880	21.4	555,267	475,251	1,030,518	11.8	87,636,000
1926.....	953,638	902,430	1,856,068	20.6	589,653	503,858	1,093,511	12.1	89,988,000
1927	1,099,287	1,038,549	2,137,836	20.6	638,080	538,725	1,176,805	11.4	103,591,000
1928	1,147,625	1,085,524	2,233,149	19.7	738,891	623,096	1,361,987	12.0	113,348,000

Rates in the above table are per 1,000 population; 1928 figures are provisional.

DEATHS AND DEATH RATES IN DEATH REGISTRATION AREA.

Year.	Population.	Deaths.	Per 1,000 Pop.	Year.	Population.	Deaths.	Per 1,000 Pop.	Year.	Population.	Deaths.	Per 1,000 Pop.
1910..	53,831,742	805,412	15.0	1917..	74,984,498	1,068,932	14.3	1923.	96,986,371	1,193,017	12.3
1911..	59,183,071	839,284	14.2	1918..	81,333,675	1,471,367	18.1	1924.	99,200,298	1,173,990	11.8
1912..	60,359,974	838,251	13.9	1919..	85,166,043	1,096,436	12.9	1925.	103,108,000	1,219,019	11.8
1913..	63,200,625	890,848	14.1	1920..	87,486,713	1,142,558	13.1	1926.	105,167,000	1,285,927	12.2
1914..	65,813,315	898,059	13.6	1921..	88,667,602	1,032,009	11.6	1927.	108,327,000	1,236,949	11.4
1915..	67,095,681	909,155	13.6	1922..	93,241,643	1,101,863	11.8	1928.	114,495,000	1,378,675	12.0
1916..	71,349,162	1,001,921	14.0								

It is estimated by the U. S. Public Health authorities that 50,000,000 people suffer in an average year from colds and bronchitis; 17,000,000 from influenza and grippe; 11,000,000 from diseases of the digestive system; 8,000,000 from tonsilitis and sore throat, and 5,000,000 from diseases of the nervous system.

Cost of illness in an average year in this country has been estimated as follows: physicians and quacks, $865,000,000; dispensaries, $2,300,000; hospital care, $404,500,000; nurses at home, $152,000,000; medicines, $700,000,000; dentists, $285,000,000; loss of wages, $1,245,000,000; other and total,—$3,730,000.

BIRTHS AND DEATHS IN 1928, BY STATES.

Area.	Births.	Deaths.		Area.	Births.	Deaths.		Area.	Births.	Deaths.	
		All Ages.	Under 1 Yr.			All Ages.	Under 1 Yr.			All Ages.	Under 1 Yr.
Birth reg. area...	*No.* 2,233,149	*No.* 1,361,987	*No.* 133,719	Ia.....	*No.* 42,774	*No.* 25,313	*No.* 2,302	N.C...	*No.* 80,893	*No.* 36,165	*No.* 6,903
				Kan...	33,691	20,922	1,903	N. Dak	14,176	5,264	839
				Ky.....	57,954	30,228	4,109	Ohio..	119,845	80,209	7,956
Ala....	63,555	31,854	4,765	La.....	41,400	24,984	3,292	Okla..	42,991	21,075	2,964
Ariz...	8,903	6,453	1,266	Me.....	16,404	11,005	1,134	Ore....	14,035	10,488	658
Ark...	33,183	20,012	2,557	Md.....	31,724	21,653	2,533	Penn..	200,769	119,616	14,507
Cal....	83,387	65,947	5,178	Mich..	97,500	54,751	6,789	R.I....	13,021	8,398	878
Col....	19,022	14,063	1,708	Minn..	49,413	25,979	2,658	S.C....	43,285	24,427	4,178
Conn..	28,017	17,929	1,653	Miss...	48,034	25,900	3,569	Tenn..	50,363	31,391	4,070
Del....	4,311	3,196	338	Mo....	63,239	45,280	4,164	Vt.....	7,042	4,886	457
Fla....	29,828	18,953	2,002	Mont.	9,936	5,781	613	Va....	56,518	36,203	4,298
Ga....	59,143	36,011	4,822	Neb...	28,029	13,489	1,448	Wash.	22,863	16,714	1,113
Idaho..	9,081	4,040	504	N.H...	8,665	6,442	602	W.Va.	43,387	17,511	3,045
Ill....	129,668	90,192	8,321	N.J....	70,080	44,960	4,568	Wis....	57,398	31,788	3,526
Ind....	60,289	40,494	3,767	N.Y...	223,084	151,637	14,394	Wyo..	4,496	2,151	307

U. S. Rate per 1,000 estimated population—Births (1928) 19.7; (1927) 20.6. Deaths (1928) 12.0; (1927) 11.4.

Infant mortality (deaths under 1 year per 1,000 births)—(1928) 67.9; (1928) 64.6.

In 1927, as shown by a Government census, 869,346 caskets and coffins were manufactured by establishments engaged primarily in that cheerful line of business.

The total wholesale value of these cases for the dead was $53,824,822.

Shipping boxes, and other supplies used by undertakers, who now are called morticians, raised the coffin total to $74,890,850.

In addition, outsiders in that year made coffins and caskets valued at $1,177,420.

BIRTHS, DEATHS AND RATES IN zNITED STATES CITIES IN 1928.

Cities.	Births.	Deaths	Birth Rate	Death Rate	Infant Death Rate	Cities.	Births.	Deaths	Birth Rate	Death Rate	Infant Death Rate
Chicago....	65,724	39,562	20.82	12.53	57.28	Buffalo.....	12,079	7,449	21.73	13.40	74.01
Philadelphia	36,903	26,930	17.88	13.05	70.59	Washingt'n	8,994	7,239	16.29	13.11	64.71
Detroit....	32,421	16,061	23.51	11.65	77.39	Newark....	9,802	5,735	20.68	12.10	63.66
Los Angeles.	17,758	13,557	14.79	11.29	64.59	Minneap'lls	8,348	4,946	18.31	10.85	51.02
Cleveland....	17,929	10,344	17.74	10.24	60.18	Cincinnati...	9,028	7,583	21.82	18.33	85.73
Baltimore....	16,338	11,929	19.06	14.36	79.26	Seattle.....	4,993	3,985	13.03	10.40	42.66
Boston.....	18,751	11,583	23.46	14.47	77.11	St. Paul....	5,112	3,044	17.15	10.21	53.99
Pittsburgh..	15,129	10,095	22.45	14.98	76.75	Providence..	5,939	3,517	21.64	12.82	63.30
S Francisco	8,171	8,274	12.19	12.34	45.65	New York...	126,332	78,091	21.00	12.98	65.54
Milwaukee..	12,495	6,115	22.31	10.92	67.70						

Birth and death rates are per 1,000 population; infant death rate, per 1,000 live births reported.'.

INFANT MORTALITY IN 25 LARGE CITIES, 1916-1928.

(Data compiled by the American Child Health Association.)

Rank by population.	Name of City.	Infant Mortality Rates. (Deaths of infants under one year per 1,000 live births.) Average. 1916-20.	1921-25.	1922.	1923.	1924.	1925.	1926.	1927.	1928.
1	New York, N. Y.	88	69	75	67	68	65	68	56	59
2	Chicago, Ill.	.....	*81*	84	87	77	75	67	63	64
3	Philadelphia, Pa.	104	79	83	80	75	77	78	64	71
4	Detroit, Mich.	103	83	87	87	79	80	84	70	77
5	Cleveland, Ohio	100	70	78	67	66	66	72	56	60
6	St. Louis, Mo.	*83*	*66*	*59*	*70*	*67*	*67*	*75*	57	64
7	Boston, Mass.	103	82	92	82	74	85	84	77	77
8	Baltimore, Md.	119	86	92	86	85	82	83	81	82
9	Pittsburgh, Pa.	120	93	96	98	92	81	82	72	75
10	Los Angeles, Cal.	*71*	69	73	72	66	67	59	66	66
11	Buffalo, New York	110	91	103	90	84	86	84	72	74
12	San Francisco, Calif.	*64*	*55*	56	58	56	55	50	50	46
13	Milwaukee, Wis.	103	79	83	79	70	81	75	68	71
14	Washington, D. C.	98	85	85	92	76	87	85	68	66
15	Newark, N. J.	.....	70	75	68	65	68	70	61	61
16	Cincinnati, Ohio	92	77	74	80	79	77	89	73	86
17	New Orleans, La.	*105*	*84*	*79*	*75*	*82*	*103*	*80*	88	79
18	Minneapolis, Minn.	71	56	54	54	54	61	56	47	51
19	Kansas City, Mo.	*107*	*92*	*100*	*92*	*83*	*83*	*86*	70	76
20	Seattle, Wash.	59	49	50	50	46	45	47	41	43
21	Indianapolis, Ind.	89	77	77	86	77	70	77	62	66
22	Jersey City, N. J.	.....	78	86	76	77	68	67	63	85
23	Rochester, N. Y.	84	70	78	68	59	64	67	63	60
24	Portland, Ore.	*65*	*52*	*56*	*53*	*54*	*46*	*39*	*47*	*43*
25	Denver, Colo.	*94*	*86*	*85*	*89*	*92*	*82*	*75*	*81*	*91*

BIRTH AND DEATH RATES IN EUROPEAN COUNTRIES.

	Birth-rate.		Death-rate.		Nat'l Inc.	
	1926.	1925.	1926.	1925.	1926.	'25.
England & Wales	17.8	18.3	11.7	12.2	6.1	6.1
Scotland	20.9	21.3	13.0	13.4	7.2	7.9
Irish Free State	20.5	19.6	14.1	13.8	6.5	5.8
Northern Ireland	22.5	22.0	15.6	15.7	7.5	6.3
Norway	19.7	20.0	10.6	10.9	9.1	9.1
Sweden	16.9	17.5	11.8	11.7	5.1	5.8
Finland	22.3a	22.4c	13.5a	15.3c	8.8a	7.1
Denmark	20.5	21.1	11.0	10.9	9.5	10.2
Netherlands	23.8	24.1	9.8	9.6	14.0	14.5
Belgium	19.8a	19.7	13.1a	13.1	6.7a	6.6
Germany	19.5	20.6	11.7	11.9	7.8	8.7
Switzerland	18.2	18.4	11.7	12.2	6.5	6.2
Czechoslovakia	25.2	25.1	15.6	15.2	9.6	9.9

	Birth-rate.		Death-rate.		Nat'l. Inc.	
	1926.	1925.	1926.	1925.	1926.	1925.
Austria	21.4a	21.6c	14.5a	14.9c	6.9a	6.7
France	18.8	19.1	17.5	17.7	1.3	1.4
Spain	22.0	29.3	19.0	19.4	10.0	9.9
Portugal	34.6b	36.4d	23.2b	22.1d	11.4b	14.3
Italy	27.5a	27.5	16.6a	16.6	10.9a	10.9
Bulgaria	36.7b	36.7b	20.8b	21.6b	15.9b	15.1
Roumania	36.2a	33.0c	21.7a	19.6	14.5a	13.4
Hungary	26.7	28.3	16.5	17.1	10.2	11.2
Lithuania	26.7	28.9	14.3	16.9	12.4	12.0
Latvia	22.0	22.2	14.7	14.9	7.3	7.3
Estonia	17.7	18.2c	16.0	15.2c	1.7	3.0
U. S. S. R.	48.0a	40.9b	25.9a	21.7b	21.1a	19.2
Ukraine	41.4a	41.4	18.7a	18.7	22.7a	22.7

a—1925. b—1923. c—1924. d—1922.

COULD ACCIDENTS BE PREVENTED?

(From the California Safety News, September, 1929.)

About eighteen months ago a man tailing off behind the matcher in a box factory noticed a large sliver back of the process saw of the machine. He stopped the feed rolls, and as the regular machine operator was not right at the machine, he reached into the matcher to remove the sliver.

This caught on the saw, pulled his hand in and cut it off at about the wrist.

A few days ago the blower fan broke down, and when it was raised out of its casing this hand was found in the bottom of the casing shell, cured and dried as nice as if it had been embalmed by one of the ancient Egyptians.

A man was tailing off behind a band resaw. They were setting up to resaw a 6-inch x 6-inch piece, and the machine operator wanted to withdraw this piece after the saw had started the cut, so the tail-off man thought he could help shove the stock back out of the machine.

He stuck his right foot into the machine and gave a push, the piece went back all right, but his foot passed the saw and when he withdrew it he cut off the little toe.

A boiler maker wanted to test a tank he had just finished building. The tank was constructed to carry about 15 pounds pressure per square inch.

He connected it up to a 95-pound pressure air line, and never will know how much pressure he had in it. When one head was blown out it nearly killed him.

An oiler in a certain sawmill did almost the same stunt, with more disastrous results.

A part of his duties was to keep a small reservoir, about 5 feet above the mill basement floor, filled with oil, from a barrel close by. In order to save time and labor, he connected this barrel to an 85-pound pressure air line, no reducing pressure or safety valves, and over to the oil reservoir.

The barrel was standing on end, it blew up, left the bottom head, and as it went up to the ceiling it caught the oiler under the chin and took away about one-half of his head.

AGAR-AGAR.

Agar-agar, sometimes called Japanese gelatin or vegetable isinglass, is a glutinous substance made from certain of the cartilaginous species of seaweeds.

The term "agar-agar" apparently is derived from a Malay word meaning "vegetable." In Japanese it is known as "kanten," equivalent of "cold sky," presumably because cold, clear weather is necessary for its production.

"Kanten" is the ordinary commercial grade of agar-agar, but there is also another product, "funori," an algae-glue, which is used in certain kinds of work as a glue or sizing.

The highest grade of Japanese agar-agar (No. 1) is sent to China, where it is in demand as a food, chiefly as a basis for soups. The lower grades, used industrially as a sizing for textiles and in the manufacture of candy, foodstuffs, medicinal preparations, and other products, are sent to Europe and America.

Agar-agar comes on the market in shriveled strips about 11 inches long and an eighth of an inch square. The colors vary from almost a pure white to a dark amber. The lighter colors constitute the better grades, although the chemical components of the different grades are the same. Agar-agar has no odor and is practically tasteless.

There are a number of varieties of the algae or seaweeds from which agar-agar is made. These are found and used for the manufacture of agar-agar principally in the Malay Archipelago, and along the coasts of China and Japan, although, in recent years, the seaweed growing in abundance along the Californian coast has been used in the manufacture of agar-agar in that State.

Foreign Trade of the United States.

MERCHANDISE IMPORTS AND EXPORT TOTALS, BY CALENDAR YEARS.

Year (Cal.)	Exports.			Imports.			Total Exp. and Imp.	Excess of Exp. Over Imp.
	Total.	Domestic.	Foreign.	Total.	Free.	Dutiable.		
	1,000 Dolls.	*1,000 Dolls.*	*1,000 Dolls.*	*1,000 Dolls.*	*1,000 Dolls.*	*1,000 Dolls.*	*1,000 Dolls.*	*1,000 Dolls.*
1900.....	1,477,946	1,453,010	24,936	829,150	342,289	486,861	2,307,096	648,796
1901.....	1,465,376	1,438,079	27,297	880,420	381,513	498,907	2,345,796	584,956
1902.....	1,360,686	1,333,269	27,418	969,317	408,640	560,677	2,330,003	391,369
1903.....	1,484,753	1,457,647	27,106	995,494	437,430	558,064	2,480,247	489,259
1904.....	1,451,319	1,425,711	25,608	1,035,909	490,617	545,292	2,487,228	415,410
1905.....	1,626,991	1,599,423	27,568	1,179,145	530,464	648,681	2,806,136	447,846
1906.....	1,798,243	1,772,716	25,527	1,320,502	591,745	728,757	3,118,745	477,742
1907.....	1,923,426	1,895,356	28,070	1,423,170	636,142	787,028	3,346,596	500,256
1908.....	1,752,835	1,728,670	24,165	1,116,374	504,644	611,730	2,869,209	636,461
1909.....	1,728,199	1,700,722	27,477	1,475,521	699,715	775,806	3,203,720	252,678
1910.....	1,866,259	1,829,023	37,236	1,562,904	769,427	793,477	3,429,163	303,355
1911.....	2,092,527	2,058,413	34,114	1,532,359	794,444	737,915	3,624,886	560,168
1912.....	2,399,218	2,362,696	36,522	1,818,073	992,344	825,729	4,217,291	581,145
1913.....	2,484,018	2,448,284	35,734	1,792,596	991,851	800,745	4,276,614	691,422
1914.....	2,113,624	2,071,058	42,566	1,789,276	1,097,938	691,338	3,902,900	324,348
1915.....	3,554,671	3,493,231	61,440	1,778,597	1,167,429	611,168	5,333,268	1,776,074
1916.....	5,482,641	5,422,642	59,999	2,391,635	1,611,887	779,748	7,874,276	3,091,006
1917.....	6,233,513	6,169,617	63,896	2,952,468	2,135,552	816,916	9,185,981	3,281,045
1918.....	6,149,088	6,047,875	101,213	3,031,213	2,230,353	800,860	9,180,301	3,117,875
1919.....	7,920,426	7,749,816	170,610	3,904,365	2,698,703	1,205,662	11,824,791	4,016,061
1920.....	8,228,016	8,080,481	147,535	5,278,481	3,117,010	2,161,471	13,506,497	2,949,535
1921.....	4,485,031	4,378,928	106,103	2,509,148	1,562,292	946,856	6,994,179	1,975,883
1922.....	3,831,777	3,765,091	66,686	3,112,747	1,871,917	1,240,830	6,944,524	719,030
1923.....	4,167,493	4,090,715	76,778	3,792,066	2,135,942	1,656,124	7,959,559	375,427
1924.....	4,590,984	4,497,649	93,335	3,609,963	2,080,096	1,529,867	8,200,947	981,021
1925.....	4,909,848	4,818,722	91,125	4,226,589	2,651,266	1,575,323	9,136,437	683,258
1926.....	4,808,660	4,711,721	96,939	4,430,888	2,853,411	1,577,477	9,239,548	377,772
1927.....	4,864,806	4,758,314	106,492	4,184,378	2,621,811	1,562,567	9,049,184	680,428
1927.....	4,865,375	4,758,864	106,511	4,184,742	2,621,811	1,562,567	9,050,117	680,633
1928.....	5,128,809	5,029,682	99,127	4,091,120	2,683,983	1,393,469	9,129,929	1,037,689

1928 full figures—general imports, $4,091,120,064; exports, $5,128,809,279 (domestic, $5,029,682,396); foreign, $99,126,883).

The above figures include the trade of Alaska, Hawaii and Porto Rico, with foreign countries, but do not include the trade of those territories with the United States, which is set forth below for the last three calendar years.

TRADE BETWEEN THE UNITED STATES AND ITS TERRITORIES, AND GUAM AND SAMOA.

(Shipments to and from Philippine Islands are included in statements of imports and exports to United States)

Territories	Shipments from United States			Shipments to United States		
	1926	1927	1928	1926	1927	1928
	Dollars	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*
Merchandise.....	193,093,780	201,890,280	192,304,094	261,892,634	257,640,748	282,012,076
Alaska.....	31,587,337	35,604,108	32,037,335	73,300,506	51,348,688	67,587,207
Hawaii.....	76,262,624	79,630,089	77,823,643	98,260,941	109,236,321	116,956,090
Porto Rico.....	84,737,537	86,326,546	81,981,460	90,160,856	96,902,024	97,268,763
Guam.....	275,230	208,660	357,788	86,298	112,863	60,081
American Samoa..	231,052	120,877	103,868	78,033	40,852	139,935
Gold and Silver.....	290,415	215,619	93,481	6,262,472	5,754,018	6,680,802
Alaska, foreign...	.....	.....	.....	30,530	9,180	6,553
domestic.	107,800	115,375	69,005	6,160,942	5,744,838	6,634,249
Hawaii, domestic....	105,214	68,644	24,376	71,000	.....	40,000
Porto Rico, domestic	77,401	31,600	.....	.....	.....	.....

MERCHANDISE IMPORT AND EXPORT TOTALS, BY FISCAL YEARS, BEFORE 1900.

Year. (Fisc.)	General Imports of Merchandise.			Exports of Merchandise.		
	Free.	Dutiable.	Total.	Domestic.	Foreign.	Total.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
1800.....	.....	.....	91,252,768	31,840,903	39,130,877	70,971,780
1810.....	.....	.....	85,400,000	42,366,675	24,791,295	66,757,970
1820.....	.....	.....	74,450,000	51,683,640	18,008,029	69,691,669
1830.....	4,590,281	58,130,675	62,720,956	58,524,878	13,145,857	71,670,735
1840.....	48,313,391	49,945,315	98,258,706	111,660,561	12,008,371	123,668,932
1850.....	18,081,590	155,427,936	172,509,526	134,900,233	9,475,493	144,375,726
1860.....	73,741,479	279,874,640	353,616,119	316,242,423	17,333,634	333,576,057
1870.....	20,140,786	415,817,622	435,958,408	376,616,473	16,155,295	392,771,763
1875.....	146,279,927	386,725,509	533,005,436	499,284,100	14,158,611	513,442,711
1880.....	208,301,863	459,652,883	667,954,746	823,946,353	11,692,305	835,638,658
1881.....	202,491,547	440,173,081	642,664,628	883,925,947	18,451,399	902,377,346
1882.....	210,579,007	514,060,567	724,639,574	733,239,732	17,302,525	750,542,257
1883.....	207,504,718	515,676,196	723,180,914	804,223,632	19,615,770	823,839,402
1884.....	209,884,184	457,813,509	667,697,693	724,964,852	15,548,757	740,513,609
1885.....	193,213,624	384,313,705	577,527,329	726,682,946	15,506,809	742,189,755
1886.....	212,159,296	423,276,840	635,436,136	665,964,529	13,560,301	679,524,830
1887.....	234,321,131	458,098,637	692,319,768	703,022,923	13,160,288	716,183,211
1888.....	244,071,615	479,885,499	723,957,114	683,862,104	12,092,403	695,954,507
1889.....	256,487,078	488,644,574	745,131,652	730,282,609	12,118,766	742,401,375
1890.....	265,668,629	523,641,780	789,310,409	845,293,828	12,534,856	857,828,684
1891.....	366,241,352	478,674,844	844,916,196	872,270,288	12,210,527	884,480,810
1892.....	457,999,658	369,402,804	827,402,462	1,015,732,011	14,546,137	1,030,278,148
1893.....	444,544,211	421,856,711	866,400,922	831,030,785	16,634,409	847,665,194
1894.....	379,795,536	275,199,086	654,994,622	869,204,937	22,935,635	892,140,572
1895.....	363,233,795	368,736,170	731,969,965	793,392,599	14,145,566	807,538,165
1896.....	369,757,470	409,967,204	779,724,674	863,200,487	19,406,451	882,606,938
1897.....	381,938,243	382,792,169	764,730,412	1,032,007,603	18,985,953	1,050,993,556
1898.....	291,414,175	324,635,479	616,049,654	1,210,291,913	21,190,417	1,231,482,350
1899.....	300,279,810	396,868,679	697,148,489	1,203,931,222	23,092,080	1,227,023,302

UNITED STATES FOREIGN TRADE, BY COUNTRIES IN 1928 (CAL. YR.).

Countries.	Exports From U. S.	Imports To U. S.
	Dollars.	*Dollars.*
GRAND TOTAL	**5,128,809,279**	**4,091,120,064**
North America	**1,322,882,238**	**960,263,601**
Northern	**925,639,726**	**499,655,459**
Canada	916,155,506	488,999,157
Greenland	8,386	448,898
Miquelon & St. P. Isl.	246,426	319,123
N. F. and Labrador	9,229,408	9,888,281
Southern	**397,242,512**	**460,608,142**
Mexico	115,651,922	124,521,996
Central America	82,145,319	45,419,266
British Honduras	1,837,099	2,850,807
Costa Rica	8,087,118	5,569,734
Guatemala	13,317,431	9,563,778
Honduras	9,728,645	12,288,574
Nicaragua	7,357,105	5,482,913
Panama	34,200,568	6,457,692
Salvador	7,617,353	3,205,768
W. Indies & Bermudas	199,445,271	290,666,880
British—		
Bermudas	3,458,263	944,513
Barbados	1,529,965	437,043
Jamaica	8,140,213	7,999,207
Trinidad & Tobago	4,716,393	9,674,047
Other Brit. W. Ind.	5,634,557	2,262,446
Cuba	127,859,693	202,677,889
Dominican Republican	16,826,981	9,374,145
Nertherland W. Indies	13,662,457	54,372,797
French West Indies	2,597,766	161,991
Haiti, Republic of	12,741,953	1,567,488
Virgin Isl. of U. S.	2,277,030	1,195,314
SOUTH AMERICA	**480,696,126**	**569,507,024**
North Coast	**98,955,437**	**135,553,354**
Colombia	58,595,919	94,619,472
Guiana—		
British	1,347,914	913,686
Surinam (Netherland)	1,034,074	1,090,623
French	157,551	66,347
Venezuela	37,819,979	37,863,226
East Coast	**306,425,367**	**332,468,812**
Argentina	178,898,648	99,484,924
Brazil	100,076,439	220,668,450
Falkland Islands	77,804	8,182
Paraguay	1,353,678	555,247
Uruguay	26,016,798	11,757,009
West Coast	**75,315,322**	**101,484,858**
Bolivia	4,950,524	203,927
Chile	40,360,606	75,159,582
Ecuador	6,594,723	5,345,429
Peru	23,409,469	20,775,920
EUROPE	**2,374,836,302**	**1,248,897,932**
Northwestern and Central	**1,975,018,957**	**1,054,336,030**
Austria	5,992,744	12,125,719
Belgium	111,864,679	75,100,431
Czechoslovakia	5,340,709	36,800,185
Denmark	47,172,934	3,940,898
France	240,690,853	158,656,233
Germany	467,205,408	221,978,785
Hungary	2,733,948	1,228,425
Iceland	296,715	327,140
Irish Free State	13,466,631	1,273,729
Netherlands	142,269,936	83,617,678
Norway	21,179,066	21,846,012
Sweden	57,322,423	46,118,949
Switzerland	12,206,250	42,887,185
United Kingdom	847,276,661	348,434,661
Northeastern	**109,487,194**	**32,781,331**
Estonia	960,323	1,080,080
Finland	18,741,541	9,901,292
Latvia	1,070,889	3,847,488
Lithuania	324,525	410,772
Poland and Danzig	15,875,960	3,594,026

Countries.	Exports From U. S.	Imports To U. S.
	Dollars.	*Dollars.*
Europe—*Continued*		
Soviet Russia in Europe	72,503,956	13,947,673
Southwestern	**263,810,318**	**143,893,668**
Azores and Madeira Isl.	730,887	1,619,102
Gibraltar	1,619,349	29,728
Italy	162,135,329	101,811,661
Portugal	12,711,562	5,327,189
Spain	86,613,191	35,105,988
Southeastern	**26,519,833**	**17,886,903**
Bulgaria	648,595	714,647
Greece	13,853,041	14,604,772
Malta, Gozo & Cyrpus Is.	804,947	121,385
Rumania	9,430,970	677,174
Yugoslavia & Albania	1,782,280	1,768,925
ASIA	**653,705,027**	**1,168,805,724**
Western	**11,899,739**	**41,845,549**
Aden	516,591	3,319,860
Arabia	322,021	95,329
Iraw	703,685	5,746,036
Palestine	1,506,309	306,199
Persia	1,531,047	9,308,194
Syria	3,078,378	4,683,345
Turkey (Asia & Europe)	4,241,708	18,386,586
Southern and Southeastern	**186,981,330**	**585,914,031**
British India	53,694,822	148,931,039
British Malaya	11,807,861	204,344,310
Ceylon	2,749,228	30,710,068
Netherland East Indies—		
Java and Madura	25,409,479	53,900,793
Other Neth. & E. Ind.	9,035,224	32,251,203
French Indo-China	1,737,920	36,820
Philippine Islands	79,806,181	115,477,648
Siam	2,637,733	254,013
Other Asia	102,882	8,137
Eastern	**454,823,958**	**541,046,144**
China	136,960,010	140,031,241
Hong Kong	21,977,505	13,572,895
Kwantung	6,244,989	3,020,369
Japan	288,054,175	384,346,123
Soviet Russia in Asia	1,587,279	75,516
OCEANIA	**180,033,217**	**53,553,766**
Australia	141,295,271	31,657,750
New Zealand	35,969,988	19,224,460
British Oceania	1,508,322	1,188,074
French Oceania	1,259,436	1,483,482
AFRICA	**116,656,369**	**90,092,017**
Mediterranean	**27,367,645**	**35,653,488**
Algeria and Tunisia	8,723,859	4,932,199
Egypt	11,058,894	28,721,850
Italian Africa	80,746	22,010
Morocco	3,668,926	1,141,355
Spanish Africa—		
Canary Islands	2,758,858	835,374
Other Spanish Africa	1,076,362	700
Other Africa	**89,288,724**	**54,438,529**
Ethiopia	21,070	26,157
Belgian Congo	771,175	15,729,008
British Africa—		
East	4,890,471	2,810,216
South		
Union of So. Africa	57,015,909	9,208,986
Other Brit. S. Africa	2,076,723	60,959
West	13,453,089	22,105,122
French Africa, n. e. s.—		
Madagascar	313,106	216,627
Other Fr. Afr., n. e. s.	2,297,028	1,061,745
Liberia	597,316	103,521
Portuguese Africa—		
Mozambique	5,007,810	3,035,381
Other Portgu. Africa	1,845,027	80,507

The value of imported merchandise is the foreign value as shown on the entry and consular invoice, representing the market value or the price at which the merchandise, at the time of exportation to the United States, is offered for sale in the principal markets of the country from which exported, including the cost of containers or coverings and all expenses incident to placing the merchandise in condition ready for shipment to the United States.

The statistics foreign commerce include the trade of Alaska, Hawaii, and Porto Rico, with foreign countries, but not the trade of these Territories with the United States.

In the statistics of foreign commerce the Philippine Islands are treated as a foreign country. The trade of these islands with foreign countries is, therefore, not included in the foreign commerce of the United States, but is published separately by the Philippine government.

TRADE OF CONTINENTAL UNITED STATES.

The table below shows the trade of Continental United States, whereas other foreign trade statistics of the United States are compiled on the basis of the customs area.

In order to obtain the foreign trade of Continental United States the trade of the United States with Alaska, Hawaii, Porto Rico, Guam and American Samoa is added to the total for the customs area, while the trade of Alaska, Hawaii and Porto Rico with foreign countries is subtracted from the total.

Practically all other nations calculate their foreign trade in this manner; that is, by totaling the trade of the home country with foreign countries and with all outlying possessions.

Year.	Exports.			Imports.		
	Total.	To Foreign Countries.	To U. S. Possessions.	Total.	From Foreign Countries.	From U. S. Possessions.
(Yr. Fisc.)	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
1903	1,447,258,000	1,410,420,000	36,838,000	1,067,420,000	1,008,531,000	58,889,000
1904	1,487,934,000	1,449,840,000	38,094,000	1,031,794,000	972,663,000	59,131,000
1905	1,551,657,000	1,508,137,000	43,520,000	1,173,079,000	1,097,829,000	75,250,000
1906	1,784,527,000	1,732,860,000	51,667,000	1,275,189,000	1,207,507,000	67,682,000
1907	1,932,794,000	1,865,544,000	67,250,000	1,488,894,000	1,414,055,000	74,839,000
1908	1,907,874,000	1,842,104,000	65,770,000	1,264,301,000	1,175,572,000	88,729,000
1909	1,717,172,000	1,646,784,000	70,388,000	1,384,318,000	1,294,882,000	89,436,000
1910	1,804,063,000	1,720,831,000	83,232,000	1,638,942,000	1,530,956,000	107,986,000
1911	2,115,186,000	2,022,874,000	92,312,000	1,607,343,000	1,499,918,000	107,425,000
1912	2,278,732,000	2,172,434,000	106,298,000	1,762,351,000	1,619,428,000	142,923,000
1913	2,539,837,000	2,429,962,000	109,875,000	1,909,427,000	1,780,538,000	128,889,000
1914	2,434,851,000	2,327,087,000	107,764,000	1,980,228,000	1,865,197,000	115,031,000
1915	2,837,666,000	2,735,597,000	102,069,000	1,796,822,000	1,640,953,000	155,869,000
1916	4,420,846,000	4,302,873,000	117,973,000	2,362,645,000	2,159,598,000	203,047,000
1917	6,412,069,000	6,250,649,000	161,420,000	2,856,008,000	2,603,871,000	252,137,000
1918	6,054,232,000	5,857,167,000	197,065,000	3,150,128,000	2,854,047,000	296,081,000
1918(6m'nths) (Yr. Cal.)	3,222,793,000	3,138,793,000	84,000,000	1,614,762,000	1,430,878,000	183,884,000
1919	8,059,279,000	7,833,823,000	225,456,000	4,125,976,000	3,821,142,000	304,834,000
1920	8,439,474,000	8,105,660,000	333,814,000	5,668,942,000	5,140,192,000	528,750,000
1921	4,620,537,000	4,427,556,000	192,981,000	2,672,013,000	2,438,856,000	233,157,000
1922	3,963,077,000	3,780,020,000	183,057,000	3,282,296,000	3,035,381,000	246,915,000
1923	4,333,730,000	4,109,344,000	224,386,000	4,010,641,000	3,697,607,000	313,034,000
1924	4,761,644,000	4,521,219,000	240,425,000	3,832,148,000	3,494,159,000	337,989,000
1925	5,083,287,000	4,838,565,000	244,722,000	4,455,787,000	4,090,887,000	364,900,000
1926	4,991,783,000	4,729,811,000	261,972,000	4,669,318,000	4,303,302,000	366,016,000
1927	5,056,964,000	4,785,482,000	271,482,000	4,421,231,000	4,047,124,000	374,107,000
1928	5,311,107,000	5,037,181,000	273,926,000	4,348,746,000	3,950,261,000	398,485,000

U. S. MERCHANDISE IMPORTS AND EXPORTS, BY GRAND DIVISIONS.

UNITED STATES IMPORTS AND EXPORTS, BY CONTINENTS AND BY FISCAL YEARS.

Year. (Fisc.)	Exports to						Imports from					
	Europe.	No. Amer.	So. Amer.	Asia.	Oc'nia	Africa	Europe	No. Amer.	So. Amer.	Asia.	Oc'nia	Africa
	1,000 Dolls.	*1,000 Dolls.*	*1,000 Dolls.*	*1,000 Dolls.*	*1,000 Dolls.*	*1,000 Dolls.*	*1,000 Dolls.*	*1,000 Dolls.*	*1,000 Dolls.*	*1,000 Dolls.*	*1,000 Dolls.*	*1,000 Dolls.*
1800	41,348	27,209	.....	1,178	14	1,110	46,859	32,106	.....	11,561	143	551
1840	98,931	23,737	5,969	2,286	455	707	64,147	22,628	9,420	9,696	602	647
1850	113,862	24,723	9,077	3,052	208	977	124,954	24,137	16,648	10,315	1,401	682
1860	310,273	53,326	16,742	11,068	5,373	3,228	216,831	75,082	35,993	26,202	3,495	3,798
1870	420,184	68,962	21,651	10,972	4,335	3,415	249,540	126,545	43,596	31,413	1,423	9,860
1880	719,434	69,438	23,190	11,646	6,847	5,084	370,822	130,077	82,127	67,009	14,131	3,789
1890	683,736	94,100	38,753	19,697	16,460	5,082	449,987	148,369	90,006	67,507	28,356	5,085
1900	1,040,168	187,595	38,946	64,914	43,391	19,470	440,567	130,035	93,667	139,842	34,611	11,218
1910	1,135,914	385,520	93,247	60,862	50,890	18,551	806,270	306,767	196,155	193,155	37,100	17,496
1911	1,308,276	457,059	108,895	85,422	66,061	23,607	768,168	305,497	182,624	213,450	30,274	27,214

UNITED STATES IMPORTS AND EXPORTS, BY CONTINENTS AND BY CALENDAR YEARS

Year. (Cal.)	Imports from					Exports to				
	Europe.	No. Amer.	So. Amer.	Asia & Oceania	Africa	Europe.	No. Amer.	So. Amer.	Asia & Oceania.	Africa.
	1,000 Dollars.	*1,000 Dollars.*	*1,000 Dollars.*	*1,000 Dollars.*	*1,000 Dollars*	*1,000 Dollars.*	*1,000 Dollars.*	*1,000 Dollars.*	*1,000 Dollars.*	*1,000 Dollars.*
1912	900,004	373,810	233,732	284,887	25,640	1,467,452	573,298	138,945	191,833	27,690
1913	864,666	389,815	198,259	316,127	23,730	1,499,573	601,176	146,515	207,825	28,929
1914	788,517	441,401	229,520	315,176	19,661	1,339,296	481,588	91,013	176,403	25,324
1915	546,362	509,458	322,282	365,865	34,638	2,573,408	558,803	144,129	241,186	37,145
1916	633,317	658,438	427,609	610,377	61,893	3,813,278	924,554	220,267	470,532	54,010
1917	551,144	871,982	598,818	857,153	73,064	4,061,729	1,261,703	311,893	546,803	51,384
1918	318,121	974,615	610,931	1,042,039	85,506	3,858,698	1,325,486	302,710	602,996	59,198
1919	750,528	1,157,774	687,525	1,196,349	112,188	5,187,666	1,295,792	441,748	897,302	97,918
1920	1,227,843	1,662,663	760,999	1,476,691	150,285	4,466,091	1,929,163	623,917	1043,184	165,662
1921	764,942	754,849	295,623	553,361	40,372	2,363,899	1,129,579	273,325	645,381	72,846
1922	991,203	822,454	358,763	875,403	64,924	2,083,357	915,654	226,075	550,916	55,776
1923	1,157,056	1,001,518	467,421	1,079,010	87,061	2,093,415	1,086,168	269,318	657,921	60,671
1924	1,096,087	995,156	466,074	979,653	72,992	2,445,300	1,090,041	314,252	671,097	70,294
1925	1,238,881	930,534	518,797	1,396,934	92,144	2,603,750	1,138,354	402,606	676,081	89,057
1926	1,285,863	1,011,570	567,979	1,469,056	96,420	2,310,144	1,176,481	443,507	777,248	101,279
1927	1,264,072	985,458	518,275	1,323,682	93,255	2,310,403	1,253,027	438,159	756,698	107,088
1928	1,248,898	960,264	569,507	1,222,360	90,092	2,374,836	1,322,882	480,696	833,738	116,656

1928 full figures—Imports from—Europe, $1,248,897,932; North America, $960,263,601; South America, $569,507,024; Asia, $1,168,805,724; Oceania, $53,553,766; Africa, $90,092,017.

Exports to—Europe, $2,374,836,302; North America, $1,322,882,238; South America, $480,696,126; Asia, $653,705,027; Oceania, $180,033,217; Africa, $116,656,369.

VALUE OF IMPORTS FOR CONSUMPTION AND DUTIES.

Year (Fiscal).	Free, Dollars.	Dutiable, Dollars.	Total, Dollars.	Per Cent. Free.	Total Duties, Dollars.	Ad Val. Rate of Duty Dutiable.	Ad Val. Rate D'ty Free and Dutiable.	Imports Per Cap. Dollars.
1908....	525,704,745	657,415,920	1,183,120,665	44.43	282,582,895	42.94	23.88	13.09
1909....	599,375,868	682,265,867	1,281,641,735	46.77	294,667,054	43.15	22.99	13.92
1910....	761,353,117	785,756,020	1,547,109,137	49.21	326,561,683	41.52	21.11	16.52
1911....	776,963,955	750,981,697	1,527,945,652	50.85	309,965,692	41.22	20.29	16.07
1912....	881,512,987	759,209,915	1,640,722,902	53.73	304,899,366	40.12	18.58	17.00
1913....	986,972,333	779,717,079	1,766,689,412	55.87	312,509,946	40.05	17.69	18.03
1914....	1,152,392,059	754,008,335	1,906,400,394	60.45	283,719,081	37.60	14.88	19.18
1915....	1,032,863,558	615,522,722	1,648,386,280	62.66	205,946,842	33.43	12.49	16.35
1916....	1,495,881,357	683,153,244	2,179,034,601	68.65	209,725,801	30.67	9.62	21.30
1917....	1,852,530,536	814,689,485	2,667,220,021	69.46	221,659,066	27.18	8.31	25.71
1918.... (Cal.)	2,117,555,366	747,338,621	2,864,893,987	73.91	180,589,834	24.11	6.30	27.24
1918....	1,149,881,796	303,079,210	1,452,961,006	71.14	73,928,070	24.39	5.09	13.82
1919....	2,711,462,069	1,116,221,362	3,829,966,446	70.84	237,456,680	21.27	6.20	35.91
1920....	3,115,958,238	1,985,865,155	5,104,669,713	61.08	325,645,565	16.40	6.38	47.22
1921....	1,564,278,455	992,591,256	2,556,869,711	61.18	292,396,752	29.55	11.44	23.35
1922....	1,888,240,127	1,185,613,136	3,073,853,263	61.43	450,823,359	38.02	14.67	27.78
1923....	2,165,148,317	1,566,621,499	3,731,769,816	58.02	566,136,863	36.14	15.17	33.21
1924....	2,118,167,861	1,456,943,421	3,575,111,282	59.25	544,768,198	37.39	15.24	31.43
1925....	2,708,827,567	1,467,390,501	4,176,218,068	64.86	551,852,989	37.61	13.21	35.66
1926....	2,908,107,735	1,499,968,523	4,408,076,258	65.97	590,045,299	39.34	13.39	37.07
1927....	2,680,058,949	1,483,030,851	4,163,089,800	64.38	574,838,964	38.76	13.81	34.57
1928....	2,678,633,207	1,399,303,932	4,077,937,139	65.69	542,270,177	38.75	13.30	33.47

Figures for calendar year 1918 are for last six months of that year.

General imports and imports for consumption for any period will differ to the extent that the value of entries for warehouse for the period differs from the value of withdrawals from warehouse for consumption. The term "entry for consumption" is the technical name of the import entry made at the custom house, and implies that the goods have been delivered into the custody of the importer and that the duties have been paid on the dutiable portion. Some of them may be afterwards exported.

IMPORTS AND EXPORTS, BY COAST AND BORDER DIVISIONS.

(Figures show millions and tenths of millions of dollars: thus, 1,918.2 = 1,918,200,000.)

Year (Cal.)	Imports of Merchandise.							Exports of Merchandise.					
	North Atl.	South Atl.	Gulf Coast	Mex. Border.	Pacif. Coast	North Border.	Interior.	North Atl.	South Atl.	Gulf Coast.	Mex. Border.	Pacif. Coast	North Border.	Parc'l Post.
1920....	3,623	178.8	339.5	38.3	391.5	665.8	41.7	3,945.8	958.8	1,683.5	84.2	511.2	1,044.5	.....
1921....	16,54	72.6	158.2	10.1	190.3	408.4	15.6	1,931.7	446.8	1,076.7	103.5	311.6	614.6	.....
1922....	1,918.2	106.0	188.4	11.3	430.1	440.3	18.4	1,567.1	371.2	914.5	57.0	312.3	609.6	.....
1923....	2,312.4	161.9	237.6	20.1	480.7	486.8	32.5	1,695.7	374.5	991.9	59.6	371.6	674.2	.....
1924....	2,188.1	169.6	281.9	20.3	477.3	441.7	31.0	1,836.1	409.5	1,164.4	73.2	447.3	638.9	21.4
1925....	2,655.1	174.2	300.0	23.7	527.0	507.4	39.1	1,956.0	447.6	1,295.4	75.7	427.5	681.4	26.0
1926....	2,773.1	180.1	325.6	26.3	546.1	543.5	36.2	1,812.3	496.3	1,120.9	72.8	518.9	759.5	28.0
1927....	2,580.0	194.4	285.4	27.6	510.6	555.0	31.7	1,868.4	428.7	1,100.9	77.1	506.1	856.3	27.8
1928....	2,482.4	194.4	284.4	30.4	504.8	564.1	30.5	1,911.7	378.3	1,227.6	95.5	561.0	925.6	29.0

Interior includes Col., Ind., Iowa, Ky., Minn., Omaha, Pittsburgh, St. Louis, Tenn., Utah and Nev. The statement of imports of merchandise is based on *general imports*, embracing imported articles entered for immediate consumption on arrival and articles entered for warehouse, as distinguished from the statement of "Imports for consumption," embracing imports entered for immediate consumption and withdrawals from warehouse for consumption.

EXPORTS OF MERCHANDISE BY STATES OF SHIPMENT.

(Figures gathered by the United States Department of Commerce.)

State.	1928	1927	1926	State.	1928.	1927.	1926.
	Dollars.	*Dollars.*	*Dollars.*		*Dollars.*	*Dollars.*	*Dollars.*
New York.	861,578,924	769,766,896	761,249,789	Florida...	28,539,253	27,995,559	25,491,301
Texas....	817,002,082	647,026,141	648,991,954	Kansas...	26,256,804	24,617,816	27,772,302
Michigan.	367,253,146	326,879,584	262,594,218	Arkansas..	24,744,473	23,603,916	33,458,934
California.	345,436,658	309,544,746	287,601,684	So Car....	22,538,080	36,280,316	37,697,156
Pen'sylv'ia	292,087,241	290,497,974	332,431,651	Kentucky.	22,097,480	24,228,793	30,981,809
Louisiana.	235,467,286	229,304,962	243,393,921	Rh. Island	16,238,468	15,295,530	15,514,152
N'w Jersey	221,530,869	232,779,892	220,526,019	Arizona...	13,105,944	7,720,014	8,084,747
Illinois....	206,355,671	208,045,111	211,877,678	Nebraska.	10,768,231	14,803,557	15,745,829
Ohio.....	196,518,388	186,091,545	171,450,184	N. Hamp..	7,062,472	7,014,802	6,665,144
Virginia...	142,504,115	136,416,741	142,603,658	Montana..	6,814,817	5,905,027	7,902,859
Wisconsin.	137,861,141	127,101,600	93,523,254	So. Dak...	6,140,142	5,184,484	7,112,896
Mass.....	123,128,927	116,365,275	114,363,444	Maine....	5,868,803	6,422,828	6,345,198
Wash't'n..	121,638,132	107,646,440	112,459,343	Porto Rico	5,841,363	8,386,683	10,809,363
Minnesota	76,035,274	105,418,088	64,869,812	Delaware.	4,459,514	3,922,799	4,310,620
Georgia...	73,142,913	105,646,330	114,024,373	Vermont..	4,367,914	3,393,236	3,002,294
Maryland.	71,916,817	73,879,643	72,473,237	Hawaii...	3,955,464	3,629,496	2,705,122
Oregon...	69,271,988	84,213,262	83,532,449	Colorado..	3,419,934	3,394,095	4,544,315
N. Car....	68,663,979	60,459,126	62,553,232	Wyoming.	2,703,557	4,603,488	4,651,135
Indiana...	60,961,202	62,983,454	63,820,505	Idaho....	2,282,991	1,884,526	2,251,690
Tennessee.	49,167,800	43,050,302	39,399,724	N. Mexico	2,105,133	1,037,927	1,098,790
Conn.....	47,796,768	48,900,735	46,750,487	No Dak..	1,296,518	553,217	1,355,009
Alabama..	45,893,507	47,049,193	42,995,463	Alaska....	933,795	436,673	1,028,207
Mississippi	44,782,555	57,146,645	57,216,641	Utah.....	647,152	911,457	1,107,206
W. Virg'ia.	43,260,772	53,215,791	103,647,119	Wash.D.C.	576,787	537,657	443,255
Missouri..	39,370,696	39,800,427	43,819,657	Nevada...	416,107	526,366	480,515
Iowa.....	32,305,237	30,364,473	33,728,728				
Oklahoma	29,859,858	26,836,440	30,824,994	Total...	5,043,973,142	4,758,721,078	4,713,553,066

The above figures of exports by states in which the shipments originated is only approximate, inasmuch as it is not possible to trace all shipments to their true source.

UNITED STATES EXPORTS OF DOMESTIC GRAINS AND THEIR PRODUCTS.

WHEAT, FLOUR, CORN AND RYE.

Year (fiscal).	Wheat.	Wheat Flour.	Corn.	Rye.	Year (fiscal).	Wheat.	Wheat Flour.	Corn.	Rye.
	1,000 Dol.	*1,000 Dol.*	*1,000 Dol.*	*1,000 Dol.*		*1,000 Dol.*	*1,000 Dol.*	*1,000 Dol.*	*1,000 Dol.*
1860 ...	4,077	15,448	2,400	.....	1918 ...	80,802	244,861	75,306	31,065
1870 ...	47,171	12,170	1,288	217	(Yr.Cal.)				
1880 ...	190,546	35,333	53,298	975	1919 ...	424,543	267,966	26,706	74,211
1890 ...	45,276	57,036	42,658	1,294	1920 ...	569,975	224,472	26,454	125,878
1900 ...	73,237	67,761	85,206	1,457	1921 ...	433,053	117,698	92,767	44,589
1910 ...	47,807	47,621	25,428	184	1922 ...	206,338	85,483	115,095	46,075
1911 ...	22,040	49,387	35,961	27	1923 ...	116,490	88,151	36,806	29,021
1912 ...	28,478	51,000	28,957	22	1924 ...	237,114	91,210	17,825	40,204
1913 ...	89,036	53,171	28,800	1,282	1925 ...	148,717	85,967	14,253	37,484
1914 ...	87,953	54,454	7,008	1,586	1926 ...	201,739	83,133	19,840	12,379
1915 ...	333,552	94,869	39,339	15,150	1927 ...	239,504	85,331	11,432	39,677
1916 ...	215,533	87,338	30,781	19,380	1928....	119,887	73,835	26,367	17,377
1917 ...	298,180	93,198	72,497	27,960					

Figures for rye include flour, those for 1880 are for 1882, and those for 1919 and since are for calendar years.

QUANTITY AND VALUE OF EXPORTS OF OTHER DOMESTIC CROPS, BY CALENDAR YEARS.

Article.	1924.		1925.		1926.		1927.		1928.	
	1,000	*1,000 Dollars.*	*1,000*	*1,000 Dollars.*	*1,000*	*1,000 Dollars.*	*1,000*	*1,000 Dollars.*	*1,000*	*1,000 Dollars*
Barley.....bu.	20,712	22,302	29,059	26,930	13,586	10,371	37,973	35,432	54,376	44,837
Malt.....bu.	3,946	4,287	4,704	5,678	3,316	3,440	2,869	3,048	3,260	3,607
Buckwheat.....bu.	122	131	110	127	101	122	466	464	160	169
Corn Meal & Flour.bu.	435	2,227	348	2,010	516	2,500	387	1,872	273	1,348
Hominy & Grits...lbs.	29,893	659	20,055	490	30,141	554	23,145	472	11,502	290
Other Corn prep...lbs.	6,953	488	7,923	598	10,367	739	8,038	600	6,729	521
Oats.....bu.	3,953	2,387	29,443	15,812	11,574	5,758	10,052	5,268	10,421	5,517
Oatmeal, etc.....lbs.	83,446	3,525	151,654	6,262	140,900	6,006	66,562	4,020	84,074	4,293
Rice.....lbs.	122,543	6,022	39,907	2,375	77,081	3,526	239,596	9,742	288,702	10,877
Rice Flour, etc....lbs.	31,967	948	26,792	909	40,410	1,348	70,403	2,058	90,257	2,357
Bread, Crackers, etc.lbs.	12,908	1,791	16,026	2,399	13,875	2,212	11,489	2,051	10,678	1,986
Macaroni, etc.....lbs.	7,486	590	8,557	727	8,273	711	8,468	714	9,979	900
Potatoes.....bu.	3,862	4,192	2,323	3,226	2,033	3,497	2,379	3,596	2,698	2,254
Hay.....sh. tn.	20	404	21	475	14	308	13	285	14	302
Hops.....lbs.	17,391	4,830	20,655	4,534	12,832	3,355	14,119	3,525	7,985	1,804

Wheat grown in the United States in 1928 was exported chiefly to Canada (37,173,442 bu.); and to the United Kingdom (14,222,047 bu.).

Wheat flour went mainly to China, Cuba, and the Netherlands; barley, to Canada, Germany, and the United Kingdom; corn, to Canada, Holland, and Great Britain; rice, to Great Britain, Germany, Holland, and Cuba.

Rye went mostly to Canada, Great Britain, and Holland.

UNITED STATES EXPORTS OF DOMESTIC FOOD CROPS, BY FISCAL YEARS.

Year. (fisc.)	Wheat.	Wheat incl. Flour.	Rye incl. Flour.	Corn incl. Meal.	Oats, incl. Meal.	Barley. inc Flour & Malt.	Rice.	Buck-wheat.	Pota-toes.	Hay, Tame.	Hops.
	1,000 Bushels.	*1,000 Bushels.*	*1,000 Bushels.*	*1,000 Bushels.*	*1,000 Bushels.*	*1,000 Bushels.*	*1,000 Bushels.*	*1,000 Bushels.*	*1,000 Bushels.*	*Short Tons.*	*1,000 Lbs.*
1911.	46,680	89,173	40	65,614	3,846	9,506	5,134	.....	2,884	61,850	13,105
1912.	23,729	71,338	31	41,797	2,678	1,655	5,825	.....	1,237	66,898	12,191
1913.	30,150	81,891	1,835	50,780	36,455	17,874	5,673	1	2,028	68,006	17,591
1914.	91,603	145,159	2,272	10,726	2,749	6,943	5,871	.....	1,794	56,159	24,263
1915.	92,394	147,955	13,027	50,668	100,609	28,712	7,334	413	3,135	118,169	16,210
1916.	259,643	335,702	15,250	39,897	98,950	30,821	9,506	515	4,018	199,736	22,410
1917.	173,274	246,221	13,703	66,753	95,106	20,319	12,315	260	2,489	95,792	4,875
1918.	149,831	205,962	17,186	49,073	125,091	28,717	11,885	5	3,453	33,762	3,495
1919.	34,119	132,579	36,467	23,019	109,095	26,997	12,892	119	3,689	32,366	7,467
1920.	178,583	287,402	41,531	16,729	43,436	34,555	22,900	245	3,723	67,142	30,779
1921.	122,431	222,030	47,337	70,906	9,391	27,255	22,450	399	4,803	55,446	22,206
1922.	293,268	369,313	29,044	179,490	21,237	27,543	33,835	485	2,327	61,240	19,522
1923.	208,321	282,566	51,663	96,596	25,412	21,969	21,584	171	2,980	53,096	13,497
1924.	154,951	224,900	19,902	23,135	8,796	13,913	17,245	93	3,075	23,516	20,461
1925.	78,793	159,880	50,242	9,791	16,777	28,543	12,142	191	3,658	25,413	16,122
1926.	195,490	260,803	12,647	24,782	39,687	30,449	9,736	66	1,824	17,726	14,998

WORLD RUBBER PRODUCTION (EXPORTS).

Year. (Cal.)	World Prod.	United States.			Year. (Cal.)	World Prod.	United States.		
	Total.	Plan-tation.	Im-ports.	Re-ex-ports.	Con-sump.		Total.	Plan-tation.	Im-ports.	Re-ex-ports.	Con-sump.
	Long Tons.	*Long Tons.*	*Long Tons.*	*Long Tons.*	*Long Tons.*		*Long Tons.*	*Long Tons.*	*Long Tons.*	*Long Tons.*	*Long Tons.*
1905.....	59,494	174	28,637	1,616	27,021	1917.....	278,140	221,452	181,089	4,000	157,371
1906.....	62,581	577	30,316	1,698	28,618	1918.....	219,684	181,061	145,518	2,746	160,000
1907.....	67,170	1,157	30,649	1,832	28,817	1919.....	399,731	348,990	239,259	2,282	215,000
1908.....	66,566	1,796	34,058	1,655	32,403	1920.....	341,994	305,106	252,922	4,160	206,000
1909.....	73,756	3,386	41,950	2,156	39,794	1921.....	301,618	277,516	185,394	5,716	177,772
1910.....	93,950	10,916	45,038	2,764	38,000	1922.....	406,398	379,520	301,076	4,809	301,499
1911.....	94,055	17,501	36,987	2,523	39,000	1923.....	408,719	380,271	309,144	8,772	319,422
1912.....	114,276	33,306	52,705	2,456	48,000	1924.....	426,178	393,931	328,056	10,309	338,144
1913.....	120,123	53,644	51,732	1,881	50,000	1925.....	527,549	488,523	396,642	14,827	387,629
1914.....	123,173	74,587	63,868	2,618	62,000	1926.....	624,045	583,730	413,338	17,671	366,000
1915.....	170,826	116,370	98,876	2,082	99,000	1927.....	606,474	562,059	431,247	27,775	372,528
1916.....	214,089	161,842	120,576	4,098	117,000	1928.....	657,305	618,176	439,727	32,159	430,000

U. S. FOREIGN TRADE, BY ECONOMIC CLASSES.

BY FISCAL YEARS (ENDING JUNE 30 OF YEAR NAMED).

Year (Fisc.).	Domestic Exports.					General Imports.				
	Crude Materi'ls.	Crude Foodst'fs.	Manuf'd Foodst'fs	Semi-Manuf's.	Finished Manuf's.	Crude Mater'ls.	Crude Foods'fs.	Manuf'd Foodst'fs.	Semi-Manuf's.	Finished Manuf's.
	1,000 Dollars.	*1,000 Dollars.*	*1,000 Dollars.*	*1,000 Dollars.*	*1,000 Dollars.*	*1,000 Dollars.*	*1,000 Dollars.*	*1,000 Dollars.*	*1,000 Dollars.*	*1,000 Dollars.*
1821....	31,246	2,475	10,085	4,867	2,925	1,984	6,082	10,821	4,079	30,999
1830....	36,482	2,724	9,557	4,118	5,461	2,415	7,382	9,654	5,152	35,735
1840....	75,488	4,564	15,936	4,841	10,584	11,510	15,273	15,189	11,359	44,300
1850....	83,985	7,536	20,017	6,061	17,162	11,711	18,012	21,466	26,163	95,312
1855....	108,477	10,920	33,009	11,304	28,833	26,151	32,935	34,138	34,720	128,959
1860....	216,010	12,166	38,625	12,642	38,511	39,692	45,744	59,838	34,899	172,129
1865....	33,853	13,974	47,981	10,650	30,121	28,777	35,137	48,031	29,902	96,138
1870....	213,440	41,853	50,920	13,712	56,329	55,615	54,081	96,082	55,569	173,615
1875....	206,272	79,078	110,293	27,458	74,503	78,892	90,019	113,146	63,412	177,891
1880....	238,788	266,109	193,353	29,004	92,774	131,862	100,297	118,125	110,779	196,587
1885....	248,611	123,327	201,801	39,437	110,819	106,774	93,345	102,938	78,255	182,543
1890....	304,567	132,073	244,756	46,455	132,527	170,637	128,480	133,332	116,924	230,684
1895....	263,982	99,144	219,090	62,254	143,610	180,940	141,377	107,026	96,487	199,543
1900....	325,244	225,906	319,696	153,276	331,746	276,241	97,916	133,027	134,222	203,126
1905....	472,114	118,185	283,065	209,926	402,050	389,161	146,131	145,356	177,828	252,373
1910....	565,935	109,828	259,260	267,766	499,215	566,271	144,777	181,566	285,138	367,723
1915....	510,455	506,993	454,575	355,862	807,465	575,357	223,929	285,725	237,176	335,877

BY CALENDAR YEARS (ENDING DEC. 31 OF YEARS NAMED).

Year (Cal.).	Domestic Exports.					General Imports.				
	Crude Materi'ls.	Crude Foods'fs.	Manuf'ed Foodst'fs.	Semi-Manuf's.	Finisued Manuf's.	Crude Mater'ls.	Crude Foods'fs.	Manuf'd Foods'fs.	Semi-Manuf's.	Finished Manuf's.
	1,000 Dollars.	*1,000 Dollars.*	*1,000 Dollars.*	*1,000 Dollars.*	*1,000 Dollars.*	*1,000 Dollars.*	*1,000 Dollars.*	*1,000 Dollars.*	*1,000 Dollars.*	*1,000 Dollars.*
1916...	815,693	421,284	648,039	912,262	2,625,364	1,029,358	260,132	338,707	417,860	345,578
1917...	832,827	508,762	806,941	1,315,242	2,705,845	1,286,079	385,725	351,553	536,663	392,448
1918...	972,107	547,436	1,405,820	1,053,270	2,069,242	1,233,697	345,653	397,370	649,585	404,908
1919...	1,623,085	678,363	1,962,616	922,246	2,563,505	1,701,057	545,301	555,808	608,996	493,203
1920...	1,882,330	917,991	1,116,605	958,497	3,204,858	1,783,534	577,627	1,238,139	802,456	876,725
1921...	983,553	673,334	685,025	410,167	1,626,849	858,858	300,181	368,311	361,747	620,051
1922...	988,456	458,611	587,987	437,730	1,292,307	1,179,894	329,809	387,419	552,677	662,947
1923...	1,208,468	257,478	583,292	563,718	1,477,759	1,406,797	363,032	530,208	720,729	771,300
1924...	1,332,746	392,691	573,492	610,668	1,588,052	1,258,256	424,873	521,600	655,888	749,346
1925...	1,422,058	317,894	573,753	661,683	1,843,334	1,748,065	494,800	432,906	755,085	795,733
1926...	1,261,323	335,062	503,005	655,547	1,956,784	1,792,292	539,818	417,817	804,333	876,628
1927...	1,192,767	421,107	463,299	699,727	1,981,955	1,600,809	504,686	450,849	749,801	878,597
1928...	1,293,264	293,487	467,033	716,512	2,259,387	1,466,544	549,542	405,496	762,622	906,916

Domestic exports.—The statement of domestic exports exhibits the exports of domestic products or manufactures, also exports of commodities of foreign origin which have been changed from the form in which they were imported or enhanced in value by further manufacture in the United States, such as sugar refined in this country from imported raw sugar, flour ground from imported wheat, and articles, utensils, etc., made from imported materials.

The value of exports of domestic merchandise is the actual cost or the value at the time of exportation in the ports of the United States whence they are exported, as declared by the shippers on the export declarations.

FOREIGN TRADE BY CUSTOMS DISTRICTS, 1928, CALENDAR YEAR.

Customs & Districts.	Exports.	Imports.
	Dollars.	*Dollars.*
GRAND TOTAL	5,128,809,279	4,091,120,064
No. Atlantic Dist.	**1,911,749,081**	**2,482,415,098**
Me. & N. H. (Portland)	8,141,194	28,301,955
Mass. (Boston)	45,450,976	276,646,295
R. I. (Providence)	108,192	4,896,263
Conn. (Bridgeport)	.....	6,889,559
N. Y. (New York)	1,769,684,571	1,949,982,707
Phila. (Philadelphia)	88,364,148	215,698,319
So. Atlantic Dist.	**378,323,089**	**194,438,568**
Md. (Baltimore)	98,972,526	110,025,627
Va. (Norfolk)	182,595,050	32,817,774
N. C. (Wilmington)	11,178,254	7,381,480
S. C. (Charleston)	18,981,187	12,553,865
Ga. (Savannah)	60,197,841	15,394,194
Porto Rico (San Juan)	6,398,231	13,265,628
Gulf Coast Dist.	**1,227,618,751**	**284,413,998**
Fla. (Tampa)	54,263,529	28,249,658
Mobile (Mobile)	48,857,462	10,318,774
New Orleans (New Orl'ns)	375,707,510	211,705,636
Sabine (Port Arthur)	66,451,375	3,338,533
Galveston (Galveston)	682,338,875	30,801,397
Mexican Border Dist.	**95,464,042**	**30,393,978**
San Antonio (San Ant'o)	75,151,686	6,714,766
El Paso (El Paso)	10,130,520	6,080,901
Arizona (Nogales)	10,181,818	17,598,311
Pacific Coast Dist.	**561,007,904**	**504,831,861**
Washington (Seattle)	150,816,338	229,096,631
Ore. (Portland)	63,878,714	12,123,980
San Francisco (San Fr'o)	201,267,790	198,289,682
Los Angeles (Los Angeles)	141,898,579	54,401,013
Alaska (Juneau)	622,738	559,262
Hawaii (Honolulu)	2,523,745	10,361,293
N'thern Border Dist.	**925,632,198**	**564,096,228**
Vt. (St. Albans)	61,946,700	54,905,200
St. Lawrence (Ogdensb'g)	77,987,232	127,960,687
Rochester (Rochester)	12,575,989	8,430,391
Buffalo (Buffalo)	223,945,533	144,928,197
Ohio (Cleveland)	35,384,820	23,656,792
Mich. (Detroit)	328,436,459	92,099,159
Chicago (Chicago)	9,001,771	50,381,164
Wis. (Milwaukee)	3,467,396	5,735,273
Duluth & Sup'r (Duluth)	84,265,420	23,552,672
Dakota (Pembina)	79,266,636	29,343,607
Mont. & Idaho (Gr. Falls)	9,354,242	3,103,086
Interior Dist.	.....	**30,530,333**
Pittsburgh (Pittsburgh)	.....	7,384,515
Ken. (Louisville)	.....	1,301,866
Tenn. (Memphis)	.....	542,711
Ind. (Indianapolis)	.....	1,793,051
Iowa (Des Moines)	.....	169,396
Omaha (Omaha)	.....	682,356
St. Louis (St. Louis)	.....	10,225,620
Minn. (Minneapolis)	.....	7,413,192
Col. (Denver)	.....	918,305
Utah & Nev. (S. L. City)	.....	99,311
Parcel Post	29,014,232	.....

GOLD AND SILVER (AND MERCHANDISE) EXPORTS AND IMPORTS.

(Include coin, bullion, and ore. Balance of trade also shown.)

Year (Cal.).	Gold.			Silver.			Total Merchandise, Gold and Silver.		
	Exports.	Imports.	Excess of Exports (+) or Imports. (−).	Exports.	Imprts.	Excess of Exports (+) or Imports (−).	Exports.	Imports.	Excess of Exports (+) or Imports (−).
	1,000 Dollars.	*1,000 Dollars.*	*1,000 Dollars.*	*1,000 Dollars.*	*1,000 Dollars.*	*1,000 Dollars.*	*1,000 Dollars.*	*1,000 Dollars.*	*1,000 Dollars.*
1900	54,135	66,749	−12,614	66,222	40,100	+26,122	1,598,303	935,999	+662,304
1901	57,784	54,762	+3,022	55,638	31,147	+24,491	1,578,798	966,329	+612,469
1902	36,031	44,193	−8,162	39,273	26,403	+22,870	1,445,990	1,039,913	+406,077
1903	44,347	65,268	−20,921	40,610	23,975	+16,635	1,569 710	1,084,737	+484,973
1904	121,212	84,803	+36,409	50,135	26,087	+24,048	1,622,666	1,146,799	+475,867
1905	46,794	50,293	−3,499	57,513	35,939	+21,574	1,731,298	1,265,377	+465,921
1906	46,709	155,579	−108,870	60,957	44,228	+16,729	1,905,909	1,520,309	+385,600
1907	55,216	143,398	−88,182	61,626	45,912	+15,714	2,040,268	1,612,480	+427,788
1908	81,215	50,276	+30,939	51,838	42,224	+9,614	1,885,888	1,208,874	+677,014
1909	132,881	44,087	+88,794	57,592	46,188	+11,404	1,918,672	1,565,796	+352,876
1910	58,775	59,223	−448	57,361	45,878	+11,483	1,982,395	1,668,005	+314,390
1911	37,183	57,445	−20,262	65,665	43,747	+21,918	2,195,375	1,633,551	+561,824
1912	47,425	66,549	−19,124	71,962	48,401	+23,561	2,518,605	1,933,023	+585,582
1913	91,799	63,705	+28,094	62,777	35,868	+26,909	2,638,594	1,892,169	+746,425
1914	222,616	57,388	+165,228	51,603	25,959	+25,644	2,387,843	1,872,623	+515,220
1915	31,426	451,955	−420,529	53,599	34,484	+19,115	3,639,696	2,265,036	+1,374,660
1916	155,793	685,990	−530,197	70,595	32,263	+38,332	6,709,029	3,109,889	+2,599,140
1917	371,884	552,454	−180,570	84,131	53,340	+30,791	6,689,527	3,558,263	+3,131,264
1918	41,070	62,043	−20,973	252,846	71,376	+181,470	6,443,004	3,164,631	+3,278,373
1919	368,185	76,534	+291,651	239,021	89,410	+149,611	8,527,632	4,070,309	+4,457,323
1920	322,091	417,068	−94,977	113,616	88,060	+25,556	8,663,724	5,783,610	+2,880,114
1921	23,891	691,248	−667,357	51,575	63,243	−11,668	4,560,497	3,263,639	+1,296,858
1922	36,875	275,170	−238,295	62,807	70,807	−7,999	3,931,459	3,458,724	+ 472,735
1923	28,643	322,716	−294,073	72,469	74,454	−1,985	4,268,605	4,189,236	+79,369
1924	61,648	319,721	−258,073	109,891	73,945	−35,946	4,762,523	4,003,628	+758,895
1925	262,640	128,273	+134,367	99,128	64,596	+34,532	5,271,615	4,419,458	+852,157
1926	115,708	213,504	−97,796	92,258	69,596	+22,662	5,016,626	4,713,988	+309,638
1927	201,455	207,535	−6,080	75,625	55,074	+20,551	5,141,886	4,446,987	+694,899
1928	560,759	168,897	+391,862	87,382	68,117	+19,265	5,776,950	4,328,134	+1,448,816

1928 (Jan. 1—June 30), gold exports, $455,518,031; imports, $82,976,300; silver exports, $42,331,372; imports, $31,452,591; 1929 (Jan. 1—June 30), gold exports, $7,050,083; gold imports, $181,506,970; silver exports, $41,355,828; silver imports, $32,734,964.

UNITED STATES EXPORTS AND IMPORTS, BY LAND AND SEA.

(Figures show millions and tenths of millions of dollars.)

BY FISCAL YEARS.

Year (Fiscal).	Exports.					Imports.					
	Total.	By Water.	In Amer. Vessels.	In Foreign Vessels.	By Land Veh.	Total.	By Water.	In Amer. Vessels.	In Foreign Vessels.	By Land Veh.	Pct. in Amer. Vessels.
1830	73.8	73.8	63.9	10.0	.....	70.5	70.5	66.0	4.5	.....	94.2
1840	132.1	132.1	105.6	26.4	.....	107.1	107.1	92.8	14.3	.....	86.6
1850	152.0	152.0	99.6	52.3	.....	178.1	178.1	139.6	38.5	.....	78.4
1855	275.1	275.1	203.2	71.9	.....	261.5	261.5	202.2	59.2	.....	77.3
1860	400.1	400.1	279.1	121.0	.....	362.4	362.2	228.2	134.0	.....	63.0
1865	355.8	355.8	93.0	262.8	.....	248.5	248.5	74.4	174.2	.....	29.9
1870	529.5	529.5	199.7	329.8	.....	462.2	462.4	153.2	309.1	.....	33.1
1875	665.5	658.2	156.4	501.8	7.3	553.9	540.8	157.9	382.9	13.1	29.2
1880	835.6	829.8	109.0	720.8	5.8	667.9	652.8	149.3	503.5	19.1	22.9
1885	742.2	718.0	82.0	636.0	24.2	577.5	556.4	112.9	443.5	21.1	20.3
1890	857.8	824.9	77.5	747.4	32.9	789.3	748.7	124.9	623.7	40.6	16.7
1895	807.5	757.6	62.3	695.3	49.9	732.0	698.8	108.2	590.5	33.2	15.5
1900	1,394.5	1,284.0	90.8	1,193.2	110.5	849.9	805.5	104.3	701.2	44.4	12.9
1905	1,518.6	1,355.0	129.9	1,225.1	163.5	1,117.5	1,038.8	160.6	878.1	78.7	15.5
1910	1,745.0	1,516.3	113.7	1,402.5	228.7	1,556.9	1,466.5	147.1	1,319.4	90.4	10.0
1915	2,768.6	2,466.3	290.6	2,175.7	302.2	1,674.2	1,526.3	281.3	1,244.9	147.9	18.4

Exports by water include Great Lakes.
No data on trade by land vehicles prior to 1875.

Gold and silver are included in imports, 1830-1875.

BY CALENDAR YEARS.

Year (Cal.).	Exports (Domestic and Foreign). (Millions of Dollars.)					Imports. (Millions of Dollars.)					Per Cent. in Amer. Vessels.	
	Total.	Total by Water.	In Amer. Vessels.	In F'reign Vessels.	By Land Veh.	Total.	Total by Water.	In Amer. Vessels.	In F'reign Vessels.	By Land Veh.	Ex-ports.	Im-ports.
1916	5,483	4,820	665	4,155	663	2,392	2,157	532	1,625	234	13.8	24.7
1917	6,234	5,403	946	4,457	830	2,953	2,590	733	1,857	362	17.5	28.3
1918	6,149	5,226	986	4,240	923	3,031	2,577	717	1,860	454	18.9	27.8
1919	7,920	7,090	2,596	4,494	831	3,904	3,414	1,228	2,186	491	36.6	36.0
1920	8,228	7,252	3,165	4,087	976	5,279	4,731	1,988	2,743	548	43.6	42.0
1921	4,485	3,888	1,402	2,486	597	2,509	2,187	765	1,422	322	36.1	35.0
1922	3,832	3,281	1,261	2,020	551	3,113	2,704	921	1,783	409	38.4	34.1
1923	4,168	3,539	1,358	2,181	629	3,792	3,312	1,040	2,272	481	38.4	31.4
1924	4,591	4,010	1,532	2,478	586	3,610	3,145	1,012	2,133	466	38.2	32.1
1925	4,910	4,224	1,473	2,751	685	4,227	3,716	1,151	2,565	510	34.9	31.0
1926	4,809	4,050	1,401	2,649	731	4,431	3,891	1,195	2,696	411	34.6	30.7
1927	4,865	4,097	1,434	2,664	740	4,185	3,661	1,215	2,447	412	35.0	33.2
1928	5,128	4,277	1,472	2,804	823	4,091	3,550	1,133	2,418	431	34.4	31.9

Percentage figures relate to water-borne imports and exports.

UNITED STATES FOREIGN TRADE, BY COUNTRIES.

(Shows U. S. Exports to and Imports from Countries Named, in Millions and Tenths of millions of dollars).

Country.	1927.		1926.		1925.		1924.		1923.		1922.		1921.	
	Imp.	Exp.	Imp.	Exp.	Imp.	Exp.	Imp.	Exp.	Imp.	Exp.	Imp.	Exp.	Imp.	Exp.
Africa, Brit. So.	8.7	52.5	19.8	51.1	9.2	46.2	7.7	36.0	13.4	28.4	8.2	20.9	7.9	25.3
" " W.	23.9	13.8	19.8	9.9	17.3	10.7	12.2	8.5	17.5	8.1	11.5	6.8	5.6	5.4
Algeria, Bunisia	4.6	7.1	3.1	6.7	2.9	5.6	1.9	5.5	2.4	5.6	1.8	6.7	.....	.....
Argentina	97.0	163.3	88.0	143.6	80.2	148.7	75.3	117.1	115.3	112.8	85.7	95.5	59.9	110.8
Australia	38.6	159.1	45.7	168.7	55.1	148.5	32.9	125.2	41.1	119.6	35.8	80.5	22.8	82.7
Austria	10.6	4.4	9.4	2.9	5.8	2.9	5.0	3.2	4.7	1.8	2.9	1.6	2.0	1.5
Belgium	72.2	116.2	77.8	99.3	69.0	120.2	65.6	116.0	68.0	100.8	53.8	101.6	35.2	117.9
Bolivia	0.2	4.9	0.3	5.2	0.1	5.1	0.1	4.1	1.8	3.0	0.7	2.6	2.2	3.4
Brazil	203.0	88.7	235.3	95.4	221.6	87.5	179.3	62.2	143.2	45.6	120.4	43.2	96.3	58.1
Bulgaria	0.9	0.5	1.3	0.3	1.0	0.3	1.5	0.3	1.3	0.6	0.9	0.6	0.4	1.9
Canada	475.1	835.9	475.9	738.6	454.2	648.8	399.1	624.0	416.0	551.9	364.0	576.7	335.4	593.7
Ceylon	40.8	2.7	55.8	2.8	48.1	2.4	25.3	1.6	28.0	1.6	20.2	0.8	.....	.....
Chile	61.8	37.9	81.4	49.0	89.2	39.3	98.3	31.4	92.3	31.1	59.7	22.5	46.9	26.5
China	151.7	83.5	143.2	110.2	168.9	94.4	117.9	109.2	187.6	108.5	134.6	100.3	101.1	108.3
Columbia	87.8	48.7	90.2	49.3	63.4	41.4	57.7	27.8	45.7	22.3	36.1	20.1	44.0	17.7
Congo, Belgian	15.6	0.7	1.7	1.2	1.8	0.8	1.2	0.5	0.9	0.3	0.3	0.4	0.3	0.4
Costa Rica	6.0	7.3	7.0	6.3	4.8	6.8	4.7	6.0	4.6	4.8	5.5	4.0	5.8	4.0
Cuba	256.5	155.4	251.0	160.5	261.7	198.6	361.7	199.8	376.4	192.4	267.8	127.9	230.3	187.7
Czechoslovakia	31.7	7.4	28.3	3.0	22.8	2.8	22.4	1.9	16.6	1.1	16.7	1.1	8.3	1.3
Denmark	4.1	58.7	5.5	50.6	4.3	55.7	6.2	43.4	4.2	38.8	6.6	35.6	8.8	39.5
DominicanRep.	11.1	18.9	8.1	14.6	7.2	17.8	5.8	15.6	8.3	13.4	4.8	10.2	14.4	19.3
Ecuador	5.2	5.5	6.7	4.7	8.7	6.8	6.7	5.5	6.1	4.3	7.5	4.4	5.3	3.5
Egypt	33.3	11.2	35.2	10.7	41.0	7.4	30.1	5.9	38.8	6.2	35.4	8.0	22.0	13.7
Finland	8.7	16.5	9.1	12.9	7.2	12.8	8.2	9.4	10.2	11.2	5.9	9.6	6.1	9.2
France	167.8	228.7	152.0	264.0	157.4	280.3	147.6	281.7	149.6	272.1	142.8	267.0	141.9	224.9
Germany	200.5	481.6	198.5	364.2	164.2	470.3	139.3	440.4	161.3	316.8	117.5	316.1	80.3	372.4
Greece	29.6	15.0	16.9	10.3	26.2	16.6	27.4	16.7	14.4	11.9	21.2	11.1	21.7	29.4
Guatemala	10.2	10.6	14.5	11.1	11.3	9.4	10.1	8.8	11.3	6.3	8.8	5.5	8.6	6.1
Haiti	1.2	11.0	1.4	10.8	2.1	13.7	1.2	11.6	1.7	12.0	1.2	9.1	2.1	8.2
Honduras	9.3	8.5	8.7	7.5	8.7	9.6	6.0	9.1	4.9	11.3	5.2	10.0	4.9	11.7
" Brit	3.7	2.1	2.8	2.4	2.8	2.2	2.1	1.8	2.2	1.8	2.2	1.8	2.7	1.9
Hong Kong	14.8	18.9	11.3	12.8	17.8	14.3	16.5	17.5	19.9	17.6	15.3	20.9	10.2	18.7
Hungary	0.9	1.7	0.9	1.0	0.7	0.8	0.6	0.4	1.3	0.1	0.3	0.1	0.1	0.2
India, British	131.0	63.3	151.0	50.0	144.5	38.3	103.3	34.9	128 0	30.2	91.1	30.7	78.2	56.8
Irish Free State	1.6	10.9	1.5	17.0	1.3	7.3	31.5	17.7	28.8	17.3	28.3	22.2	21.0	29.5
Italy	108.9	131.6	102.5	157.4	102.2	105.1	75.0	187.1	92.3	167.5	63.9	150.9	62.3	215.5
Jamaica	9.7	8.6	9.1	8.4	8.2	8.9	6.2	7.3	6.6	8.8	7.3	8.2	6.1	9.4
Japan	402.1	257.6	400.7	260.7	384.1	227.7	340.1	250.3	346.9	264.2	354.3	218.4	251.3	235.4
Java, Madura	51.6	23.6	68.4	17.4	56.2	13.5	38.0	9.5	37.4	9.0	24.4	6.3	.....	.....
Kwantung	2.7	6.7	3.5	6.5	3.5	5.3	2.4	8.6	4.3	8.8	2.1	5.7	1.3	5.3
Latvia	4.5	1.0	6.0	0.7	3.7	1.3	4.6	1.1	3.7	5.3	0.8	6.8	0.1	0.7
Liberia	0.4	0.7	0.3	0.4	0.1	0.3	0.0+	0.2	0.1—	0.2	0.1—	0.1	0.0+	0.2
Malaya, Brit	277.8	13.6	383.8	13.6	314.0	11.2	.....	.....	.....	.....	.....	.....	.....	.....
Mexico	137.8	109.1	169.3	135.0	178.8	144.7	167.1	135.1	139.8	120.6	132.1	109.9	119.3	221.8
Netherlands	87.2	148.3	101.8	135.8	92.5	141.5	75.0	151.8	77.6	109.2	63.8	117.8	45.2	170.9
N'foundl'd, Lab.	9.1	8.5	9.0	8.8	3.7	9.6	2.6	9.7	2.2	8.4	2.3	6.6	1.9	6.6
New Zealand	12.7	32.5	18.8	41.6	19.7	38.4	13.5	29.3	15.6	25.3	10.4	20.0	9.8	28.1
Nicaragua	4.2	6.9	6.0	6.3	6.2	7.4	5.4	6.2	5.4	5.0	3.2	4.1	4.7	3.6
Norway	22.2	23.4	25.0	24.9	23.3	26.2	21.4	23.2	20.1	27.6	14.7	31.2	13.0	32.1
Palestine	0.2	1.1	0.2	2.0	.....	.....	3.6	3.1	2.1	2.2	1.3	3.6	0.3	1.6
Panama	5.4	34.0	0.5	32.0	6.4	28.2	5.0	26.4	4.8	21.8	3.6	14.5	3.9	23.1
Paraguay	0.9	1.3	0.5	0.9	0.4	0.9	0.1	0.8	0.5	0.6	1.1	0.4	1.2	0.4
Persia	7.5	3.6	8.4	0.7	7.2	0.4	5.4	0.9	5.2	0.2	3.3	0.7	2.7	2.4
Peru	20.1	24.8	21.8	29.3	17.2	23.0	22.9	23.8	19.8	19.8	15.9	14.0	14.7	24.0
Philippines	116.0	69.5	103.8	68.6	111.8	61.1	97.1	59.5	77.6	49.2	61.7	43.3	52.2	46.1
Poland, Danzig	4.8	9.3	4.1	3.9	2.5	6.5	2.8	4.6	3.6	12.1	1.9	6.4	0.9	24.8
Portugal	4.6	10.7	5.6	11.6	3.6	8.7	3.0	8.1	3.8	8.6	5.1	6.7	3.7	7.9
Rumania	0.6	4.9	1.1	3.1	0.3	2.2	0.1	1.2	0.3	1.2	0.5	2.4	0.1	5.0
Russia (Asia)	0.9	0.8	0.6	1.4	0.3	0.7	0.1	0.8	0.1	1.0	0.2	0.3	0.9	1.1
" (Europe)	12.0	64.1	13.5	48.5	12.9	68.2	8.1	41.3	1.2	3.5	0.3	19.7	0.1	14.2
Salvador	1.5	6.9	4.2	9.5	2.3	9.2	3.9	6.5	4.5	5.2	2.6	4.8	2.9	4.5
Siam	0.6	1.9	0.6	1.8	0.8	1.4	0.3	0.9	0.2	0.8	0.1	0.9	0.1	1.9
Spain	34.3	73.8	41.4	68.2	32.8	79.2	29.0	79.2	31.5	61.9	28.7	70.9	26.2	69.2
Sweden	47.9	44.6	44.0	40.8	41.0	42.5	40.0	42.3	36.2	42.4	33.3	32.5	19.8	37.6
Switzerland	45.9	10.1	42.0	8.3	40.3	8.8	35.6	8.9	38.0	5.9	38.9	4.6	41.3	7.7
Trinidad Tobago	7.6	5.9	8.2	4.9	6.0	4.2	4.9	3.8	5.2	4.4	4.5	4.9	5.5	8.6
Turkey (Asia)	7.7	0.6	7.8	0.4	9.0	0.6	7.3	0.7	5.4	0.5	0.9	0.1	8.1	6.6
" (Europe)	12.4	3.4	9.0	2.5	5.6	2.8	7.3	2.9	7.6	2.9	11.6	14.3	5.2	17.3
United Kingdom	358.0	840.0	383.2	972.6	412.7	1,033.8	366.5	982.9	344.6	821.4	294.0	790.3	238.8	942.1
Uruguay	10.9	25.0	18.5	23.0	16.1	21.3	7.1	18.2	21.8	15.1	16.5	11.4	12.5	13.8
Venezuela	28.6	34.7	23.3	40.0	19.6	25.1	16.5	17.6	13.1	11.9	13.9	8.7	11.3	9.5

EXPORTS (OF DOMESTIC) AND GENERAL IMPORTS, BY GREAT GROUPS.

Calendar years.	1925.		1926.		1927.		1928.	
	Exports.	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.	Imports.
	1,000 Dollars.	*1,000 Dollars.*	*1,000 Dollars.*	*1,000 Dollars.*	*1,000 Dollars.*	*1,000 Dollars.*	*1,000 Dollars.*	*1,000 Dollars.*
Animals & an. prod. edible	323,181	102,517	284,854	116,137	226,248	135,996	228,435	140,164
" " inedible	129,192	286,324	116,983	300,209	131,143	345,288	138 792	376,880
Veg. food prod., & beverages	566,705	823,576	553,214	841,133	658,225	819,168	532 085	814,874
Veg. pr.ined.,exc. wd. & fiber	283,330	722,901	281,011	802,748	288,829	636,640	302,738	518,982
Textiles	1,278,370	1,049,635	1,010,269	999,672	1,022,467	954,128	1,124,495	919,918
Wood & Paper	176,062	349,006	179,747	372,620	192,236	365,421	200,890	358,644
Non-metal, minerals	632,665	263,019	811,552	301,127	654 732	262,741	686,962	285,137
Metals & pr., ex. mach. & veh.	463,493	313,164	459,184	364,027	460,204	328,354	500,170	315,656
Machinery & vehicles	720,478	19,176	755,934	26,212	856,128	27,517	1,035,416	29,753
Chemicals, etc	116,345	138,340	124,856	134,766	131 828	129,643	137,305	143,041
Miscellaneous	128,901	158,932	134,116	172,238	136 276	179,481	142,394	183,070

WATER-BORNE FOREIGN COMMERCE OF PRINCIPAL UNITED STATES PORTS.

(Calendar Years; United States Shipping Board Data; In Cargo Tons of 2,240 Pounds).

EXPORTS.

Ports.	1928.	1927.	1926.	1925.	1924.	1923.	1922.	1921.
Anacortes, Wash.	44,432	60,920	51,421	50,427	22,986	24,550	9,273	11,027
Ashland, Wis.	186,392	98,762	124,287	134,516	100,743	128,775	124,679	81,843
Ashtabula, Ohio.	546,313	361,762	466,391	356,605	544,113	900,794	618,380	606,550
Baltimore, Md.	1,562,387	1,922,194	7,089,674	1,753,722	1,862,661	3,238,571	2,769,042	3,371,136
Baton Rouge, La.	1,006,297	1,069,984	963,337	999,468	749,977	714,385	803,038	746,234
Beaumont, Tex.	692,386	703,545	945,992	732,204	727,600	570,103	237,539	426,598
Bellingham, Wash.	98,822	98,678	52,907	62,198	64,398	56,343	48,200	26,306
Boston, Mass.	342,019	258,160	298,105	325,272	334,302	440,703	529,910	399,005
Buffalo, N. Y.	1,866,973	1,587,467	742,755	997,266	853,571	230,687	586,957	497,394
Charleston, S. C.	157,070	357,821	681,851	386,202	191,893	325,999	174,790	359,380
Chester, Pa.	27,033	55,745	8,004	6,221	9,846	18,117	32,756	208,772
Chicago, Ill.	172,244	336,819	321,227	199,125	491,519	281,439	1,015,807	1,345,399
Cleveland, Ohio.	203,170	216,394	187,226	149,192	1,077,439	1,135,814	727,936	1,087,193
Coos Bay, Oreg.	150,379	93,527	98,349	82,214	110,004	111,510	17,559	87,869
Detroit, Mich.	212,011	125,426	13,116	1,685	1,475	24,290	.....	.....
Duluth, Minn.	599,154	783,864	308,137	326,862	697,665	283,624	413,311	133,411
Erie, Pa.	28,745	92,928	113,660	73,587	427,689	456,329	145,228	620,021
Escanaba, Mich.	366,065	283,389	292,406	173,225	76,018	202,073	.....	.....
Everett, Wash.	234,939	186,519	144,868	164,523	138,807	111,780	78,071	25,230
Fairport, Ohio.	1,014,586	231,805	387,340	581,945	188,823	221,430	5,725	.....
Freeport, Tex.	186,931	233,539	132,482	131,314	91,458	87,210	46,288	14,109
Galveston, Tex.	1,633,691	1,843,288	1,936,277	1,080,074	1,655,887	1,152,945	1,425,044	3,383,245
Grays Harbor, Wash.	601,555	652,300	689,072	466,474	493,217	382,438	235,335	87,869
Gulfport, Miss.	303,058	348,940	272,023	328,260	249,900	275,374	214,091	167,841
Houston, Tex.	3,530,377	2,605,647	2,182,698	1,467,922	1,352,240	948,975	465,637	225,886
Jacksonville, Fla.	139,796	120,716	86,334	133,065	175,835	182,465	181,012	222,366
Key West, Fla.	215,008	269,760	252,048	286,557	277,830	248,976	161,179	240,092
Lorain, Ohio.	341,971	392,559	233,836	174,874	420,862	707,942	508,105	247,740
Los Angeles, Calif.	5,738,897	5,663,401	4,435,046	3,231,141	3,199,632	2,296,442	725,904	3,383,245
Marcus Hook, Pa.	116,400	75,501	95,258	130,548	144,485	123,275	161,561	297,925
Miami, Fla.	26,317	15,699	9,954	8,358	4,961	9,234	5,416	209
Mobile, Ala.	649,228	647,047	572,450	766,754	715,300	668,984	488,314	399,475
New Orleans, La.	3,908,459	3,520,293	3,785,112	3,799,464	3,676,263	3,108,435	3,701,438	4,586,720
Newport News, Va.	679,113	850,664	4,426,546	1,824,894	1,178,975	1,363,387	334,753	2,231,023
New York, N. Y.	10,857,949	11,434,523	10,949,743	11,770,797	12,007,691	11,235,566	10,603,144	9,052,138
Norfolk, Va.	1,672,521	1,909,461	7,043,516	2,435,491	2,464,038	1,590,040	1,036,696	4,029,951
Pensacola, Fla.	220,173	248,238	229,377	249,677	285,283	452,239	177,709	151,706
Philadelphia, Pa.	1,605,388	1,921,335	3,335,814	2,357,480	2,303,188	2,445,159	2,669,281	2,561,367
Port Angeles, Wash.	22,725	28,730	19,471	14,543	13,057	22,690	16,076	15,072
Port Arthur, Tex.	1,054,520	1,082,579	1,058,691	932,841	1,233,631	1,052,799	1,309,837	1,515,849
Portland, Me.	111,841	154,599	243,882	240,061	303,582	609,416	570,243	521,954
Portland, Oreg.	1,303,612	1,644,285	1,527,470	764,444	1,234,556	1,175,066	1,208,445	1,435,001
Port San Luis, Calif.	438,508	465,874	358,029	240,030	481,667	745,639	216,853	157,324
Rochester, N. Y.	1,069,491	675,534	591,480	385,224	461,227	608,478	435,234	418,972
Sandusky, Ohio.	706,996	1,009,975	1,111,954	974,465	491,416	359,840	165,043	185,776
San Francisco, Calif.	2,541,806	2,313,630	2,097,250	1,860,265	1,871,921	2,103,609	1,617,381	1,387,291
Savannah, Ga.	235,411	419,140	387,007	343,994	304,365	200,597	241,496	329,887
Seattle, Wash.	720,079	804,399	786,012	545,737	760,515	656,135	609,304	571,287
Sodus Point, N. Y.	486,646	136,925	202,029	200,219	108,385	110,658	52,498	16,887
Superior, Wis.	1,346,506	1,158,197	664,307	445,510	669,262	682,958	414,079	307,661
Tacoma, Wash.	600,595	586,986	528,092	454,880	585,940	606,548	469,767	304,100
Tampa, Fla.	760,960	725,673	492,492	578,317	508,499	554,179	439,104	438,339
Texas City, Tex.	226,854	219,579	198,608	222,375	497,044	270,243	412,756	282,095
Toledo, Ohio.	1,870,602	1,863,509	1,721,376	1,282,571	1,101,751	854,973	1,100,735	837,997
Wilmington, N. C.	23,749	32,954	22,699	19,917	26,758	19,691	22,786	24,866
Other and Total.	57,976,557	56,901,433	67,733,656	49,693,130	52,267,819	49,628,927	42,730,289	48,663,926

WATER-BORNE CARGO COMMERCE OF THE UNITED STATES.

(Figures compiled and furnished the Almanac by Chief of Engineers, U. S. Army.)

Year. (Calendar.)	Ports on Atlantic, Gulf, and Pacific Coasts.		Ports on Great Lakes.		Rivers, Canals, and Channels.	Grand Total Foreign and Domestic.
	Foreign.	Domestic.	Foreign.	Domestic.	Domestic.	
	net tons.	*net tons.*	*net tons.*	*net tons.*	*net tons.*	*net tons.*
1920	100,384,206	114,557,241	12,388,707	98,750,979	125,400,000	399,000,000
1921	80,151,748	115,333,669	12,512,860	58,947,310	116,300,000	332,000,000
1922	86,874,593	128,430,717	13,005,132	81,032,958	111,800,000	376,000,000
1923	82,998,505	180,660,122	14,659,905	110,857,646	153,700,000	478,000,000
1924	85,433,050	197,624,390	16,128,526	93,702,753	173,200,000	555,700,000
1925	92,043,288	209,087,326	16,504,138	113,644,259	204,569,000	482,600,000
1926	114,693,239	227,391,874	16,599,974	120,794,460	217,000,000	540,500,000
1927	99,937,607	231,980,937	20,584,909	119,775,882	219,000,000	532,500,000
1928	102,841,403	228,371,871	23,926,770	126,062,842	227,300,000	539,500,000

The figures represent the actual tonnages handled at the ports and on the rivers, canals and connecting channels. The grand total figures do not represent an addition of the several elements, but do show the actual tonnages floated on the waters of the United States after eliminating certain traffic common to both ports and internal waterways.

CONSOLIDATED SUMMARY OF CARGO TONNAGE, WITH NET TOTALS.

Year. (Calendar.)	Foreign.		Domestic, Coastwise.		Other Domestic.	Total Eliminating (!) Duplications.
	Imports.	Exports.	Receipts.	Shipments.		
	net tons.	*net tons.*	*net tons.*	*net tons.*	*net tons.*	*net tons.*
1920	39,903,983	72,868,930	143,664,063	147,601,094	135,351,280	326,081,133
1921	35,624,770	57,039,838	103,858,765	103,853,258	140,849,934	266,945,586
1922	49,064,493	50,815,232	138,537,030	149,739,852	130,650,468	309,443,399
1923	44,387,395	53,271,015	195,946,096	202,133,329	184,956,112	389,176,178
1924	41,386,696	60,174,880	181,780,387	181,704,964	153,475,070	392,889,219
1925	50,109,204	58,438,222	216,998,979	225,258,113	140,628,449	431,279,011
1926	51,258,418	80,034,795	223,012,607	226,005,196	181,115,929	479,479,547
1927	51,485,567	69,036,949	233,290,399	237,514,607	164,459,798	472,279,335
1928	55,238,302	71,529,871	241,317,611	236,357,305	165,104,236	481,202,886

WATER-BORNE FOREIGN COMERCE OF PRINCIPAL UNITED STATES PORTS.

(Calendar Years; United States Shipping Board Data; In Cargo Tons of 2,240 Pounds).

IMPORTS

Ports.	1928.	1927.	1926.	1925.	1924.	1923.	1922.	1921.
Anacortes, Wash.	82,920	113,655	88,496	110,304	124,292	89,249	12,074	406
Ashland, Wis.	100,000	143,734	98,349	119,077	94,629	62,712	.....	9,265
Astoria, Oreg.	1,192	.....	8,693	24,011	17,842	18,393	19,022	1,886
Baltimore, Md.	4,324,637	4,452,413	4,472,784	3,938,947	3,563,549	3,429,483	2,849,982	2,467,574
Baton Rouge, La.	220,123	243,249	168,465	298,963	540,276	329,725	1,096,048	1,199,112
Beaumont, Tex.	5,597	6,929	2,084	188	529	292	47,120	29,124
Bellingham, Wash.	15,808	35,585	65,585	78,647	72,260	111,822	15,056	790
Boston, Mass.	2,149,131	2,214,400	2,514,597	2,171,615	2,009,100	2,575,638	3,726,454	1,852,615
Buffalo, N. Y.	4,833,615	3,681,624	3,516,543	4,094,993	2,943,970	3,107,196	3,388,038	2,440,699
Charleston, S. C.	597,418	653,795	742,273	653,861	594,589	376,252	289,820	309,332
Chester, Pa.	228,441	223,410	219,309	120,231	37,253	72,047	72,696	148,139
Chicago, Ill.	225,015	80,559	79,891	62,601	51,354	25,582	44,043	18,690
Claymont, Del.	124,402	147,758	157,038	165,744	103,716	92,637	72,959	7,060
Cleveland, Ohio	163,123	157,842	131,001	277,214	268,412	267,967	194,688	145,768
Corpus Christi, Tex.	7,539	5,346	.....	.....	.....	.....	.....	.....
Detroit, Mich.	416,997	459,404	146,414	4,250	.....	1,175	.....	.....
Duluth, Minn.	58,431	35,993	45,768	47,573	59,192	115,472	63,774	66,409
Erie, Pa.	74,225	232,248	208,368	144,395	129,500	369,823	413,351	110,978
Escanaba, Mich.	.....	2,846	1,360	2,156	2,595	.....	.....	.....
Everett, Mass.	326,097	85,790	.....	.....	.....	.....	.....	.....
Everett, Wash.	4,255	15,622	9,723	8,738	1,516	1,325	1,056	1,440
Fairport, Ohio	284,479	137,454	180,634	123,186	.....	34,392	80,790	.....
Fall River, Mass.	596,570	719,877	105,172	353,323	704,853	627,105	769,880	629,895
Freeport, Tex.	.....	54,236	217,182	288,226	195,959	454,033	218,011	76,298
Galveston, Tex.	317,484	393,766	723,398	775,209	1,570,348	1,674,738	1,585,068	1,938,926
Grays Harbor, Wash.	1,828	575	2,586	1,072	550	2,250	.....	.....
Gulfport, Miss.	40,889	27,443	48,522	42,910	26,527	24,789	12,920	36,804
Houston, Tex.	306,256	192,311	364,534	433,538	722,607	448,273	303,591	190,231
Isle Royal, Mich.	503	.....	.....	.....	.....	.....	.....	.....
Jacksonville, Fla.	247,455	326,533	509,175	436,940	386,143	403,051	312,520	208,217
Key West, Fla.	135,226	147,867	445,256	337,302	189,882	194,063	163,933	148,197
Lorain, Ohio	2,982	2,982	6,000	13,150	8,800	14,450	8,002	6,426
Los Angeles, Calif.	601,491	510,657	451,832	393,258	525,275	490,622	219,214	226,451
Marcus Hook, Pa.	128,066	.....	.....	.....	10,345	48,076	242,516	17,800
Miami, Fla.	106,939	60,380	114,863	193,127	58,229	58,893	34,801	12,709
Mobile, Ala.	475,123	346,188	433,704	341,681	296,201	295,812	209,539	206,887
New Orleans, La.	4,250,182	4,177,355	4,877,059	4,830,037	4,488,425	4,174,806	3,442,603	3,165,917
Newport News, Va.	68,752	161,357	123,383	201,622	127,117	102,240	33,375	18,853
New York, N. Y.	15,252,217	13,404,699	13,392,216	11,963,644	11,084,454	11,717,327	13,030,729	9,223,079
Norfolk, Va.	458,587	444,702	494,323	463,961	372,701	354,555	498,531	232,761
Ogdensburg, N. Y.	154,250	193,450	172,071	200,514	180,881	148,256	149,267	109,010
Pensacola, Fla.	136,969	77,339	95,440	90,295	37,900	39,013	69,612	48,974
Philadelphia, Pa.	3,205,373	2,541,099	2,951,285	3,242,012	3,133,681	3,903,260	3,667,677	2,418,751
Port Angeles, Wash.	115,272	99,567	142,618	44,753	58,577	36,192	3,632	2,706
Port Arthur, Tex.	167,878	87,880	219,889	496,335	1,076,632	1,768,417	3,174,660	2,589,504
Portland, Me.	521,214	648,195	644,707	511,962	433,188	319,983	495,399	229,041
Portland, Oreg.	121,957	125,729	112,585	105,759	95,746	93,284	61,407	29,868
Providence, R. I.	270,421	316,817	458,947	663,721	555,794	768,647	399,479	.....
Rochester, N. Y.	183,740	140,066	99,969	160,721	160,906	142,649	110,302	117,924
Sandusky, Ohio	80,905	102,087	115,090	188,668	141,729	143,024	19,468	85,591
San Francisco, Calif.	1,139,000	981,020	1,015,927	958,012	931,920	963,765	978,793	730,278
Savannah, Ga.	339,057	320,486	511,344	540,883	432,928	498,830	282,158	173,608
Seattle, Wash.	448,519	454,984	403,347	428,459	388,575	340,082	259,754	201,032
Superior, Wis.	5,300	1,340	6,374	21,694	29,734	26,508	40,090	4,386
Tacoma, Wash.	386,038	391,921	359,470	335,741	333,818	313,185	225,938	146,341
Tampa, Fla.	140,496	176,009	415,608	371,425	303,233	305,108	167,654	213,344
Texas City, Tex.	68,380	86,427	129,069	263,016	405,362	260,408	290,921	72,997
Toledo, Ohio	109,749	63,501	26,048	36,218	64,581	277,646	143,541	70,735
Waddington, N. Y.	138,942	118,400	137,000	135,200	66,790	39,782	5,200	.....
Wilmington, Del.	428,822	195,238	58,640	68,726	92,003	195,196	121,749	164,537
Wilmington, N. C.	254,799	151,662	196,285	203,720	198,298	190,059	148,273	50,286
All Others	882,579	650,037	533,279	489,887	456,076	552,252	517,091	572,284
Total	46,474,508	42,025,313	43,975,656	43,073,202	40,961,052	43,481,862	44,795,364	33,178,025

CARGO TRAFFIC ON CHIEF AMERICAN CANALS (CARGO TONS).

Year.	Detroit River.		Sault Ste. Marie.		Duluth-Superior.		Erie.
	Tons.	*Dollars.*	*Tons.*	*Dollars.*	*Tons.*	*Dollars.*	*Tons.*
1910.	73,526,602	771,294,055	62,363,218	654,010,844	36,684,578	284,049,072	3,073,412
1911.	66,951,231	745,187,201	53,477,276	595,019,844	30,672,846	236,056,373	3,097,068
1912.	78,671,208	859,089,591	72,472,676	791,357,837	41,474,776	320,921,933	2,606,116
1913.	85,376,705	927,191,016	79,718,344	865,957,838	46,375,416	352,595,577	2,602,035
1914.	69,810,853	800,032,375	55,369,934	634,800,268	33,535,704	287,002,960	2,089,850
1915.	82,514,457	1,021,528,978	71,290,304	882,263,141	40,494,672	368,802,154	1,858,114
1916.	100,907,279	1,069,617,157	91,883,219	974,161,156	52,177,333	387,219,625	1,625,050
1917.	95,243,119	1,269,590,776	89,813,818	1,196,922,182	52,411,824	471,309,736	1,297,225
1918.	88,855,520	1,023,615,590	85,680,327	987,005,347	53,746,358	537,514,906	1,159,270
1919.	73,091,328	979,428,795	68,235,542	914,513,944	42,895,681	444,067,628	1,238,844
1920.	80,410,082	1,135,390,357	79,282,496	1,119,774,214	46,808,613	552,900,033	1,421,434
1921.	63,973,308	989,027,342	48,259,254	746,134,195	30,088,555	320,512,891	1,457,802
1922.	68,497,062	992,522,426	66,067,258	957,126,634	38,202,074	365,660,138	2,260,763
1923.	92,170,460	1,035,074,266	91,379,653	1,026,045,064	59,274,812	449,701,954	2,006,284
1924.	80,073,850	1,200,307,011	72,037,390	1,079,675,776	45,416,956	516,837,517	2,032,317
1925.	90,400,529	1,236,967,221	81,875,108	1,117,817,282	51,334,641	471,675,972	2,344,013
1926.	95,003,604	1,179,944,762	85,679,087	1,068,875,087	53,695,302	424,243,329	2,369,367
1927.	97,188,281	1,319,816,856	83,354,064	1,131,653,155	52,712,269	520,640,087	2,581,899
1928.	100,219,634	1,362,987,022	86,992,997	1,183,123,800	53,204,335	481,101,523	3,089,998

A considerable amount of cargo traffic on the Detroit River, according to statements of the federal prohibition enforcement agents, is not openly accounted for in the navigation returns, or on ship manifests.

The Erie (Barge) Canal in 1929 handled a large quantity of grain from the far northwest that got to New York City via the Panama Canal and was distributed to Ohio and other north-central states by the Barge Canal.

VESSELS ENTERED AND CLEARED AT UNITED STATES PORTS.

Year (Fiscal).	American.		Foreign.		Year (Fiscal).	American.		Foreign.	
	Net Tons.	*Pct.*	*Net Tons.*	*Pct.*		*Net Tons.*	*Pct.*	*Net Tons.*	*Pct.*
1900.....	12,344,570	22	44,099,576	78	1916.....	35,829,742	34	68,143,163	66
1901.....	12,798,652	21	46,789,262	79	1917.....	37,870,464	37	64,678,782	63
1902.....	13,782,755	23	47,315,759	77	1918.....	38,489,763	42	52,980,156	58
1903.....	13,881,809	22	48,528,022	78	1919.....	41,020,746	44	51,255,601	56
1904.....	13,320,547	22	46,647,438	78	1920.....	55,239,879	51	53,253,160	49
1905.....	14,283,632	23	47,857,126	77	1921.....	67,946,336	49	70,124,833	51
1906.....	15,193,223	22	52,746,676	78	1922.....	59,756,486	48	63,159,285	52
1907.....	16,208,213	22	56,404,100	78	1923.....	61,293,398	46	72,196,133	54
1908.....	16,908,434	22	59,922,457	78	1924.....	58,315,530	43	77,225,010	57
1909.....	17,263,189	22	59,991,430	78	1925.....	57,733,259	41	81,134,736	59
1910.....	17,697,062	22	62,244,602	78	1926.....	53,773,438	38	85,922,421	62
1911.....	19,446,233	23	65,665,903	77	Cal. Yrs.				
1912.....	22,960,565	25	69,614,418	75	1926.....	55,422,826	35	100.552,131	65
1913.....	27,018,368	26	74,772,764	74	1927.....	59,082,289	39½	90,667,856	60½
1914.....	27,470,703	26	79,101,283	74	1928.....	63,018,992	39.18	97,852,616	60.82
1915.....	26,693,736	29	66,901,818	71					

1928 (Jan. 1—June 30) total, 71,140,429 (Jan. 1—June 30, 1927 was 68,365,672.)
The lowest American percentage was 19 in 1880, 1881, and 1882; the highest was 91, in 1825.

NET TONNAGE OF VESSELS CLEARED AT U. S. PORTS IN 1928 AND 1927.

(Calendar Years. Ships engaged in foreign trade only, with cargo and without)

	Total.		With Cargo.		Americans.		Foreign.	
	1927.	1928.	1927.	1928.	1927.	1928.	1927.	1928.
	Tons.	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*
GRAND TOTAL..	**75,440,332**	**80,663,836**	**60,074,633**	**63,507,785**	**29,793,601**	**31,734,381**	**45,646,731**	**48,929,455**
Europe.....	**23,373,910**	**23,906,408**	**23,129,853**	**23,595,261**	**4,984,281**	**4,853,823**	**18,389,629**	**19,052,585**
Belgium.....	1,358,003	1,276,897	1,334,604	1,274,195	369,820	327,181	988,183	949,716
Denmark.....	622,838	727,692	620,705	727,692	89,855	112,403	532,983	615,289
France.....	2,390,070	2,553,703	2,372,864	2,530,775	440,501	422,116	1,949,569	2,131,587
Germany.....	3,597,364	3,858,143	3,597,350	3,854,740	1,147,570	1,081,976	2,449,794	2,776,167
Greece.....	272,086	265,353	271,432	265,353	87,440	89,976	184,646	175,377
Italy.....	1,835,693	1,889,588	1,737,770	1,770,049	165,726	215,949	1,669,967	1,673,639
Netherlands.....	1,611,551	1,671,746	1,611,551	1,651,127	472,207	477,369	1,139,344	1,194,377
Norway.....	356,500	327,566	344,412	305,361	.....	3,420	356,500	324,146
Poland & Danzig..	65,220	64,719	65,220	64,719	.....	11,100	65,220	53,619
Sov. Russia in Eur..	110,972	110,835	110,972	110,835	.....	.....	110,972	110,835
Spain.....	617,800	616,851	602,632	608,893	96,986	87,979	520,814	528,872
Sweden.....	490,852	515,566	490,852	515,566	39,242	22,382	451,610	493,184
United Kingdom..	9,705,379	9,647,903	9,645,029	9,628,575	1,978,304	1,881,069	7,727,075	7,766,834
No. America...	**38,991,323**	**42,224,632**	**25,603,329**	**27,885,500**	**19,588,041**	**20,879,915**	**19,403,282**	**21,344,717**
Canada:								
Maritime Prov...	1,577,867	1,759,184	883,091	1,021,494	460,410	559,711	1,117,457	1,199,473
Quebec & Ontario	16,131,355	17,747,087	10,898,766	12,159,470	7,774,136	8,589,511	8,357,219	9,157,576
Brit. Col. & Yuk.	5,805,099	6,522,465	3,946,009	4,143,177	2,282,234	2,675,807	3,522,865	3,846,658
C. American States:								
Costa Rica.....	57,021	131,947	53,998	131,947	51,844	112,334	5,177	19,613
Guatemala.....	265,710	247,553	194,921	223,975	63,536	114,866	202,174	132,687
Honduras.....	813,707	1,018,928	585,287	582,757	295,695	244,302	518,012	774,626
Nicaragua.....	126,070	141,839	92,381	116,351	22,583	17,724	103,487	124,115
Panama.....	1,226,558	1,118,046	1,192,710	1,091,787	899,978	800,809	326,580	317,237
Mexico.....	3,145,294	2,549,760	924,608	782,332	2,210,429	1,640,197	934,865	909,563
W. Indies & Ber:								
Bermudas.....	737,959	920,619	657,637	856,513	14,652	6,822	723,307	913,797
Brit. West Indies	1,242,983	1,064,255	781,235	739,193	338,330	332,689	904,653	731,566
Cuba.....	5,306,403	5,274,021	3,794,921	3,624,752	3,558,757	3,507,001	1,747,646	1,767,020
Dom. Republic..	791,237	1,046,876	679,583	830,383	588,700	762,500	202,537	284,376
Haiti, Rep. of...	180,888	181,417	173,732	176,008	124,492	87,843	56,396	93,574
So. America...	**5,888,614**	**6,677,783**	**4,225,433**	**4,286,030**	**2,972,822**	**3,612,551**	**2,915,792**	**3,065,232**
Argentina.....	997,788	1,003,508	992,880	1,000,247	281,576	279,771	716,212	723,747
Brazil.....	1,194,297	1,208,458	1,191,133	1,200,321	432,612	530,862	761,685	677,596
Chile.....	1,006,092	1,220,706	697,317	894,061	505,737	605,939	500,355	614,767
Colombia	1,007,325	1,248,551	460,530	549,258	806,576	901,688	200,749	346,863
Peru	238,012	83,894	84,097	43,251	93,534	46,873	144,478	37,023
Uruguay	406,545	174,627	406,545	172,285	106,516	47,703	300,029	126,924
Venezuela.....	946,598	1,638,187	329,914	393,809	715,401	1,168,498	231,197	469,689
Asia	**4,858,457**	**5,549,906**	**4,828,243**	**5,508,929**	**1,638,374**	**1,769,546**	**3,220,083**	**3,780,360**
British India.....	359,404	285,077	357,878	285,077	109,663	111,084	249,741	173,993
China	584,210	787,833	581,009	787,833	235,949	319,180	348,261	468,653
Hong Kong	234,311	218,933	234,311	218,933	10,607	9,374	228,704	209,559
Japan	2,958,082	3,437,875	2,932,595	3,400,649	865,845	896,458	2,092,237	2,541,417
Philippine Islands..	484,376	537,148	484,376	533,698	406,701	405,610	77,675	131,538
Oceania.....	**1,528,636**	**1,403,003**	**1,494,729**	**1,387,548**	**345,335**	**319,347**	**1,083,656**	**1,083,656**
Australia.....	1,159,360	1,084,038	1,150,954	1,071,231	255,274	256,909	904,086	827,129
Other Oceania.....	369,276	318,965	343,775	316,317	90,061	62,438	279,215	256,527
Africa.....	**799,392**	**902,104**	**793,046**	**844,517**	**264,748**	**299,199**	**534,644**	**602,905**
British Africa.....	434,503	486,987	430,900	477,854	129,830	162,196	304,673	324,791
French Africa.....	89,076	71,577	89,076	71,577	6,411	7,386	82,665	64,191
Portuguese Africa.	16,981	25,522	16,981	25,522	3,970	647	13,011	24,875
Spanish Africa....	56,067	55,353	55,913	55,353	17,137	7,261	38,930	48,092

THE AMERICAN MERCHANT MARINE.

(Data by the United States Commissioner of Navigation.)

Year (Fiscal).	Licensed Vessels Under 20 Tons.						Total Merchant Marine.					
	Sailing.		Steam.		Total.		Sailing.		Steam.		Total.	
	No.	*Tons.*	*No.*	*Tons.*	*No.*	*Tons.*	*No.*	*Tons.*	*No.*	*Tons.*	*No.*	*Tons.*
1830	.....	23,853	.....	.....	.....	23,854	.....	1,127,304	.....	64,472	.....	1,191,776
1840	.....	40,139	.....	.....	.....	40,139	.....	1,978,425	.....	202,339	.....	2,180,764
1850	.....	50,188	.....	.....	.....	50,188	.....	3,009,507	.....	525,947	.....	3,535,454
1860	.....	54,693	.....	.....	.....	54,693	.....	4,485,931	.....	867,937	.....	5,353,868
1870	4,301	48,738	230	3,029	4,531	51,767	25,474	3,171,412	3,524	1,075,095	28,998	4,246,507
1880	5,418	59,504	506	6,367	5,924	65,871	19,995	2,856,476	4,717	1,211,558	24,712	4,068,034
1890	5,888	64,103	989	21,815	6,877	85,918	17,502	2,565,409	5,965	1,859,088	23,467	4,424,497
1900	6,873	71,946	1,344	26,630	8,217	98,576	16,280	2,507,042	7,053	2,657,797	23,333	5,164,839
1910	4,777	51,666	5,388	70,863	10,165	122,529	13,288	2,607,721	12,452	4,900,361	25,740	7,508,082
1911	4,360	47,565	5,995	77,734	10,355	125,299	12,684	2,564,721	13,307	5,074,069	25,991	7,638,790
1912	4,042	44,445	6,562	84,951	10,604	129,396	11,577	2,534,325	14,951	5,179,858	26,528	7,714,183
1913	3,722	41,205	7,042	91,197	10,764	132,402	11,988	2,553,271	15,082	5,333,247	27,070	7,886,518
1914	3,411	37,951	7,291	95,611	10,702	133,562	11,452	2,501,162	15,491	5,427,526	26,943	7,928,688
1915	3,045	34,248	7,514	98,913	10,559	133,161	10,753	2,445,619	15,948	5,943,810	26,701	8,389,429
1916	2,811	31,867	7,534	99,021	10,345	130,888	10,383	2,399,586	16,061	6,070,063	26,444	8,469,649
1917	2,566	29,651	7,445	98,699	10,011	128,350	10,155	2,437,676	16,242	6,433,361	26,397	8,871,037
1918	2,409	28,001	7,476	99,918	9,885	127,919	10,053	2,453,204	16,658	7,471,314	26,711	9,924,518
1919	2,263	26,485	7,572	102,278	9,835	128,763	9,862	2,491,673	17,651	10,415,627	27,513	12,907,300
1920	2,113	24,710	7,735	105,411	9,848	130,121	9,369	2,500,575	18,814	13,823,449	28,183	16,324,024
1921	1,908	22,383	7,609	105,777	9,517	128,160	8,941	2,537,021	19,071	15,745,115	28,012	18,282,136
1922	1,672	19,872	7,622	105,200	9,294	125,072	8,398	2,480,867	18,960	15,892,100	27,358	18,462,967
1923	1,520	18,323	7,609	105,873	9,129	124,196	8,071	2,463,333	18,946	15,821,401	27,017	18,284,734
1924	1,355	16,466	7,562	106,725	8,917	123,191	7,825	2,425,214	18,750	15,315,343	26,575	17,740,557
1925	1,295	15,809	7,587	108,540	8,882	124,349	7,730	2,429,509	18,637	14,976,393	26,367	17,405,902
1926	1,240	14,917	7,619	110,444	8,859	125,361	7,654	2,467,927	18,689	14,848,220	26,343	17,311,147
1927	1,130	13,717	7,440	108,852	8,570	122,569	7,394	2,380,652	18,384	14,506,849	25,778	16,887,501
1928	1,048	12,780	7,357	108,437	8,405	121,217	7,115	2,336,382	18,270	14,346,679	25,385	16,683,061
1929	950	11,280	7,372	109,867	8,322	121,147	7,007	2,315,022	18,319	14,161,837	25,326	16,476,859

Included in above, on June 30, 1929, were 253 canal boats of 32,279 gross tons and 5,043 barges of 1,457,475 gross tons.

Motor ships, included in steam, numbered 11,919, of 861,001 gross tons.

Figures for 1840 are for year ended Sept. 30.

Figures for licensed steam vessels under 20 tons include gasoline craft since 1897.

VESSELS BUILT AND DOCUMENTED IN THE UNITED STATES.

Year.	No.	Gr.Tons.	Year.	No.	Gr.Tons.	Year.	No.	Gr.Tons.	Year.	No.	Gr.Tons.
1798	635	49,435	1882	1,371	282,270	1899	1,273	300,038	1916	937	325,413
1799	767	77,921	1883	1,268	265,430	1900	1,447	393,790	1917	1,297	664,479
1800	995	106,261	1884	1,190	225,514	1901	1,580	483,489	1918	1,528	1,300,868
1810	.....	127,575	1885	920	159,056	1902	1,491	468,831	1919	1,953	3,326,621
1820	557	51,394	1886	715	95,453	1903	1,311	436,152	1920	2,067	3,880,639
1830	648	58,560	1887	844	150,459	1904	1,184	373,542	1921	1,361	2,265,115
1840	895	121,203	1888	1,014	218,087	1905	1,102	330,316	1922	845	661,232
1850	1,422	279,255	1889	1,707	231,134	1906	1,221	419,745	1923	770	335,791
1860	1,071	214,798	1890	1,051	294,123	1907	1,157	471,332	1924	1,049	223,968
1870	1,618	276,953	1891	1,384	369,302	1908	1,457	614,216	1925	967	199,846
1875	1,301	297,639	1892	1,395	199,633	1909	1,247	238,000	1926	924	224,673
1876	1,112	203,586	1893	956	211,639	1910	1,361	342,068	1927	917	245,144
1877	1,029	176,592	1894	838	131,195	1911	1,422	291,162	1928	969	257,180
1878	1,258	235,504	1895	694	111,602	1912	1,505	232,669	1929	808	128,976
1879	1,132	193,031	1896	723	227,097	1913	1,475	346,155			
1880	902	157,410	1897	891	232,233	1914	1,151	316,250			
1881	1,108	280,459	1898	952	180,458	1915	1,157	225,122			

Deadweight tonnage expresses tons of 2,240 pounds a vessel can transport of cargo, etc.

Gross tonnage applies to vessels, not to cargo. It is determined by dividing by 100 the contents, in cubic feet, of the vessel's closed-in spaces. A vessel ton is 100 cubic feet.

Net tonnage is a vessel's gross tonnage minus deductions of space occupied by crew, machinery, engine room, fuel, etc.

Displacement of a vessel is the weight, in tons of 2,240 pounds, of the vessel and its contents.

UNITED STATES MERCHANT SHIPWRECKS AND CASUALTIES.

(Data compiled by the United States Coast Guard.)

Year (Fiscal).	No Ships.	Wrecks, Total.	Wrecks, Partial.	Ships Tot. Lost.	Ships Damaged.	Losses to Ships.	Losses to Cargoes.	Passengers.	Crews.	Lives Lost.
				Tons.	*Tons.*	*Dollars.*	*Dollars.*	*No.*	*No.*	*No.*
1912	1,447	328	1,119	113,920	1,546,391	8,213,375	1,941,010	15,972	24,310	195
1913	1,265	274	991	91,188	1,663,623	8,338,935	1,549,285	21,101	23,077	283
1914	1,210	293	917	173,069	1,518,930	11,437,330	2,509,405	14,533	22,199	421
1915	1,088	289	799	151,968	1,276,125	10,199,560	4,013,083	12,857	20,220	277
1916	1,140	317	823	135,233	1,714,434	12,671,040	3,668,995	14,080	20,653	1,364
1917	1,072	324	748	197,119	1,523,307	33,708,710	12,479,600	8,233	21,418	490
1918	976	380	596	248,520	1,090,956	57,728,110	22,557,940	6,911	16,207	398
1919	738	303	435	163,168	1,016,590	38,139,080	12,698,145	5,722	14,289	452
1920	1,074	285	789	214,531	2,088,534	54,955,480	17,612,455	14,499	26,100	551
1921	777	222	555	122,397	1,434,888	28,662,733	6,269,298	7,081	16,005	206
1922	907	277	630	131,027	1,762,412	18,727,614	3,975,714	8,989	19,065	227
1923	980	273	707	117,099	1,941,349	17,202,806	3,710,959	14,144	21,198	116
1924	945	237	708	96,474	1,917,058	14,201,211	3,802,794	8,861	20,255	202
1925	980	255	725	96,225	1,985,884	15,177,361	4,113,565	11,958	22,771	192
1926	982	254	728	93,539	2,015,068	15,596,857	4,324,475	12,331	21,970	236
1927	1,233	300	933	118,337	2,787,707	18,704,033	5,314,663	10,493	27,635	226
1928	1,042	273	769	107,291	2,285,601	16,569,981	4,134,522	14,856	23,482	166
1929	1,102	283	819	204,001	2,228,764	16,243,326	4,342,021	12,721	23,217	163

The above table covers wrecks and casualties on and near the United States coasts, on United States rivers and the Great Lakes, at sea, and on the coasts of foreign countries.

BALANCE OF TRADE UNDER TARIFF ACTS.

Act of	Years.	Imports.	Exports.	Annual Average Excess Imports.	Annual Average Excess Exports.
July 4, 1789	1790	$23,000,000	$20,205,156	$2,794,844	.....
Aug. 10, 1790	1791–1792	60,700,000	39,765,139	10,467,430	.....
May 2, 1792	1793–1794	65,700,000	59,153,297	3,273,351	.....
June 7, 1794	1795–1812	1,523,538,964	1,213,983,049	17,197,551	.....
July 1, 1812	1813–1816	295,114,274	169,261,263	31,464,253	.....
April 27, 1816	1817–1824	686,533,674	608,707,242	9,728,304	.....
May 22, 1824	1825–1828	349,308,444	331,720,223	4,397,055	.....
May 19, 1828	1829–1832	349,589,837	314,695,705	8,723,533	.....
July 14, 1832	1833	108,118,311	90,140,433	17,977,878	.....
March 2, 1833	1834–1842	1,218,445,645	1,060,257,281	17,576,485	.....
Aug. 30, 1842	1843–1846	349,333,077	423,681,648	.....	$18,589,643
July 30, 1846	1847–1857	2,336,436,244	2,512,765,531	.....	16,030,481
March 3, 1857	1858–1861	1,170,440,593	1,330,901,092	.....	40,115,125
March 2, 1861	1862	178,330,200	227,558,141	.....	49,227,941
July 14, 1862	1863–1864	526,488,602	532,355,587	.....	2,933,492
June 30, 1864	1865–1870	2,176,889,958	2,193,871,147	.....	2,830,198
July 14, 1870	1871–1872	1,059,359,997	1,065,317,286	.....	2,978,644
June 6, 1872	1873–1883	6,235,725,983	7,313,389,153	.....	97,969,379
March 3, 1883	1884–1890	4,758,262,722	5,080,073,791	.....	45,973,010
Oct. 1, 1890	1891–1894	3,112,621,836	3,588,238,021	.....	118,964,046
Aug. 27, 1894	1895–1897	2,280,107,204	2,688,606,689	.....	136,164,495
July 24, 1897	1898–1909	11,981,155,035	17,964,899,699	.....	498,645,389
Aug. 5, 1909	1910–1913	6,482,467,103	8,322,459,209	.....	459,988,026
Oct. 3, 1913	1914–1922	27,279,046,087	48,480,705,084	.....	2,355,739,889
Sept. 22, 1922	1923–1924	7,402,028,542	8,588,364,627	.....	593,167,929
Sept. 22, 1922	1923–1926	16,059,506,171	18,118,807,723	.....	514,825,388
Sept. 22, 1922	1923–1927	20,244,248,587	22,877,671,393	.....	526,684,561
Sept. 22, 1922	1923–1928	24,335,368,651	27,907,353,789	.....	595,330,856

Years ending Sept. 30, to 1843; 1844 to 1918, years ended June 30. Calendar years since.

UNITED STATES AND LATIN-AMERICAN COMMERCE.

Includes Mexico, Central America, Cuba, Dominican Republic, Hayti, and South America.

Year Ending June 30.	Imports From Latin America.	Pct. of Total	Exports to Latin America.	Pct. of Total	Year Ending June 30.	Imports From Latin America.	Pct. of Total	Exports to Latin America.	Pct. of Total
1900	$167,180,295	19.67	$110,674,490	7.94	1915	$557,413,053	33.29	$251,469,431	9.08
1901	198,233,744	24.08	118,772,158	7.98	1916	760,132,729	34.58	411,193,859	9.49
1902	208,510,497	23.08	115,132,413	8.33	1917	962,860,611	36.21	581,954,695	9.25
1903	225,923,096	22.03	115,053,595	8.10	1918	1,025,160,871	33.44	725,820,970	12.24
1904	256,227,244	25.85	136,615,381	9.35	1919	1,126,788,813	36.39	826,272,958	11.99
1905	302,266,593	27.05	159,156,657	10.48	1920	1,774,000,443	34.50	1,163,476,626	15.05
1906	294,049,326	23.97	209,043,359	11.99	1921	1,134,500,226	31.70	1,313,044,103	20.90
1907	334,572,126	23.33	229,966,603	12.23	1922	662,160,024	25.40	506,935,249	13.46
1908	273,176,971	22.87	219,968,513	11.82	1923	1,024,958,027	27.94	608,084,033	15.36
1909	324,154,136	24.71	201,912,874	12.14	1924	987,043,374	27.77	683,091,973	15.28
1910	392,955,257	25.24	242,123,502	13.87	1925	1,020,886,893	22.69	814,139,957	16.74
1911	371,300,234	24.31	273,525,344	13.35	1926	1,011,615,000	22.66	847,177,000	17.82
1912	423,037,208	25.59	296,141,651	13.43	1927	1,000,582,755	23.53	832,889,751	16.76
1913	442,419,973	24.40	323,775,885	13.13	1928	969,325,861	23.38	793,662,724	16.27
1914	469,082,667	24.77	282,070,153	11.93	1929	953,067,808	23.29	835,921,994	16.29

WORLD TRADE, AND SHARE OF THE UNITED STATES THEREIN.

(Values, gathered by the Department of Commerce, show *millions of dollars.*)

	World Total Trade (102 Countries).		United States Trade.		United States Per Cent of World Total.			World Total Trade (102 Countries).		United States Trade.		United States Per Cent of World Total.	
	Exports.	Imports.	Exports.	Imports.	Exports.	Imports.		Exports.	Imports.	Exports.	Imports.	Exports.	Imports.
1911-13av	19,151	20,439	2,353	1,714	12.3	8.4	1925	32,095	33,755	4,910	4,227	15.3	12.5
1913	20,269	21,565	2,484	1,793	12.3	8.3	1926	30,483	32,619	4,809	4,431	15.9	13.6
1923	25,134	26,514	4,168	3,792	16.6	14.3	1927	31,985	34,118	4,865	4,185	15.2	12.3
1924	28,540	29,602	4,591	3,610	16.1	12.2	1928	32,994	35,041	5,128	4,091	15.6	11.7

FOREIGN TRADE OF 30 COUNTRIES (VALUES SHOW MILLIONS OF DOLLARS)

Country.	Value of Exports.			Value of Imports.			Per Capita, 1928.		Country.	Value of Exports.			Value of Imports.			Per Capita 1928.	
	1913	1927	1928	1913	1927	1928	Exports	Imports		1913	1927	1928	1913	1927	1928	Exports	Imports
							Doll.	Doll.								Doll.	Doll.
U. S.	2484	4865	5128	1793	4185	4091	42.1	33.6	Cz'choslo.	....	596	628	....	532	568	43.5	39.3
Un. King.	3089	4049	4106	3741	5929	5825	90.0	127.7	Malaya	200	596	477	213	563	488	123.4	125.4
Un. King. &Ir.Fr.St.	3089	3832	3897	3741	5779	5669	82.3	119.7	Brazil	316	432	475	324	388	442	12.2	11.3
Germany.	2405	2563	2930	2565	3381	3334	46.0	52.3	Denmark.	193	415	443	229	444	465	126.6	132.8
France	1328	2153	2013	1625	2080	2095	49.2	51.2	Sweden	219	433	422	227	425	458	69.1	75.0
Canada	461	1239	1374	659	1087	1222	142.3	126.6	Spain	191	364	409	236	447	580	18.2	25.8
India	797	1186	1234	585	896	906	3.9	2.8	Switz'l'd	265	386	408	359	483	512	101.6	127.5
Argentina	515	972	987	493	825	875	91.0	80.6	Russia	782	397	399	707	367	487	2.7	3.2
Japan	313	945	915	361	1033	1019	14.3	16.0	U. of S. Af.	324	389	380	188	344	367	48.9	47.2
Belgium	702	740	836	895	808	874	100.9	105.6	Austria	812	286	310	876	434	447	46.4	67.0
Netherl'd	821	762	798	1046	1022	1079	103.3	139.6	Egypt	161	248	287	139	243	260	20.2	18.3
Italy	485	806	784	704	1051	1159	18.3	27.7	Mexico	147	296	85	94	164	172	18.9	11.4
China	306	648	713	423	714	863	1.6	1.9	Poland	....	82	281	....	325	377	9.3	12.5
Australia	382	714	674	388	787	681	106.4	107.5	Cuba	165	323	278	140	257	212	77.3	58.9
Neth.E.In	247	652	635	176	350	388	12.1	7.4	New Zeal.	111	236	273	105	218	218	186.5	148.9
									Chile	145	211	239	120	130	142	55.1	32.8

MOTOR VEHICLE PRODUCTION IN THE UNITED STATES AND CANADA.

AUTOMOBILE CHAMBER OF COMMERCE FIGURES.

Year.	Passenger Autos.		Motor Trucks.		Total Cars and Trucks.	
	Number.	Wholesale Value.	Number.	Wholesale Value.	Number.	Wholesale Value.
		Dollars.		*Dollars.*		*Dollars.*
1900	4,192	4,899,443	.....	.....	4,192	4,899,443
1901	7,000	8,183,000	.....	.....	7,000	8,183,000
1902	9,000	10,395,000	.....	.....	9,000	10,395,000
1903	11,235	13,000,000	.....	.....	11,235	13,000,000
1904	22,419	23,682,492	411	946,947	22,830	24,629,439
1905	24,550	39,030,000	450	970,000	25,000	40,000,000
1906	33,500	61,850,000	500	1,050,000	34,000	62,900,000
1907	43,300	92,040,000	700	1,360,000	44,000	93,400,000
1908	63,500	135,250,000	1,500	2,550,000	65,000	137,800,000
1909	127,731	159,918,506	3,255	5,230,023	130,986	165,148,529
1910	181,000	215,340,000	6,000	9,660,000	187,000	225,000,000
1911	199,319	225,000,000	10,681	21,000,000	210,000	246,000,000
1912	356,000	335,000,000	22,000	43,000,000	378,000	378,000,000
1913	461,500	399,902,000	23,500	44,000,000	485,000	443,902,000
1914	543,679	413,859,379	25,375	45,098,464	569,054	458,957,843
1915	895,930	575,978,000	74,000	125,800,000	969,930	701,778,000
1916	1,525,578	921,378,000	92,130	161,000,000	1,617,708	1,082,378,000
1917	1,745,792	1,053,505,781	128,157	220,982,668	1,873,949	1,274,488,449
1918	943,436	801,937,925	227,250	434,168,992	1,170,686	1,236,106,917
1919	1,657,652	1,461,785,925	275,943	423,326,621	1,933,595	1,885,112,546
1920	1,905,560	1,809,170,963	321,789	423,249,410	2,227,349	2,232,420,373
1921	1,529,165	1,095,883,000	153,200	165,783,550	1,682,365	1,261,666,550
1922	2,397,827	1,571,569,041	248,402	221,453,667	2,646,229	1,793,022,708
1923	3,780,358	2,282,953,822	400,092	309,079,606	4,180,450	2,592,033,428
1924	3,327,770	2,049,101,671	410,016	318,311,344	3,737,786	2,367,413,015
1925	3,904,566	2,555,419,483	523,234	459,744,079	4,427,800	3,015,163,562
1926	3,984,018	2,758,446,322	521,643	456,371,169	4,505,661	3,214,817,491
1927	3,093,428	2,269,456,222	486,952	431,649,521	3,580,380	2,700,705,743
1928	4,024,590	2,708,954,674	576,540	453,844,206	4,601,130	3,162,798,880

Figures, 1921 and since include Canadian production (1921) 61,098 cars; 5,148 trucks; (1922) 92,838 cars; 8,169 trucks; (1923) 127,976 cars; 19,226 trucks; (1927) 137,290 passenger cars, 29,603 trucks, and 12,161 chassis, either passenger or freight; (1928) 175,119 passenger cars, 6,468 trucks, and 60,795 chassis, passenger and freight.

The average life of an automobile is 7 years

The number of automobiles scrapped yearly in the United States is estimated at—(1916) 175,000; (1917) 170,000; (1918) 220,000; (1919) 254,000; (1920) 410,000; (1921) 609,000; (1922) 831,000; (1923) 1,138,000; (1924) 1,320,000; (1925) 1,782,000; (1926) 1,545,000 (1927) 2,110,000; (1928) 2,450,000.

AUTO GASOLINE CONSUMPTION, TAX RATES, AND TAX AND LICENSE RECEIPTS.

(Rates are those for 1929; receipts cover calendar year 1928.)

States.	Tax per Gal.	Gasoline Used.	Total Receipts.	States.	Tax per Gal.	Gasoline Used.	Total Receipts.
	Cents.	*Gallons.*	*Dollars.*		*Cents.*	*Gallons.*	*Dollars.*
Alabama	4	162,438,774	6,614,297	Nevada	4	13,379,660	531,186
Arizona	4	50,455,046	2,018,238	New Hampshire	4	47,079,932	1,884,175
Arkansas	5	106,147,481	5,382,782	New Jersey	2	422,346,478	8,470,336
California	3	985,558,973	29,566,760	New Mexico	5	36,738,005	1,852,037
Colorado	4	130,707,467	3,921,224	New York	2	[1]000,000,000	.....
Connecticut	2	173,437,589	3,511,675	North Carolina	5	244,675,269	9,787,011
Delaware	3	26,678,310	800,349	North Dakota	3	73,973,434	1,479,469
Dist. of Col	2	63,157,367	1,263,148	Ohio	4	829,523,293	24,885,699
Florida	6	224,704,496	11,257,617	Oklahoma	4	279,996,597	8,147,901
Georgia	4	206,137,161	8,245,486	Oregon	4	144,284,704	4,008,259
Idaho	4	47,096,637	1,884,023	Pennsylvania	4	733,263,795	21,998,064
Illinois	3	722,841,273	836,826	Rhode Island	2	59,116,396	1,182,328
Indiana	4	372,584,968	11,177,549	South Carolina	6	110,364,802	5,518,240
Iowa	3	284,520,934	8,535,628	South Dakota	4	78,965,809	3,158,873
Kansas	3	269,742,067	5,394,841	Tennessee	5	171,153,333	5,134,600
Kentucky	5	134,835,629	6,743,224	Texas	4	681,135,373	17,945,037
Louisiana	2	169,046,556	3,380,931	Utah	3½	47,577,166	1,664,652
Maine	4	79,011,319	3,192,384	Vermont	4	37,311,088	1,118,882
Maryland	4	135,646,826	5,425,873	Virginia	5	174,800,793	8,616,239
Massachusetts	2	340,000,000	.....	Washington	3	210,325,734	4,206,515
Michigan	3	611,161,335	18,334,840	West Virginia	4	107,547,068	4,308,109
Minnesota	3	288,404,998	[2]5,768,100	Wisconsin	2	342,837,969	6,856,759
Mississippi	5	136,334,223	5,696,553	Wyoming	4	31,810,563	954,317
Missouri	2	347,411,433	6,948,229	United States	.....	12,231,186,044	305,233,842
Montana	5	56,113,461	1,683,404				
Nebraska	4	197,058,187	3,941,164				

Tax receipt figures exclude refunds. The tax was laid on 10,178,344,771 gallons of gasoline.

In the States without a tax the gasoline used was estimated by the Bureau of Public Roads at 1,381,841,273 gallons. These States were Massachusetts and New York. New York's share was one billion gallons.

Figures for Illinois receipts cover only Jan., 1928. The law was found invalid by the Supreme Court on Feb. 24, 1928. The tax in Jan. 1928 was laid on 41,841,273 gallons; estimated consumption for the other 11 months was 671,000,000 gallons. In 1929 the Legislature authorized a tax of 3 cents a gallon, in effect Aug. 1.

Of the total receipts, $362,076 represented license fees.

The total receipts were thus disposed of—cost of collection, $694,601; for construction and maintenance of rural roads, $268,427,492 (state highways $211,046,591; local roads, $57,380,901); payments on road bonds, $17,619,995; miscellaneous, $18,491,754.

The Massachusetts gasoline tax began on Jan. 1, 1929; that of New York on May 1, 1929.

A State has no power to fix the price of gasoline within its borders, the U. S. Supreme Court ruled, on Jan. 2, 1929, in an opinion holding invalid a statute passed by Tennessee in 1927 giving its authorities control over the selling price of gasoline.

The Supreme Court's opinion holds that the court is not concerned with the character of the business. Gasoline, the court says, is a commodity of trade, differing, so far as the question at issue is concerned, in no essential respect from a great variety of other articles commonly bought and sold by merchants and private dealers in the country.

MOTOR VEHICLE REGISTRATION, (ALL CARS), BY STATES.

(Data by Bureau of Public Roads, United States Department of Agriculture.)

State.	1928.	1927.	1926.	1925.	1924.	1923.	1920.	1915.	1913.
	Number.	*Number.*	*Number.*	*Number.*	*Number.*	*Number.*	*Number.*	*Number.*	*Number.*
Ala.	269,519	243,539	225,930	194,580	157,262	126,642	74,637	11,634	5,300
Ariz.	94,372	81,045	73,682	68,029	57,828	49,174	34,601	7,753	3,613
Ark.	214,931	206,568	209,419	183,589	141,983	113,300	59,082	8,021	3,583
Calif.	1,799,890	1,693,195	1,600,475	1,440,541	1,319,394	1,100,283	583,623	163,797	100,000
Colo.	284,867	268,492	248,613	240,097	213,247	188,956	129,255	28,894	13,000
Conn.	309,792	281,521	263,235	250,669	217,236	181,748	119,134	41,121	23,200
Del.	51,210	47,124	44,834	40,140	35,136	29,977	18,300	5,052	2,440
D. of C.	126,556	111,680	111,497	103,092	88,762	74,811	34,161	8,009	4,000
Fla.	352,961	394,734	401,562	286,388	195,128	151,990	73,914	10,850	3,000
Ga.	318,856	300,635	277,468	248,093	207,688	173,889	146,000	25,000	20,000
Idaho	108,154	101,336	94,760	81,506	69,227	62,379	50,861	7,071	2,113
Ill.	1,504,359	1,438,985	1,370,503	1,263,177	1,119,236	969,331	568,924	180,832	94,656
Ind.	823,806	813,637	772,326	725,410	651,705	583,342	333,067	96,915	45,000
Iowa.	733,466	704,203	698,998	659,202	616,128	571,061	437,378	145,109	70 299
Kan.	533,799	501,901	491,276	457,033	410,891	375,594	294,159	72,520	34,550
Ky.	304,231	285,621	281,557	261,647	229,504	198,377	112,683	19,500	7,210
La.	264,293	255,000	239,500	207,000	178,000	136,622	73,000	11,380	10,000
Me.	172,638	163,623	151,486	140,499	127,598	108,609	62,907	21,545	11,022
Md.	285,311	270,935	252,852	234,247	198,465	169,351	102,841	31,047	14,217
Mass.	726,295	694,107	690,190	646,153	570,578	481,150	274,498	102,633	62,660
Mich.	1,249,221	1,154,773	1,118,785	989,010	867,545	730,658	412,717	114,84	554,366
Minn.	673,573	646,682	630,285	569,694	503,437	445,187	324,166	93,269	46,000
Miss.	246,242	218,043	205,200	177,262	134,680	104,286	68,486	9,669	3,850
Mo.	712,965	682,419	654,554	604,166	540,500	476,598	297,008	76,462	38,140
Mont.	126,035	112,735	103,958	94,656	79,695	73,828	60,650	14,540	5,916
Nebr.	391,355	373,912	366,773	338,719	308,715	286,053	219,000	59,000	13,411
Nev.	27,376	25,776	24,014	21,169	18,118	15,699	10,464	2,009	1,091
N. H.	102,644	96,009	89,001	81,498	71,149	59,604	34,680	13,449	8,237
N. J.	758,430	712,396	651,415	580,554	504,470	430,958	227,737	81,848	51,360
N. Mex.	65,737	59,291	54,996	49,111	41,680	32,032	22,100	5,100	1,898
N. Y.	2,083,942	1,937,918	1,815,434	1,625,583	1,412,879	1,204,213	676,205	255,242	134,495
N. C.	464,376	430,499	385,047	340,287	302,232	246,812	140,860	21,000	10,000
N. D.	173,525	160,701	157,822	144,972	117,346	109,266	90,840	24,908	15,187
Ohio	1,649,699	1,570,734	1,480,246	1,346,400	1,241,600	1,069,100	621,390	181,332	86,156
Okla.	529,843	503,126	499,938	424,345	369,903	307,000	212,880	25,032	3,000
Oreg.	248,118	244,572	233,568	216,553	192,615	165,962	103,790	23,585	13,975
Penn.	1,642,207	1,554,915	1,455,184	1,330,433	1,228,845	1,043,770	570,164	160,137	80,178
R. I.	125,698	118,014	110,746	101,756	95,482	76,312	50,747	16,362	10,295
S. C.	216,805	199,635	181,189	168,496	161,753	127,467	93,843	15,000	10,000
S. D.	191,374	169,552	168,230	168,028	142,396	131,700	120,395	28,724	14,457
Tenn.	322,137	294,567	279,639	244,626	204,680	173,365	101,852	26,000	10,000
Texas.	1,214,297	1,111,407	1,049,869	975,083	801,833	688,233	427,693	40,000	32,000
Utah	98,541	93,976	85,380	73,427	68,316	59,525	42,616	9,177	4,000
Vt.	86,231	79,527	74,063	69,576	61,179	52,776	31,625	11,499	5,913
Va.	360,545	337,607	322,614	282,650	261,945	218,896	115,470	21,357	9,022
Wash.	402,875	384,583	363,279	328,442	295,443	258,264	173,920	38,823	24,178
W. Va.	251,556	245,819	227,836	217,589	191,085	157,924	80,664	13,279	5,144
Wis.	742,135	698,259	662,282	594,386	525,221	457,271	293,298	79,741	34,346
Wy.	56,336	51,955	49,883	47,711	43,639	39,831	23,926	3,976	1,584
Tot. U. S.	24,493,124	23,127,315	22,001,393	19,937,274	17,593,677	15,092,177	9,231,941	2,445,666	1,258.062

The 24,493,124 cars registered in 1928 included 21,379,125 passenger autos, taxis, and busses; and 3,113,999 motor trucks and road tractors.

Trailers numbered 148,169; motorcycles, 117,946; U. S. exempt cars, 33,179; State and local exempt cars, 103,618; exempt motorcycles, 3,710.

MOTOR VEHICLE REGISTRATIONS, 1895-1928.

Year.	Passenger Cars.	Trucks.	Year.	Passenger Cars.	Trucks.	Year.	Passenger Cars.	Trucks.
	Number.	*Number.*		*Number.*	*Number.*		*Number.*	*Number.*
1897	90	.....	1908	194,400	3,100	1919	6,771,074	794,372
1898	800	.....	1909	305,950	6,050	1920	8,225,859	1,006,082
1899	3,200	.....	1910	458,500	10,000	1921	9,346,195	1,118,520
1900	8,000	.....	1911	619,500	20,000	1922	10,864,128	1,375,725
1901	14,800	.....	1912	902,600	41,400	1923	13,479,608	1,612,569
1902	23,000	.....	1913	1,194,762	63,800	1924	15,460,649	2,134,724
1903	32,920	.....	1914	1,625,739	85,600	1925	17,512,638	2,441,709
1904	54,590	410	1915	2,309,666	136,000	1926	19,237,171	2,764,222
1905	77,400	600	1916	3,297,996	215,000	1927	20,230,429	2,896,886
1906	105,900	1,100	1917	4,657,340	326,000	1928	21,379,125	3,113,999
1907	140,300	1,700	1918	5,621,617	525,000			

MOTOR VEHICLE REGISTRATION FEES, 1928, BY STATES.

States.	Gross Receipts.	States.	Gross Receipts.	States.	Gross Receipts.	States.	Gross Receipts.	States.	Gross Receipts.
	Dollars.		*Dollars.*		*Dollars.*		*Dollars.*		*Dollars*
Ala.	3,474,065	Idaho	1,626,949	Mich.	20,056,848	N. Y.	34,306,706	Tenn.	4,066,478
Ariz.	565,806	Ill.	15,521,530	Minn.	10,101,785	N. C.	6,088,140	Texas.	17,701,251
Ark.	3,786,004	Ind.	5,751,781	Miss.	2,814,150	N. D.	1,775,145	Utah.	731,340
Calif.	9,292,301	Iowa.	10,692,767	Mo.	8,765,609	Ohio.	11,840,258	Vt.	2,090,960
Colo.	1,790,183	Kans.	5,394,448	Mont.	1,298,828	Okla.	6,258,610	Va.	5,572,046
Conn.	7,373,589	Ky.	4,725,258	Neb.	3,900,788	Ore.	6,969,221	Wash.	7,028,291
Del.	928,916	La.	4,383,634	Nev.	249,111	Pa.	27,113,777	W. Va.	4,142,595
D.of Col.	473,981	Me.	2,763,598	N. H.	2,070,957	R. I.	2,273,819	Wis.	10,774,707
Fla.	4,935,995	Md.	3,034,621	N. J.	13,569,029	S. C.	2,440,539	Wyo.	572,570
Ga.	4,041,767	Mass.	13,919,618	N. Mex.	627,751	S. D.	2,901,905	U.S.	322 630 025

Of the gross receipts, $258,527,541 came from motor cars; $1,704,324 from dealers licenses; $14,725,475 from chauffeur and operator permits.

The gross receipts were thus disposed of—cost of collection and administration, $15,132,999; for highway purposes, $301,105,292 (state highways, $208,880,272; local roads, $60,399,109; paying on road bonds, $31,825,911); other purposes, $6,390,734.

WORLD CENSUS OF AUTOMOBILES.

There is now 1 automobile for every 61 persons, or 16 vehicles per thousand of population; and in the United States there is 1 car for every 5 persons, according to figures collected by the United States Department of Commerce.

The following table shows the number of passenger motor vehicles in use in the different countries, as of Jan. 1, 1929.

Country.	Private.	For hire.	Country.	Private.	For hire.	Country.	Private.	For hire.
Aden	303	76	Fiji Islands	405	350	Netherland W. In.	477	477
Alaska	1,285	296	France	715,000	25,000	Newfoundland	1,694	80
Algeria	32,435	565	French W. Africa	2,265	120	Nicaragua	620	30
Australia	409,270	8,903	Germany	350,000	40,000	Norway	18,535	3,839
Austria	13,123	3,637	Gibraltar	367	84	Palestine	854	1,281
Azores	638	42	Greece	4,200	7,150	Panama and Canal Zone	5,072	743
Bahamas	832	5	Guadeloupe	859	100	Persia	2,500	1,362
Barbados	1,009	180	Guatemala	1,938	66	Peru	5,250	2,000
Belgium	67,363	5,500	Haiti	1,787	191	Philippines	16,776	3,015
Bolivia	980	420	Honduras	369	96	Poland	15,670	6,016
Brazil	76,300	32,700	Hungary	10,763	1,234	Porto Rico	8,463	1,699
Nigeria	1,800	395	India	84,951	7,388	Portugal	16,583	4,483
Gold Coast	160	1,444	Irish Free State	27,401	5,663	Rumania	18,009	1,771
Canary Islands	3,553	230	Jamaica	4,529	445	Russia	7,095	1,664
Ceylon	11,228	1,431	Japan	4,720	42,447	Salvador, El	1,083	452
Chosen (Korea)	326	340	Latvia	656	700	Spain	89,892	22,560
Costa Rica	857	258	Lithuania	862	200	Sudan, An. Egyp.	84	754
Cuba	11,161	16,637	Malaya, British	16,618	8,309	Switzerland	51,268	2,500
Czechoslovakia	31,570	1,500	Martinique	1,265	75	Trinidad & Tob	3,184	1,061
Danzig	1,221	265	Monaco	1,227	192	Turkey	1,675	5,025
Denmark	68,500	8,000	Morocco:			Northern Ireland	16,078	1,164
Dominican Rep	2,031	1,352	French	12,068	900	Virgin Islands	320	118
Egypt	14,738	6,195	Internat. Zone	498	74	Yugoslavia	6,860	2,940
Estonia	624	936	Spanish	763	84			

World total (incl. U. S.)—32,028,584, as against 29,687,599 on Jan. 1, 1928; and 27,650,267 on Jan. 1, 1927.

For United States statistics see elsewhere in the Almanac.

Busses in chief countries—France, 12,500; India, 14,000; Germany, 9,000; Japan, 4,500; Poland, 3,000; Russia, 2,200.

Trucks in chief countries—Australia, 95,000; Belgium, 39,000; Brazil, 55,000; Cuba, 11,000; Czechoslovakia, 10,750; Denmark, 21,000; France, 345,000; Germany, 132,000; India, 17,000; Japan, 23,000; Norway, 13,000; Russia, 10,000; Switzerland, 11,000.

Population per automobile—Afghanistan, 23,166; Alaska, 24; Argentina, 34; Asia, 75,000; Australia, 12; Austria, 232.

Belgium, 70; Bolivia, 1,113; Bulgaria, 2,174; Brazil, 223.

Canada, 9; Cuba, 88; Chile, 158; China (excl. Hong Kong) 17,000; Columbia, 520; Costa Rica, 286; Czechoslovakia, 305.

Denmark, 35; Ecuador, 1,053; Egypt, 567; England, 31.6; Ethiopia, 22,545.

Finland, 107; France, 37; Germany, 118; Guatemala, 876.

Holland, 85; Honduras, 1,014; Hungary, 520.

Iceland, 133; India, 2,548; Irish Free State, 74; Italy, 216; Japan, 853; Jugoslavia, 1,074.

Latvia, 822; Lithuania, 1,624; Mexico, 201; Newfoundland, 132; Nicaragua, 876; Norway, 75.

Palestine, 267; Paraguay, 532; Persia, 1,968; Peru, 448; Poland, 923; Porto Rico, 109; Portugal, 223.

Roumania, 609; Russia, 6,980; Scotland, 44; Spain 151; Sweden, 48; Switzerland, 60.

Turkey, 1,516; United States, 4.87; Uruguay, 42; Venezuela, 197.

AUTOMOBILE PRODUCTION, BY COUNTRIES.

Producing country.	1927		1928		Producing Country.	1927.		1928.	
	Passenger cars.	Other and Total.	Passenger cars.	Other and Total.		Passenger cars.	Other and Total.	Passenger cars.	Other and Total.
U. S.	2,946,601	3,401,326	3,827,849	4,358,759	Hungary	167	282	201	460
Canada	146,827	179,054	196,741	242,382	Italy	51,473	54,559	41,710	55,010
					Japan	80	305	.....	470
Total	3,093,428	3,580,380	4,024,590	4,601,141	Poland	.....	.....	20	320
Austria	6,100	8,700	6,740	9,410	Russia	.....	510	39	799
Belgium	5,500	6,500	6,000	7,000	Spain	275	585	.....	325
Czechoslov.	8,350	10,200	10,360	13,150	Sweden	800	1,250	.....	1,362
Denmark	40	190	50	165	Switzerland	245	1,585	400	1,700
England	161,920	231,920	165,352	211,877					
France	.....	190,000	155,000	210,000	Grand total	.....	4,158,966	.....	5,203,139
Germany	60,000	72,000	67,750	89,950					

World production of motorcycles in 1928 was estimated by the U. S. Department of Commerce at 400,080, of which 37,500 were made in the United States; in the United Kingdom, 120,000; in France, 115,000; in Germany, 84,000; in Belgium, 15,000; in Switzerland, 12,000. Motorcycles in use in the world in 1929 numbered 2,263,000.

How to compute automobile horsepower. The only standardization as to horsepower is that known as the National Automobile Chamber of Commerce rated horsepower. This is used as a basis for computing the taxable horsepower in the United States. The N. A. C. C. horsepower formula is: $D^2N \div 2.5$, where D equals the bore in inches and N the number of cylinders.

U. S. IMPORTS AND EXPORTS OF AUTOS, RUBBER AND TIRES.

Yr. (Fisc.)	Exports—Autos and Parts.	Imports—Crude Rubber.	Yr. (Fisc.)	Exports—Autos and Parts.	Imports—Crude Rubber.	Yr. (Cal.)	Exports—Autos and Parts.	Imports—Crude Rubber.
	1,000 Dol.	*1,000 Dol.*		*1,000 Dol.*	*1,000 Dol.*		*1,000 Dol.*	*1,000 Dol.*
1910	61,710	101,079	Yr. (Cal.)			1922	103,202	101,843
1911	15,509	76,245	1916	123,064	159,745	1923	170,612	185,060
1912	26,435	93,013	1917	124,476	233,221	1924	209,872	174,231
1913	32,982	90,170	1918	100,889	146,378	1925	318,386	429,705
1914	34,591	71,220	1919	156,426	215,820	1926	320,179	505,818
1915	69,510	83,030	1920	303,262	242,796	1927	388,528	339,859
1915 (6 mos.)	59,647	58,858	1921	83,749	73,773	1928	500,174	244,855

The 1928 auto exports consisted of 368,328 passenger cars and 138,782 trucks and busses.

Exports of rubber auto tires in 1928 were 2,507,685, worth $31,064,635, as against 2,630,540 in 1927.

PUBLIC ROADS IN THE UNITED STATES.

States.	State H'ways.		Other.	States.	State H'ways.		Other.	States.	State H'ways.		Other.
	Total.	S'faced.	Total.		Total.	S'faced.	Total.		Total.	S'faced.	Total.
	Miles.	*Miles.*	*Miles.*		*Miles.*	*Miles.*	*Miles.*		*Miles.*	*Miles.*	*Miles.*
Ala.	3,936	2,172	57,587	Md.	2,419	2,419	12,439	Oreg.	4,468	3,220	45,306
Ariz.	2,031	1,421	20,538	Mass.	1,563	1,550	17,541	Penn.	12,033	8,439	81,931
Ark.	8,346	4,153	66,570	Mich.	6,756	6,229	70,577	R. I.	821	451	1,606
Cal.	6,582	3,537	72,606	Minn.	6,930	6,353	101,126	S. C.	5,143	3,869	59,683
Col.	8,966	3,499	58,906	Miss.	6,721	3,839	50,607	S. D.	5,923	2,467	110,988
Conn.	1,952	1,819	11,474	Mo.	7,640	3,375	102,860	Tenn.	5,051	3,555	60,677
Del.	590	590	3,290	Mont.	7,957	926	59,220	Tex.	18,728	9,256	151,017
Fla.	5,654	2,725	25,773	Neb.	6,256	2,764	81,549	Utah	3,248	1,189	20,249
Ga.	6,258	2,664	91,660	Nev.	2,996	1,022	20,174	Vt.	4,462	3,139	10,408
Idaho	4,668	2,437	30,775	N. H.	2,256	1,963	11,721	Va.	5,210	3,839	54,160
Ill.	9,459	4,495	91,506	N. J.	1,457	1,296	16,432	Wash.	3,283	2,607	45,750
Ind.	4,262	4,155	69,195	N. M.	9,214	1,684	39,136	W. Va.	3,784	1,732	31,579
Iowa	6,653	3,469	96,247	N. Y.	14,068	9,853	67,973	Wis.	10,279	8,420	68,700
Kans.	7,887	1,338	120,578	N. C.	6,218	5,464	61,716	Wyo.	3,136	929	43,432
Ky.	9,646	4,192	60,704	N. D.	6,837	1,335	100,324				
La.	8,000	4,707	32,803	Ohio	11,000	9,591	74,099	Tot.	287,928	163,059	2,731,172
Me.	1,574	1,306	19,306	Okla.	5,589	1,584	128,673				

State highway figures are as of Jan. 1, 1927; those for "other roads" are for Jan. 1, 1926.

FEDERAL AID FOR STATE ROADS.

The amount of Federal aid in road construction for the year July 1, 1929 to June 30, 1930, by States, is—

Alabama	$ 1,554,221	Iowa	2,020,861	Nevada	960,375
Arizona	1,061,111	Kansas	2,058,305	New Hamp.	365,625
Arkansas	1,284,382	Kentucky	1,417,634	New Jersey	937,434
California	2,495,345	Louisiana	1,026,696	New Mexico	1,189,085
Colorado	1,388,755	Maine	678,501	New York	3,617,748
Conn.	477,110	Maryland	633,615	No. Carolina	1,716,919
Delaware	365,625	Mass.	1,090,077	No. Dakota	1,197,586
Florida	909,235	Michigan	2,204,966	Ohio	2,754,446
Georgia	1,980,443	Minnesota	2,108,104	Oklahoma	1,748,857
Hawaii	365,625	Mississippi	1,311,391	Oregon	1,191,989
Idaho	933,902	Missouri	2,392,021	Penn.	3,325,854
Illinois	3,118,949	Montana	1,554,060	Rh. Island	365,625
Indiana	1,917,036	Nebraska	1,586,299	So. Carolina	1,061,447

So. Dakota	1,229,282
Tennessee	1,609,662
Texas	4,531,162
Utah	848,592
Vermont	365,625
Virginia	1,433,405
Washington	1,149,489
West Virginia	796,408
Wisconsin	1,854,580
Wyoming	939,536
Total	$73,125,000

ROAD MILEAGE OF THE WORLD.

(Estimated by U. S. Dept. of Commerce. Does not include city streets.)

Continent.	Earth, sand-clay or gravel.	Water-bound macad.	Water-bound macad., surfaced.	Bitum. macad.	Asphalt.	Bitum. concrete.	Cement concrete.	Stone block.	Paving block.	Total.
America	3,405,562	76,477	895	25,833	3,332	9,196	48,400	223	4,555	3,574,731
Africa	187,201	17,427	1,215	9	29	9	12	.....	.....	205,902
Asia	313,641	103,229	1,520	.....	66	.....	1	.....	.....	418,457
Europe	1,337,467	351,705	2,600	35	3,834	.....	810	25,595	1,247	1,976,037
Australasia	320,912	40,035	526	.....	10	16	31	.....	.....	406,874
Total	5,564,783	588,873	6,756	25,877	7,271	9,221	49,254	25,818	5,802	6,582,001

The figures for Europe cover also Cyprus and Greece.

EUROPEAN ROAD MILEAGE, BY COUNTRIES.

Country.	Miles.	Country.	Miles	Country.	Miles.	Country.	Miles.
Albania	310	Finland	28,336	Luxemburg	2,545	Spain	50,000
Austria	21,191	France	440,085	Malta & Gozo	322	Sweden	80,778
Azores	681	Germany	128,242	Netherlands	10,875	Switzerland	8,842
Belgium	6,328	Greece	6,403	North. Ireland	12,971	Turkey (excl. Asia.)	
Bulgaria	8,699	Hungary	30,763	Norway	22,525	Un. Kingdom	178,737
Cyprus	2,888	Iceland	1,243	Poland	116,174	Yugoslavia	27,706
Czechoslov.	44,600	Irish Free St.	46,700	Portugal	10,688		
Danzig	503	Italy	113,581	Rumania	54,680	Total	1,976,037
Denmark	32,053	Latvia	15,518	Russia (incl. in Asia)	430,265		
Estonia	13,808	Lithuania	27,125				

THE SAFEST WAY TO TRAVEL—WHICH?

(Washington Star Editorial, Quoted in Domestic Air News.)

Statistics of the Interstate Commerce Commissions show that 6,500 persons were killed and 85,560 injured as a result of operation of railroads in 1928. During the year passenger trains traveled 521,349,000 miles and freight trains 601,648,000 miles, making a total of 1,122,997,000.

Dividing this figure by the number of persons killed, we have one fatality for every 172,768 miles traveled by rail.

Turning now to civil air transportation, the Department of Commerce estimates that planes flew approximately 70,472,000 miles during 1928. The total loss of life in civil aviation was 368 and 672 persons were injured.

This means that in flying one life was lost for every 191,500 miles traveled, which is a slightly better record than was made by the railroads.

The American Automobile Association estimates that the average car travels 6,750 miles per year, which multiplied by more than 21,202,000 licensed automobiles in the country gives a total of 143,115,477,750 miles traveled by motor in 1928. This tremendous distance is more than 125 times the mileage traveled by rail and is 2,044 times greater than the total airplane travel.

The loss of life from automobile traffic is also large, amounting to approximately 23,000 deaths and 700,000 injuries during the last calendar year, but because of the great distance traveled the fatalities amount to only one for every 6,222,412 miles.

It should be noted, however, that the number of miles per death does not accurately represent the risk involved to passengers, since the figure for railroads includes 2,496 fatalities at grade crossings.

Likewise the figures for automobiles include the number of pedestrians killed, while the danger from operation of airplanes is confined almost exclusively to the persons in the plane.

The railroad figure includes all the employees.

AMERICAN RAILWAY STATISTICS.

(Compiled from the Records of the Interstate Commerce Commission.)

Year.	Mileage Owned.	Miles Built.	Locomotives in Serv.	Freight Cars in Serv.	Pass. Cars in Serv.	Passengers Carried.	Freight Carried.	Railway Employees.	Employees' Wages.
	Miles.	*Miles.*	*No.*	*No.*	*No.*	*No.*	*Tons.*	*No.*	*Dollars.*
1900	193,346	4,894	37,663	1,365,531	34,713	576,831,251	1,081,983,301	1,017,653	577,264,841
1901	197,237	5,368	39,584	1,464,328	35,969	607,278,121	1,089,226,440	1,071,169	610,713,701
1902	202,472	6,026	41,225	1,546,101	36,987	649,878,505	1,200,315,787	1,189,315	676,028,592
1903	207,977	5,652	43,871	1,653,782	38,140	694,891,535	1,304,394,323	1,312,537	757,321,415
1904	213,904	3,832	46,743	1,692,194	39,752	715,419,682	1,309,899,165	1,296,121	817,598,810
1905	218,101	4,388	48,357	1,731,409	40,713	738,334,667	1,427,731,905	1,382,196	839,944,680
1906	224,363	5,623	51,672	1,837,914	42,262	797,946,116	1,631,374,219	1,521,355	900,801,653
1907	229,951	5,212	55,388	1,991,557	43,973	873,905,133	1,796,336,659	1,672,074	1,072,386,427
1908	223,468	3,214	57,698	2,100,784	45,292	890,009,574	1,532,981,790	1,436,275	1,035,437,528
1909	236,834	3,748	58,219	2,086,835	45,664	891,472,425	1,556,559,741	1,502,823	988,323,694
1910	240,293	4,122	60,019	2,148,478	47,179	971,683,199	1,849,900,101	1,699,420	1,143,725,306
1911	243,979	3,066	62,463	2,208,997	49,906	997,409,852	1,781,638,043	1,669,809	1,208,466,470
1912	246,777	2,997	63,463	2,229,163	51,583	1,004,081,346	1,844,977,673	1,716,380	1,252,347,697
1913	249,777	3,071	65,597	2,298,478	52,717	1,043,603,005	2,058,035,487	1,815,239	1,373,830,589
1914	252,105	1,532	67,012	2,349,734	54,492	1,063,248,850	2,002,025,830	1,710,296	1,381,117,292
1915	253,789	933	66,502	2,341,567	55,810	985,676,117	1,828,692,294		
1916	254,037	1,098	65,595	2,329,475	55,193	1,048,986,826	2,347,395,581	1,700,814	1,506,960,995
1917	253,626	979	66,070	2,379,472	55,939	1,109,943,226	2,453,423,333	1,732,876	1,739,482,142
1918	253,529	721	67,936	2,397,943	56,611	1,122,962,887	2,477,091,958	1,841,575	2,613,813,351
1919	253,152	686	68,977	2,426,889	56,290	1,211,021,934	2,185,285,250	1,913,422	2,843,128,432
1920	252,845	314	68,942	2,388,424	56,102	1,269,912,881	2,427,622,267	2,022,832	3,681,801,193
1921	251,176	475	69,122	2,378,510	56,950	1,061,130,762	1,808,835,938	1,659,513	2,765,218,079
1922	250,413	324	68,518	2,352,483	56,827	989,509,000	1,974,618,324	1,626,834	2,640,817,005
1923	250,222	427	69,414	2,379,131	57,159	1,008,537,863	2,503,117,071	1,857,674	3,004,071,882
1924	250,156	579	69,486	2,411,627	57,451	950,459,378	2,331,291,297	1,751,362	2,825,775,181
1925	249,398	644	68,098	2,414,083	56,814	901,963,145	2,463,725,307	1,744,311	2,860,599,920
1926	249,138	1,005	66,847	2,403,967	56,855	874,588,786	2,627,491,771	1,779,275	2,946,114,354
1927	249,131	779	65 348	2,378,800	55,729	840,029,680	2,510,054,113	1,735,105	2,910,182,848
1928	249,309	1,025	63,311	2,346,751	54,800	798,476,114	2,504,195,746	1,691,950	2,874,428,921

Figures for miles owned cover classes I, II, and III, also non-operating subsidiaries.

Figures for freight carried (1913) cover classes I and II roads, and this is true for that year as to number of employees and employees' wages.

Average capacity of freight cars, in tons—(1903) 29.4; (1910) 35.9; (1915) 39.7; (1920) 42.4; (1923) 43.8; (1924) 44.3; (1925) 44.8; (1926) 45.1; (1927) 45.5; (1928) 45.8.

Average annual compensation per employee—(1917) $1,003.81; (1918) $1,419.34; (1919) $1,485.89; (1920) $1,820.12; (1921) $1,666.28; (1922) $1,623.29; (1923) $1,617.11; (1924) $1,613.47; (1925) $1,639.96; (1926) $1,655.79; (1927) $1,677.24; (1928) $1,706.45.

Return for employees and employees' wages, 1917 and since, cover Class I only.

RAILWAY PASSENGER AND FREIGHT DATA.

Year.	Passenger Revenue.	Freight Revenue.	Miles Traveled by Passengers	Rev. per Pass. Mile.	Ave. Jour. per Pass.	Frt. Rev. a ton Mile.	Miles Traveled by Pass. Trains.	Miles Traveled by Freight Trains.	Casualties.	
									Killed	Injured
	Dollars.	*Dollars.*	*Thousands.*	*Cts.*	*Miles*	*Cts.*	*Miles.*	*Miles.*	*No.*	*No.*
1900	323,715,639	1,049,256,323	16,038,076	2.00	27.80	0.73	363,469,596	492,543,526	7,865	50,320
1901	351,356,265	1,118,543,014	17,353,588	2.01	28.58	0.75	385,172,567	491,942,041	8,455	53,339
1902	392,963,248	1,207,228,845	19,689,938	1.99	30.30	0.76	405,613,231	499,711,176	8,588	64,662
1903	421,704,592	1,338,020,026	20,915,764	2.01	30.10	0.76	425,142,204	526,312,433	9,840	76,553
1904	444,326,991	1,379,002,693	21,923,214	2.01	30.64	0.78	440,464,866	535,090,971	10,046	84,155
1905	472,694,732	1,450,772,838	23,800,149	1.96	32.21	0.77	459,827,029	546,424,405	9,703	86,008
1906	510,032,583	1,640,386,655	25,167,241	2.00	31.54	0 75	479,037,553	594,005,825	10,618	97,706
1907	564,606,343	1,823,651,998	27,718,554	2.01	31.72	0.76	509,328,042	629,995,723	11,839	111,016
1908	566,832,746	1,655,419,108	29,082,837	1.94	32.86	0.75	505,945,582	587,218,454	10,188	104,230
1909	563,609,342	1,677,614,678	29,109,323	1.93	32.85	0.76	506,011,038	568,854,608	8,722	95,626
1910	628,992,473	1,925,553,036	32,338,496	1.94	33.50	0.75	549,015,003	635,450,681	9,682	119,507
1911	657,638,291	1,925,950,887	33,201,694	1.97	33.48	0.76	572,929,421	626,496,025	10,396	150,159
1912	660,373,176	1,968,598,630	33,132,355	1.99	33.18	0.74	585,853,528	612,345,112	10,585	169,538
1913	695,987,817	2,198,930,565	34,672,685	2.01	33.31	0.73	593,061,212	643,841,292	10,964	200,308
1914	703,483,691	2,126,716,945	35,357,221	1.99	33.25	0.74	605,212,471	607,871,709	10,302	192,662
1915	646,475,045	2,037,925,560	32,474,923	1.99	32.95	0.73	580,448,205	552,003,893	8,621	162,040
1916	722,359,371	2,631,091,957	35,220,016	2.05	33.58	0.72	595,440,924	632,303,852	10,001	196,722
1917	840,909,959	2,897,436,101	40,099,758	2.10	36.13	0.73	593,338,291	646,402,252	10,087	194,805
1918	1,046,166,057	3,522,052,401	43,212,458	2.42	38.48	0.86	544,320,351	628,435,670	9,286	174,575
1919	1,193,430,616	3,624,886,453	46,838,166	2.55	38.68	0.99	553,147,240	560,498,577	6,978	149,053
1920	1,304,814,986	4,420,832,703	47,369,906	2.75	37.30	1.07	574,826,099	619,507,289	6,958	168,309
1921	1,166,252,353	4,004,109,277	37,705,737	3.09	35.53	1.29	568,241,993	519,816,726	5,996	120,685
1922	1,087,516,376	4,085,741,720	35,811,046	3.04	36.19	1.19	553,919,210	544,486,388	6,213	134,855
1923	1,158,925,284	4,712,495,170	38,294,178	3.03	37.97	1.13	573,938,043	631,167,314	7,236	171,683
1924	1,085,672,299	4,437,380,089	36,363,290	2.99	38.26	1.13	579,384,167	590,878,956	6,458	143,725
1925	1,064,806,152	4,648,364,187	36,166,973	2.94	40.10	1.11	5 1,791,719	602,872,559	6,617	137,425
1926	1,049,210,125	4,905,981,443	35,672,729	2.94	40.79	1.10	584,972,232	622,294,985	6,947	130,222
1927	980,528,000	4,728,884,868	33,797,754	2.90	40.23	1.10	578,355,321	598,434,584	6,821	104,799
1928	905,270,818	4,771,562,245	31,717,566	2.85	39.72	1.09	570,037,816	589,615 853	6,509	85,561

Of the persons killed in 1928, railway employees numbered 1,327; passengers, 108; other non-trespassers, 2,695. tresspassers, 2379. Those injured included 70,246 rail employees and 4,608 passengers.

GRADE CROSSING ACCIDENTS ON RAILWAYS.

	1917.	1918.	1919.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	1928.
Killed	1,969	1,852	1,784	1,791	1,705	1,810	2,268	2,149	2,206	2,491	2,371	2,568
Injured	4,764	4,683	4,616	5,077	4,868	5,383	6,314	6,525	6,555	6,991	6,613	6,666
Total	6,733	6,535	6,400	6,868	6,573	7,193	8,582	8,674	8,761	9,482	8,984	9,234

Grade crossing accidents in which automobiles and trains collided killed 2,165 persons in 1928 as against 1,974 in 1927; and injured 6,218 in 1928, as compared with 6,068 in 1927.

RAILWAY REVENUES, EXPENSES AND DIVIDENDS.

Year.	Total Operating Revenues.	Operating Expenses.	Tax Accruals.	Net Railway Operating Income.	Net Income.	Dividends Declared.	Ratio Oper. Exp. to Oper. Rev.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Pct.*
1900	1,487,044,814	961,428,511	44,445,145	481,171,158	252,760,482	139,597,972	64.65
1901	1,588,526,037	1,030,397,270	46,707,835	511,420,932	273,450,219	156,735,784	64.86
1902	1,726,380,267	1,116,248,747	50,054,136	560,077,384	314,989,295	185,391,655	64.66
1903	1,900,846,907	1,257,538,852	53,251,852	590,056,203	338,324,228	196,728,176	66.16
1904	1,975,174,091	1,338,896,253	56,801,756	579,476,082	317,308,473	221,941,049	67.79
1905	2,082,482,406	1,390,602,152	58,712,179	633,168,075	364,811,011	237,964,482	66.78
1906	2,325,765,167	1,536,877,271	69,064,057	719,823,839	434,228,959	272,795,974	66.08
1907	2,589,105,578	1,748,515,814	73,743,473	766,846,291	488,014,078	308,088,627	67.53
1908	2,440,638,832	1,710,401,781	78,673,794	634,794,284	443,986,915	390,695,351	70.08
1909	2,473,205,301	1,650,034,204	85,139,554	710,474,052	441,062,743	321,071,626	66.72
1910	2,812,141,575	1,881,879,118	98,034,593	805,097,141	583,191,124	405,771,416	66.92
1911	2,852,854,721	1,976,331,864	102,657,157	744,669,102	547,280,771	460,195,376	69.28
1912	2,906,415,869	2,035,057,529	113,818,605	727,458,036	453,125,324	400,315,313	70.02
1913	3,193,117,834	2,235,922,626	122,005,424	805,266,117	546,761,119	369,077,546	70.02
1914	3,127,729,588	2,280,415,791	140,470,286	674,189,999	395,492,305	451,653,346	72.91
1915	2,956,193,202	2,088,682,956	137,775,259	694,276,111	354,786,729	328,477,938	70.65
1916	3,691,065,217	2,426,250,521	161,825,322	1,058,505,501	735,341,165	366,561,494	65.73
1917	4,115,413,057	2,906,283,165	218,632,045	950,556,850	658,224,696	381,851,548	70.62
1918	4,985,290,177	4,071,522,007	229,532,927	646,223,098	442,336,131	339,185,658	81.67
1919	5,250,419,628	4,498,816,672	239,136,164	454,132,156	496,609,104	335,241,935	85.68
1920	6,310,150,780	5,954,393,793	289,272,083	12,100,759	481,950,969	331,102,938	94.36
1921	5,632,665,331	4,668,997,935	283,162,551	601,138,916	350,539,608	456,482,092	82.89
1922	5,674,482,538	4,509,990,972	308,145,247	769,411,093	434,459,186	338,805,695	79.48
1923	6,419,209,643	4,999,383,388	339,576,803	974,917,715	632,117,581	411,881,766	77.88
1924	6,045,251,862	4,608,806,549	347,436,628	984,463,481	623,399,393	385,129,890	76.24
1925	6,246,883,699	4,633,497,390	365,790,063	1,136,728,016	771,053,077	409,645,051	74.17
1926	6,508,678,781	4,766,235,118	396,538,002	1,229,020,188	883,421,795	473,682,830	73.23
1927	6,245,715,593	4,662,520,530	383,111,605	1,077,841,658	741,923,916	567,280,717	74.65
1928	6,212,463,954	4,508,605,980	395,630,626	1,182,467,353	855,017,540	510,017,987	72.57

Net income figures (1913) cover classes I and II roads and non-operating subsidiaries; most of the other figures, that year, exclude non-operating subsidiaries.

Dividend figures (1023) include $50,417,400 of stock dividends authorized by the Interstate Commerce Commission.

Average dividend rate, counting all stock—(1890) 1.97; (1900) 2.39; (1910) 5.00; (1916) 4.19; (1920) 3.74; (1923) 4.53; (1924) 4.14; (1925) 4.35; (1926) 5.06; (1927) 5.95; (1928) 5.25.

Average dividend rate on dividend-paying stock—(1890) 5.45; (1900) 5.23; (1910) 7.50; (1916) 6.75; (1920) 6.52; (1923) 7.30; (1924) 6.37; (1925) 6.52; (1926) 7.32; (1927) 8.47; (1928) 7.12. The peak, 9.02, was in 1921.

Operating revenues in 1928 for Class I roads, amounting to $6,111,735,511, were derived from the following chief sources: freight, $4,680,455,593; passenger, $901,018,801; mail, $104,385,255; express, $142,579,632.

Operating expenses in 1928 for Class I roads, amounting to $4,427,995,036, were divided as follows: maintenance of way and structures, $837,-905,747; maintenance of equipment, $1,166,941,920; traffic, $125,007,867; transportation, $2,069,927,168.

RAILWAY VALUES, STOCKS, BONDS, AND CAPITAL.

(Investment figures, first column, represent book values.)

Yr.	Investment in Road and Equipment.	Common Stock Outstanding.	Preferred Stock Outstanding.	Funded Debt Outstanding.	Total Railway Capital Outstanding.	Net Capitalization	Amount of Stock Paying Dividends.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
1900	10,263,313,400	4,522,291,838	1,323,287,755	5,645,455,367	11,491,034,960	9,547,984,611	2,668,969,895
1901	10,405,095,085	4,475,408,821	1,331,157,383	5,881,580,887	11,688,147,091	9,482,649,182	2,977,575,179
1902	10,658,321,376	4,722,056,120	1,302,145,175	6,109,981,669	12,134,182,964	9,925,664,171	3,337,644,681
1903	10,973,504,903	4,876,961,012	1,278,598,020	6,444,431,226	12,599,990,258	10,281,598,305	3,450,737,869
1904	11,511,537,131	5,050,529,469	1,289,369,860	6,873,225,350	13,213,124,679	10,711,794,078	3,643,427,319
1905	11,951,348,949	5,180,933,907	1,373,623,144	7,250,701,070	13,805,258,121	11,167,105,992	4,119,086,714
1906	12,420,287,938	5,403,001,962	1,400,758,131	7,766,661,385	14,570,421,478	11,671,949,649	4,526,958,760
1907	13,030,344,328	5,932,948,772	1,423,912,919	8,725,284,992	16,082,146,683	.....	4,948,756,203
1908	13,213,766,540	5,910,351,430	1,462,860,893	9,394,332,504	16,767,544,827	12,833,591,510	4,843,370,740
1909	13,609,183,515	6,218,382,485	1,467,896,060	9,801,590,390	17,487,868,935	13,914,302,363	4,920,174,118
1910	14,557,816,099	6,719,168,538	1,403,488,842	10,303,474,858	18,417,132,238	14,375,529,748	5,412,578,457
1911	15,612,378,845	7,074,917,534	1,395,800,077	10,738,217,470	19,208,935,081	15,044,482,894	5,730,250,326
1912	16,004,744,966	7,248,749,515	1,373,651,306	11,130,135,443	19,752,536,264	15,125,533,485	5,581,289,249
1913	16,588,603,109	7,231,515,045	1,379,096,282	11,185,514,385	19,796,125,712	15,366,472,253	5,780,682,416
1914	17,153,785,568	7,304,479,846	1,376,279,858	11,586,541,553	20,247,301,257	15,759,093,913	5,667,072,956
1915	17,441,420,382	7,599,937,801	1,394,956,920	12,133,064,357	21,127,959,078	16,307,502,580	6,219,846,562
1916	17,842,776,668	7,693,731,500	1,455,141,559	12,000,435,523	21,049,308,582	16,332,578,328	5,430,123,235
1917	18,574,297,873	7,454,610,000	1,847,920,981	11,946,826,266	21,249,357,241	16,401,786,017	5,610,774,033
1918	18,984,756,478	7,249,307,281	1,805,809,755	11,729,715,805	20,784,832,841	15,454,339,035	5,138,851,230
1919	19,300,120,717	7,193,405,278	1,897,727,699	11,859,042,168	20,950,175,145	16,550,310,683	5,298,320,617
1920	19,849,319,946	7,215,861,540	1,897,823,599	12,777,765,646	21,891,450,785	16,993,930,263	5,075,039,642
1921	20,329,223,603	7,275,293,120	1,800,344,790	13,215,997,882	22,291,635,792	17,082,875,993	5,059,843,975
1922	20,580,168,269	7,306,953,854	1,834,011,047	13,149,136,284	22,290,101,185	17,276,726,169	5,321,347,138
1923	21,372,858,161	7,397,756,895	1,851,764,544	13,589,085,900	22,838,607,339	17,810,262,262	5,646,076,157
1924	22,182,267,385	7,538,994,845	1,935,394,203	14,162,095,186	23,636,484,234	18,201,897,712	6,042,267,916
1925	23,230,915,985	7,602,250,600	1,937,282,909	14,104,690,563	23,644,224,072	18,190,513,329	6,278,531,563
1926	23,880,740,146	7,560,310,349	1,924,492,389	14,192,194,219	23,676,996,957	18,234,311,637	6,473,279,913
1927	24,453,870,938	7,682,788,226	1,979,987,460	13,951,550,172	23,614,325,858	18,136,691,445	6,701,427,315
1928	24,875,983,930	7,808,672,479	2,034,636,886	13,903,962,701	23,747,272,066	18,510,582,609	7,159,988,649

Figures for 1913-1914, except in first and last columns, cover classes I and II roads and non-operating subsidiaries.

"Net Capitalization" is total capital outstanding minus capital securities owned by railways. Thus, in 1928, of the $18,510,582,609 of American rail securities in the hands of the public, stocks totaled $7,084,045,045; bonds, $11,426,537,564.

The number of stockholders in chief railway companies Dec. 31, 1928, was—Pennsylvania, 154,008; Atchison, 60,643; Union Pacific, 49,096; Southern Pacific, 57,165; Baltimore & Ohio, 35,782; New York Central, 52,875; Great Northern, 42,748; Northern Pacific, 36,535; New Haven, 27,143.

Investment in road and equipment for 1925 and since, include the investment of proprietary companies.

Interest on funded debt (1890) $221,499,702, (1900) $252,949,616; (1910) $399,582,056; (1920) $500,353,547; (1923) $551,705,157; (1924) $588,-301,048; (1925) $583,875,012; (1926) $581,708,760; (1927) $583,451,540; (1928) $578,831,358.

Figures in columns 2—5 include nominally outstanding.

MILEAGE, REVENUE AND EXPENSES OF BIG RAILWAYS IN U. S.

Road.	Aver. Mileage Oper'd	Operating Revenues.		Operating Expenses.		Net Railway Operating Income.	
		1927.	1928.	1927.	1928.	1927.	1928.
		Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
Atchison, Topeka & S'a Fe..	9,428	206,293,929	206,277,070	142,754,973	142,764,799	45,893,631	47,553,763
Atlanta, Birming. & Coast..	640	5,258,713	4,798,169	4,943,851	4,614,989	66,145	188,371
Atlantic Coast Line.....	5,118	80,426,296	71,393,174	64,330,235	55,966,059	10,271,334	9,895,364
Baltimore & Ohio.....	5,638	246,078,510	236,818,681	186,168,521	172,550,868	44,817,227	49,387,716
Bangor & Aroostock.....	614	7,401,075	7,199,222	4,956,597	4,950,505	2,086,304	1,899,190
Bessemer & Lake Erie.....	225	13,410,859	15,794,736	9,612,143	9,290,358	3,521,747	5,207,732
Boston & Maine.....	2,083	77,848,374	76,624,238	61,835,502	57,429,323	9,500,773	12,802,969
Buffalo, Rochester & Pitts..	602	17,522,081	16,966,504	15,485,430	13,848,359	1,920,665	2,787,638
Central of Georgia.....	1,917	27,641,310	25,132,966	20,945,626	19,208,786	5,051,073	4,449,824
Central R. R. of N. J.....	691	58,745,712	58,002,057	43,344,247	42,122,160	10,383,65	9,385,857
Central Vermont.....	404	8,259,571	7,603,825	7,635,185	6,077,333	149,667	1,281,954
Chesapeake & Ohio.....	2,724	133,042,174	124,825,172	89,733,037	82,543,249	36,320,830	36,323,594
Chicago & Alton.....	1,028	28,345,728	28,540,347	22,263,945	22,422,960	2,733,521	2,750,872
Chicago, Burl. & Quincy...	9,375	156,320,454	162,891,409	111,917,503	114,191,159	28,143,308	32,912,367
Chicago & East. Ill.....	945	26,714,326	24,893,573	21,529,900	19,420,758	2,291,709	2,200,674
Chicago Great Western.....	1,495	24,444,753	24,871,023	19,722,210	19,426,521	1,962,446	2,510,394
Chic., Ind. & Louisville....	648	18,542,197	18,381,006	13,571,861	13,185,808	2,822,709	2,696,936
Chic., Mil., St. Paul & Pac.	11,251	162,942,819	170,554,899	133,505,998	125,240,631	14,072,935	29,119,053
Chicago & North Western..	8,463	150,132,960	152,089,755	116,994,267	116,638,908	20,257,694	23,225,683
Chic., Rock Isl. & Gulf.....	516	7,159,065	6,915,993	5,062,407	4,412,477	1,509,299	1,870,741
Chic., Rock Isl. & Pacific...	7,566	132,927,925	134,316,611	98,270,642	98,853,863	21,927,424	22,395,774
Chic.,St.P.,Minn. & Omaha	1,747	26,847,105	27,063,052	21,800,245	22,988,963	2,679,421	1,857,815
Cin., New Orl. & Tex. Pac...	338	21,811,757	21,631,726	15,560,226	15,239,250	4,709,507	4,917,528
Cincinnati Northern.....	244	4,636,369	4,061,793	3,153,644	2,874,043	796,818	670,291
Clev., Cin., Chic. & St. L....	2,397	91,185,737	88,830,152	70,322,699	66,989,155	14,603,067	15,622,538
Colorado & Southern.....	1,041	12,959,440	12,303,314	10,745,287	9,208,703	1,214,511	1,957,437
Delaware & Hudson Co	882	42,692,911	40,229,715	34,545,618	31,585,665	6,710,504	7,662,966
Delaware, Lack. & West....	996	84,685,831	81,135,181	60,183,061	57,975,287	17,398,099	17,119,225
Denver & Rio Grande West.	2,558	33,121,169	33,200,656	25,079,216	24,442,415	6,391,040	7,094,772
Detroit, Gr. Haven & Mil...	192	8,139,276	9,363,389	5,399,089	5,853,330	1,397,714	1,868,318
Detroit, Toledo & Ironton..	496	8,671,353	11,107,836	6,953,487	6,890,590	635,924	2,635,598
Duluth & Iron Range.....	275	6,648,644	6,548,684	4,700,892	4,418,867	1,440,967	1,721,944
Duluth, Missabe & North ..	308	15,835,484	17,417,639	7,858,242	7,206,858	6,017,496	8,023,924
Duluth, So. Shore & Atl....	577	5,121,693	5,045,858	4,061,518	4,132,799	516,016	327,475
Elgin, Joliet & Eastern.....	460	24,281,541	24,602,240	17,000,308	16,820,060	4,178,780	3,730,959
Erie (incl. Chic. & Erie)....	2,317	122,478,355	124,976,543	100,264,697	95,362,967	12,960,700	20,047,160
Florida East Coast.....	856	17,859,635	13,874,723	14,375,826	9,889,207	592,205	1,426,619
Fort Worth & Denver City .	621	12,362,993	11,601,560	8,423,175	7,219,593	3,212,882	3,651,576
Georgia R. R., Lessee Org...	329	5,666,783	5,271,328	4,624,497	4,408,381	1,060,028	912,939
Grand Trunk Western	346	20,555,105	22,079,054	15,276,068	16,053,544	3,021,356	3,413,095
Great Northern.....	8,277	117,904,005	126,737,091	78,335,579	83,235,116	29,202,540	31,294,069
Gocking Valley	349	21,042,515	20,801,232	13,508,276	12,677,629	4,930,766	5,624,746
Illinois Central.....	5,002	155,822,064	152,569,583	118,982,762	116,433,637	25,615,62	25,761,835
International—Gr. North ..	1,160	18,428,479	18,855,805	14,954,672	14,714,453	2,178,180	2,627,076
Kansas City Southern.....	784	19,075,667	18,513,388	12,913,138	12,546,033	4,177,402	4,151,476
Lehigh Valley.....	1,364	74,502,819	71,935,071	59,270,392	53,826,935	9,835,767	12,315,126
Long Island	404	40,886,581	40,532,572	30,111,966	28,434,357	6,162,578	7,542,459
Los Angeles & Salt Lake...	1,209	25,382,737	24,772,512	20,450,800	19,768,477	2,041,061	2,029,502
Louisville & Nashville	5,076	144,605,117	135,638,458	112,857,835	106,237,041	23,876,834	22,205,053
Maine Central.....	1,122	20,217,535	19,301,899	16,073,451	14,986,283	2,452,653	2,704,327
Michigan Central	1,858	82,750,602	93,217,493	62,244,288	62,643,935	20,988,826	23,155,967
Minneapolis & St. Louis....	1,628	14,413,217	14,450,531	12,842,315	12,381,983	184,694	522,277
Minn., St.P. & S. S. Marie..	4,383	49,157,009	50,291,654	35,735,614	36,407,029	8,663,348	9,006,174
Missouri-Kansas-Texas.....	1,799	35,236,541	35,893,871	23,363,037	22,464,037	9,378,298	10,543,390
Mo.-Kan.-Tex. of Texas....	1,389	20,944,987	20,655,247	15,976,136	16,469,778	2,321,675	1,661,082
Missouri Pacific.....	7,445	125,728,405	131,576,525	99,565,998	99,091,201	16,899,498	21,347,536
Mobile & Ohio.....	1,160	18,055,294	17,369,129	13,594,791	13,199,308	2,931,071	2,647,695
Nash., Chatt. & St. Louis...	1,260	22,905,626	23,335,033	18,282,454	18,127,193	3,841,261	4,232,896
New York Central.....	6,911	383,377,311	381,733,244	293,399,836	288,250,203	61,823,827	62,222,122
N.Y., Chic. & St. Louis.....	1,691	53,619,600	52,876,520	38,574,494	37,866,536	9,995,984	9,556,897
N. Y., N. H. & H.....	2,149	139,824,315	137,633,053	100,278,252	94,148,641	25,235,284	29,238,404
N. Y., Ont. & Western.....	569	13,157,620	12,650,717	10,972,046	10,496,821	1,066,137	913,577
Norfolk Southern.....	932	9,567,021	9,122,317	6,827,969	6,543,270	1,718,182	1,545,608
Norfolk & Western	2,241	110,948,201	106,947,111	69,696,126	66,521,696	34,010,951	34,204,058
Northern Pacific	6,730	95,574,816	101,272,724	67,854,738	70,801,966	22,592,837	25,088,572
Northwestern Pacific.....	478	6,606,409	6,355,971	5,362,096	5,732,204	613,599	50,483
Oregon Short Line.....	2,539	35,999,739	38,731,874	24,442,542	25,339,148	6,936,914	8,574,323
Oreg.-Wash. R.R. & N. Co..	2,359	29,125,538	29,693,248	22,205,867	23,387,292	2,930,746	2,143,474
Pennsylvania.....	10,467	664,851,023	650,567,316	510,668,662	480,171,634	103,977,303	117,297,686
Pere Marquette.....	2,245	44,744,593	45,761,568	31,639,864	31,036,347	9,291,668	10,596,357
Pittsburgh & Lake Erie	231	31,785,320	31,406,816	26,320,312	25,602,990	8,005,294	7,770,829
Reading Company.....	1,141	92,590,436	89,940,033	71,880,069	69,826,345	16,790,121	17,898,849
Rch. Fred. & Potomac.....	118	11,595,722	11,035,433	8,438,157	7,800,240	1,875,647	2,011,878
Rutland.....	413	6,197,106	6,626,282	5,556,639	5,361,874	435,101	940,883
St.L., Brownsville & Mex...	617	9,197,732	8,213,685	6,696,220	5,580,498	1,682,780	1,994,796
St. Louis-San Francisco.....	5,178	84,430,132	81,653,122	58,101,052	56,531,812	22,045,124	20,660,188
St. Louis Southwestern	941	16,835,800	17,999,097	11,386,877	11,481,764	3,611,631	4,230,282
St. Louis Southw. of Texas..	807	7,370,725	7,576,668	7,107,694	7,348,869	502, 36	186,864
Seaboard Air Line.....	4,499	61,790,150	57,245,207	46,873,315	42,902,964	10,388,760	10,055,417
Southern Pacific System....	13,603	297,482,087	300,104,107	217,979,120	216,734,203	51,581,969	54,895,515
Southern Railway	6,761	147,639,063	144,116,452	103,907,953	101,887,718	32,765,062	30,842,554
Spokane, Portland & Seattle.	555	8,932,623	9,345,584	5,344,425	5,853,199	2,454,087	2,299,251
Texas & Pacific	2,015	38,949,539	50,795,832	28,797,073	34,536,240	6,497,569	10,446,475
Union Pacific	3,732	113,383,608	121,971,611	73,235,234	77,711,571	27,574,669	31,071,696
Virginian.....	545	22,114,785	18,480,118	11,603,491	10,103,840	9,075,249	7,096,053
Wabash.....	2,524	67,108,154	71,072,991	51,379,147	52,411,568	9,611,677	11,950,039
West Jersey & Seashore....	371	11,643,817	10,484,098	9,847,874	8,084,156	546,701	970,614
Western Maryland	862	21,866,171	18,592,557	14,993,312	12,676,171	6,131,593	5,250,619
Western Pacific	1,051	16,433,463	17,594,075	13,125,069	14,206,209	2,321,483	2,581,011
Wheeling & Lake Erie.....	512	18,129,587	20,705,664	13,716,571	13,868,383	3,048,020	4,975,836

RAILWAY MILEAGE BY STATES; DEC. 31, 1928.

State.	Total.	State.	Total.	State.	Total.	State.	Total.
	Miles.		*Miles.*		*Miles.*		*Miles.*
Alabama	5,281.72	Iowa	9,751.27	Nevada	2,122.66	S. Dakota	4,235.80
Arizona	2,494.47	Kansas	9,345.34	New Hamp.	1,169.39	Tennessee	4,007.54
Arkansas	4,822.20	Kentucky	4,036.78	New Jersey	2,295.02	Texas	16,771.05
California	8,230.61	Louisiana	4,771.96	New Mexico	2,964.23	Utah	2,193.60
Colorado	4,982.82	Maine	2,198.46	New York	8,338.03	Vermont	1,034.15
Connecticut	968.33	Maryland	1,427.35	N. Carolina	5,222.86	Virginia	4,508.62
Delaware	325.11	Mas'achusetts	2,014.75	N. Dakota	5,274.60	Washington	5,564.43
Dist. of Col.	36.42	Michigan	8,208.46	Ohio	8,866.52	West Virginia	4,049.45
Florida	5,738.07	Minnesota	8,822.31	Oklahoma	6,618.41	Wisconsin	7,353.17
Georgia	6,799.93	Mississippi	4,266.33	Oregon	3,416.27	Wyoming	2,041.60
Idaho	2,938.81	Missouri	7,954.31	Pennsylvania	11,208.35	Alaska	793.30
Illinois	12,118.47	Montana	5,232.22	Rhode Island	196.28	Hawaii	229.25
Indiana	7,173.14	Nebraska	6,174.36	S. Carolina	3,743.35		
						U. S. Total	249,309.48

Total railway mileage in the United States—(1830) 23; (1840) 2,818; (1850) 9,021; (1860) 30,626; (1870) 52,922; (1880) 93,267; (1890) 167,191; (1900) 198,964; (1910) 249,992; (1915—June 30) 253,789; (1916—June 30) 254,251; (1917—Jan. 1) 254,037; (1918—Jan. 1) 253,626; (1919—Jan. 1) 253,529; (1920—Jan. 1) 253,152; (1921—Jan. 1) 252,845; (1922—Jan. 1) 251,176; (1923—Jan. 1) 250,413; (1924—Jan. 1) 250,222; (1925—Jan. 1) 250,156; (1925—Dec. 31) 249,398; (1926—Jan. 1) 249,398; (1926—Dec. 31) 249,138; (1927—Jan. 1) 249,138; (1927—Dec. 31) 249,1310; (1928—Dec. 31) 249,309.

Mileage in Alaska and Hawaii not included in any of the above totals.

WIDTH OF STANDARD GAUCE RAILWAYS.

The *standard gauge* of railways is 4 feet 8½ inches in the United States, Great Britain, Canada, France, Germany, Austria, Holland, Belgium, Denmark, Hungary, Italy, Switzerland, Sweden, and European Turkey. That is to say it is 56½ inches from the inside of one rail to the inside of the opposite rail, about five-eighths of an inch below the top of the rail head. This measurement holds good on rail heads with slanted sides as well as on rail heads with straight sides.

Broad gauge is 6 feet and was used in the South.

Narrow-gauge:- A gauge narrower than the standard gauge, such as the meter gauge used largely in Latin American countries; 3 ft. gauge frequently employed in construction tracks; or 3-ft. 6-in gauge standard on the British South African Railways, etc. A gauge of 24 in. or less is commonly employed for industrial railways.

THE RAILROAD DOLLAR, HOW IT GOES.

Year (Fiscal).	Labor (Salaries and Wages).	Fuel (Locomotive).	Material, Supplies and Misc.	Loss & Damage; Injuries to Persons; Insurance	Depreciation & Retirements.	Taxes.	Hire of Equip. and Joint Facility Net Rentals	Net Ry. Operating Income
	Cts.	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
1911	39.4	8.1	16.8	2.4	2.4	3.6	1.0	26.3
1912	40.1	8.0	16.8	2.4	2.5	3.9	1.0	25.3
1913	40.1	7.8	16.1	2.2	2.7	3.8	0.9	25.3
1914	41.0	7.8	18.2	2.7	3.0	4.5	1.0	21.8
1915	40.0	7.3	17.0	2.6	3.5	4.6	1.2	23.8
1916	37.6	6.7	15.6	2.0	3.5	4.3	1.2	29.1
(Calendar)								
1916	38.0	7.0	15.3	2.0	3.3	4.4	1.1	28.9
1917	40.3	9.8	15.2	2.3	2.9	5.3	0.9	23.3
1918	49.8	10.3	16.8	2.3	2.4	4.6	0.7	13.1

Year	Labor (Salaries and Wages).	Fuel (Locomotive).	Material, Supplies and Misc	Loss & Damage; Injuries to Persons; Insurance	Depreciation & Retirements.	Taxes	Hire of Equip. and Joint Facility Net Rentals.	Net Ry. Operating Income.
(Calendar)	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*	*Cts.*
1919	51.4	9.2	19.5	3.0	2.5	4.5	1.1	8.8
1920	55.4	10.9	22.1	3.6	2.3	4.4	1.0	0.3
1921	46.9	9.5	20.6	2.9	2.8	5.0	1.4	10.9
1922	44.4	9.3	20.7	2.0	3.0	5.4	1.5	13.7
1923	44.3	8.4	20.1	1.8	3.2	5.3	1.6	15.3
1924	44.3	7.4	19.1	1.8	3.5	5.8	1.7	16.4
1925	43.2	6.6	18.9	1.7	3.7	5.9	1.7	18.3
1926	42.6	6.4	19.0	1.6	3.6	6.1	1.7	19.0
1927	43.9	6.3	18.9	1.6	3.9	6.1	1.9	17.4
1928	43.0	5.8	18.2	1.4	4.0	6.4	2.0	19.2

ELECTRIC RAILWAYS IN THE UNITED STATES.

(Data, which is preliminary, gathered by Bureau of the Census, Department of Commerce.)

Items.	1927.	1922.		1917.
		A	B	
Total number of companies	998	1,166	1,200	1,307
Operating	655	826	858	943
Lessor	343	340	342	364
Total number of employees	262,725	292,624	300,523	294,826
No. of bus employees (incl. in total above)	7,168	400	404	
Total miles of track operated	41,417.65	42,373.99	43,931.86	44,835.37
Miles of first track	27,865.70	30,070.34	31,264.26	32,547.58
Total number of cars (all types)	89,642	95,931	99,255	102,603
Total number of car miles operated	2,120,774,257	2,081,085,455	2,138,281,674	2,139,801,530
Total number of car passengers	14,521,977,983	14,881,857,530	15,331,399,851	14,506,914,573
Number of revenue car passengers	11,802,916,612	12,335,286,642	12,666,557,734	11,304,660,462
Miles of bus route (round trip)	13,031.34	683.86	685.36	....
Number of busses	3,878	368	370	....
Total number of bus miles	130,015,315	7,100,624	7,116,404	....
Total number of bus passengers	398,323,932	16,109,836	16,120,115	....
Number of revenue bus passengers	325,919,601	12,783,202	12,791,308	....

The 1927 figures are based on reports for that year received prior to September 14, 1928.

The 1922 (A) figures represent an adjustment for comparison with 1927; the 1922 (B) figures are as originally published, and are comparable with 1917.

The 1922 (A) figures also include those concerns which operated in 1922 but went out of existence as separate companies prior to January 1, 1927.

The 1922 figures for the companies which are believed to have operated in 1927, but which had not reported prior to September 14 1928, are as follows: Number of operating companies, 32; total number of employees, 7,899; number of bus employees, 4; total miles of track operated, 1,557.87; miles of first track, 1,193.92; total number of cars (all types), 3,324; total number of car miles operated, 57,196,219; total number of car passengers, 449,542,321; number of revenue car passengers, 331,271,092; miles of bus route, 1.5; number of busses, 2; total number of bus miles, 15,780; total number of bus passengers, 10,279; number of revenue bus passengers, 8,016.

The 1927 figures as to number of employees, and as to miles of bus routes are not strictly comparable with 1922.

ROMAN CATHOLIC HIERARCHY.

At the head of the Roman Catholic Church is the SUPREME PONTIFF, PIUS XI., Achille Ratti, born at Desio, Italy, May 31, 1857, made Archbishop of Milan, April, 1921; Cardinal, June 13, 1921; elected Pope, as successor of Benedict XV., Feb. 6, 1922; crowned, Feb. 12, 1922. The Pontiff is, in orders, a Bishop. His ecclesiastical title is: His Holiness, the Pope; Bishop of Rome and Vicar of Jesus Christ; Successor of St. Peter, Prince of the Apostles; Supreme Pontiff of the Universal Church; Patriarch of the West; Primate of Italy; Archbishop and Metropolitan of the Roman Province; Sovereign of the Temporal Dominions of the Holy Roman Church. The American Cardinals reached Rome too late to cast their ballots for a successor to Benedict XV. In consequence, the new Pope, Pius XI., has made a change in the regulations, extending the interval between the death of a Pope and the election of his successor, so as to give the foreign Cardinals a chance to take part. (See also State of Vatican City.)

THE COLLEGE OF CARDINALS.

The College of Cardinals, when complete, is made up of 70 members, of whom 6 are Cardinal-Bishops, 50 are Cardinal-Priests, and 14 are Cardinal-Deacons. The College is the Senate of the Roman Church. The Cardinals advise the Pope and elect his successor. The Cardinal-Bishops take their titles from the Suburban Sees of Rome: Ostia and Palestrina, Porto and Santa Rufina, Albano, Sabina, Frascati, and Velletri. Where no office or dignity is shown none is held.

NAME.	Office or Dignity.	Nationality	Year of Birth.	Year of Creation.
Cardinal-Bishops—				
Vincenzo Vannutelli	Bishop of Ostia and Palestrina, Dean of the Sacred College, Datary of the Pope	Italian	1836	1889
Gennaro Granito Pignatelli di Belmonte	Bishop of Albano	Italian	1851	1911
Basilio Pompilj	Vicar-Gen. of Rome, Card.-Bishop of Velletri	Italian	1858	1911
Michele Lega	Bishop of Frascati, Prefect of the Sacred Congregation of Sacraments	Italian	1860	1914
Donati Sbarretti	Bishop of Sabina; Prefect Congregation of the Council	Italian	1856	1916
Tommaso Pio Boggiani	Bishop of Porto and San Rufina	Italian	1863	1916
Cardinal-Priests—				
Leo de Skrbensky		Austrian	1863	1901
Rafael Merry del Val	Sec. of the Congr. the Holy Office, Archpriest of the Vatican Basilica	Spanish	1865	1903
Joaquin Arcoverde de Albuquerque Cavalcanti	Archbishop of Rio de Janeiro	Brazilian	1850	1905
Pietro Maffi	Archbishop of Pisa	Italian	1858	1907
Pietro Gasparri	Pontifical Secretary of State, Camerlengo of the Church	Italian	1852	1907
Louis Henri Joseph Lucon	Archbishop of Rheims	French	1842	1907
Paulin Pierre Andrieu	Archbishop of Bordeaux	French	1849	1907
Francis Bourne	Archbishop of Westminster	English	1861	1911
William O'Connell	Archbishop of Boston	American	1859	1911
Gaetano Bisleti	Commendatory Grand Prior Sov. Order of Malta in Rome, Prefect of S. C. of Seminaries and Universities	Italian	1856	1911
Willem van Rossum	Prefect Congreg. De Propaganda Fide	Dutch	1854	1911
Gustav Piffl	Archbishop of Vienna	Austrian	1864	1914
Andrew Francis Fruhwirth	Chancellor of the Church	German	1845	1915
Alfonso Maria Mistrangelo	Archbishop of Florence	Italian	1852	1915
Rafael Scapinelli di Leguigno		Italian	1858	1915
Pietro La Fontaine	Patriarch of Venice	Italian	1860	1916
Alessio Ascalesi	Archbishop of Naples	Italian	1872	1916
Louis Joseph Maurin	Archbishop of Lyons	French	1859	1916
Alexander Kakowski	Archbishop of Warsaw	Polish	1863	1919
Adolph Bertram	Archbishop of Breslau	German	1859	1919
Francisco Ragonesi	Prefect of the Tribunal of the Apostolic Signature	Italian	1850	1921
Michael Faulhaber	Archbishop of Munich	German	1869	1921
Dennis J. Dougherty	Archbishop of Philadelphia	American	1865	1921
Francisco Vidal y Barraquer	Archbishop of Tarragona	Spanish	1868	1921
Karl Joseph Schulte	Archbishop of Cologne	German	1871	1921
Achille Locatelli		Italian	1856	1922
Alessio Charost	Archbishop of Rennes	French	1860	1922
Giovanni B. Nasalli-Rocca	Archbishop of Bologna	Italian	1872	1923
George W. Mundelein	Archbishop of Chicago	American	1872	1924
Patrick J. Hayes	Archbishop of New York	American	1867	1924
Vincenzo Casanova y Marzol	Archbishop of Granada	Spanish	1854	1925
Eustochio Ilundain y Esteban	Archbishop of Seville	Spanish	1862	1925
Bonaventura Cerretti		Italian	1872	1925
Enrico Gasparri		Italian	1871	1925
Luigi Capotosti		Italian	1863	1925
Giuseppe Gamba	Archbishop of Turin	Italian	1857	1926
Lorenzo Lauri	Chief Penitentiary	Italian	1864	1926
Ernesto Van Roey	Archbishop of Malines	Belgian	1874	1927
Auguste Hlond	Archbishop of Gnesna and Posnania	Polish	1881	1927
Raymond M. Rouleau	Archbishop of Quebec	Canadian	1866	1927
Pedro Sigura y Saenz	Archbishop of Toledo	Spanish	1880	1927
Henry Charles Binet	Archbishop of Besançon	French	1869	1927
Alexis Maria Lepicier	Prefect of the S. C. of Religious	French	1863	1927
Justinian Seredi	Archbishop of Gran, Primate of Hungary	Hungarian	1884	1927
Ildefonso Schuster	Archbishop of Milan	Italian	1880	1929
Cardinal-Deacons—				
Camillo Laurenti	Prefect of the S. C. of Rites	Italian	1862	1921
Giuseppe Mori		Italian	1850	1922
Franz Ehrle	Librarian of the Church	German	1845	1922
Luigi Sincero	Secretary of S. C. of the Oriental Churches	Italian	1870	1923
Alessandro Verde		Italian	1865	1925
Carlo Perosi	Sec. of the Sacred Consistorial Congregation	Italian	1868	1925

ROMAN CATHOLIC HIERARCHY OF THE UNITED STATES.

Apostolic Delegate to the United States—Archbishop Pietro Fumasoni-Biondi. Auditor—Mgr. Paul Marella, D. D.; Secretary—Rev. Francis E. Hyland, J. C. D. The office of the Apostolic Delegate is at No. 1811 Biltmore St., Washington, D. C.

ARCHDIOCESES.

See.	*Archbishops.*	*Cons.*
Baltimore, Md.	Michael J. Curley	1914
	John McNamara (Aux.)	1928
Boston, Mass.	W. O'Connell, Cardinal	1901
	John B. Peterson (Aux.)	1917
Chicago, Ill.	G.W. Mundelein, Cardinal	1909
	Bernard J. Shell (Aux.)	1928
Cincinnati, Ohio	John T. McNicholas, O. P.	1918
Dubuque, Iowa.	(See Vacant.)	
Milwaukee, Wis.	Sebastian G. Messmer	1892
New Orleans, La.	John W. Shaw	1910
	J. M. Laval (Auxiliary)	1911
New York, N. Y.	Patrick J. Hayes, Cardinal	1914
New York, N.Y.	John J. Dunn (Auxiliary)	1921
	J. J. Collins, S. J. (Retired)	1929
Portland, Ore.	Edward D. Howard	1926
Philadelphia, Pa.	D. J. Dougherty, Cardinal	1903
	Gerard P. O'Hara (Aux.)	1929
St. Louis, Mo.	John Joseph Glennon	1896
St. Paul, Minn.	Austin Dowling	1912
San Antonio, Tex.	Arthur J. Drossaerts. (Apptd. Archbishop, 1926)	1918
San Francisco, Cal.	E. J. Hanna	1912
Santa Fe, N. M.	Albert Daeger, O. F. M.	1919

DIOCESES.

See.	*Bishops.*	*Cons.*
Alaska	Joseph R. Crimont, S. J.	1917
Albany, N. Y.	Edmund F. Gibbons	1919
Alexandria, La.	Cornelius Van de Ven	1904
Altoona, Pa.	J. J. McCort	1912
Amarillo, Tex.	Rudolph Gerken	1927
Baker City, Ore.	J. F. McGrath	1903
Belleville, Ill.	Henry Althoff	1914
Belmont Abbey, Nullius, N. C.	Vincent Taylor, Abbot	1925
Bismarck, N. D.	Vincent Wehrle, O. S. B.	1910
Boise, Idaho	Edward Kelly	1928
Brooklyn, N. Y.	Thos. E. Molloy	1920
Buffalo, N. Y.	William Turner	1919
Burlington, Vt.	Joseph J. Rice	1910
Charleston, S. C.	Emmet M. Walsh	1927
Cheyenne, Wyo.	P. A. McGovern	1912
Cleveland, Ohio	Joseph Schrembs	1911
Columbus, Ohio	J. J. Hartley	1904
Concordia, Kan.	Francis J. Tief	1921
Corpus Christi, Tex.	Emanuel B. Ledvina	1921
Covington, Ky.	Francis W. Howard	1923
Crookston, Minn.	Timothy Corbett	1910
Dallas, Tex.	Joseph P. Lynch	1911
Davenport, Iowa	Henry P. Rohlman	1927
Denver, Col.	J. Henry Tihen	1911
Des Moines, Iowa	Thomas W. Drumm	1919
Detroit, Mich.	M. J. Gallagher	1915
	Joseph C. Plagens (Aux.)	1924
Duluth, Minn.	Thomas A. Welch	1926
El Paso, Tex.	A. J. Schuler, S. J.	1915
Erie, Pa.	J. M. Gannon	1918
Fall River, Mass.	Daniel F. Feehan	1907
Fargo, N. D.	James O'Reilly	1910
Fort Wayne, Ind.	John F. Noll	1925
Galveston, Tex.	C. E. Byrne	1918
Grand Island, Neb.	J. A. Duffy	1913
Grand Rapids, Mich.	Joseph G. Pinten	1922
Great Falls, Mont.	M. C. Lenihan	1904
Green Bay, Wis.	Paul P. Rhode	1908
Harrisburg, Pa.	P. R. McDevitt	1916
Hartford, Conn.	John J. Nilan	1910
	M. F. McAuliffe (Aux.)	1926
Helena, Mont.	George J. Finnigan	1927
Honolulu, Hawaii	Stephen Alencastre	1924
Indianapolis, Ind.	Joseph Chartrand	1910
Kansas City, Mo.	Thomas F. Lillis	1904
La Crosse, Wis.	A. J. McGavick	1899
Lafayette, La.	J. B. Jeanmard	1918
Lead, S. D.	John J. Lawler	1910
Leavenworth, Kan.	Francis Johannes	1928
Lincoln, Neb.	F. J. L. Beckman	1924
Little Rock, Ark.	John B. Morris	1906
Los Angeles, Cal.	John J. Cantwell	1917
Louisville, Ky.	John A. Floersh	1923
Manchester, N. H.	G. A. Guertin	1907
Marquette, Mich.	Paul J. Nussbaum, C. P.	1913
Monterey-Fresno	John B. McGinley	1910
Mobile, Ala.	Thomas Toolen	1927
Nashville, Tenn.	Alphonse J. Smith	1924
Natchez, Miss.	Richard O. Gerow	1924
Newark, N. J.	Thomas J. Walsh	1918
Ogdensburg, N. Y.	J. H. Conroy	1912
Oklahoma, Okla.	Francis C. Kelley	1924
Omaha, Neb.	Joseph Rummel	1928
Peoria, Ill.	(See Vacant.)	
Pittsburgh, Pa.	Hugh C. Boyle	1921
Ponce, P. R.	Aloysius J. Willinger	1929
Portland, Me.	John Gregory Murray	1920
Providence, R. I.	Wm. A. Hickey	1919
Raleigh, N. C.	William J. Hafey	1925
Richmond, Va.	Andrew D. Brennan	1926
Rochester, N. Y.	J. Francis O'Hern	1929
Rockford, Ill.	Edward F. Hoban	1921
St. Augustine, Fla.	Patrick Barry	1922
St. Cloud, Minn.	J. F. Busch	1910
St. Joseph, Mo.	Francis Gilfillan	1922
Sacramento, Cal.	Robert J. Armstrong	1929
Salt Lake C., Utah	John J. Mitty	1926
San Juan, P. R.	Edwin B. Byrne	1925
Savannah, Ga.	Michael J. Keyes, S. M.	1922
Scranton, Pa.	Thomas C. O'Reilly	1928
Seattle, Wash.	Edward J. O'Dea	1896
Sioux City, Iowa	Edmond Heelan	1919
Sioux Falls, S. D.	B. J. Mahoney	1922
Spokane, Wash.	Charles White	1927
Springfield, Ill.	J. A. Griffin	1924
Springfield, Mass.	Thos. M. O'Leary	1921
Superior, Wis.	Theodore Reverman	1926
Syracuse, N. Y.	Daniel J. Curley	1923
Toledo, Ohio	Samuel A. Stritch	1921
Trenton, N. J.	John J. McMahon	1928
Tucson, Ariz.	D. J. Gercke	1923
Wheeling, W. Va.	John J. Swint	1922
Wichita, Kan.	Augustus J. Schwertner	1921
Wilmington, Del.	Edmond J. Fitzmaurice	1925
Winona, Minn.	Francis M. Kelly	1926
Ruthenian diocese	(1) Basil Takach	1924
" "	(2) Constantine Bohachevsky	1924

NATIONAL CATHOLIC WELFARE CONFERENCE.

(Headquarters, 1312 Massachusetts Ave., Washington, D. C.)

The Conference is incorporated under the laws of the District of Columbia and has for its objects the unifying of the Catholic people of the United States in works of education, social welfare, immigrant aid, Americanization and other activities.

Administered by a committee of seven Archbishops and Bishops, elected by the Bishops in annual meeting; Most Rev. Edward J. Hanna, D. D., Archbishop of San Francisco, Chairman; Rev. John J. Burke, C. S. P., S. T. D., General Secretary.

The Executive Department maintains the following bureaus, the titles of which indicate their special fields of activity: Immigration, Publicity and Information, Motion Pictures, Historical Records, Civic Education, Business and Publications.

The official publication of the conference is the *N. C. W. C. Bulletin*, Charles A. McMahon, Editor.

Education—Most Rev. Austin Dowling, D. D., Archbishop of St. Paul, Chairman; Rev. George Johnson, Ph.D., Executive Secretary.

Organized to serve as a clearing house of information concerning Catholic education; an advisory agency in the development of Catholic schools and the Catholic school system.

Divisions—Statistics and Information, Teachers' Registration Section, Health Education, Research Catholic Education, Library.

Press and Publicity—Rt. Rev. Philip R. McDevitt, D. D., Bishop of Harrisburg, Chairman; Justin McGrath, Director.

The N. C. W. C. News Service serves ninety Catholic daily and weekly newspapers published in the United States and elsewhere.

Aside from its headquarters staff it maintains correspondents in the principal American cities and leading foreign capitals. The service enjoys the privilege of the Press Galleries of Congress.

Legal—Right Rev. John G. Murray, D.D., Bishop of Portland, Chairman; William F. Montavon, Director.

It maintains a Nation-wide scrutiny of legislation affecting public moral and religious welfare.

Social Action—Right Rev. Thomas F. Lillis, D. D., Bishop of Kansas City, Chairman; Rev. John A. Ryan, Director.

Lay Organizations—Right Rev. Joseph Schrembs, D. D., Bishop of Cleveland, Chairman.

This department consists of two co-ordinate branches—the National Council of Catholic Men and the National Council of Catholic Women.

These co-ordinate branches have local units in every one of the 104 dioceses and have affiliated with them the leading national, State, diocesan and local organizations of Catholic men and women throughout the United States.

ROMAN CATHOLIC STATISTICS FOR THE UNITED STATES.

(Data, which covers *dioceses*, from 1929 Official Catholic Directory, copyrighted by P. J. Kenedy & Sons)

Archdioceses, Dioceses, Vicariates-Apostolic.	Clergy.	Churches.	Children Attending.	Catholic Population.
Baltimore	800	242	47,006	304,526
Boston	1,060	350	98,347	999,000
Chicago	1,267	387	188,910	1,250,000
Cincinnati	508	229	48,041	220,000
Dubuque	281	238	19,537	118,888
Milwaukee	533	323	50,521	310,000
New Orleans	327	229	27,487	341,865
New York	1,326	444	124,870	1,273,291
Philadelphia	1,002	383	143,472	810,550
Portland, Ore.	177	145	9,844	43,559
St. Louis	678	318	46,216	440,000
St. Paul	402	256	34,539	280,449
San Antonio	207	202	14,819	318,000
San Francisco	532	219	32,328	350,000
Santa Fe	104	360	9,689	143,788
Albany	362	229	28,364	225,000
Alexandria	42	80	6,172	47,500
Altoona	185	127	15,193	107,500
Amarillo	30	48	1,545	25,175
Baker City	27	54	1,018	7,851
Belleville	148	139	12,721	72,313
Bismarck	74	154	3,525	48,616
Boise	57	101	2,129	19,375
Brooklyn	728	297	110,434	867,183
Buffalo	576	255	54,688	385,438
Burlington	100	97	8,626	89,568
Charleston	40	44	1,944	9,520
Cheyenne	32	58	802	24,712
Cleveland	517	259	72,493	540,193
Columbus	196	157	20,624	140,186
Concordia	95	95	5,500	41,118
Corpus Christi	85	147	5,127	247,760
Covington	103	83	12,171	64,000
Crookston	57	84	2,188	25,246
Dallas	84	108	6,503	48,933
Davenport	157	125	8,904	54,195
Denver	232	267	12,865	132,171
Des Moines	117	95	5,137	38,565
Detroit	602	355	107,376	630,413
Duluth	104	110	5,289	64,080
El Paso	95	100	4,453	117,124
Erie	208	163	18,262	118,659
Fall River	199	113	16,629	195,000
Fargo	128	188	4,092	69,871
Fort Wayne	383	177	43,493	183,372
Galveston	140	149	11,015	130,419
Grand Island	66	98	2,250	23,191
Grand Rapids	207	229	25,743	145,000
Great Falls	68	133	2,342	32,425
Green Bay	271	242	27,528	175,000
Harrisburg	145	105	16,257	81,997
Hartford	516	277	50,437	602,329
Helena	100	100	5,988	40,849
Indianapolis	323	187	25,254	135,775
Kansas City	159	110	10,892	80,000
La Crosse	231	229	14,848	117,152
Lafayette	102	106	8,407	186,750
Lead	104	188	2,254	39,435
Leavenworth	210	128	13,085	86,128
Lincoln	111	140	4,042	41,332
Little Rock	91	110	6,134	26,591
Los Ang., S. Diego	504	272	43,767	299,350
Louisville	231	162	23,441	117,437
Manchester	211	120	23,940	149,200
Marquette	97	132	7,451	83,469
Mobile	150	108	7,650	48,200
Monterey-Fresno	83	76	3,628	76,800
Nashville	60	52	6,681	28,338
Natchez	74	109	7,027	33,585
Newark	715	276	91,821	724,500
Ogdensburg	168	162	7,443	107,504
Oklahoma	151	167	8,239	54,903
Omaha	248	184	18,549	94,400
Peoria	258	236	17,809	117,742
Pittsburgh	677	436	92,065	561,396
Portland	197	188	25,028	182,599
Providence	320	128	31,511	317,529
Raleigh	43	70	1,877	7,491
Richmond	105	113	9,437	38,443
Rochester	259	159	32,004	208,634
Rockford	155	103	9,487	60,603
Sacramento	90	127	3,078	59,850
St. Augustine	93	94	4,607	51,014
St. Cloud	189	139	8,585	65,900
St. Joseph	97	102	5,034	45,866
Salt Lake	28	29	1,369	15,230
Savannah	60	60	4,775	18,820
Scranton	351	251	27,073	315,788
Seattle	201	156	13,184	91,000
Sioux City	170	146	12,144	67,521
Sioux Falls	146	189	6,882	60,741
Spokane	84	99	4,630	30,460
Springfield, Ill.	228	163	13,389	93,732
Springfield, Mass	447	230	45,712	446,752
Superior	94	150	5,685	58,804
Syracuse	214	157	20,142	203,981
Toledo	249	149	28,059	161,473
Trenton	248	219	39,899	231,351
Tucson	67	111	3,388	93,881
Wheeling	121	156	8,297	63,776
Wichita	143	153	9,008	59,935
Wilmington	70	53	6,454	35,018
Winona	125	125	11,412	68,800
Belmont Abbey	17	7	139	352
Ukrainian Greek	90	129	12,585	244,118
Pittsburgh-Gr'k.	143	175	.....	309,046
V-A of Alaska	23	44	681	9,500
V-A of Haw. Isl.	48	105	4,437	109,000
Totals	26,353	17,936	2,488,682	20,112,758

Italics denote archdioceses. There are Cardinals at New York City, Chicago, Philadelphia and Boston.

Archbishops number 17; bishops, 104; secular clergy, 18,722; religious clergy, 7,631. Of the churches 11,903 have resident priests. There are 136 seminaries with 14,686 students; 237 colleges for boys and 734 academies for girls. There are 7,063 parishes with schools; 357 orphan asylums with 54,350 inmate orphans; 150 homes for the aged; 624 hospitals.

Converts in the last year numbered 36,376.

KNIGHTS OF COLUMBUS.

(Contributed by the Supreme Council of the Organization.)

The Knights of Columbus, an organization, was founded in 1882 as a fraternal benefit association for Catholic men by Rev. Michael J. McGivney and nine parishioners of St. Mary's R. C. Church in New Haven, Conn.

It now operates in every state of the Union, every province in Canada and Mexico, Cuba, Philippine Islands, Porto Rico, Alaska, Panama and Newfoundland.

Its charter permits engaging in public welfare, relief, educational and boys work.

During the World War the Order was officially recognized as a welfare organization by the United States Government and collected and distributed several million dollars while acting in that capacity, and all administration or executive expense was borne by the Order.

It has also made large contributions to flood, hurricane and other disaster sufferers.

In 1923 the Order entered the field of Boys Work and now sponsors the only post graduate university course in boys work in the World, at Notre Dame University. It also provides leaders for ten-night intensive training courses in boy leadership. These courses are open to all men.

The total membership as of July 1, 1929, was 637,122 members in 2,544 subordinate councils.

Assets of the Order were $30,256,393.03, and insurance reserve liabilities as of Jan. 1, 1929 were $21,853,440.65.

Insurance in force was $278,235,306 and the surplus or margin of Safety was $6,885,337.78 or 31.51 per cent above statutory requirements.

Supreme Officers are: Supreme Knight, Martin H. Carmody, Grand Rapids, Mich.; Deputy Supreme Knight John F. Martin, Green Bay, Wisc.; Supreme Secretary, William J. McGinley, New Haven, Conn.; Supreme Treasurer, D. J. Callahan, Washington, D. C.; Supreme Advocate, Luke E. Hart, St. Louis, Mo.; Supreme Physician, Edward W. Fahey, St. Paul, Minn.; Supreme Chaplain, Rev. John J. McGivney, Bridgeport, Conn.; Supreme Warden, David F. Supple, San Francisco, California.

Supreme Directors are Edward Houlihan, Chicago, Ill.; Leo F. Craig, Sioux Falls, S. D., James W. Gibbons, Topeka, Kans.; Edward P. Ryan, Los Angeles, Calif.; Patrick H. Rice, Augusta, Ga.; Charles P. McAlevy, Pawtucket, R. I.; Daniel A. Tobin, Brooklyn, N. Y.; Thomas J. Duffy, Columbus, Ohio; William J. Guste, New Orleans, La.; John H. Reddin, Denver, Colo.; John F. O'Neill, Jersey City, N. J.; Francis P. Matthews, Omaha, Nebr.; Dr. Claude Brown, London, Ontario; John E. Swift, Boston, Massachusetts.

BISHOPS OF THE PROTESTANT EPISCOPAL CHURCH.

(Most Rev. Charles Palmerston Anderson, Presiding Bishop, 281 Fourth Avenue, New York City. His assistant is Bishop Hugh L. Burleson of South Dakota.

Alabama—William G. McDowell, Birmingham.

Alaska—Peter Trimble Rowe (miss.), Seattle, Wash.

Arizona—Walter Mitchell (miss.), Phoenix.

Arkansas—James R. Winchester, Little Rock; E. W. Saphore, Suffragan, Little Rock; E. T. Demby, Suffragan, Little Rock.

California—E. L. Parsons, San Francisco, Sacramento: W. H. Moreland. San Joaquin, L. C. Sanford (miss.), Fresno. Los Angeles: W. B. Stevens, Los Angeles.

Colorado—I. P. Johnson, Denver; Fred Ingley, Coadjutor, Denver.

Connecticut—E. C. Acheson, Middletown.

Dakota, North—J. Poyntz Tyler (miss.), Fargo.

Dakota, South—H. L. Burleson, Sioux Falls. W. B. Roberts, Suffragan, Sioux Falls.

Delaware—Philip Cook, Wilmington.

District of Columbia—James E. Freeman, Washington.

Florida—F. A. Juhan, Jacksonville, South Florida; Cameron Mann, Winter Park; John D. Wing, Coadjutor, Winter Park.

Georgia—Frederick F. Reese, Savannah. Atlanta. Henry J. Mikell, Atlanta.

Idaho—Middleton S. Barnwell (miss.), Boise.

Illinois—Charles Palmer Anderson; S. M. Griswold, Suffragan, Chicago. Quincy: Edward Fawcett, Quincy, Springfield: John C. White, Springfield, Ill.

Indiana—Joseph M. Francis, Indianapolis. Northern Indiana. Campbell Gray, Mishawaka.

Iowa—Theodore N. Morrison, Davenport. Harry S. Longley, Coadjutor, Des Moines.

Kansas—James Wise, Topeka. Salina: Robert H. Mize, Salina.

Kentucky—Charles Edward Woodcock, Louisville. Lexington; Henry P. A. Abbott, Lexington.

Louisiana—Davis Sessums, New Orleans.

Maine—Benjamin Brewster, Portland.

Maryland—Edw. T. Helfenstein, Coadjutor, Baltimore. Easton: Geo. W. Davenport, Easton.

Massachusetts—Charles L. Slattery, Boston. S. G. Babcock, Suffragan, Boston. Western: Thomas F. Davies, Springfield.

Michigan—Herman Page, Detroit. Marquette: R. Le R. Harris, Marquette. Western: J. N. McCormick, Grand Rapids.

Minnesota—Frank A. McElwain, Minneapolis. Duluth: Granville G. Bennett, Duluth.

Mississippi—Theodore D. Bratton, Jackson. Wm. Mercer Green, Coadjutor, Meridian.

Missouri—F. F. Johnson, St. Louis. Western: Sidney C. Partridge, Kansas City.

Montana—William F. Faber, Helena; H. H. H. Fox, Coadjutor, Billings.

Nebraska—Ernest Vincent Shayler, Omaha. Western: George A. Beecher (miss.), Hastings.

Nevada—Thomas Jenkins (miss.), Reno.

New Hampshire—John Thomson Dallas, Concord.

New Mexico—F. B. Howden (miss.), Albuquerque.

New Jersey—Paul Matthews; Albion W. Knight, Coadjutor, Trenton. Newark: Wilson R. Stearly, Newark, N. J.

New York—Wm. T. Manning, New York City. Arthur S. Lloyd and Herbert Shipman, Suffragans. Central: Charles Fiske, Utica; Edward H. Coley, Suffragan. Utica. Western: D. L. Ferris, Cameron J. Davis, Coadjutor, Buffalo. Albany: G. A. Oldham, Albany. Long Island: Ernest M. Stires, Garden City. John I. B. Larned (Suffr.), Brooklyn.

North Carolina—Joseph Blount Cheshire, Raleigh. Edwin A. Penick, Coadjutor, Charlotte. East Carolina: T. C. Darst, Wilmington. Western North Carolina: J. M. Horner, Asheville.

North Dakota—(See Dakota, North.)

Ohio—William Andrew Leonard, Cleveland; W. L. Rogers, Coadjutor, Cleveland. Southern: Boyd Vincent, Cinn.

Oklahoma—Thomas Casady (miss.), Oklahoma City.

Oregon—Walter Taylor Sumner, Portland. Eastern: W. P. Remington (miss.), Pendleton.

Pennsylvania—Thos. J. Garland, Philadelphia; Francis M. Tait, Coadjutor. Pittsburgh: Alexander Mann, Pittsburgh. Bethlehem: Frank W. Sterrett, Bethlehem. Harrisburg: James H. Darlington, Harrisburg. Erie: John G. Ward, Erie.

Rhode Island—J. De W. Perry, Providence.

South Carolina—Albert S. Thomas. Upper South Carolina: Kirkman G. Finlay, Columbia.

South Dakota—(See Dakota, South.)

Tennessee—Thomas F. Gailor, Memphis. J. M. Maxon, Coadjutor, Nashville.

Texas—Clinton S. Quin, Houston. Dallas: H. T. Moore, Dallas. Western: William T. Capers, San Antonio. Northern: E. Cecil Seaman, Amarillo.

Utah—Arthur W. Moulton (miss.), Salt Lake City.

Vermont—Arthur C. A. Hall, Burlington; Samuel B. Booth, Coadjutor, Burlington.

Virginia—H. St. George Tucker, Richmond. Southern: B. D. Tucker, Norfolk; A. C. Thomson, Coadjutor, Portsmouth. Southwestern: Robert C. Jett, Roanoke.

West Virginia—W. L. Gravatt, Charleston; Robert E. L. Strider, Coadjutor, Wheeling.

Wisconsin—William Walter Webb, Milwaukee; Benjamin F. P. Ivins, Coadjutor, Milwaukee. Fond du Lac: Reginald H. Weller, Fond du Lac; Eau Claire: Frank E. Wilson.

Washington—Olympia: S. Arthur Huston, Seattle; Edward M. Cross, (miss.) Spokane.

Wyoming—Elmer N. Schmuck (miss.).

Africa — Liberia: Robert E. Campbell (miss.). Monrovia; Theo. M. Gardiner (miss.), Suffragan, Cape Palmas.

Brazil—Southern: William M. M. Thomas (miss.). Rio Grande do Sul.

China—Frederick R. Graves (miss.), Shanghai; Logan H. Roots (miss.), Hankow; Alfred A. Gilman (miss.), Suffragan, Wuchang; D. Trumbull Huntington (miss.), Anking.

Haiti—H. R. Carson (miss.). Port au Prince.

Panama Canal Zone—James C. Morris (miss.), Ancon.

Cuba—Hiram R. Huse (miss.), Havana.

Virgin Islands—C. B. Colmore, in charge.

Dominica—H. R. Carson in charge.

Japan—John McKim (miss.), Tokio. North Tokio: C. F. Reifsnider (miss.), Suffragan, Tokio. Shirley H. Nichols (miss.), Kioto. Norman S. Binsted (miss.), Tohoku.

Hawaiian Islands—Samuel H. Littell (miss).

Mexico—Frank W. Creighton (miss.), Mexico City.

Philippines — Gouverneur F. Mosher (miss.). Manila.

Porto Rico—Chas. B. Colmore (miss.), San Juan; M. Ferrando, Suffragan, Ponce.

RETIRED BISHOPS.

A. R. Graves, late Bishop of Kearney, Sonora, Cal.
Lemuel H. Wells, late Bishop of Spokane, Tacoma. Wash.
Paul Jones, late Bishop of Utah, Orange, N. J.
Henry B. Restarick, late Bishop of Hawaii, Honolulu.
R. L. Paddock, late Bishop of East Oregon, Williamstown, Mass.
James D. Morrison, late Bishop of Duluth, Ogdensburg, N. Y.
Henry D. Aves, late Bishop of Mexico, Seabrook, Tex.
P. M. Rhinelander, late Bishop of Pennsylvania, Washington, D. C.
Frank du Moulin, late Bishop Coadjutor of Ohio, Philadelphia, Pa.
Frank H. Touret, late Missionary Bishop of Idaho, Tryon, N. C.
Julius W. Atwood, late Missionary Bishop of Arizona, New York, N. Y.
Walter H. Overs, late Missionary Bishop of Liberia. Jamestown, N. Y.
William Lawrence, late Bishop of Massachusetts, Boston.
Theo. P. Thurston, late Bishop of Mis. District of Oklahoma, Chula Vista, Calif.
Nathaniel S. Thomas, late Bishop of Wyoming, Paris, France.
Chauncey B. Brewster, late Bishop of Connecticut, Hartford.
Lewis W. Burton, late Bishop of Lexington, Lexington.
Lucien Lee Kinsolwing, late Bishop of Southern Brazil, Forest Hills, L. I., N. Y.
Richard H. Nelson, late Bishop of Albany, N. Y., Albany.

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William F. McDowell, 2107 Wyoming Avenue, Washington, D. C.
William F. Anderson, 581 Boylston St., Boston, Mass.
John L. Nuelsen, 82 Hinterberg Str., Zurich, Switzerland.
Edwin H. Hughes, 1609 Chicago Temple Building, Chicago, Ill.
William O. Shepard, Paris, France.
Francis J. McConnell, 150 Fifth Avenue, New York
Frederick D. Leete, Omaha, Neb.
Herbert Welch, 524 Penn. Ave., Pittsburgh, Pa.
Thomas Nicholson, 34 Elizabeth Street, E. Detroit, Mich.
Adna W. Leonard, 202 Morris Avenue, Buffalo, N. Y.
John W. Robinson, Delhi, India.
Eben S. Johnson, Cape Town, South Africa.
Lauress J. Birney, Shanghai, China.
Frederick B. Fisher, Calcutta, India.
Ernest L. Waldorf, 1121 McGee Street, Kansas City, Mo.
Charles E. Locke, 1000 Portland Ave., Saint Paul, Minn.
Ernest G. Richardson, 1701 Arch Street, Philadelphia.
Charles W. Burns, 3 City Hall Avenue, San Francisco, Cal.
Edgar Blake, Indianapolis, Ind.
Frederick T. Keeney, Atlanta, Ga.
H. Lester Smith, Chattanooga, Ten.
Charles L. Mead, Denver, Colo.
Robert E. Jones, New Orleans, La.
Matthew W. Clair, Covington, Ky.
George A. Miller, Buenos Aires, Argentine.
Titus Lowe, Portland, Ore.
George R. Grose, Peking, China.
Brenton T. Badley, Bombay, India.
Wallace E. Brown, Helena, Mont.
Raymond J. Wade, Stockholm, Sweden.
James C. Baker, Seoul, Korea.
Edwin F. Lee, Singapore, Straits Settlements Malaysia.

RETIRED BISHOPS.

Earl Cranston, New Richmond, O.
John W. Hamilton, Washington, D. C.
Joseph F. Berry, Binghamton, N. Y.
William Burt, Clifton Springs, N. Y.
Frank M. Bristol, Washington, D. C.
Richard J. Cooke, Athens, Tenn.
Wilbur P. Thirkield, National Arts Club, 15 Gramercy Park, New York City.
William F. Oldham, 66 Sherman Avenue, Columbus, Ohio.
Frank W. Warne, 428 East 22nd Street, Brooklyn, N. Y.
Charles B. Mitchell, 865 North Marengo St., Pasadena, Cal.
Isaiah B. Scott, 125 Fourteenth Avenue North, Nashville, Tenn.

BISHOPS OF THE METHODIST EPISCOPAL CHURCH SOUTH.

	Residence.	*Elected.*
Warren A. Candler	Atlanta, Ga.	1898
Collins Denny	Richmond, Va.	1910
Edwin D. Mouzon	Charlotte, N. C.	1910
John M. Moore	Dallas, Tex.	1918
W. F. McMurry	Fayette, Mo.	1918
U. V. W. Darlington	Huntington, W. Va.	1918
H. M. Du Bose	Nashville, Tenn.	1918
W. N. Ainsworth	Macon, Ga.	1918
James Cannon jr.	Washington, D. C.	1918
H. M. Dobbs	Birmingham, Ala.	1922
W. B. Beauchamp	Atlanta, Ga.	1922
S. R. Hay	Houston, Texas	1922
H. A. Boaz	Little Rock, Ark.	1922

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(Headquarters, Bliss Building, Washington, D. C.)

Bishop James Cannon, Jr., *President*; Eugene L. Crawford, *General Secretary*; *Executive Committee*: Bishop James Cannon, Jr., Mrs. W. A. Newell, Hon. Morris Sheppard, Dr. Fitzgerald S. Parker, Dr. E. B. Chappell, Dr. W. A. Lambeth, Mrs. Mary H. Armour.

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THE FEDERAL COUNCIL OF CHURCHES OF CHRIST IN AMERICA.

The bodies composing the Federal Council are:

Baptist Churches, North; National Baptist Convention, Free Baptist Churches; Christian Church Churches of God in North America (General Eldership); Congregational churches; Disciples of Christ; Friends; Evangelical Synod of North America; Evangelical Church; Methodist Episcopal Church; Methodist Episcopal Church South; African Methodist Episcopal Church; African M. E. Zion Church; Colored M. E. Church in America; Methodist Protestant Church; Moravian Church; Presbyterian Church in the U. S. A.; Presbyterian Church in the U. S., South; Primitive Methodist Church; National Council of the Protestant Episcopal Church (cooperating agency); Reformed Church in America; Reformed Church in the U. S.; Reformed Episcopal Church; Seventh Day Baptist Churches; United Brethren Church; United Lutheran Church (consultative member); United Presbyterian Church.

The central office of the Council is at 105 East 22d Street, New York City. Offices are also maintained in the Woodward Building, Washington, D. C., and at 77 W. Washington Street, Chicago, Ill.

The officers of the Council are: President, M. E. Bishop Francis J. McConnell; Treasurer, Frank H. Mann; General Secretaries, Charles S. Macfarland, Samuel McCrea Cavert and Rev. John M. Moore.

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WORLD-WIDE METHODISM.

(From the Methodist (U. S.) Year Book, 1929.)

Denomination.	Ministers.	Lay Preachers.	Members.	Sunday Schools.			Churches.
				Total.	Officers, Teach.	Scholars.	
Wesleyan Methodists:							
Great Britain	2,557	18,992	517,730	7,328	118,134	800,292	8,629
Ireland	247	619	30,000	335	2,199	23,037	412
Foreign Missions	755	11,892	312,420	3,098	11,219	170,997	5,663
French Conference	21	74	1,731	25	81	589	102
South African Conference	328	5,762	227,235	1,089	3,418	48,607	4,705
Primitive Methodists	1,092	13,110	223,915	3,943	53,769	378,581	4,515
United Methodist Church	703	4,691	145,323	2,067	37,502	231,420	2,209
Wesleyan Reform Union	32	496	11,104	230	2,533	25,555	227
Independent Methodist Churches	395	.....	10,973	163	3,174	24,249	165
Australasian Methodist Church	1,058	8,223	173,105	3,425	27,022	2,088	5,367
New Zealand Methodist Church	195	1,014	30,274	444	3,313	32,948	998
United States:							
Methodist Episcopal	19,339	14,141	5,255,506	33,889	405,865	4,561,099	28,929
Methodist Episcopal, South	8,348	5,001	2,630,538	16,335	179,893	2,028,311	17,535
Methodist Protestant	1,125	385	195,460	1,850	17,351	181,373	2,231
African Methodist Episcopal(Col'd)	7,315	.....	781,692	7,200	.....	320,000	7,390
African Methodist Epis. Zion (Col'd)	3,460	.....	500,000	.....	.....	193,000	3,442
Colored Methodist Episcopal	2,633	.....	333,771	2,543	.....	192,800	3,579
Free Methodist	1,399	.....	40,827	.....	.....	.....	1,279
Wesleyan Methodist	769	481	21,980	582	6,218	42,002	605
Primitive Methodist	87	81	11,905	88	1,600	14,781	99
Congregational Methodist	487	.....	21,050	.....	.....	.....	357
New Congregational Methodist	25	.....	1,229	27	143	1,298	26
Union American Meth. Epis. (Col'd)	324	.....	22,259	.....	.....	.....	307
African Union Meth. Prot. (Col'd)	200	.....	4,086	42	273	2,851	43
Ref. Zion Union Apostolic (Col'd)	44	.....	4,538	36	212	1,508	48
Ref. Meth. Union Epis. (Col'd)	51	.....	1,371	18	204	1,792	28
Colored Methodist Protestant	33	.....	1,967	24	125	1,016	26
African Metnodist Protestant	675	.....	27,000	.....	.....	.....	650
African American Meth. Epis.	35	.....	5,811	25	.....	551 934	27
United Church of Canada	3,986	.....	647,154	5,922	62,675	551,124	7,617
Japan Methodist Church	158	140	29,420	554	.....	42,570	162
Totals	57 876	85,101	12,221,374	91,282	936,923	10,079,822	107,372

New Zealand figures include the Solomon Islands with 3 native ministers, 198 lay preachers, 5,519 members, 3 Sunday Schools, 253 scholars, 98 churches.

Methodism is also represented in several European countries by Conferences and Missions affiliated to the Methodist Episcopal Church of America, and their membership is included in the figures given above.

The latest regurns available are: Austria, 714 members; Bulgaria, 698; Denmark, 3,756; Finland, 1,809; France, 904; Germany (North), 17,254; Germany (South), 25,893; Hungary, 468; Italy, 3,536; Jugo-Slavia, 775; Norway, 7,258; Russia (and Baltic Mission), 3,326; Sweden, 15,593; Switzerland, 11,220.

THE GENERAL PRESBYTERIAN ALLIANCE.

President—Rev. G. W. Richards, D.D., U.D., Lancaster, Pa.; *Vice-Presidents*—Rev. V. M. Walls, D.D., Sumter, S. C., and Rev. Prof. Curtis, D.D., D.Litt., Edinburgh; *General Secretary*—Rev. W. H. Hamilton, M.A., 44 Queen St., Edinburgh; *American Secretary*—Rev. H. B. Master, D.D., U.D., Philadelphia.

WORLD-WIDE PRESBYTERIANISM.

	Congregations.	Ministers.	Elders.	Communicants or Church Members.	Pupils in Sabbath Schools and Bible Classes.	Sabbath School Teachers and Officers.
European Continent	6,323	7,201	39,925	4,411,364	633,257	6,680
The British Isles	5,902	5,414	48,258	1,700,758	828,379	87,253
Asia	5,513	1,854	7,104	461,924	411,618	30,903
Africa	1,709	1,190	7,484	587,464	337,181	12,506
North America	27,621	21,060	108,313	4,093,184	3,335,764	275,206
South America	259	179	281	38,171	28,900	1,906
West Indies	233	117	488	23,022	29,905	1,784
Australasia	1,669	944	5,934	137,203	136,216	13,721
Approx. Totals (1929)	49,229	37,959	217,787	11,453,090	5,741,220	429,959

The next Census Returns will be presented at the Quadrennial Council to be held at Belfast, N. Ireland, in 1933. The figures for North America include—part of United Church of Canada; Presbyterian Church in Canada; Presbyterian Church in U. S. A. (9,432 congregations); Presbyterian Church in U. S. (3,596 congregations); Cumberland Presbyterian Church (1,215 congregations); Cumberland Presbyterian (Colored); United Presbyterian Church of North America (898 congregations); Assoc. Ref. Church of South; Reformed Presbyterian Church (Old School and New); Reformed Church in America (738 congregations); Reformed Church in the United States (1,744 congregations); Christian Reformed Church in America; Presbyterian Church in Mexico.

The Figures for South America include—Brazil; Church of Scotland in South America; American Presbyterian Mission (Colombia, Guatemala, Venezuela) Chili; Waldensians Church in Uruguay; Free Church of Scotland Mission in Peru; Welsh Settlement in Patagonia.

OVER 33,000,000 IN WORLD'S SUNDAY SCHOOLS.

Grand Divisions.	Sunday Schools	Officers and Teachers	Pupils.	Total Membership.	Grand Divisions.	Sunday Schools	Officers and Teachers	Pupils.	Total Membership.
No. America	195,343	2,459,799	17,510,830	19,970,629	Malaysia ..	1,422	8,161	100,463	108,624
Cent. Amer.	381	1,832	19,098	20,930	Oceania....	12,898	89,720	790,710	880,430
So. America.	2,976	11,695	159,160	170,855					
West Indies.	1,930	17,364	171,330	188,694	1928 Totals	356,146	3,603,517	29,411,435	33,014,952
Europe	90,621	854,905	8,462,845	9,317,750	1924 Totals	347,001	3,520,192	29,157,419	32,677,611
Asia	37,427	96,564	1,470,818	1,567,382					
Africa	13,148	63,477	726,181	789,658	1924-28 Inc.	9,145	83,325	253,916	337,341

UNITED STATES CENSUS OF RELIGIOUS BODIES.

SUMMARY OF MORE IMPORTANT STATISTICS, BY DENOMINATIONS: 1926.

Denomination	Churches		Membership	
	1926	1916	1926	1916
All denominations	232,154	226,718	54,576,346	41,926,854
Adventist bodies:				
Advent Christian Church	444	534	29,430	30,597
Seventh-day Adventist Denomination	1,981	2,011	110,998	79,355
Church of God (Adventist)	58	22	1,686	848
Life and Advent Union	7	13	535	658
Churches of God in Christ Jesus	86	87	3,528	3,457
African Orthodox Church	13	.....	1,568	.....
African Orthodox Church of New York	3	.....	717	.....
American Ethical Union	6	5	3,801	2,850
American Rescue Workers	97	29	1,989	611
Apostolic Overcoming Holy Church of God	16	.....	1,047	.....
Assemblies of God, General Council	671	118	47,950	6,703
Assyrian Jacobite Apostolic Church	3	15	1,407	748
Baha'is	44	57	1,247	2,884
Baptist bodies:				
Northern Baptist Convention	7,611	[1]8,319	1,289,966	[1]1,244,705
Southern Baptist Convention	23,374	23,580	3,524,378	2,708,870
Negro Baptists	22,081	21,071	3,196,623	2,938,579
General Six Principle Baptists	6	10	293	456
Seventh Day Baptists	67	68	7,264	7,980
Free Will Baptists	1,024	750	79,592	54,833
United American Free Will Baptist Church (Colored)	166	169	13,396	13,362
Free Will Baptists (Bullockites)	2	12	36	184
General Baptists	465	517	31,501	33,466
Separate Baptists	65	46	4,803	4,254
Regular Baptists	349	401	23,091	21,521
United Baptists	221	254	18,903	22,097
Duck River and Kindred Associations of Baptists (Baptist Church of Christ)	98	105	7,340	6,872
Primitive Baptists	2,267	2,142	81,374	80,311
Colored Primitive Baptists	925	336	43,978	15,144
Two-Seed-in-the-Spirit Predestinarian Baptists	27	48	304	679
Independent Baptist Church of America	13	.....	222	.....
American Baptist Association	1,431	.....	117,858	.....
Brethren, German Baptist (Dunkers):				
Church of the Brethren (Conservative Dunkers)	1,030	997	128,392	105,102
Old German Baptist Brethren	62	67	3,036	3,399
The Brethren Church (Progressive Dunkers)	174	201	26,026	24,060
Seventh Day Baptist (German, 1728)	4	5	144	136
Church of God, New Dunkers	9	13	650	929
Brethren, Plymouth:				
Plymouth Brethren I	166	161	4,877	3,896
Plymouth Brethren II	307	129	13,497	5,928
Plymouth Brethren III	24	17	684	476
Plymouth Brethren IV	47	72	1,663	1,389
Plymouth Brethren V	83	80	2,152	1,820
Plymouth Brethren VI	6	10	88	208
Brethren, River:				
Brethren in Christ	81	72	4,320	3,805
Old Order or Yorker Brethren	10	9	472	432
United Zion's Children	28	31	905	1,152
Catholic Apostolic Church	11	13	3,408	2,768
Christadelphians	134	145	3,352	2,922
Christian and Missionary Alliance	332	163	22,737	9,625
Christian Church (General Convention of the Christian Church)	1,044	1,263	112,795	118,737
Christian Science Parent Church	29	.....	582	.....
Christian Union	137	220	8,791	13,692
Church of Armenia in America	29	34	28,181	27,450
Church of Christ, (Holiness) U. S. A.	82	.....	4,919	.....
Church of Christ, Scientist	1,913	.....	202,098	.....
Church of God	644	202	23,247	7,784
Church of God (Headquarters, Anderson Indiana)	932	.....	38,249	.....
Church of God and Saints of Christ	112	92	6,741	3,311
Church of God in Christ	733	.....	30,263	.....
Church of the Nazarene	1,444	866	63,558	32,259
Churches of Christ	6,226	5,570	433,714	317,937
Churches of God, Holiness	29	.....	2,278	.....
Churches of God in North America (General Eldership)	428	440	31,596	28,376
Churches of the Living God:				
Church of the Living God, "The Pillar and Ground of Truth"	81	38	5,844	2,009
Church of the Living God, Christian Workers for Fellowship	149	154	11,558	9,626
Churches of the New Jerusalem:				
General Convention of the New Jerusalem in U. S. A.	85	108	5,442	6,352
General Church of the New Jerusalem	13	15	996	733
Communistic societies:				
Amana Society	7	7	1,385	1,534
United Society of Believers (Shakers)	6	12	192	367
Congregational Churches	5,028	[2]5,900	881,696	[2]809,236
Congregational Holiness Church	25	.....	939	.....
Disciples of Christ	7,648	8,396	1,377,595	1,226,028
Divine Science Church	22	.....	3,466	.....
Eastern Orthodox Churches:				
Albanian Orthodox Church	9	2	1,993	410
Bulgarian Orthodox Church	4	4	937	1,992
Greek Orthodox Church (Hellenic)	153	87	119,495	119,871
Roumanian Orthodox Church	34	2	18,853	1,994
Russian Orthodox Church	199	169	95,134	99,631
Serbian Orthodox Church	17	12	13,775	14,301
Syrian Orthodox Church	30	25	9,207	11,591
Evangelical Church	2,054	2,592	206,080	210,530
Evangelical Congregational Church	153	.....	20,449	.....
Evangelical Synod of North America	1,287	1,331	314,518	339,853

SUMMARY OF MORE IMPORTANT STATISTICS, 1926—*Continued.*

Denomination	Churches		Membership	
	1926	1916	1926	1916
Evangelistic associations:				
Apostolic Christian Church	53	54	5,709	4,766
Apostolic Faith Mission	14	24	2,119	2,196
Christian Congregation	2	7	150	645
Church of Daniel's Band	4	6	129	393
Church of God as Organized by Christ	19	17	375	227
Hephzibah Faith Missionary Association	14	12	495	352
Metropolitan Church Association	40	7	1,113	704
Missionary Church Association	34	25	2,498	1,554
Missionary Bands of the World	11	10	241	218
Pillar of Fire	48	21	2,442	1,129
Church of God (Apostolic)	18	.....	492	.....
Federated Churches	361	.....	59,977	.....
Free Christian Zion Church of Christ	5	35	187	6,225
Free Church of God in Christ	19	.....	874	.....
Friends:				
Society of Friends (Orthodox)	715	805	91,326	92,379
Religious Society of Friends (Hicksite)	128	166	16,105	17,170
Orthodox Conservative Friends (Wilburite)	41	50	2,966	3,373
Friends (Primitive)	1	2	25	60
Holiness Church	32	33	861	926
Independent Churches	259	613	40,381	56,757
Jewish Congregations	3,118	1,619	4,081,242	357,135
Latter-day Saints:				
Church of Jesus Christ of Latter-day Saints	1,275	965	542,194	403,388
Reorganized Church of Jesus Christ of Latter Day Saints	592	565	64,367	58,941
Liberal Catholic Church	39	.....	1,799	.....
Liberal Church of America	3	.....	358	.....
Lithuanian National Catholic Church of America	4	7	1,497	7,343
Lutherans:				
United Lutheran Church in America	3,650	3,559	1,214,340	763,596
Evangelical Lutheran Augustana Synod of North America	1,180	1,165	311,425	204,417
Evangelical Lutheran Synodical Conference of America	4,752	3,620	1,292,620	777,701
Evangelical Lutheran Synod of Mo., O. and Other States	3,917	2,969	1,040,275	618,797
Evangelical Lutheran Joint Synod of Wisconsin and Other	709	612	229,242	150,361
Slovak Evangelical Lutheran Synod of the U. S. A	55	39	14,759	8,543
Norwegian Synod of Amer. Evang. Luth. Church	71	.....	8,344	.....
Norwegian Lutheran Church of America	2,554	2,740	496,707	318,650
Evangelical Lutheran Joint Synod of Ohio and Other States	872	826	247,783	164,968
Lutheran Synod of Buffalo	41	42	9,267	6,128
Evangelical Lutheran Church in America (Eielsen Synod)	15	20	1,087	1,206
Evangelical Lutheran Synod of Iowa and Other States	873	977	217,873	130,793
Danish Evangelical Lutheran Church in America	96	101	18,921	14,544
Icelandic Evangelical Lutheran Synod in North America	14	14	2,186	1,830
Finnish Evang. Luth. Church of Amer. Suomi Synod	185	134	32,071	18,881
Lutheran Free Church	393	376	46,366	28,180
United Danish Evangelical Lutheran Church in America	190	192	29,198	17,324
Finnish Evangelical Lutheran National Church of America	70	64	7,788	7,933
Finnish Apostolic Lutheran Church	138	47	24,016	6,664
Church of the Lutheran Brethren in America	26	23	1,700	892
Evangelical Lutheran Jehovah Conference	3	6	851	831
Independent Lutheran Congregations	50	.....	11,804	.....
Mennonite bodies:				
Mennonite Church	295	307	34,039	34,965
Hutterian Brethren, Mennonites	6	17	700	982
Conservative Amish Mennonite Church	7	13	691	1,066
Old Order Amish Mennonite Church	71	88	6,006	7,665
Church of God in Christ (Mennonite)	26	21	1,832	1,125
Old Order Mennonite Church (Wisler)	19	22	2,227	1,608
Reformed Mennonite Church	31	29	1,117	1,281
General Conference of Mennonite Church of N. America	136	113	21,582	15,407
Defenseless Mennonites	10	11	1,060	854
Mennonite Brethren in Christ	99	108	5,882	4,737
Mennonite Brethren Church of North America	61	53	6,484	5,127
Krimmer Brueder—Gemeinde	14	13	797	894
Mennonite Kleine Gemeinde	4	3	214	177
Central Conference of Mennonites	29	17	3,124	2,101
Conference of the Defenseless Mennonites of North America	9	15	818	1,171
Stauffer Mennonite Church	4	5	243	209
Unaffiliated Mennonite Congregations	5	.....	348	.....
Methodist bodies:				
Methodist Episcopal Church	26,130	29,315	4,080,777	3,717,785
Methodist Protestant Church	2,239	2,473	192,171	186,908
Wesleyan Methodist Connection (or Church) of America	619	579	21,910	20,778
Primitive Methodist Church in the United States of America	80	93	11,990	9,353
Methodist Episcopal Church, South	18,096	19,184	2,487,694	2,114,479
Congregational Methodist Church	145	197	9,691	12,503
Free Methodist Church of North America	1,375	1,598	36,374	35,291
New Congregational Methodist Church	26	24	1,229	1,256
Holiness Methodist Church	7	6	459	434
Reformed Methodist Church	14	.....	390	.....
African Methodist Episcopal Church	6,708	6,633	545,814	548,355
African Methodist Episcopal Zion Church	2,466	2,716	456,813	257,169
Colored Methodist Protestant Church	3	26	533	1,967
Union American Methodist Episcopal Church	73	67	10,169	3,624
African Union Methodist Protestant Church	46	58	4,086	3,751
Colored Methodist Episcopal Church	2,518	2,621	202,713	245,749
Reformed Zion Union Apostolic Church	48	47	4,538	3,977
Reformed Methodist Union Episcopal Church	25	27	2,265	2,196
Independent African Methodist Episcopal Church	29	.....	1,003	.....
Moravian bodies:				
Moravian Church in America	127	110	31,699	26,373
Evangelical Unity of Bohemian and Moravian Brethren in North America	34	23	5,241	1,714
Bohemian and Moravian Brethren Churches	3	3	303	320

SUMMARY OF MORE IMPORTANT STATISTICS, 1926—*Continued.*

Denomination.	Churches.		Membership.	
	1926.	1916.	1926.	1916.
New Apostolic Church	25	20	2,938	3,828
Old Catholic Churches in America:				
Old Catholic Church in America	9		1,888	
American Catholic Church	11	21	1,367	14,209
North American Old Roman Catholic Church	27		14,793	
The (Original) Church of God	50	.....	1,869	.....
Pentecostal Assemblies of the World	126	.....	7,850	.....
Pentecostal Holiness Church	252	192	8,096	5,353
Pilgrim Holiness Church	441	169	15,040	5,276
Polish National Catholic Church of America	91	34	61,574	28,245
Presbyterian bodies:				
Presbyterian Church in the United States of America	8,947	9,773	1,894,030	1,625,817
Cumberland Presbyterian Church	1,097	1,313	67,938	72,052
Colored Cumberland Presbyterian Church	178	136	10,868	13,077
United Presbyterian Church of North America	901	991	171,571	160,726
Presbyterian Church in the United States	3,469	3,365	451,043	357,769
Associate Synod of North America (Assoc. Presby. Church)	11	12	329	490
Associate Reformed Presbyterian Church	143	133	20,410	15,124
Synod of Reformed Presbyterian Ch. of N. America	89	103	7,166	8,185
Reformed Presbyterian Church in North Amer. Gen. Synod	13	14	1,929	2,386
Protestant Episcopal Church	7,299	7,345	1,859,086	1,092,821
Reformed bodies:				
Reformed Church in America	717	715	153,739	144,929
Reformed Church in the United States	1,709	1,758	361,286	344,374
Hungarian Reformed Church in America	.....	46	.....	9,851
Free Magyar Reformed Church in America	11	.....	3,992	.....
Christian Reformed Church	245	226	98,534	38,668
Reformed Episcopal Church	69	74	8,651	11,050
Roman Catholic Church	18,940	17,375	18,605,003	15,721,815
Salvation Army	1,052	742	74,768	35,954
Scandinavian Evangelical bodies:				
Swedish Evangelical Mission Covenant of America	357	324	36,838	29,164
Swedish Evangelical Free Church of the U. S. A.	107	102	8,166	6,208
Norwegian and Danish Evang. Free Ch., Assoc. of N. Amer.	41	32	3,781	2,444
Schwenkfelders	6	6	1,596	1,127
Social Brethren	22	19	1,214	950
Spiritualists:				
National Spiritualists' Association	543	343	41,233	23,197
Progressive Spiritual Church	9	11	7,383	5,831
National Spiritual Alliance of the United States of America	59	.....	2,015	.....
Temple Society	2	2	164	260
Theosophical societies:				
American Theosophical Society	223	157	7,448	5,097
Theosophical Society of New York, Independent	1	1	55	72
Theosophical Society in America	2	17	2	199
Universal Brotherhood and Theosophical Society	.....	.....	.....	.....
Unitarians	353	411	60,152	82,515
United Brethren bodies:				
United Brethren in Christ	2,988	3,481	377,436	348,828
United Brethren in Christ (Old Constitution)	372	408	17,872	19,106
United Christian Church	15	.....	577	.....
Universalist Church	498	643	54,957	58,566
Vedanta Society	3	3	200	190
Volunteers of America	133	97	28,756	10,204
Other denominations	.....	75	.....	11,417

Note by the Bureau of the Census—As the term "members" has a variety of uses, each church was requested to report the number of members according to the definition of membership in that church or organization. In some religious bodies the term member is limited to communicants; in others it include all baptized persons; and in still others it covers all enrolled persons.

There are several denominations shown at this census not reported in 1916. All of them are not new, however, as a number were created by divisions in denominations which were shown as units in 1916. This has resulted in a net gain of 12 denominations.

At the census of 1926 the total expenditures were $817.214,528, as compared with $328,809,999 in 1916. Under this item are included the amount expended for salaries, repairs, etc., for payments on church debt; for benevolences, including home and foreign missions, for denominational support, and for all other purposes.

The value of church edifices in 1926 was $3,839,500,610 as compared with $1,676,600,582 in 1916. This item includes any building used mainly for religious services, together with the land on which it stands and all furniture and furnishings owned by the church and actually used in connection with church services. It does not include buildings hired for religious services or those used for social or organization work in connection with the church.

THE VOLUNTEERS OF AMERICA.

A Christian, philanthropic, benevolent organization, under the presidency of Gen. Ballington Booth, incorporated in 1896. While its government is modeled on the United States Army, yet its rules and regulations are made by the Grand Field Council composed of officers of and above the rank of Major.

The Volunteers of America is established in upward of 100 of the principal centres of America, and has the indorsement of leading Cabinet and State officials.

Its homes and institutions provide food and lodging for the destitute. It gives poor mothers and children summer outings.

During the last year the Volunteer Homes and Institutions provided 503,607 lodgings. During this term 1,417,577 free meals were given out and were paid for. Employment was given 53,802. There were 197,654 families assisted. Thousands were assisted during the Christmas holiday season.

The Volunteer Prison League has enrolled over 100,000 and has enabled many thousands of discharged men to secure work.

During the holiday and Christmas season in the work among the destitute, special dinners and provisions are sent into the homes of families who without this aid and thought would have spent cheerless holiday seasons.

The Volunteers' Gazette is the official organ, and national headquarters is maintained in their own building at No. 34 West 28th Street, New York City, N. Y.

CHURCH MEMBERSHIP AND PROPERTY, BY STATES.

(The figures, compiled by the United States Census Bureau, are for 1928.)

States.	Members.	S. S. Scholars.	Church Edifices.	Value of Church Edifices	Expended in 1926.	Debt on Church Edif.
	No.	*No.*	*No.*	*Dollars.*	*Dollars.*	*Dollars.*
Alabama	1,217,170	604,256	8,836	47,727,675	12,202,007	4,555,852
Arizona	153,086	44,968	436	4,948,775	1,347,943	423,903
Arkansas	621,107	385,369	5,678	27,064,498	7,491,518	2,926,519
California	1,522,211	607,788	4,110	118,961,120	31,485,171	19,121,080
Colorado	352,863	163,692	1,384	22,713,155	5,837,497	2,348,309
Connecticut	956,728	177,060	1,501	73,731,795	13,566,538	6,921,562
Delaware	110,142	53,883	481	11,276,836	1,943,766	801,177
District of Columbia	238,871	83,422	356	32,351,870	6,022,286	3,650,469
Florida	528,380	314,060	3,942	54,297,211	13,591,885	7,196,895
Georgia	1,350,184	567,449	9,283	52,607,249	12,255,339	3,571,795
Idaho	162,679	85,580	852	7,199,660	1,730,793	645,530
Illinois	3,363,385	1,085,579	9,059	266,708,294	59,804,934	34,811,694
Indiana	1,382,818	773,970	6,514	109,400,387	22,923,895	12,091,442
Iowa	1,080,158	534,220	5,037	80,094,921	18,209,800	5,826,906
Kansas	747,078	488,590	4,232	54,746,202	13,964,541	5,900,143
Kentucky	1,051,504	496,109	6,419	60,245,842	12,397,663	5,103,174
Louisiana	1,037,008	242,837	3,781	35,746,390	8,454,531	3,982,474
Maine	294,092	106,737	1,398	19,186,647	4,617,856	1,528,023
Maryland	758,366	329,644	2,883	65,641,138	13,719,992	8,251,877
Massachusetts	2,500,204	496,375	3,176	177,425,721	34,664,337	15,067,890
Michigan	1,786,831	662,687	5,252	114,314,555	25,972,659	12,323,539
Minnesota	1,282,188	353,294	4,780	82,460,438	19,639,054	9,481,197
Mississippi	800,509	385,995	7,233	27,002,319	7,990,055	2,176,745
Missouri	1,581,278	649,540	7,303	110,022,697	22,986,444	9,840,228
Montana	152,387	62,587	914	8,367,362	1,949,976	811,105
Nebraska	561,553	268,423	2,790	39,377,144	10,037,396	3,853,006
Nevada	19,769	8,110	102	1,017,900	284,062	132,553
New Hampshire	223,674	62,219	807	15,116,044	2,889,408	1,115,029
New Jersey	1,983,781	489,651	3,497	162,654,034	33,852,633	20,236,860
New Mexico	215,563	40,436	817	4,361,099	1,113,266	345,673
New York	6,799,146	1,151,156	9,744	599,055,640	103,744,414	77,509,424
North Carolina	1,407,005	953,153	9,592	80,471,664	17,904,444	7,714,936
North Dakota	304,936	103,589	2,200	14,726,580	3,673,802	1,384,853
Ohio	2,866,386	1,330,818	9,327	255,063,123	51,909,879	32,176,346
Oklahoma	581,083	419,295	4,205	37,610,399	10,747,222	6,073,116
Oregon	232,731	142,997	1,364	17,326,319	4,469,148	2,133,491
Pennsylvania	5,213,023	2,092,351	13,327	439,937,704	85,939,734	44,709,685
Rhode Island	452,044	85,896	511	23,981,162	5,715,351	1,953,597
South Carolina	873,528	507,235	5,843	37,109,027	8,109,796	3,023,233
South Dakota	294,622	123,270	1,993	17,285,300	4,378,366	1,508,419
Tennessee	1,018,033	602,776	7,683	54,537,168	12,422,225	5,852,999
Texas	2,280,366	1,102,294	12,773	109,736,370	28,925,421	13,546,556
Utah	369,591	117,442	619	13,546,969	2,172,773	702,451
Vermont	161,123	45,872	763	12,235,165	2,212,636	397,037
Virginia	1,172,447	688,060	7,213	74,633,081	15,233,511	8,349,756
Washington	384,182	219,216	2,002	26,768,137	7,800,256	4,546,298
West Virginia	531,983	387,312	4,286	41,058,955	8,431,372	4,619,943
Wisconsin	1,472,890	310,515	4,651	93,190,969	19,538,115	9,965,673
Wyoming	62,975	30,749	335	3,857,900	938,818	348,696
Total United States	54,576,346	21,038,526	210,924	3,839,500,610	817,214,528	432,459,158

Church membership figures (in first column) include, 62,017 persons, members of the Mother Church, Church of Christ, Scientist, and 668 national members American Theosophical Society, not affiliated with any organization, and therefore not distributed geographically.

THE NEGRO CHURCHES OF AMERICA.

(Data compiled for 1926 by the United States Bureau of the Census.)

State.	Ch.	Member-ship.	Expendi-tures.	Value of Edif., 1926	State.	Ch.	Member-ship.	Expendi-tures.	Value of Edif., 1926.
	No.	*No.*	*Dollars.*	*Dollars.*		*No.*	*No.*	*Dollars.*	*Dollars.*
U. S.	42,585	5,203,487	43,024,259	205,782,628	W. V.	480	32,754	499,104	2,434,526
					N. C.	3,203	431,333	3,060,556	13,670,308
No. States:					S. C.	2,838	405,614	1,943,809	9,005,446
Mass.	72	13,882	251,967	2,201,100	Ga.	5,201	538,093	2,434,130	12,380,886
R. I.	21	3,465	67,809	410,300	Fla.	2,093	190,893	2,133,925	8,452,992
Conn.	69	10,593	206,848	1,457,450	Ky.	1,103	127,126	1,178,944	6,602,894
N. Y.	352	114,543	2,048,710	11,615,049	Tenn.	1,958	226,823	1,647,742	7,752,853
N. J.	412	71,221	1,588,821	7,220,587	Ala.	4,284	557,231	3,480,988	12,737,558
Pa.	706	177,532	2,751,938	15,362,354	Miss.	4,034	348,425	1,869,166	7,133,867
Ohio	622	119,529	1,800,095	9,113,989	Ark.	2,411	201,240	1,512,378	5,340,465
Ind.	326	49,704	652,558	3,568,814	La.	2,077	244,797	1,539,644	6,514,476
Ill.	523	137,131	1,485,297	7,774,032	Okla.	990	68,379	617,605	2,238,849
Mich.	186	46,231	691,181	3,362,044	Tex.	3,910	351,305	2,736,752	10,587,143
Wisc.	19	3,699	60,404	300,900	W. States:				
Minn.	23	3,702	72,790	269,001	Mont.	9	228	7,125	36,400
Iowa	89	8,577	130,241	565,135	Idaho	5	205	8,165	12,500
Mo.	645	82,207	846,458	5,112,613	Wy.	11	398	4,211	21,000
No. D.	3	27	258	3,250	Colo.	55	6,188	71,853	215,300
S. D.	4	142	3,579	6,500	N. M.	17	710	8,968	25,600
Neb.	40	5,163	90,489	474,215	Ariz.	30	2,199	33,716	76,900
Kans.	328	28,292	379,645	2,486,100	Utah	4	269	1,962	16,500
So. States:					Wash.	23	2,280	45,146	172,700
Del.	152	12,459	244,173	944,380	Oreg.	5	832	17,175	98,510
Md.	654	97,025	1,199,001	5,765,535	Calif.	192	25,763	467,399	2,488,548
D. of C.	147	72,382	838,212	6,589,258	Other States	4	154	4,185	30,000
Va.	2,255	378,742	2,289,137	14,134,101					

Churches in 1916 numbered 39,592; membership, 4,602,805.

WASHINGTON CATHEDRAL.

(Contributed to the Almanac by the staff of the institution.)

Washington Cathedral, Washington, D. C., is being erected on the most commanding elevation in the nation's capital to symbolize and stimulate the religious life of the American people. It is 14th Century Gothic in design and will be larger than any English cathedral of similar architectural style.

Because of its location on Mount Saint Alban, 400 feet above the city proper, its great central tower, when completed, will rise 109 feet higher above the Potomac River than the Washington Monument. The entire foundations; the crypt, with three beautiful chapels and many arched passageways; the apse, and the choir, are structurally complete, as is a major portion of the Children's Chapel. Present construction is concerned with the two great transepts which are to form the arms of the cross-shaped edifice.

In the Spring of 1929 a nation-wide movement was initiated by a group of laymen, headed by General John J. Pershing, as National Chairman; former United States Senator George Wharton Pepper as Executive Chairman, and Secretary of the Treasury Andrew W. Mellon as Campaign Treasurer, to hasten the completion of Washington Cathedral and its associated institutions for Christian service. More than 100 other men and women of prominence, residing in all parts of the land, are actively associated with the Right Rev. James E. Freeman, Bishop of Washington, in this endeavor. The response has been noteworthy. Gifts and pledges in excess of $4,000,000 have been received from more than 6,000 men and women and a host of churches, Sunday schools, and patriotic organizations. Since its inception the Cathedral has been the recipient of all offerings, large and small, from 33,000 benefactors. The Cathedral Book of Remembrance shows that these have come from every state, and even from foreign lands.

The present aim is to complete the two transepts by 1932, in time for a religious commemoration in the Capital City of the two hundredth anniversary of George Washington's birth. More than 250,000 cubic feet of stone will be required, and the cost is expected to exceed $4,000,000. The idea of a "church for national purposes" as a symbol of religion at the heart of the Republic is frequently attributed to the First President.

During 1929 Washington Cathedral was visited by more than 300,000 worshippers and pilgrims.

It is being built by the Protestant Episcopal Cathedral Foundation of the District of Columbia, which was granted a charter by Congress in 1893, providing authority for the erection in the District of Columbia of "a cathedral and institutions of learning for the promotion of religion and education and charity."

The crypt contains the tombs of Woodrow Wilson, Bishop Henry Yates Satterlee, Admiral George Dewey, Bishop Alfred Harding, Melville E. Stone and other distinguished Americans.

Dimensions of Washington Cathedral, as planned, are: length 534 ft.; span of nave, 40 ft.; height of nave, 95 ft.; area, 71,000 sq. ft.

Although "Washington Cathedral" is the approved nomenclature, it has been formally designated as the Cathedral of St. Peter and St. Paul.

Washington Cathedral Close, in which Washington Cathedral is situated, is a 67½-acre tract on the summit of Mt. St. Alban, and contains, in addition to the Cathedral, the National Cathedral School for Girls, founded by Mrs. Phoebe Hearst in 1900; St. Albans, the National Cathedral School for Boys, founded in 1904 through the bequest of Mrs. Harriet Lane Johnston, a niece of President James Buchanan; the memorial wing of Washington Cathedral Library, the gift of Mrs. Violet Blair Janin in memory of her mother, Mary Jesup Blair; the Bishop's House, containing the Chapel of the Annunciation, the Peace Cross, commemorating the ending of the war between Spain and the United States; and St. Alban's Parish Church.

A handsome collegiate gothic building, designed for the use of the College of Preachers of Washington Cathedral, is also situated on the Cathedral Close, adjacent to the central edifice. It was completed during the summer of 1929, and was the gift of the late Alexander Smith Cochran, of Yonkers, N. Y., who also provided an endowment of $1,000,000 by bequest. The Right Rev. Philip M. Rhinelander former Bishop of Pennsylvania, is the Warden

THE SALVATION ARMY (INCORPORATED IN 1899)

(Data and Sketch Contributed by that Organization.)

A religious and charitable organization founded by William Booth in London, England, in 1865 under the name of East London Mission, later changed to the Christian Mission.

In 1878 the title of The Salvation Army was adopted and a world-wide crusade commenced.

The work in the United States was founded in 1880 by one man and seven women.

The government is on military lines, the head of the movement being known as General.

The present occupant of that office is Edward J. Higgins, third in succession, and the first General to be elected. He takes the place of Gen. Bramwell Booth, O. M., who died in 1929.

The National Leader in the United States is Commander Evangeline Booth, daughter of William Booth.

America is divided for close supervision into four territories—Eastern with headquarters at New York, N. Y., Central at Chicago, Ill., Western at San Francisco, Calif. and Southern at Atlanta, Ga. Each territory has a resident Commissioner who is directly responsible to Commander Evangeline Booth.

From its modest beginnings the Salvation Army in America has grown in numbers and influence until to-day it covers the land, with a network of religious and benevolent institutions, as will be seen from the following figures for the last available year.

Corps and outposts 1,735, officers wholly employed in the service 4,814. Total issues of the "War Cry" 12,857,833. 558,171 indoor services held resulting in 109,296 converts. 67 men's hotels and 9 women's hotels, and boarding houses with accommodation for 7,048. 124 men's Social Service Centers, through which 21,826 men passed. 10 Children's Homes with a capacity of 848. 35 Women's Homes and Hospitals sheltering 2,333. 12 Settlements and Day Nurseries. 21,063 prisoners assisted on discharge and situations found. 760,361 Christmas dinners and toys given to the poor and destitute. 42,848 mothers and children given summer holidays. 3,517,602 needy persons given temporary relief. 126,346 men and women found employment. 16 general hospitals treated 49,224 patients.

Further statistics and information will be gladly given if desired. Apply to Commander Evangeline Booth, National Headquarters, The Salvation Army, 122 W. 14th St., New York City.

RELIGIOUS MEMBERSHIP OF THE WORLD.

Sect.	North America.	South America.	Europe.	Asia.	Africa.	Oceania.	Total.
Christians							
Roman Catholics	40,000,000	61,000,000	220,000,000	7,000,000	2,000,000	1,500,000	331,500,000
Orthodox Catholics	1,000,000	.....	120,000,000	20,000,000	3,000,000	.....	144,000,000
Protestants	75,000,000	900,000	115,000,000	7,000,000	3,000,000	6,000,000	206,900,000
Total Christians	116,000,000	61,900,000	455,000,000	34,000,000	8,000,000	7,500,000	682,400,000
Non-Christians							
Jews	4,000,000	100,000	10,000,000	1,000,000	500,000	30,000	15,630,000
Mohammedans	20,000	.....	5,000,000	160,000,000	44,000,000	.....	209,020,000
Buddhists	180,000	.....	.....	150,000,000	.....	.....	150,180,000
Hindus	150,000	.....	.....	230,000,000	.....	.....	230,150,000
Confucianists, Taoists	600,000	.....	.....	350,000,000	.....	.....	350,600,000
Shintoists	.....	.....	.....	25,000,000	.....	.....	25,000,000
Animists	50,000	.....	5,000,000	45,000,000	90,500,000	100,000	135,650,000
Miscellaneous	25,000,000	2,000,000	5,000,000	18,000,000	.....	870,000	50,870,000
Total Non-Christian	30,000,000	2,100,000	20,000,000	979,000,000	135,000,000	1,000,000	1,167,100,000
Grand total	146,000,000	64,000,000	475,000,000	1,013,000,000	143,000,000	8,500,000	1,849,500,000

YOUNG WOMEN'S CHRISTIAN ASSOCIATION.

A world organization for women and girls. It has for its purpose to advance the physical, social, intellectual, moral and spiritual interests of young women. It has developed a specialized service for girls and women for which the Blue Triangle is now the insignia the world over.

In sixty countries there are now Y. W. C. A.s, many of which are affiliated with the World's Committee, Y. W. C. A. in London, England.

In sixteen countries the Y. W. C. A.s of the United States assist in supporting the work and have one hundred six American workers on the staff of the thirty-seven Associations in these sixteen countries. Financial aid is transferred as quickly as possible when the work can be carried on alone.

The work in the United States had its beginning in New York in 1858 under the name of The Ladies' Christian Association. During the next fifty years local work under the same name was established independently in cities throughout the United States.

It was not until 1906 that the national body under the name "National Board, Y. W. C. A." was founded. Its purpose was to "establish, unite and develop Young Women's Christian Associations" as well as to participate in the work of the World's Y. W. C. A.s and to advance the physical, social, intellectual, moral, and spiritual interests of young women.

Its headquarters are at 600 Lexington Avenue, New York, New York. Its policy, program, and budget is largely controlled and supplied by the local Associations through its bi-ennial convention.

In 1928 membership of the Associations in the United States was nearly 609,739.

There are more than 1,100 Associations in addition to more than 900 branches and centers and more than 400 Girl Reserve Clubs of the Y. W. C. A. in the United States.

Officers of the National Board are: Mrs. Robert E. Speer, New York, President; Mrs. John French, Greenwich, Conn., chairman Executive Committee; Mrs. John H. Finley, New York, 1st vice president; Mrs. John D. Rockefeller, Jr., 2nd vice president; Mrs. Howard G. Myers, New York, 3rd vice president; Miss Katharine Lambert, New York, secretary; Mrs. Samuel Murtland, New York, treasurer; Mrs. George W. Davidson, Greenwich, Conn., ass't treasurer; Mrs. William Hencken, Greenwich, Conn., ass't treasurer; Miss Anna V. Rice, Gen. Sec.; Miss Helen A. Davis, Asso. Gen. Sec., Miss Emma P. Hirth, Asso. Gen. Sec.

On the World's Committee of the Y. W. C. A. are: the Hon. Mrs. Montagu Waldegrave, President; Miss Charlotte T. Niven, General Secretary; 13 Grosvenor Crescent, Hyde Park Corner, London, S. W. 1.

The gross budget of the local Associations for 1927 were estimated at approximately $25,900,000 about 75 per cent. of which was met by earnings from cafeterias, boarding homes, etc.

The National Board budget for the year 1929 is $2,244,390, of which $372,070 is for promoting work in China, Japan, India, South America, Mexico, Philippines, Syria, Turkey, Estonia and Latvia.

The National Board has endowments yielding approximately $140,000 annually, and income producing and business features which in 1928 represented a gross income of about $967,000. Contributions in 1928 totaled $1,102,500.

THE YOUNG MEN'S CHRISTIAN ASSOCIATION OF NORTH AMERICA.

The annual report for 1929 contains the following data.

The National Council of the United States. General Offices. 347 Madison Avenue, New York city. President, W. Spencer Robertson, Madison, N. J.; General Secretary, Fred. W. Ramsey, N. Y. City. A National Council meets annually, consists of 357 prominent Christian leaders, two-thirds of whom must be laymen. It has four major divisions; Domestic or Home, which includes service for men and boys in cities, transportation centers, army and navy. In all industries, among colored men; Foreign, which conducts work among men and boys in 30 other countries; Student, which serves young men in colleges and universities, and Personnel, which supervises the training, placement and retirement of secretaries.

This United States organization is also linked with Associations in other nations and countries through a World's Alliance with headquarters in Geneva, Switzerland.

The Ys of the United States have 1,496 Associations on the Official Roster; 5,282 employed officers, 951,964 members, of which 257,872 are boys 12–17; $224,552,600 net property and funds; with $60,682,200 operating expenditures.

Its activities include 458,563 men and boys in gymnasium classes; 70,227 men and boys in regular educational courses; and 210,750 men and boys in Bible study groups.

The National Council of Canada. General Offices, 40 College St., Toronto, Ont.; President, R. F. McWilliams, Winnipeg, Man.; General Secretary, Harry Ballantyne. There are 74 Associations on the Official Roster in Canada with 50,392 members, of which 18,830 are boys 12–17; $6,945,900 net property and funds; and $2,117,700 operating expenditures.

The State Executive Committee of New York. General Offices, 2 West 45th St., New York City; Chairman, James H. Post; State Secretary, F. I. Eldridge. The report shows 138 Associations on the Official Roster; 124,261 members; $30,562,300 net property and funds; $8,524,000 operating expenditures.

THE AMERICAN BIBLE SOCIETY.

The American Bible Society was organized by action of a group of local and State Bible Societies on May 8, 1816, its first public meeting being held in the City Hall in New York and its Centennial being celebrated in the same room of that City Hall on May 9, 1916.

It was incorporated under the laws of New York State in 1841.

The officers are: E. Francis Hyde, President; Rev. Gilbert Darlington, Treasurer; Rev. Eric M. North, and Rev. George William Brown, General Secretaries; Rev. L. B. Chamberlain, Recording Secretary.

Its purpose is to accomplish a wider circulation of the Holy Scriptures without note or comment.

It handles only Bibles, Testaments and Portions, selling them without profit and donating to those in need.

It is unsectarian and interdenominational.

Together with other Bible Societies, it has helped to print the Scriptures in over eight hundred languages and dialects.

It also publishes the Scriptures in seven systems for the blind.

It cooperates with missionary societies, its operations being strictly benevolent and its sale of Scriptures yielding no profit.

Twenty-nine denominations, including practically all the larger ones, have through their official bodies taken action recognizing this Society as their channel of Scripture circulation, including it in their church budgets or otherwise.

Through ten Home Agencies, it supplies Scriptures throughout the United States, and abroad it does like service through twelve Foreign Agencies: West Indies; Mexico; Caribbean or Central America with Colombia and Venezuela; Upper Andes, covering Ecuador, Peru and Bolivia; La Plata, covering Argentina, Uruguay, Paraguay, Chile. Brazil; Levant, covering the republic of Turkey and adjacent states in Europe and Asia, including Bulgaria, Greece and the republics of the Caucasus; Arabic-Levant, which serves Syria, Palestine, Arabia, Mesopotamia or Iraq, Egypt and the Soudan; Philippine Islands; Siam; China; and Japan; and through correspondents in other countries in Asia, Europe, Africa, and islands of the seas.

During 1928 there were issued by it 11,032,494 volumes of Scriptures; 6,484,626 in its foreign fields and 4,547,368 in the United States.

In China, for the third year in succession, over three million copies of the Scriptures have been circulated by the Society.

A new Bible House was dedicated in Nov., 1928, on one of the leading streets in Peking.

The first complete New Testament in Ragoli was issued last year, for benefit of a people occupying a large region on the western border of Kenya Colony, East Africa.

A translation of the Four Gospels into the Eskimo British Bay dialect is in progress.

Its total of issues during its 113 years of activity, has been 105,096,251 volumes of Bibles, Testaments and Portions.

The receipts for 1928, including legacies, etc., were $1,077,097, its disbursements were $1,075,849, not including moneys received and spent in foreign fields.

The headquarters are at the Bible House, Astor Place, New York City.

HEADQUARTERS OF RELIGIOUS DENOMINATIONS.

Adventists, Seventh Day, General Conference, Takoma Park, Washington, D. C.

Anglican Universal, *President,* Rt. Rev. George Winslow Plummer; *Chancellor,* Rt. Rev. Adrian C. Grover; *Secretary,* G. E. S. Miller, See House, 321 W. 101st St., N. Y. City.

Baptist Convention, National, Selma, Ala. *President,* Rev. L. K. Williams, 3115 S. Park Ave., Chicago, Ill. *Secretary,* Prof. R. B. Hudson.

Baptist Convention, Northern. *President,* L. K. Miller, 16 Medford St., Boston, Mass. *Secretary,* Rev. Maurice A. Levy, 40 Bartlett Ave., Pittsfield, Mass. New York City offices, 152 Madison Ave.

Baptist, Free, General Conference of, 105 E. 22d St., N. Y. City. *Recording Secretary and Treasurer,* Rev. A. W. Anthony.

Baptist, Seventh Day, General Conference of, Salem, W. Va. *President,* Rev. Claude L. Hill, Farina, Ill. *General Secretary,* Rev. Willard D. Burdick, 926 Kenyon Ave., Plainfield, N. J.

Christian, General Convention of, Dayton, Ohio. *President,* Rev. Frank G. Coffin, 47 W. 4th Ave., Columbus, Ohio. *Secretary,* Rev. W. H. Denison, C. P. A. Bldg., Dayton, Ohio.

Christian Reformed—*Stated Clerk of Synod,* Rev. Henry Beets, 737 Madison Ave., S. E., Grand Rapids, Mich.

Church of Christ, Scientist (Christian Science). The First or Mother Church is at Boston, where are the headquarters at Falmouth and St. Paul Sts. *President,* William W. Davis, C. S. *Clerk,* Ezra W. Palmer, C. S. B.

Churches of God in N. A. (General Eldership), Mt. Pleasant, Pa. *President,* Rev. S. G. Yahn, 102 North 13th St., Harrisburg, Pa. *Clerk,* Rev. J. A. Detter, Box 265, Mt. Carmel, Pa.

Church of Jesus Christ of Latter Day Saints (Mormon), Salt Lake, Utah. *President,* Heber J. Grant. *Counsellors,* Anthony W. Ivins and Charles W. Nibley. *President of the Quorum,* Rudger Clawson. *Presiding Bishop of the Church,* Sylvester Q. Cannon.

Church of Jesus Christ of Latter Day Saints, Reorganized. *President,* Frederick M. Smith. *Secretary,* Mr. Fairbanks, Independence, Mo.

Congregational, National Council of, 287 Fourth Ave., N. Y. City. *Moderator,* Fred B. Smith, 70 Fifth Ave., N. Y. City. *Secretary,* Rev. Charles E. Burton.

Disciples of Christ, International Convention of the, Cleveland, Ohio. *President,* R. A. Long, 601 R. A Long Bldg., Kansas City, Mo. *Secretary,* Rev. Robert G. Frank, Central Christian Church, Dallas, Tex. United Christian Missionary Society, 425 De Baliviere Ave., St. Louis.

Evangelical Church, General Conference of the. *President,* Board of Bishops, Bishop S. C. Breyfogel. *Secretary,* Bishop J. F. Dunlap, 11711 Cromwell Ave. S. E., Cleveland, Ohio.

Evangelical Synod of North America, 671 Madison St., Milwaukee, Wis. *President,* Rev. John Baltzer, 2013 St. Louis Ave., St. Louis, Mo. *Secretary,* Rev. Gustave Fischer.

Five Years' Meeting of the Society of Friends. *General Secretary,* Dr. Walter C. Woodward, 101 So. 8th St., Richmond, Ind.

Lutheran in America, United, 39 East 35th St., N. Y. City *President,* Rev. F. H. Knubal. *Secretary,* Rev. M. G. G. Scherer.

Lutheran Synod of New York, United. *President,* Rev. Samuel Trexler, D. D., 39 East 35th St., N. Y. City. *English Secretary,* Rev. Paul Kirsch, 39 E. 35th St., N. Y. City. *German Secretary,* Rev. Frederick R. Noeldeke, 98 Essex Ave., Glen Ridge, N. J. *Treasurer,* Fred Weber, 15 Liberty St., N. Y. City.

Methodist Episcopal. *Secretary of General Conference,* Rev. R. J. Wade, 740 Rush St., Chicago, Ill., where also are the church's *World Service Commission,* and the *Board of Hospitals and Homes. Board of Education,* 51 E. Washington St., Chicago, Ill. *Board of Pensions and Relief,* 320 Garland Bldg., Chicago, Ill. *Board of Foreign Missions,* 150 Fifth Ave., N. Y. City' *Board of Home Missions and Church Extension,* 1701 Arch St., Philadelphia, Pa. *Board of Temperance, Prohibition and Public Morals,* 100 Maryland Ave., N. E., Washington, D. C. *Secretary of the Board of Bishops,* Bishop H. Lester Smith, Kohr's Block, Helena, Mont.

Methodist Episcopal, South. *Secretary, Board of Bishops,* Bishop John M. Moore, 1308 Commerce St., Dallas, Texas.

Methodist Episcopal, African. *Senior Bishop,* Bishop H. B. Parks, 1847 E. 25th St., Oakland, Calif. *General Secretary,* Bishop J. S. Flipper, 488 Houston St., Atlanta, Ga.

Methodist Episcopal, African Zion. *Bishop,* G. C. Clement, 1633 Jefferson St., Louisville, Ky.

Methodist, Wesleyan Connection (or Church) in America. *Secretary,* 330 E. Onondaga St., Syracuse, N. Y.

Methodist Protestant, General Conference of. *President,* Rev. John C. Broomfield, 1734 Potomac Ave., Pittsburgh, Pa. *Secretary,* Rev. C. W. Bates, 113 Bellevue St., Greensboro, No. Car.

Moravian, Northern Province. *President,* Rev. Ernest Hagen, 45 W. Church St., Bethlehem, Pa.

Moravian, Southern Province. *President,* Right Rev. Edward Rondthaler, 519 So. Church St., Winston-Salem, N. C.

Presbyterian Church in the U. S. *Moderator,* Rev. William R. Dobyns, South Hills Presbyterian Church, Birmingham, Ala. *Stated Clerk,* Rev. J. D. Leslie, D. D., 1521 Kirby Bldg., Dallas, Tex.

Presbyterian Church in the U. S. A. *Moderator,* Rev. Cleland B. McAfee, Presbyterian Theological Seminary, Chicago, Ill. *Stated Clerk,* Rev. Lewis S. Mudge, Witherspoon Bldg., Philadelphia, Pa. The Mission Board Secretaries are at 156 Fifth Ave., N. Y. City.

Presbyterian Church, Cumberland. *Moderator,* Rev. H. C. Walton, 1215 No. 27th St., Birmingham, Ala. *Stated Clerk, General Traveling Secretary and Treasurer,* Rev. D. W. Fooks, Paducah, Ky. *President Board Trustees of General Assembly,* W. F. Chestnut, Bowling Green, Ky.

Presbyterian, United. *Moderator,* Rev. John McNaugher, 321 Lafayette Ave., N. S., Pittsburgh, Pa. *Principal Clerk,* Rev. David F. McGill, 317 Home St., Bellevue, Pa.

Protestant Episcopal, National Council of, 281 Fourth Ave., N. Y. City. *Executive Secretary,* Rev. Robert F. Gibson. The Departments of Missions, Religious Education, Social Service, Finance, Publicity and Field are located with the National Council.

Reformed Episcopal, General Council of the, 1617 Oxford St., Philadelphia, Pa. *Bishop,* R. L. Rudolph, 103 St. 36th St., Philadelphia, Pa. *Secretary,* Rev Wm. A. Freemantle.

Reformed Church in America, General Synod of. N. Y. City offices, 25 E. 22d St., where the Progress Council meets. *President,* Rev. Daniel A. Poling, 330 W. 40th St., N. Y. City. *Stated Clerk,* Rev. Henry Lockwood.

Reformed Church in the United States, General Council of. *President,* Rev. Charles E. Schaeffer. *Stated Clerk,* Rev. J. Rauch Stein, 1505 Race St., Philadelphia, Pa.

United Brethren in Christ, 415 Otterbein Press Bldg., Dayton, Ohio. *Bishop,* H. H. Fout, Indianapolis. Ind.

Universalist. *President,* Rev. Frank D. Adams, D. D., Detroit. Mich. *Secretary,* Rev. Roger F. Etz., 176 Newbury St., Boston, Mass.

THE CHRIST OF THE ANDES.

(Alice Stone Blackwell, of Dorchester, Mass., in The World)

President-elect Hoover while in Chile was invited to visit one of the most remarkable monuments in the world.

In 1902 Chile and Argentina were making great preparations to go to war over a boundary dispute.

Chiefly through the efforts of the women and the clergy they were persuaded to settle the question by arbitration instead and to use the money thus saved for better roads and harbors.

Part of it built the great trans-Andean Railway, connecting Santiago with Buenos Ayres, over which Mr. Hoover has traveled.

The women of both countries, led by Senora Angela de Oliveira Cesar de Costa of Argentine, raised the money for a colossal statute of Jesus Christ, made of bronze obtained by melting down old cannon taken from Spain in the War of Independence.

It was set up on the highest accessible point on the disputed boundary.

It is twenty-six feet high and stands on a tall granite pillar, surmounted by a globe on which a map of the world is outlined. A tablet at the base bears the inscription:

"Sooner shall these mountains crumble into dust than Argentines and Chileans break the peace to which they have pledged themselves at the feet of Christ the Redeemer."

The statue stands near the old trail leading from Chile down into Argentina, a trail now almost disused since a tunnel has been made through the mountains.

YOUNG PEOPLE'S SOCIETY OF CHRISTIAN ENDEAVOR.

Officers of the International Society of Christian Endeavor (Prior to 1927, the United Society of Christian Endeavor): *President*, Rev. Daniel A. Poling, D.D.; *Vice-presidents*, Rev. Howard B. Grose, D.D., and Rev. William Hiram Foulkes, D.D.; *General Secretary*, Edward P. Gates; *Treasurer and Field Secretary*, Alvin J. Shartle; *Superintendent of Christian Vocations*, Stanley B. Vandersall; *Publication Manager*, C. C. Hamilton; *Editorial Secretary*, Robert P. Anderson; *Citizenship Superintendent*, Rev. Ira Landrith, D.D.; *Extension Secretary*, Carlton M. Sherwood; *Travel and Recreation Superintendent*, Carroll M. Wright; *Pacific Coast Secretary*, Paul C. Brown; *Mid-west Secretary*, Harold Singer; *Southern Secretary*, W. Roy Breg; *Army and Navy Superintendent*, S. C. Ramsden; *Social Service and Prison Work Superintendent*, Frederick A. Wallis; *Manager of Western Office*, Charles F. Evans.

The headquarters of the movement are in the World's Christian Endeavor Building, Mount Vernon and Joy Streets, Boston, Massachusetts. This building was erected in 1918 by the contributions of one hundred thousand young people throughout the world.

The first society of Christian Endeavor was formed on February 2, 1881, in the Williston Congregational Church, Portland, Maine, by Rev. Francis E. Clark, pastor, for the purpose of training a large number of young people in the duties of church membership and the activities of the Christian life. The early societies were for young people approaching maturity, but on March 29, 1883, the first Junior Christian Endeavor society was organized, and in 1891 the first Intermediate society had its birth. Now, under graded Christian Endeavor, there are societies adapted to all ages, beginning with Juniors and including adults and graduate members who are called Alumni.

Most of the societies are formed in local churches and exist as a part of the activity of the church. Some, however, exist in unusual places, as in hospitals, aboard ship, in army camps, in public institutions, in prisons, in schoolhouses, and in homes where no church building is available.

The purpose of the society is, as expressed in its constitution, "to promote an earnest Christian life among its members, to increase their mutual acquaintance, to train them for work in the church, and in every way to make them useful in the service of God and their fellow men." It is the church training the young, and its motto is "For Christ and the Church."

Its cardinal principles are stated thus: (1) Open confession of Christ, (2) active service for Christ, (3) loyalty to Christ's church, (4) fellowship with Christ's people.

Its activities are built around a weekly prayer meeting for young people and detailed committee service in which all the members have a part, the principal committees being the Lookout, Prayer-meeting, Social, Missionary, with others optional. The Christian Endeavor pledge and the consecration meeting occupy important places in the society's program.

The International Society of Christian Endeavor is the clearing-house for all forms of Christian Endeavor activity. It publishes and circulates various literature, including the Christian Endeavor World, the official organ of the movement.

The International Society is supported by voluntary gifts, bequests, and annuities from individuals and the sale of literature, badges, etc., although the latter feature is largely a service rendered to the societies and unions.

The International Society is managed by a board of trustees representing evangelical denominations. It holds biennial conventions. The World's Christian Endeavor Union comprises all the national unions throughout the world. Of this organization, Daniel A. Poling is the president, Edward P. Gates is secretary, and Stanley B. Vandersall is treasurer. Its conventions are held quadrennially.

NEW TESTAMENT CHRONOLOGY.

Zahn, one of the most important of German New Testament scholars, published (1907) his conclusions as to the chronology of New Testament literature and leading New Testament events, in substance as follows:

	Year A.D.
Death and Resurrection of Christ	Probably 30
The events recorded Acts 1.-viii., 1 to about 30-34	
Conversion of St. Paul	Beginning of 35
Three years' sojourning of Paul in Damascus, interrupted once by a journey to Arabia. Flight from Damascus, first visit to Jerusalem, and stay at Tarsus	38
Peter at Joppa and Caesarea	Beginning 40
Luke, a church member at Antiochia. Paul brought from Tarsus to Antiochia by Barnabas, either Summer or Autumn of	43
Death of James Zebedai, imprisonment of Peter, flight of the latter and other Apostles from Jerusalem	Easter 44
Visit of Peter and others from Jerusalem to Antiochia. Letter of St. James	50
First mission tour of Paul, Spring 50 to Fall	51
Apostles convene in Jerusalem	Beginning of 52
Start of second mission tour of St. Paul, Spring of	52
Arrival at Corinth	About November 52
Epistle to the Galatians	Beginning of 53
First Epistle to the Thessalonians	Spring of 53
Second Epistle to Thessalonians	Summer 53
Journey from Corinth to Ephesus, before Pentecost	About May 54
Beginning of the third mission tour from Antiochia to Ephesus	Probably Summer 54
Arrival at Ephesus	About February 55
Short visit to Corinth from Ephesus. Last Epistle of St. Paul to the Corinthians,	End of 56 or beginning of 57
Letter of the Corinthians to St. Paul. First Epistle of Paul to the Corinthians	Easter 57
Departure of Paul and Timothy from Ephesus by way of Troas to Macedonia,	About or after Pentecost 57
Second Epistle to the Corinthians,	About November or December 57
Journey of Paul from Macedonia to Corinth.	About New Year 58

	Year A.D.
Epistle to the Romans during a three months' stay in Greece and Corinth	About February 58
Journey by way of Macedonia, Troas, Miletus, etc., to Jerusalem. Arrival in Jerusalem and beginning of captivity in Caesarea,	About Pentecost 58
Defence before Festus	60
Depature from Caesarea	September 60
Arrival at Rome	March 61
Epistles to Ephesians, Colossians, and Philemon,	Summer 62
Second Epistle of St. Peter	Beginning 62
Matthew writes his Aramaic Gospel,	Beginning 62
Epistle to Philippians	Summer of 63
Paul free again	Late in Summer of 63
Journey of Paul to Spain	Fall 63 or Spring 64
Arrival of Peter in Rome	Fall 63 or Spring 64
First Epistle of Peter	Spring of 64
Mark in Rome, engaged on the completion of his Gospel	Summer of 64
Persecution under Nero and crucifixion of Peter,	Fall of 64
Return of Paul from Spain and visitation of the Eastern congregation, I. Timothy and Titus,	Spring to Fall of 65
Stay at Nicopolis	Winter of 65-66
Return of Paul to Rome	Spring of 66
Arrest of Paul, II. Timothy	Summer of 66
Paul beheaded	End of 66 or beginning 67
Publication Gospel of Mark	Beginning 67
Departure of St. John and other disciples to the province of Asia	Beginning 68
Epistle of Jude	Beginning 75
Gospel and Acts of St. Luke	Beginning 75
Epistle to the Hebrews	Beginning 80
Origin of the Greek Matthew	Beginning 85
Gospel and the Epistles of John	Between 80-90
Apocalypse of St. John	Beginning 95
Death of St. John	Beginning 100

CATHOLIC BOYS' BRIGADE OF THE UNITED STATES.

Founded in 1916, with the approval of the late Cardinal Farley, New York City—a national official organization for Catholic boys. National office: National Catholic Welfare Council, 1312 Massachusetts Ave., N. W., Washington, D. C. General Executive Headquarters, 260 West 34th Street, New York. This movement aims to improve, it is announced, the religious and civic character of boys. It has a program of athletics, sports, military exercises, signalling, first aid, civics, music, entertainments, hikes, camping, parades, contests and employment; it aims to promote patriotism, religious practices and higher education. Membership is open to all manly boys 10 years of age or over. *Junior and Senior division* branches all over the country and has its own uniform. Executive officers, N. Y. General headquarters, 217 West 30th St., New York City; Rev. Fr. Kilian, O. M. Cap., Chief Commissioner; Michael F. Lonergan, Executive Secretary.

PROMINENT SOCIAL CLUBS IN BIG CITIES IN THE UNITED STATES.

Atlanta—*Athletic*, 37 Auburn Ave.; *Capital City*, Peachtree and Harris Sts. *Piedmont Driving*.

Baltimore—*Arundel*, 1000 N. Charles St.; *Baltimore*, No. 2 W. Madison St.; *Country*, Roland Park; *Gibson Island*, Pasadena; *Johns Hopkins*, University Parkway; *Maryland*, 1 East Eager St.; *Merchants*, 206 E. Redwood St.; *Downtown*, 700 Washington Pl.; *University*, Charles and Madison Sts.

Boston—*Algonquin*, 217 Commonwealth Ave.; *Automobile*, 400 Stuart St.; *Boston Art*, 150 Newbury St.; *Boston Athletic*, Exeter and Blagden Sts.; *Chilton*, 152 Commonwealth Ave.; *Country*; Brookline; *Exchange*, Milk and Batterymarch Sts.; *Harvard*, 374 Commonwealth Ave.; *Mayflower*, 6 Park St.; *New Riding*, 52 Hemenway St.; *St. Botolph*, 4 Newbury St.; *Somerset*, 42 Beacon St.; *Tavern*, 4 Boylston Pl.; *Tennis and Racquet*, 939 Boylston St.; *Union*, 8 Park St.; *University*, 40 Trinity Pl.; *Union Boat*, foot Chestnut St.

Buffalo—*Buffalo*, 388 Delaware Ave.; *Canoe*, 508 Erie Co. Bank Bldg.; *Country*, Main St.; *Garret*, 91 Cleveland Ave.; *Park*, Nottingham Terrace and N. Lincoln Blvd.; *Saturn*, 977 Delaware Ave.; *Twentieth Century*, 595 Delaware Ave.; *University*, 546 Delaware Ave.

Charleston—*Carolina Yacht*; *Charleston*, 7 Meeting St.; *Country*, Wappoo Links.

Chicago—*Arts*, 410 N. Michigan Blvd.; *Casino*, 167 E. Delaware Pl.; *Caxton*, 410 S. Michigan Ave.; *Chicago*, 400 S. Michigan Ave.; *Chicago Athletic Assoc.*, 12 S. Michigan Blvd.; *Friday*, 120 Bellevue Pl.; *Fortnightly*, 120 Bellevue Pl.; *Literary*, 410 S. Michigan Ave.; *Racquet*, Schiller and Dearborn Sts.; *Union League*, 60 West Jackson Blvd.; *University*, 76 E. Monroe St.; *Woman's*, 410 S. Michigan Ave.

Cincinnati—*Commercial*; *Country*, Grandin Rd.; *Queen City*, Seventh and Elm Sts.; *Riding*, Reading Rd. and Asmann Ave.; *University*, Broadway and Fourth St.

Cleveland—*Country*; Lake Shore Blvd.; *Mayfield Country*, S. Euclid, Ohio; *Tavern*, 3522 Prospect Ave.; *Union*, 1211 Euclid Ave.; *University*, 3813 Euclid Ave.

Dayton—*Buz Fuz*, W. First St.; *City*, First and Main Sts.; *Country*, Oakwood; *Miama Valley Hunt and Polo*.

Detroit—*Country*; Grosse Pointe Farms; *Detroit*, 712 Cass St.; *Detroit Athletic*, 241 Madison Ave., *Detroit Boat*, 714 Union Trust Bldg.; *Detroit Golf*, 6 Mile Rd. and Hamilton; *Ingleside*, 35 Atkinson St.; *Twentieth Century*, 62 E. Columbia St.; *University*, 1411 E. Jefferson St.; *Yondotega*, 518 E. Jefferson St.

Los Angeles—*Bolsa*; Chica Gun; *California*, 453 S. Hill St.; *Crags Country*; *Jonathan*, Pacific Electric Bldg. *University*, 251 S. Hill St.

Minneapolis—*Minikahda*, Westshore Lake Calhoun; *Minneapolis*, 729 So. 2nd Ave.

New Orleans—*Audubon Golf*, 473 Walnut St.; *Boston*, 824 Canal St.; *Chess, Checkers and Whist*. 120 Bourbon St.; *Louisiana*, Canal and Carondelet Sts.; *Country*, Napoleon Ave. and Metairie Ridge; *Pickwick*. Canal near Rampart St.; *Round Table*, 6330 St. Charles Ave.; *Southern Yacht*, West End Lake Pontchartrain.

Philadelphia—*Acorn*, 1618 Walnut St.; *Art*, 220 S. Broad St.; *Art Alliance*, 251 So. 18th St., *Franklin Inn*, Camac and St. James Sts.; *Germantown Cricket*, Manheim and Morris Sts.; *Penn*, 1300 Locust St.; *Merion Cricket*, Haverford; *Philadelphia*, 1301 Walnut St.; *Philadelphia Country*, Bala; *Philadelphia Cricket*, Chestnut Hill; *Princeton*, 1223 Locust St.; *Rabbit*, Belmont Ave., West Park; *Racquet*, 215 S. 16th St.; *Rittenhouse*, 1811 Walnut St.; *St. Anthony*, 32 S. 22d St.; *Sedgeley*, Fairmount Park; *Union League*, Broad and Walnut Sts.; *University*, 1510 Walnut St.; *Yale*, 1221 Spruce St.

Pittsburgh—*Duquesne*, 325 Sixth Ave.; *Pittsburgh*, 425 Penn Ave.; *Pittsburgh Athletic*, Bigelow Blvd. and Fifth Ave.; *Pittsburgh Golf*, Northumberland Ave.; *Union*, 1st Nat. Bank Bldg.; *University*, 4439 Bigelow Blvd.

Portland, Ore.—*Arlington*, Park and Salmon Sts.; *Irvington*, E. 21st and Thompson Sts.; *Amateur Athletic*, Chapman and Salmon Sts.; *University*, 275 Sixth St.

Providence—*Agawam Hunt*, East Providence; *Art*, 11 Thomas St.; *Hope*, 6 Benevolent St.; *Psi Upsilon*, 4 Manning St.; *Squantum Assoc.*, E. Providence; *University*, 219 Benefit St.; *Wannamoisett Country*, 21 So. Main St.

Richmond—*Commonwealth*, 401 W. Franklin St.; *Country*; *Westmoreland*, 601 E. Grace St.; *Woman's*, 211 E. Franklin St.

St. Louis—*Commercial Country*, Clayton, Mo.; *Log Cabin*, Clayton Rd.; *Noonday*, Security Bldg.; *Racquet*, 476 N. Kingshighway; *Round Table*; *University*, 607 N. Grand Ave.; *Wednesday*, Taylor and Westminster Sts.; *Woman's*, 4600 Lindell Blvd.

St. Paul—*Automobile*, 4th and Cedar Sts.; *Minnesota*, Fourth and Washington Sts.; *Somerset Country*, Dodd Rd.; *Town and Country*, Desnoyer Pk.; *University*, Summit and Ramsey Sts.

San Francisco—*Bohemian*, Post and Taylor Sts.; *Century*, Franklin and Sutter Sts.; *Family*, 545 Powell St.; *Francisca*, 595 Sutter St.; *Pacific Union*, 1000 California St.; *Golf*, Ingleside; *Town and Country*, 218 Stockton St.; *University*, Powell and California Sts.

Savannah—*Cotillion*; *Savannah Golf*.

Seattle—*College*, 605 Spring St.; *Country*, Bainbridge Island; *Kainter*, Fourth Ave. and Marion St.; *Seattle Golf*, the Highlands; *University*, Madison and Boren Aves.

Washington—*Alibi*, 1806 I St.; *Army and Navy*, Farragut Sq.; *Chevy Chase*, Chevy Chase, Md.; *Cosmos*, 1520 H St.; *Country*, Grasslands; *Metropolitan*, 1700 H St.; *Racquet*, 1135 Sixteenth St.; *Riding and Hunt*, 2200 P St.; *University*, Fifteenth and I Sts.; *Washington*, 1701 K St.; *Washington Golf and Country*, Jewell Stn., Va.

DAUGHTERS OF THE AMERICAN REVOLUTION.

Headquarters of the National Society—Memorial Continental Hall, 17th and D Streets N. W., Washington, D. C.

Constitution Hall, the new addition, containing the auditorium and library, was dedicated on Oct. 23, 1929. The seats in the auditorium rise in tiers on three sides, and hold 4,000 persons.

National Board of Management—(1929-1930), *President General*, Mrs. Lowell Fletcher Hobart, Memorial Continental Hall, Washington, D. C.

Vice-Presidents General, (Term of office expires 1930)—Mrs. William Sherman Walker, Memorial Continental Hall, Washington, D. C.; Mrs. John P. Mosher, 11 Livingston Park, Rochester, N. Y., Miss Isabel Wyman Gordon, 35 Whitman Road, Worcester, Mass.; Mrs. William B. Burney, 8 University of South Carolina, Columbia, S. C.; Mrs. Samuel Preston Davis, 523 East Capitol Ave., Little Rock, Ark.; Mrs. Clarence S. Paine, 1735 S. 20th St., Lincoln, Nebr.; Mrs. Herbert Backus, 816 Oak St., Columbus, Ohio.

Term of office expires 1931—Mrs. Charles Burton Jones, 1121 Park Ave., Greenville, Texas; Mrs. James Lathrop Gavin, 228 E. 15th St., Indianapolis, Ind.; Mrs. Henry B. Joy, 301 Lake Shore Rd., Grosse Pointe Farms, Mich.; Mrs. H. Eugene Chubbuck, Grand View Drive, Peoria, Ill; Mrs. Waiteman Harrison Conaway, 109 Virginia Ave., Fairmont, W. Va.; Mrs. Robert Howe Munger, 1625 Grand View Blvd., Sioux City, Iowa; Mrs. Brooke G. White, Jr., 2331 River Blvd., Jacksonville, Fla.

Term of office expires 1932—Mrs. Daniel Mershon Garrison, 26 Thompson St., Annapolis, Md.; Mrs. Ralph Van Landingham, 1730 The Plaza, Charlotte, N. C.; Mrs. William Leonard Manchester, 33 Central St., Bristol, R. I.; Mrs. Katharine White Kittredge, "Whitesacres," Springfield, Vt.; Mrs. William Smith Shaw, 240 Cottage Road, So. Portland, Me.; Mrs. Robert Bruce Campbell, 1255 Riverside Drive, Wichita, Kan.; Mrs. N. Howland Brown, 1213 DeKalb St., Norristown, Pa.

Chaplain General—Mrs. William Rock Painter, Memorial Continental Hall; *Recording Secretary General*—Mrs. Charles Humphrey Bissell; *Corresponding Secretary General*—Miss Margaret B. Barnett, *Organizing Secretary General*—Mrs. William A. Becker; *Treasurer General*—Mrs. Harriet Vaughn Rigdon; *Registrar General*—Mrs. Josiah A. Van Orsdel; *Historian General*—Mrs. Flora Myers Gillentine.

Reporter General to Smithsonian Institution—Miss Anne Margaret Lang; *Librarian General*—Mrs. Russell William Magna; *Curator General*—Mrs. Samuel Jackson Kramer.

HONORARY OFFICERS ELECTED FOR LIFE

Honorary President General—Mrs. William Cumming Story; Mrs. George Thacher Guernsey; Mrs. George Maynard Minor; Mrs. Anthony Wayne Cook; Mrs. Alfred J. Brosseau.

Honorary President Presiding—Mrs. Mary V. E. Cabell.

Honorary Vice-Presidents General—Mrs. Mildred Mathes, 1899; Mrs. William Lindsay, 1906; Mrs. J. Morgan Smith, 1911; Mrs. Theodore Bates, 1913; Mrs. Drayton W. Bushnell, 1914; Mrs. John Newman Carey, 1916; Mrs. George M. Sternberg, 1917; Mrs. William Butterworth, 1923; Mrs. Julius J. Estey, 1923; Mrs. John Campbell, 1926; Mrs. Eleanor Washington Howard, 1927; Mrs. Thomas Kite, 1927.

ILLITERACY IN THE UNITED STATES BY STATES IN 1920.

(By the Bureau of the Census; an *Illiterate* is one who cannot write in any language.)

State.	Population, 10 Years of Age and Over.		Native White Population, 10 Years of Age and Over.		Foreign-Born Whites, 10 Years of Age and Over.		Negroes, 10 Years of Age and Over.	
	Total.	Illiterates.	Total.	Illiterates.	Total.	Illiterates.	Total.	Illiterates.
Alabama	1,730,421	278,082	1,038,602	65,394	17,393	1,893	674,004	210,690
Arizona	255,461	39,131	152,875	3,233	70,053	19,219	7,319	338
Arkansas	1,302,905	121,837	925,474	41,411	13,834	1,145	363,403	79,245
California	2,870,855	95,592	2,075,167	8,747	664,983	69,768	33,391	1,579
Colorado	747,485	24,208	620,163	8,624	114,285	14,224	9,909	619
Connecticut	1,087,797	67,265	697,892	2,927	371,666	63,131	17,441	1,078
Delaware	178,930	10,508	134,741	2,427	19,541	3,373	24,598	4,700
District Columbia	377,295	10,509	254,522	640	28,292	1,728	93,782	8,052
Florida	751,787	71,811	450,630	13,166	42,057	2,657	258,449	55,639
Georgia	2,150,230	328,838	1,237,776	66,796	16,028	861	896,127	261,115
Idaho	326,051	4,924	282,667	914	38,379	2,501	814	44
Illinois	5,184,993	173,987	3,829,325	30,907	1,194,979	131,996	157,205	10,476
Indiana	2,356,214	52,034	2,138,143	27,929	149,239	17,555	68,361	6,476
Iowa	1,913,155	20,690	1,672,815	8,275	223,752	11,004	15,902	1,283
Kansas	1,396,725	22,821	1,238,566	7,179	108,006	11,291	48,166	4,228
Kentucky	1,837,434	155,014	1,614,064	112,206	30,603	2,244	192,657	40,548
Louisiana	1,366,066	299,092	784,198	81,957	44,244	9,707	536,360	206,730
Maine	621,233	20,240	514,762	8,396	104,585	11,604	1,091	64
Maryland	1,158,953	64,434	862,553	15,368	101,155	13,575	194,825	35,404
Massachusetts	3,161,769	146,607	2,002,534	7,780	1,063,572	135,720	37,613	2,565
Michigan	2,895,606	88,046	2,124,975	14,172	713,228	70,535	52,139	2,203
Minnesota	1,877,132	34,487	1,380,415	5,955	482,231	26,242	7,776	241
Mississippi	1,338,612	229,734	625,923	22,242	7,918	1,057	703,627	205,813
Missouri	2,037,771	83,403	2,399,809	47,066	184,394	17,669	152,861	18,528
Montana	421,443	9,544	318,532	1,067	91,729	5,178	1,450	87
Nebraska	1,012,552	13,784	849,914	3,360	148,209	9,468	11,489	556
Nevada	63,905	3,802	43,837	157	14,586	1,241	313	16
New Hampshire	361,930	15,788	271,844	1,973	89,472	13,746	490	33
New Jersey	2,494,246	127,661	1,666,154	9,696	729,799	111,595	96,701	5,910
New Mexico	267,595	41,637	220,893	25,519	26,786	7,250	5,362	228
New York	8,402,786	425,022	5,466,635	28,406	2,752,055	389,603	171,303	5,032
North Carolina	1,844,673	241,603	1,284,208	104,844	6,981	474	545,542	133,674
North Dakota	470,210	9,937	335,124	1,307	129,951	7,238	405	16
Ohio	4,624,456	181,006	3,795,373	33,726	669,924	84,387	157,912	12,715
Oklahoma	1,513,951	56,844	1,320,407	30,418	39,020	5,456	114,536	14,205
Oregon	638,987	9,317	526,579	1,990	100,672	5,172	1,893	89
Pennsylvania	6,769,322	312,699	5,155,382	38,870	1,371,402	258,812	240,027	14,645
Rhode Island	483,788	31,312	304,225	2,255	171,032	28,169	8,192	839
South Carolina	1,219,316	220,667	593,709	38,742	6,327	391	618,928	181,422
South Dakota	482,195	8,109	387,602	1,490	81,781	3,848	678	35
Tennessee	1,777,762	182,629	1,400,917	101,809	15,297	1,263	354,426	79,532
Texas	3,556,614	295,844	2,648,333	80,643	332,955	114,417	572,719	102,053
Utah	331,530	6,264	269,741	925	55,724	3,504	1,273	59
Vermont	284,472	8,488	241,286	3,613	42,701	4,837	454	28
Virginia	1,748,868	195,159	1,196,920	70,475	30,325	2,150	520,657	122,322
Washington	1,101,929	18,526	827,734	2,379	244,851	11,630	6,004	245
West Virginia	1,083,395	69,413	953,822	44,324	80,679	14,548	68,826	10,513
Wisconsin	2,069,567	50,397	1,601,443	10,449	456,420	38,359	4,456	182
Wyoming	150,993	3,149	122,638	421	24,762	2,233	1,251	66
Total, U. S.	82,739,315	4,931,905	60,861,863	1,242,572	13,497,886	1,763,740	8,053,225	1,842,161

ILLITERATES IN THE U. S. BY RACES AND AGE GROUPS.

Division, sex, age.	All classes.		Native white, native parentage.		Native white, foreign or mixed parentage.		Foreign-born white		Negro.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
United States, 1910	5,516,163	7.7	1,378,884	3.7	155,388	1.1	1,650,361	12.7	2,227,731	30.4
10 to 20 years	946,146	4.7	265,457	2.3	36,470	0.8	142,868	11.1	485,083	20.0
21 years and over	4,570,017	8.9	1,113,427	4.3	118,918	1.3	1,507,493	12.9	1,742,648	35.7
Urban, total	1,748,830	5.1	128,937	0.9	58,964	0.7	1,157,524	12.5	392,974	17.6
Rural, total	3,767,333	10.1	1,249,947	5.4	96,424	1.9	492,837	13.3	1,834,757	36.0
United States, 1920	4,931,905	6.1	1,109,875	2.5	132,697	0.8	1,763,740	13.1	1,842,161	22.9
Males	2,540,209	6.0	614,612	2.7	70,095	0.8	866,822	11.7	942,368	23.5
Females	2,391,696	5.9	495,263	2.3	62,602	0.7	896,918	14.8	899,793	22.3
10 to 20 years	598,794	2.7	171,564	1.3	30,339	0.6	56,595	5.7	329,174	13.0
21 years and over	4,333,111	7.1	938,311	3.0	20,358	0.9	1,707,145	13.7	1,512,987	27.4

THE PULITZER SCHOLARSHIPS.

Desirous of aiding a number of boys of exceptional ability to gain an education that would fit them for careers of leadership and usefulness, the late Joseph Pulitzer founded in 1889 the notable scholarships that bear his name.

For a time the boys selected went to the College of the City of New York, but the lack of suitable preparatory schools at that time caused a new arrangement to be made in 1893 for a seven years' course for the students selected, three years in Horace Mann High School and four in Columbia University.

In that year Columbia, in return for a gift of money, undertook to carry ten boys a year, forty in all, upon its scholarship rolls without tuition fee.

Still later, as the public high schools multiplied in number in the city, the scholarships were thrown open to graduates of the high schools—those of Kings, Queens and Richmond being later added to the list.

To the holders of the scholarships, never fewer than forty, a stipend of $250 each, available in any American college of the first class, was annually paid by Mr. Pulitzer during his lifetime, and payment is now continued by Columbia University under the terms of his will out of the income of a fund provided for the purpose.

PUBLIC SCHOOLS IN THE UNITED STATES.

ATTENDANCE, TEACHERS, EXPENDITURES.

(By U. S. Bureau of Education. Private schools not included. Salaries cover teachers and superintendents only.)

School Year.	Pop. 5 to 17 Yrs.	Pupils. Enrolled.	Aver. Att'd.	Teachers. Male.	Female.	Total.	Salaries.	Total Expend.
1880	15,065,767	9,867,505	6,144,143	122,795	163,798	286,593	$55,942,972	$78,094,687
1890	18,543,201	12,722,581	8,153,635	125,525	238,397	363,922	91,836,484	140,506,715
1900	21,404,322	15,503,110	10,632,772	126,588	296,474	423,062	137,687,746	214,964,618
1901	21,982,797	15,688,602	10,714,613	126,491	305,292	431,783	143,286,204	227,465,664
1902	22,278,693	15,917,385	11,064,164	120,883	320,936	441,819	151,443,681	238,262,299
1903	22,655,001	15,999,717	11,053,158	116,720	333,144	449,864	157,635,732	252,804,081
1904	23,028,748	16,256,038	11,318,256	113,744	341,498	455,242	167,824,753	273,216,227
1905	23,410,800	16,468,300	11,481,531	110,532	349,737	460,269	177,462,981	291,616,660
1906	23,792,723	16,641,970	11,712,300	109,179	356,884	466,063	186,483,464	307,765,659
1907	24,262,936	16,890,818	11,925,672	104,414	376,902	481,316	202,047,814	336,898,353
1908	24,613,763	17,061,962	12,154,172	104,495	390,968	495,463	219,780,123	371,344,410
1909	24,239,820	17,506,175	12,684,837	108,300	398,153	506,453	237,013,913	401,397,747
1910	24,360,888	17,813,852	12,827,307	110,481	412,729	523,210	253,915,470	426,250,434
1911	24,745,562	18,035,118	12,871,980	110,328	423,278	533,606	266,678,471	446,726,929
1912	25,167,445	18,182,937	13,302,303	114,559	432,730	547,289	284,945,162	482,886,793
1913	25,587,331	18,609,040	13,613,656	113,213	452,270	565,483	304,431,681	521,546,375
1914	26,002,153	19,153,786	14,216,459	114,662	465,396	580,058	323,610,915	555,077,146
1915	26,425,100	19,693,007	14,964,886	118,449	485,852	604,001	345,006,445	605,460,785
1916	26,846,976	20,351,687	15,358,927	123,038	499,333	622,371	364,789,265	640,717,053
1918	27,686,476	20,853,516	15,548,914	105,194	545,515	650,709	436,477,090	703,678,089
1920	27,728,788	21,578,316	16,150,035	95,654	583,648	679,533	613,404,578	1,036,151,209
1922	28,627,201	23,239,227	18,432,213	118,085	604,891	722,976	860,952,724	1,580,671,296
1924	29,345,911	24,288,808	19,132,451	127,605	630,816	758,421	949,877,465	1,814,743,936
1925	29,705,264	24,650,291	19,838,384	131,164	646,781	679,533	1,006,408,536	1,946,096,912
1926	30,064,621	24,741,468	19,855,881	138,810	675,359	814,169	1,061,582,752	2,016,812,685
1928	30,783,341	25,212,373	20,517,819	136,820	689,515	826,335	1,162,606,770	

Data collected by the U. S. Bureau of Education for 1926-27 show 20,984,002 pupils enrolled in public and 2,143,100 in private elementary schools, including kindergartens; 3,786,071 in public and 346,054 in private secondary schools; 252,907 in public and 17,209 in private teacher-training institutions; and 280,437 in public and 486,704 in private colleges and universities, excluding preparatory students.

The total number of teachers employed in all types of schools is 977,291.

The total cost of maintaining and operating these schools is reported as $2,744,979,689; and the total value of school property is $8,125,085,472, which amount includes endowments valued at $1,061,589,042.

The nurse-training schools had 77,768 students in 1927, schools for the blind 6,084, schools for the deaf 84,844, industrial schools for delinquents 84,317, and schools for the feeble-minded and subnormal 104,021.

The total cost of public elementary and high schools in 1903 was $251,457,625; by 1913 this amount had doubled, being $521,546,375; by 1920 it had doubled again, $1,036,151,209; and in 1926 again doubled to $2,026,308,190.

The cost per pupil in average daily attendance was $95.17 in 1924, $98.45 in 1925, and $102.05 in 1926.

Expenditures per capita of population for these years are $16.25, $17.15, and $17.50.

Pupils in public high schools now exceed 3,800,000.

The number of one-teacher schools has decreased from 189,000 in 1920 to 161,000 in 1926—an average annual decrease for the six years of 4,600.

The number of consolidated schools increased during the six-year period 6,000, which is an average yearly increase of 1,000.

The change in numbers of the two types of rural schools, a decrease on the one hand and an increase on the other, indicates that nearly 30,000 small rural schools have been closed since 1920, and that as a result 6,000 larger rural schools have been established to take their places.

From reports received by the Bureau of Education from typical consolidated schools in the various States it is estimated that approximately 4,500,000 boys and girls attend these schools and 150,000 teachers are employed in them.

COST OF PUBLIC SCHOOL EDUCATION, BY STATES—1925-26.

	Receipts. Total.	Expenditures. Instruction.	Total, Exc. Debt Serv.		Receipts. Total.	Expenditures. Instruction.	Total, Exc. Debt Serv.
	Dollars.	*Dollars.*	*Dollars.*		*Dollars.*	*Dollars.*	*Dollars.*
Cont. U.S.	2,171,844,689	1,127,008,565	2,016,812,685	Mont.	12,587,697	6,963,240	11,566,647
				Neb.	29,202,993	16,900,618	29,348,812
Ala.	18,212,229	10,648,563	17,304,956	Nev.	2,291,871	1,357,854	1,957,226
Ariz.	8,297,720	4,834,134	8,506,377	N. H.	7,717,888	3,795,767	6,905,290
Ark.	15,461,837	8,753,128	13,965,866	N. J.	99,492,906	47,453,415	92,280,267
Cal.	143,135,349	72,519,995	137,988,396	N. M.	6,077,674	3,386,791	5,253,899
Col.	25,404,393	12,836,208	26,549,547	N. Y.	252,717,029	147,985,049	245,105,731
Conn.	33,770,519	17,780,348	32,765,727	N. C.	37,475,502	17,937,984	34,691,669
Del.	3,608,795	2,147,760	3,632,661	N. D.	22,178,777	9,467,823	14,352,168
D. of C.	8,015,089	5,812,424	9,290,353	Ohio	132,639,165	66,334,236	127,579,422
Fla.	43,490,297	10,259,080	30,089,478	Okla.	32,495,307	18,522,509	28,999,229
Ga.	18,717,950	12,602,607	17,357,662	Ore.	24,290,409	10,342,775	18,949,947
Idaho	10,264,931	5,590,813	9,022,507	Penn.	194,295,662	93,591,813	169,643,289
Ill.	138,825,891	72,661,100	138,350,684	R. I.	12,870,563	5,605,542	10,208,133
Ind.	70,572,313	32,581,152	61,229,094	S. C.	16,530,646	9,769,698	16,058,366
Iowa	60,555,579	29,416,121	53,280,065	S. D.	17,965,652	8,207,666	15,129,260
Kan.	42,717,053	21,676,511	35,603,036	Tenn.	19,256,253	13,393,035	20,501,486
Ky.	23,543,625	12,189,866	17,599,363	Tex.	64,459,035	40,128,643	65,128,019
La.	22,536,693	10,443,748	19,741,168	Utah	10,804,476	5,871,479	10,012,894
Me.	10,583,477	5,788,076	10,243,404	Vt.	5,159,140	2,916,434	4,525,831
Md.	22,413,109	11,447,905	21,665,229	Va.	22,582,178	13,373,508	21,755,438
Mass.	78,713,199	44,755,969	77,162,431	Wash.	31,405,729	17,625,049	30,727,980
Mich.	115,944,821	47,008,933	99,447,319	W. Va.	23,136,748	15,976,783	26,235,479
Minn.	55,640,376	29,485,670	51,929,667	Wisc.	50,278,151	27,966,989	45,516,000
Miss.	14,147,508	8,945,370	12,599,596	Wyo.	6,078,186	3,940,808	6,838,253
Mo.	52,882,299	28,008,576	53,217,104				

AVERAGE DAILY ATTENDANCE IN ELEMENTARY AND SECONDARY SCHOOLS.

State.	1870-71.	1879-80.	1889-90.	1899-1900.	1909-10.	1919-20.	1924-25.	1925-26.
Continental U. S..	4,545,317	6,144,143	8,153,635	10,632,772	12,827,307	16,150,035	19,838,384	19,855,881
Alabama	107,666	117,978	182,467	297,805	266,589	367,554	436,406	416,521
Arizona	.....	2,847	4,702	10,177	20,094	46,420	54,911	61,331
Arkansas	46,600	54,700	148,714	195,401	255,135	326,053	368,714	349,657
California	64,286	100,966	146,589	197,395	286,744	480,864	746,010	777,738
Colorado	2,611	12,618	38,715	75,291	107,520	150,090	186,166	182,374
Connecticut	62,683	73,546	83,656	111,564	147,190	205,213	250,068	265,807
Delaware	12,700	17,439	10,649	25,300	22,559	27,368	33,168	32,858
District of Columbia	10,261	20,637	28,184	35,463	44,627	52,739	60,733	60,903
Florida	10,900	27,046	64,819	75,003	103,892	165,720	216,221	250,355
Georgia	31,377	145,190	240,791	298,237	346,295	467,081	544,307	513,017
Idaho	600	3,863	9,500	21,962	51,237	84,642	89,893	94,100
Illinois	341,686	431,638	538,310	737,576	779,040	956,090	1,122,101	1,104,830
Indiana	295,071	321,659	342,275	429,566	420,780	457,113	607,360	586,503
Iowa	211,562	259,836	306,309	373,474	360,178	405,567	507,538	445,935
Kansas	52,891	137,669	243,300	261,783	291,329	309,505	353,512	357,041
Kentucky	129,866	178,000	225,739	310,339	315,196	342,669	411,227	381,779
Louisiana	40,500	54,800	87,536	146,323	182,659	256,133	318,556	298,514
Maine	100,392	103,115	98,364	97,697	106,955	115,885	130,461	131,520
Maryland	56,435	85,778	102,351	134,400	145,762	175,312	211,131	214,104
Massachusetts	201,750	233,127	273,910	366,136	444,090	519,905	622,240	657,631
Michigan	193,000	240,000	282,000	355,226	443,458	521,251	679,538	703,800
Minnesota	50,694	78,400	127,025	234,224	348,500	394,859	439,197	445,150
Mississippi	90,000	156,761	207,704	224,526	261,384	259,982	452,340	416,101
Missouri	187,024	281,000	384,627	460,012	490,390	531,221	595,305	599,622
Montana	1,100	3,000	10,596	26,300	41,314	91,744	97,931	98,615
Nebraska	14,300	60,156	146,139	181,874	191,076	232,515	262,228	267,833
Nevada	1,800	5,401	5,064	4,698	7,400	10,625	12,691	13,216
New Hampshire	48,150	48,966	41,526	47,276	50,101	53,245	61,599	62,573
New Jersey	86,812	115,194	133,286	207,947	324,239	476,261	573,849	589,835
New Mexico	880	3,150	13,000	22,433	37,389	59,442	67,026	67,727
New York	493,648	573,089	642,984	857,488	1,122,649	1,361,600	1,690,564	1,689,223
North Carolina	73,000	170,100	203,100	206,918	331,335	473,552	596,211	605,755
North Dakota	1,040	8,530	20,694	43,500	90,149	128,436	141,503	143,546
Ohio	432,452	476,279	549,269	616,365	648,544	808,712	1,040,802	1,072,923
Oklahoma	.....	.....	.....	63,718	278,650	355,998	527,341	444,349
Oregon	15,000	27,435	43,333	64,411	103,553	136,575	157,554	159,314
Pennsylvania	567,188	601,627	682,941	854,640	1,001,464	1,266,350	1,539,454	1,550,274
Rhode Island	22,485	27,217	33,905	47,124	61,487	73,387	111,621	93,147
South Carolina	44,700	90,600	147,799	201,295	243,901	331,451	335,334	345,402
South Dakota	.....	.....	48,327	68,000	80,032	98,907	133,115	138,388
Tennessee	89,000	208,528	323,548	338,566	363,953	547,503	461,180	453,229
Texas	41,000	132,000	291,941	438,779	544,691	745,667	858,830	1,031,772
Utah	12,819	17,178	20,967	50,595	69,246	97,745	114,695	115,186
Vermont	44,100	48,606	45,887	47,020	52,104	50,186	54,003	54,692
Virginia	77,402	128,404	198,290	216,464	259,394	351,171	422,695	424,693
Washington	3,300	10,546	36,946	74,717	156,064	211,239	257,267	262,661
West Virginia	51,336	91,604	121,700	151,254	189,900	256,479	331,673	307,250
Wisconsin	132,000	156,000	200,457	309,800	320,439	368,712	510,969	474,947
Wyoming	250	1,920	4,700	9,650	16,730	33,297	41,146	42,140

STATISTICS OF WHITE AND COLORED SCHOOL POPULATION IN THE SOUTH, 1925-1926.

State.	Population 5-17 Years.		Per Cent of School Pop.		Enrollment in Elem. and Secondary Sch.		Ratio of Enrollment to Sch. Pop.		No. of Teachers.	
	White.	Col.	Wh.	Col.	White.	Col.	Wh.	Col.	Wh.	Col.
Alabama	513,202	316,527	61.9	38.1	408,323	182,082	.796	.575	12,121	3,414
Arkansas	453,025	157,099	74.3	25.7	382,172	114,755	.843	.730	10,357	2,363
Delaware	46,630	7,535	86 1	13.9	33,170	6,127	.711	.813	1,204	205
District of Columbia	60,952	24,340	71.5	28.5	49,438	24,057	.811	.988	1,791	787
Florida	207,211	103,344	66.7	33.3	263,458	79,185	.....	.766	8,802	1,801
Georgia	575,401	424,868	57.5	42.5	448,137	241,093	.779	.567	12,947	4,934
Louisiana	359,623	223,920	61.6	38.4	264,129	130,878	.734	.584	8,632	2,379
Maryland	309,957	65,708	82.5	17.5	214,084	49,165	.691	.748	7,063	1,384
Mississippi	362,577	464,748	43.8	56.2	290,145	282,841	.800	.609	8,461	5,441
North Carolina	630,324	295,449	68.1	31.9	564,114	254,625	.895	.862	17,549	5,579
Oklahoma	648,430	72,518	90.0	10.0	601,130	47,816	.927	.659	17,257	1,362
South Carolina	282,292	330,550	46.1	53.9	248,562	234,707	.881	.710	8,618	4,228
Tennessee	608,952	133,665	82.0	18.0	533,993	119,833	.877	.897	14,379	2,721
Texas	1,291,956	246,562	84.0	16.0	1,011,364	198,763	.783	.806	33,466	4,474
Virginia	507,816	223,962	69.4	30.6	398,501	152,974	.785	.683	16,247	3,808
West Virginia	463,736	23,955	95.1	4.9	360,475	22,255	.777	.929	13,572	786
Total	7,322,084	3,114,750	70.2	29.8	6,071,195	2,141,206	0.829	0.687	192,466	45.666

SCHOOL ATTENDANCE, NATIVE AND FOREIGN-BORN, 1920.

Age Period.	All Classes.		Native White.				Foreign-Born White.		Negro.	
			Native Parentage.		For. or Mixed Parentage.					
	At'nd'ng.	P. C.	At'nd'g.	P. C.	At'nd'ng.	P. C.	At'ndn.	P C.	At'nd'ng.	P.C.
5 to 20 years, incl.	21,373,976	64.3	13,418,814	66.9	5,342,552	65.8	517,162	44.2	2,030,269	53.5
Male	10,663,547	64.1	6,716,784	66.6	2,679,286	66.0	264,332	45.8	969,066	52.4
Female	10,710,429	64.5	6,702,030	67.3	2,663,266	65.7	252,830	42.7	1,061,203	54.5
5 and 6 years	1,922,125	41.0	1,177,580	40.9	578,829	47.1	17,530	38.9	142,987	27.7
7 to 13 years	13,869,010	90.6	8,584,679	92.2	3,596,717	94.1	318,040	84.1	1,331,043	76.5
14 and 15 years	3,124,129	79.9	1,982,664	83.9	708,123	77.9	106,622	66.7	317,355	68.7
16 and 17 years	1,644,061	42.9	1,111,569	48.7	308,727	34.5	48,180	23.5	168,760	39.2
18 to 20 years	814,651	14.8	562,322	17.5	150,156	11.9	26,790	7 0	70,124	10.8

"Per cent." in the above table means per cent. of all children of that age and class.

PUBLIC PROPERTY USED FOR PUBLIC SCHOOL PURPOSES, 1925-26.

State.	Sites and Buildings.	All property.	State	Sites and buildings.	All property.	State.	Sites and Buildings.	All Property.
Cont. U. S.	*Dollars.* 3,567,213,562	*Dollars.* 4,676,603,539	Md.	*Dollars.* 38,675,854	*Dollars.*	S. C.	*Dollars.* 30,837,593	*Dollars.* 33,911 840
			Mass.	182,799,503	S. D.		22,126,660	26,246,471
Ala.	39,245,531	43,738,697	Mich.	240,017,020	Tenn.		33,984,164	40,432,610
Ariz.		12,131,560	Minn.	134,104,472	Tex.		124,759,727	145,543,621
Ark.	24,851,289	28,443,757	Miss.	35,816,310	Utah.		22,382,473	25,918,095
Cal.	294,921,379	328,428,349	Mo.		Vt.			9,757 365
Colo.	49,190,288	54,643,686	Mont.	23,582,738	Va.		45,800.000	54,850 000
Conn.		83,352,004	Neb.	58,200,257	Wash.		60,243,374	68,403,558
Del.		6,912,068	Nev.	3,941,296	W. Va.		56,133,129	61,733,333
D. C.	20,981,000	22,885,000	N. H.	14,586,595	Wis.		116,379,623	131,933,085
Fla.	49,678,083	53,370,802	N. J.	197,480,571	Wyo.		11,380,530	13,717,006
Ga.	37,574,124	40,876,957	N. M.	8,383,760	Alaska		1,000,000	1,120.000
Idaho	17,879,356	20,897,820	N. Y.	577,395,809	Amer. Samoa		33,000	35,000
Ill.	297,508,349	322,871,774	N. C.		Canal Zone			550,000
Ind.	145,840,048	155,313,649	N. D.		C. Z.			90,750
Iowa.	120,403,240	129,470,931	Ohio.	155,185,200	Guam		70,100	7,910,450
Kans.		74,382,427	Okla.	67,464,127	Haw'll		7,159,583	15,950,063
Ky.	30,476,667	35,359,705	Ore.		P. I.			5,600,000
La.	41,375,760	45,748,847	Penn.	382,257,245	P. R.		4,600,000	127,500
Me.	24,591,028	27,420,035	R. I.	21,059,580	V. I.		82,500	

PER CENT OF THE TOTAL POPULATION ENROLLED IN PUBLIC SCHOOLS.

State.	1870–71.	1879–80.	1889–90.	1899–1900.	1909–10.	1919–20.	1925–26.	State.	1870–71.	1879–80.	1889–90.	1899–1900.	1909–10.	1919–20.	1925–26.
Cont. U. S.	19 1	1 9.7	20.3	20.5	19.4	20.4	21.1	Mo.	18.7	22.3	23.2	23.2	21.5	19.8	20.7
								Mont.	7.5	10.9	12.9	16.2	17 6	23.1	16.8
								Neb.	16.6	20.5	22.7	27.0	23.7	24.1	23.6
Ala.	13.9	14.2	19.9	20.6	19.9	24.3	23.4	Nev.	7.0	14.5	16.1	15.8	11.1	18.2	20.3
Ariz.		10.4	13.4	13.4	15.4	22.9	18.2	N. H.	22.4	18.5	15.9	16.0	14.9	14.5	15.8
Ark.	13.7	10.2	19.8	24.0	25.3	27.6	26.1	N. J.	18.3	18.1	16.2	17.1	17.0	18.8	20.0
Cal.	15.6	18.4	18.4	18.2	15.5	20.3	23.6	N. M.	1.4	4.0	11.9	18.8	17.2	22.6	22.6
Col.	9.3	11.4	15.9	21.8	21.1	23.4	22.4	N. Y.	23.2	20.3	17.4	16.6	15.6	16.6	17.4
Conn.	20.8	19.2	17.0	17.0	17.3	18.9	20.0	N. C.	10.5	18.1	19.9	21.1	23.6	27.0	28.6
Del.	15.8	19.0	18.7	20.0	14.3	17.3	16.4	N. D.	9.3	10.2	19.5	24.3	24.2	26.0	27.0
D. of C.	11.2	14.9	16.0	16.7	16.9	14.9	13.9	Ohio.	26.5	22.8	21.7	19.9	17.6	17.7	19.0
Fla.	7.2	15.6	23.6	20.6	19.7	23.2	26.0	Okla.				25.0	25.5	29.1	27.7
Ga.	4.1	15.3	20.8	21.8	21.3	23.9	22.0	Ore.	21.6	21.5	20.2	21.6	17.6	19.3	20.7
Idaho.	5 6	17.9	17.0	22.7	23.4	26.7	22.5	Penn.	23.2	21.9	19.4	18.3	16.7	18.5	19.2
Ill.	26.0	22.9	20.3	19.9	17.8	17.4	18.5	R. I.	15.1	14.7	15.3	15.7	14.8	15.5	16.1
Ind.	26.3	25.9	23.4	22.4	19.7	19.3	20.3	S. C.	9.1	13.5	17.5	21.0	22.4	28.4	26.5
Iowa.	28.2	26.2	25.8	25.4	23.1	21.4	23.0	S. D.			23.7	24.6	21.6	23.1	23.9
Kan.	22.3	23.2	28.0	26.5	23.7	23.0	23.3	Tenn.	10 3	19.5	25.3	24.0	24.0	26.5	26.5
Ky.	13.2	16.7	21.5	23.2	21.7	22.2	22.8	Tex.	7.3	13.8	20.9	21.6	21.1	22.2	22.8
La.	7.7	8.3	10.8	14.2	16.0	19.7	20.6	Utah.	18.6	16.9	17.9	26.4	24.6	26.1	27.6
Me.	24.3	23.1	21.1	18.9	19.5	17.9	18.8	Vt.	19.8	22.6	19.7	19.2	18.7	17.5	18.2
Md.	14.6	17.4	17.7	18.7	18.4	16.7	16.7	Va.	10.5	14.6	20.7	20.0	19.6	21.9	21.9
Mass.	18.3	17.2	16.6	16.9	15.9	16.2	18.0	Wash.	18.6	19.7	16.0	22.2	19.0	21.5	21.4
Mich.	24.0	22.2	20.4	20.9	19.3	18.9	19.8	W. V.	16.9	23.1	25.3	24.2	22.8	23.7	22.9
Minn.	24.5	23.1	21.6	22.8	21.2	21.1	20.7	Wisc.	24.6	22.8	20.9	21.5	19.9	17.7	18.8
Miss.	13.7	20.9	25.9	24.9	26.1	23.1	32.0	Wyo.	4.6	14.0	11.6	15.7	16.9	22.2	21.2

COLORS OF ACADEMIC DOCTORS' HOODS.

Arts and letters	White	Music	Pink	Veterinary science	Gray
Theology	Scarlet	Commerce	Drab	Forestry	Russet
Law	Purple	Physical education	Sage green	Library science	Lemon
Philosophy	Blue	Public health	Salmon pink	Pedagogy	Light blue
Science	Golden yellow	Engineering	Orange	Oratory	Silver gray
Fine arts	Brown	Pharmacy	Olive green	Humanics	Crimson
Medicine	Green	Dentistry	Lilac		

These hoods are lined with the color, or colors, of the institution granting the degree. Where there are two colors, a chevron or band of the second is used.

Academic custom in this matter had become somewhat confused so in 1894 a commission representative of the leading colleges met and prepared a code which has been adopted by over seven hundred institutions in the United States and Canada.

Under its regulations the bachelor wears a gown of black worsted stuff with open or closed front and long, pointed sleeves, the Oxford style of gown being most popular in American colleges. The gown of the master is made with open front and preferably of silk. It has long, closed sleeves with squared ends falling well below the knees and a slit for the arms near the elbow. The gown worn by the doctor is also of silk and with the open front, but has full bell-shaped sleeves. The front is faced with velvet and on each sleeve are three bars of velvet, black or the color of the hood trimming.

The Oxford or mortarboard cap, worn for each degree, is of black cloth with black tassel, except that the doctor's cap may be of velvet with tassel of gold in whole or in part.

JULIUS ROSENWALD FUND.

The Julius Rosenwald Fund, in cooperation with 14 southern states, has aided in the building of 4,464 schools, 183 teachers' homes, and 82 shops for industrial training. These schools have a teacher capacity of 12,594 and a pupil capacity of 566,730. Their total cost was over $23,000,000.

The schools aided are a regular part of the public, tax supported school system. Contributions to their construction come from Negroes and white friends and from the county funds. The total cost as of July 1, 1929, of $23,182,238, was provided as follows: By public funds, $14,299,824; by Negroes, $4,220,746; by whites, $1,004,366; by the Julius Rosenwald Fund, $2,660,302.

The Julius Rosenwald Fund (incorporated in 1917 under the laws of the State of Illinois) has recently been reorganized with a self-perpetuating board of eleven trustees, and a staff of officers giving their full time to the work.

Edwin R. Embree is president of the Fund; Alfred K. Stern is director; and William B. Harrell is secretary-controller.

The capital of the Julius Rosenwald Fund as of June 30, 1929, is approximately $30,000,000.

Mr. Rosenwald in establishing the Fund, provided that capital as well as income may be spent at any time in the discretion of the Trustees, and that the entire Fund, both capital and income, must be spent within twenty-five years of his death.

Under the new organization the Fund is extending its activities to include other aspects of Negro education, and to aid in the distribution of medical services, especially to the man of moderate means, and in considering other general social problems.

STUDENTS IN AMERICAN UNIVERSITIES AND COLLEGES.

YEAR.	TOTAL NUMBER.		YEAR.	TOTAL NUMBER.		YEAR.	TOTAL NUMBER.	
	Men.	Women.		Men.	Women.		Men.	Women.
1889-90	44,926	20,874	1900-1901	75,472	38,900	1911-12	125,750	72,703
1890-91	46,220	22,036	1901-02	78,133	40,569	1912-13	128,644	73,587
1891-92	51,163	23,385	1902-03	82,394	42,731	1913-14	139,373	77,120
1892-93	55,305	24,632	1903-04	86,006	42,057	1914-15	152,307	84,861
1893-94	59,814	28,657	1904-05	92,161	45,562	1915-16	164,075	95,436
1894-95	62,053	29,739	1905-06	97,738	50,826	1917-18	142,768	111,345
1895-96	65,143	32,244	1907-07	96,575	53,125	1919-20	222,242	134,452
1896-97	64,662	32,472	1907-08	106,945	54,815	1921-22	269,560	168,262
1897-98	67,018	34,040	1908-09	119,480	62,997	1923-24	418,876	245,390
1898-99	67,505	35,746	1909-10	119,578	64,005	1925-26	509,732	313,163
1899-1900	72,159	37,770	1910-11	119,026	64,546	1927-28	563,244	356,137

In the school year 1927-28 there were 767,141 students in colleges and universities, of which number 280,437 were in public and 486,704 were in private institutions.

If to the above figures were added the students in junior colleges and teachers' colleges, the total would be 878,088.

Nearly one-half (46 per cent) of all college men, and 25 per cent of college women are earning a part at least of the cost of their tuition.

STUDENTS IN UNIVERSITIES, COLLEGES AND PROFESSIONAL SCHOOLS, 1925-26.

State.	Male.	Female	State.	Male.	Female	State.	Male.	Female	State.	Male.	Female
Cont.U.S.	508,714	312,338	Indiana	13,705	8,015	Nevada	575	338	S. Dakota	2,600	1,756
			Iowa	13,544	10,582	N. Hamp.	3,525	375	Tenn.	7,640	5,983
Alabama	5,260	3,208	Kansas	9,975	8,671	N. Jersey	5,945	828	Texas	16,508	17,698
Arizona	1,178	794	Kentucky	6,262	4,804	N. Mex.	985	274	Utah	3,493	2,967
Arkansas	2,610	2,142	Louisiana	5,140	3,552	N. York	71,202	36,568	Vermont	1,456	691
California	24,046	17,375	Maine	2,311	828	N. Car.	8,575	6,992	Virginia	8,748	5,508
Colorado	5,636	2,739	Maryland	10,170	4,702	N. Dak.	2,236	1,426	Wash.	8,033	5,072
Conn.	5,967	1,190	Mass.	30,693	13,915	Ohio	29,363	20,373	W. Va.	3,037	2,380
Delaware	376	293	Michigan	17,410	8,226	Okla.	6,592	6,151	Wis.	11,547	6,463
Dt.of Col.	9,530	4,081	Minn.	13,771	8,875	Oregon	6,142	4,019	Wyoming	613	527
Florida	2,456	2,281	Miss.	3,264	3,737	Penn.	44,558	19,478			
Georgia	8,270	5,985	Missouri	15,231	9,423	R. Island	2,575	720	Alaska	40	28
Idaho	1,793	1,531	Montana	1,921	1,151	S. Car.	4,473	5,683	Hawaii	389	294
Illinois	39,509	25,135	Nebraska	8,325	6,860				P'rtoRico	838	824

RECEIPTS OF UNIVERSITIES, COLLEGES AND PROFESSIONAL SCHOOLS.

(Including publicly controlled institutions; school year 1925-26; data by U. S. Bureau of Education.)

State.	Total.	State.	Total.	State.	Total.	State.	Total.	State.	Total.
	Dollars.		*Dollars.*		*Dollars.*		*Dollars.*		*Dollars.*
Ala.	3,700,569	Ill.	33,372,032	Miss.	4,222,135	Ohio	35,098,852	Va.	9,620,130
Ariz.	1,246,208	Ind.	11,373,055	Mo.	12,636,137	Okla.	4,793,460	Wash.	5,204,798
Ark.	2,316,535	Iowa	13,520,737	Mont.	1,538,187	Ore.	4,964,006	W. Va.	2,990,132
Calif.	22,911,588	Kan.	7,336,840	Neb.	5,630,055	Pa.	30,896,326	Wis.	10,582,553
Colo.	5,118,035	Ky.	5,704,497	Nev.	648,585	R. I.	2,602,957	Wyo.	1,120,472
Conn.	11,981,276	La.	4,698,826	N. H.	4,147,734	S. C.	5,156,695		
Del.	537,445	Me.	2,063,408	N. J.	3,744,559	S. D.	3,068,013	U. S.	476,260,680
D. of C.	5,051,792	Md.	13,662,791	N. M.	830,321	Tenn.	10,050,303	Alaska	257,217
Fla.	3,385,798	Mass.	41,580,460	N. Y.	60,023,710	Tex.	15,574,911	Hawaii	395,005
Ga.	6,983,897	Mich.	14,955,075	N. C.	9,040,499	Utah	2,105,738	Pt. Rico	785,724
Idaho	1,857,407	Minn.	13,125,117	N. D.	1,926,452	Vt.	1,559,571		

Total receipts included additions to endowments, amounting to $72,113,182.

Endowments of all kinds of schools in 1928 exceeded $1,130,000,000.

PROPERTY OF UNIVERSITIES, COLLEGES, AND PROFESSIONAL SCHOOLS, 1925-1926.

State.	Volumes in Library	Value of Grounds.	Buildings (Inc.D rm.)	State.	Volumes in Library	Value of Grounds.	Buildings (Inc.D'rm.)
	Number.	*Dollars.*	*Dollars.*		*Number.*	*Dollars.*	*Dollars.*
Continental U.S.	37,391,939	224,107,842	907,865,758	Nebraska	387,255	3,256,187	9,866,665
				Nevada	44,725	110,000	653,406
Alabama	257,674	1,385,228	6,870,649	New Hampshire	292,876	920,000	6,100,000
Arizona	70,000	515,000	1,634,500	New Jersey	994,643	2,525,620	7,021,276
Arkansas	138,985	515,523	3,520,135	New Mexico	65,017	296,000	1,580,135
California	1,847,482	10,034,581	35,746,521	New York	4,308,562	37,578,993	112,910,151
Colorado	438,722	1,473,926	10,521,843	North Carolina	520,288	4,061,022	21,315,549
Connecticut	2,162,330	1,402,038	45,064,463	North Dakota	144,248	356,246	3,116,931
Delaware	32,297	310,685	1,403,342	Ohio	2,226,858	14,880,079	46,308,196
Dist. of Columbia	786,111	1,933,613	19,876,458	Oklahoma	178,250	724,284	6,717,371
Florida	137,759	2,599,300	3,858,930	Oregon	362,304	1,913,319	6,897,100
Georgia	423,709	3,727,498	12,983,617	Pennsylvania	2,666,757	19,652,623	74,915,478
Idaho	112,567	279,750	1,922,100	Rhode Island	390,000	1,133,000	5,199,000
Illinois	2,696,196	16,948,889	53,176,368	South Carolina	364,391	4,363,345	12,439,372
Indiana	902,469	4,020,317	22,238,477	South Dakota	168,025	1,047,948	4,276,287
Iowa	972,628	5,286,703	22,050,012	Tennessee	428,353	4,384,578	15,440,206
Kansas	570,976	2,970,237	13,266,676	Texas	841,664	9,188,609	26,994,430
Kentucky	358,168	2,986,296	9,678,598	Utah	197,755	185,873	4,018,550
Louisiana	244,711	1,961,419	11,708,831	Vermont	208,716	170,195	3,646,628
Maine	347,602	177,104	5,012,195	Virginia	638,403	2,748,184	18,747,003
Maryland	691,606	4,426,417	48,040,556	Washington	407,411	2,221,840	8,045,274
Massachusetts	4,020,795	17,208,372	65,363,606	West Virginia	179,151	2,555,398	7,333,809
Michigan	1,071,931	9,823,145	28,874,152	Wisconsin	716,389	4,123,405	15,820,122
Minnesota	879,471	8,874,179	25,415,985	Wyoming	61,330	218,000	2,166,000
Mississippi	196,225	1,487,970	7,040,412	Alaska	7,279	2,338	180,665
Missouri	1,084,224	4,468,781	26,807,449	Hawaii	38,447	827,247	536,346
Montana	153,930	676,423	4,261,174	Porto Rico	16,300	55,900	356,350

Furniture and equipment were valued at $217,-791,187; dormitories alone, $158,502,786.

THE PULITZER SCHOOL OF JOURNALISM.

The School of Journalism at Columbia University, founded and endowed by the late Joseph Pulitzer, opened in September, 1912, and a year later entered its new building at 116th Street and Broadway. The Director is Dr. J. W. Cunliffe. There were 164 students in 1929-30. The school has a reference library of 15,000 books, a file of fifty daily papers (American and foreign) and a "morgue" of 700,000 newspaper clips, of which Dr. Talcott William's choice private collection was the basis.

Advisory Board—Nicholas Murray Butler, Columbia University, N. Y. City; Julian Harris (1927-1931). *Columbus (Ga.) Enquirer-Sun*; John Langdon Heaton, *The World*, N. Y. City; Arthur M. Howe (1927-1931), *Brooklyn Daily Eagle*; Robert Lincoln O'Brien (1927-1931); Frank R. Kent, *Baltimore Sun*; Kent Cooper, Associated Press, N. Y. City; Ralph Pulitzer, *The World*; Joseph Pulitzer jr., *The St. Louis Post-Dispatch*; Casper S. Yost (1926-1930), *The St. Louis Globe-Democrat*; Rollo Ogden (1926-1930), *The New York Times*; Alfred Holman (1926-1930), *The San Francisco Argonaut*; and Stuart H. Perry (1926-1930). *Adrian (Mich.) Daily Telegram*.

PULITZER PRIZES.

(Awarded, 1929, for work done in the year 1928.)

For the most disinterested and meritorious public service rendered by an American newspaper during the year—$500 gold medal to *The New York Evening World* for its effective campaign to correct certain evils in the administration of justice in New York City.

Previous awards: 1918, *The New York Times* for its publication in full of so many official reports, documents and speeches relating to the World War; 1919, *Milwaukee Journal* for its campaign for Americanism; 1920, no award; 1921, *The Boston Post* for its work in exposure of Get-Rich-Quick Ponzi; 1922, *The New York World* for its work in exposing the operations of the Ku Klux Klan; 1923, *The Memphis Commercial Appeal* for "its courageous attitude in the publication of cartoons and the handling of news in reference to the operations of the Ku Klux Klan"; 1924, *The New York World* for its work in connection with the exposure of the Florida peonage evil; 1925, no award; 1926, *The Enquirer-Sun*, Columbus, Ga.; 1927, *The Camden (O) Daily News*; 1928, *The Indianapolis Times*, for exposing political corruptions in Indiana.

For the best example of a reporter's work during the year, the test being strict accuracy, terseness, the accomplishment of some public good commanding public attention and respect—$1,000, to Paul Y. Anderson of *The St. Louis Post-Dispatch* for work in connection with the naval oil leases.

Previous awards: 1917, Herbert Bayard Swope, for his articles in *The New York World* on conditions in the German Empire during the World War, Oct. 10, Oct. 15, and from Nov. 4 daily until Nov. 22 of that year; 1918, Harold A. Littledale, *New York Evening Post*, for articles leading to reforms in the New Jersey prison system; 1919, no award; 1920, John J. Leary jr. for his articles in *The New York World* during the national coal strike in the winter of 1919; 1921, Louis Seibold, *The New York World*, for his interview with President Wilson, published June 18, 1920; 1922, Kirke L. Simpson of the Washington staff of the *Associated Press* for his articles on the burial of the Unknown Soldier; 1923, Alva Johnston for his reports on the proceedings of the convention of the American Association for the Advancement of Science held in Cambridge, published in *The New York Times*, Dec. 27-30, 1922; 1924, Magna White, for his story of the eclipse of the sun in the *San Diego Sun*, Sept. 10 1923; 1925, in duplicate to James W. Mulroy and Alvin H. Goldstein of the *Chicago Daily News* for work in solving the Franks murder case; 1926, William Burke Miller, of the *Louisville Courier-Journal*, for work on the trapping in Sand Cave of Floyd Collins; 1927, John T. Rogers of the *St. Louis Post-Dispatch* for inquiry leading to the impeachment of U. S. Judge English; 1928. No award.

For the best example of correspondence during the year—$500 to Paul Scott Mowrer of *The Chicago Daily News*.

For the American novel published during the year, preferably one which shall best present the whole atmosphere of American life—$1,000 to Julia Peterkins author of *Scarlet Sister Mary*.

Previous awards: 1918, to Ernest Poole, *His Family*; 1919, Booth Tarkington, *The Magnificent Ambersons*; 1920, no award; 1921; to Edith Wharton, *The Age of Innocence*. 1922, to Booth Tarkington, *Alice Adams*; 1923, to Willa Cather, *One of Ours*; 1924, Margaret Wilson, *The Able McLaughlins*; 1925, Edna Ferber, *So Big*; 1926, to Sinclair Lewis, *Arrowsmith* (he declined the prize); 1927, Louis Broomfield, *Early Autumn*; 1928, Thornton Wilder, *The Bridge of San Luis Rey*.

For the best book of the year upon the history of the United States—$2,000 to Fred Albert Shannon, author of *The Organization and Administration of the Union Army*, 1861-1865.

Previous awards: 1917, to His Excellence J. J. Jusserand, the French Ambassador, *With Americans of Past and Present Days*; 1918, James Ford Rhode, *A History of the Civil War*; 1919, no award; 1920, to Justin H. Smith, *The War With Mexico*; 1921, to Rear Admiral William Snowden Sims, *The Victory at Sea*; 1922, to James Truslow Adams, *The Founding of New England*; 1923, to Charles Warren, *The Supreme Court in United States History*; 1924, Charles Howard McIlwain, *The American Revolution*; *a Constitutional Interpretation*; 1925, Frederick L. Paxson, *A History of the American Frontier*; 1926, Edward Channing, *History of the United States*, Vol. VI; 1927, Samuel Flagg Bemis, *Pickney's Treaty*; 1928, Vernon Louis Parrington, *Main Currents in American Thought*.

For the best American biography teaching patriotic and unselfish services—$1,000 to Burton J. Hendrick, author of *The Training of an American, the Earlier Life and Letters of Walter H. Page*.

Previous awards: 1917, to Laura E. Richards and Maude Howe Elliott, assisted by Florence Howe Hall, *Julia Ward Howe*; 1918, William Cabell Bruce, *Benjamin Franklin, Self-Revealed*; 1919, to Henry Adams (post-obit), *The Education of Henry Adams*; 1920, to Albert J. Beveridge, *The Life of John Marshall*; 1921, to Edward Bok, *The Americanization of Edward Bok* (autobiography); 1922, to Hamlin Garland, *A Daughter of the Middle Border*; 1923, to Burton J. Hendrick, *The Life and Letters of Walter H. Page*; 1924, Prof. Michael Pupin, *From Immigrant to Inventor*; 1925, M. A. DeWolfe Howe, *Barrett Wendel and His Letters*; 1926, Dr. Harvey Cushing, *The Life of Sir William Osler*; 1927, Emory Holloway, *Whitman*; 1928, Charles Edward Russell, *The American Orchestra and Theodore Thomas*.

For the original American play performed in New York which shall best represent the educational value and power of the stage (produced up to April 1, 1929) —$1,000 to Elmer L. Rice, author of *Street Scene*.

Previous awards: 1918, to Jesse Lynch Williams, *Why Marry?*; 1919, no award; 1920, Eugene O'Neill, *Beyond the Horizon*; 1921, Miss Zona Gale, *Miss Lulu Bett*; 1922, to Eugene O'Neill, *Anna Christie*; 1923, to Owen Davis, *Icebound*; 1924, Hatcher Hughes, *Hell-Bent fer Heaven*; 1925, Sidney Howard, *They Knew What They Wanted*; 1926, George Kelly, *Craig's Wife*; 1927, Paul Green, *In Abraham's Bosom*; 1928, Eugene O'Neill, *Strange Interlude*.

For the best editorial article written during the year, the test of excellence being clearness of style, moral purpose, sound reasoning and power to influence public opinion in what the author conceives to be the right direction—$500 awarded to Louis Isaac Jaffe of *The Norfolk Virginian-Pilot*.

Previous awards: 1917, to an editorial in *The New York Tribune* on the first anniversary of the sinking of the *Lusitania*; 1918, to the Louisville (Ky.) *Courier-Journal*, for the editorial article *Vae Victis*, by Henry Watterson; 1919, no award; 1920, to Harvey E. Newbranch of *The Evening World-Herald*, Omaha, Neb., for *Law and the Jungle*: 1921, no award; 1922, to Frank M. O'Brien for an article entitled *The Unknown Soldier*, printed in *The New York Herald*, Nov. 11, 1921; 1923, to William Allen White for *To an Anxious Friend*, printed in *The Emporia (Kan.) Gazette*; 1924, *The Boston Herald*, *Who Made Coolidge?*; 1925, the *Charleston (S. C.) News and Courier* for *The Plight of the South* (written by Robert Latham); 1926, the *New York Times* for *The House of a Hundred Sorrows* (written by Edward M. Kingsbury); 1927, the *Boston Herald*, for *We Submit* (written by F. Lauriston Bullard); 1928, Grover C. Hall of the *Montgomery (Ala.) Advertiser* for his editorials on gangism, flogging and racial and religious intolerance.

For the best cartoon published in any American newspaper during the year, the determining qualities being that the cartoon shall embody an idea made clearly apparent, shall show good drawing and striking pictorial effect, and shall be helpful to some commendable cause of public importance—$500 awarded to Rollin Kirby, *The New York World*.

Previous awards: 1922, to Rollin Kirby of *The New York World*; 1923, no award; 1924, J. N. Darling, *The New York Tribune*; 1925, Rollin Kirby, *The New York World*; 1926, D. R. Fitzpatrick, *The St. Louis Post-Dispatch*; 1927, Nelson Harding, *The Brooklyn Eagle*; 1928, Nelson Harding, *The Brooklyn Eagle*.

For the best book of verse by an American author—$1,000 to Stephen Vincent Benet, for *John Brown's Body*.

Previous awards: 1922, Edwin Arlington Robinson; 1923, Edna St. Vincent Millay; 1924, Robert Frost; 1925, Edwin Arlington Robinson; 1926, Amy Lowell; 1927, Leonora Speyer; 1928, Edwin Arlington Robinson.

COLLEGE COLORS.

Name.	Colors.
Adelphi	Brown and Gold.
Adrian	Canary and Black.
Akron Municipal Univ	Navy Blue and Old Gold.
Alabama, Univ. of	Crimson and White.
Alabama, Woman's Col. of	Red and Gray.
Albany Col.—Oregon	Orange and Black.
Albion College	Purple and Gold.
Albright College	Red and White.
Alfred Univ	Roy. Pur. & Old Gold.
Allegheny College	Navy Blue and Old Gold.
Alma College	Maroon and Cream.
American Univ	Red, White and Blue.
Amherst	Purple and White.
Antioch College	Old Gold and Blue.
Arizona, Univ. of	Blue and Red.
Arkansas College	Red and White.
Arkansas, Univ. of	Cardinal.
Armour Inst. of Tech	Yellow and Black.
Asbury College	Purple and White.
Ashland College	Purple and Gold.
Atlanta Univ	Gray and Crimson.
Atlantic Christian Col	Blue and White.
Aurora	Royal Blue and White.
Austin	Crimson and Gold.
Baker Univ	Cadmium Orange.
Baldwin-Wallace College	Brown and Gold.
Barnard College	Light Blue and White.
Bates College	Garnet.
Baylor (fem.) College	Purple, White and Gold.
Baylor Univ	Green and Gold.
Beaver College	Scarlet and Gray.
Beloit College	Gold and Black.
Benedict College	Purple and Gold.
Berea College	Cream and Blue.
Bessie Tift	Blue and Gold.
Bethany Col. (W. Va.)	White and Green.
Bethany Col. (Kan.)	Blue and Yellow.
Bethel Col., Newton, Kan.	Maroon and Gray.
Blue Mountain College	Dark Blue, Red and Gold and Yellow.
Blue Ridge College	Red and White.
Bluffton College	Purple and White.
Boston College	Maroon and Old Gold
Boston Univ	Scarlet and White.
Bowdoin	White.
Bradley Poly Inst	Maroon and White
Brenau College	Orange and Black.
Bridgewater College	Crimson and Gold.
Brown Univ	Brown.
Bryn Mawr	Yellow and White.
Bucknell Univ	Orange and Blue.
Buena Vista	Salmon and Black.
Buffalo Univ	White and Blue.
Cal. Inst. of Tech	Orange and White.
California, Univ. of	Blue and Gold.
Campion College	Red and Black.
Canisius College	Blue and Gold.
Carleton College	Maize and Yale Blue.
Carnegie Inst. Tech	Plaid.
Carroll College	Orange and White.
Carson and Newman Col.	Orange and Blue.
Carthage College	Maroon.
Case School Ap. Science	Brown and White.
Catholic Univ. of America	Red and Black.
Catholic Univ. of Okla	Crimson and Blue.
Cedar Crest College	White and Gold.
Cedarville College	Orange and Blue.
Centenary College	Maroon and White.
Central College, Fayette, Missouri	Nile Green and Black.
Central Baptist College	Brown and Gold.
Central Wesleyan Col	Navy Blue and White.
Centre College	Gold and White.
Charleston, Col. of	Maroon and White.
Central Holiness	Old Rose and Silver.
Chattanooga, Univ. of	Old Gold and Blue.
Chicago, Univ. of	Maroon.
Chicora Col. for Women	Royal Blue and White.
Chicinnati Univ	Red and Black.
Citadel, The	Blue and White.
City of N. Y., Col. of	Lavender and Black.
Clark Univ	Green and White.
Clarkson Col. of Tech	Old Gold and Green.
Coe College	Crimson and Gold.
Coker College	Blue and Gold.
Colby	Blue and Gray.
Colgate Univ	Maroon.
Colorado College	Black and Gold.
Colorado Sch. of Mines	Silver and Blue.
Colorado, Univ. of	Silver and Gold.
Colorado Woman's	Green and White.
Columbia College	Purple and Gold.
Columbia Univ	Light Blue and White.
Concordia College	Maroon and Gold.
Connecticut (fem.)	Blue and White.
Converse College	Royal Purple and Gold.
Cornell College	Purple and White.
Cornell Univ	Carnelian and White.
Cotner	Blue and White.
Cox Col. and Conserv't'y	Red and White.
Creighton University	Blue and White.
Culver-Stockton College	Blue and White.
Cumberland University	Maroon and White.
Dakota Wesleyan Univ	Blue and White
Dallas, University of	Purple and Gold.
Dana College	Crimson and White.
Daniel Baker College	Blue and White.
Dartmouth College	Dark Green.
Davidson College	Red and Black.
Davis & Elkins College	Maroon and White.
Dayton, University of	Red and Blue.
Defiance College	Purple and Gold.
Denison University	Dark Red and White.
Denver University	Red and Gold.
De Paul University	Blue and Red.
De Pauw University	Old Gold and Black.
Des Moines University	Orange and Black.
Detroit University	Red and White.
Dickinson College	Red and White.
Doane College, Nev	Orange and Black.
Drake University	Blue and White.
Drexel Inst	Gold.
Dropsie College	Blue and Yellow.
Drury College	Scarlet and Gray.
Dubuque, Univ. of	Blue and White.
D'Youville College	Red and White.
Earlham College	Yellow and Cream.
Eastern College	Green and White.
Elisworth College	Purple and Old Gold.
Elmira College	Purple and Gold.
Elon College	Maroon and Gold.
Emory Univ	Gold and Blue.
Emory and Henry Col	Lemon and Blue.
Emmanuel College	Blue and Gold.
Emmanuel Missionary	Green and White
Emporia, College of	Crimson and White.
Erskine College	Old Gold and Maroon.
Eureka College	Maroon and Gold.
Evansville College	Purple and White.
Fairmount	Black& Sunflower Yellow.
Fargo College	Blue and Gold.
Findlay College	Orange and Black.
Fisk University	Gold and Blue.
Flora MacDonald Col	Blue and White.
Florida, Univ. of	Orange and Dark Blue.
Florida (fem.)	Garnet and Gold.
Fordham University	Maroon.
Franklin College (Ind.)	Navy Blue and Old Gold.
Franklin & Marshall Col	Blue and White.
Friends University	Scarlet and Gray.
Furman University	Purple and White.
Gallaudet	Buff and Blue.
Galloway College	Blue and Gold.
Geneva College	Old Gold and White.
George Wash. Univ	Buff and Blue.
Georgetown Col. (Ky.)	Orange and Black.
Georgetown Univ. (D.C.)	Blue and Gray.
Georgia School of Tech	Old Gold and White.
Georgia, University of	Red and Black.
Gettysburg College	Orange and Blue.
Gonzago University	Blue and White.
Gooding College	Purple and White.
Goshen College	White and Purple.
Goucher College	Blue and Gold.
Grand Island College	Orange and Blue.
Grand View College	Purple and Gold.
Greensboro College	Light Green and White.
Greenville College	Orange and Black.
Greenville Women's	Light Blue and Gold.
Grenada	Black and Gold.
Grinnell College	Scarlet and Black.
Grove City College	Crimson.
Guilford College	Crimson and Gray.
Gustavus Adolphus Col	Ebony and Gold.
Hamilton College (N.Y.)	Buff and Blue.
Hamline University	Red and Gray.
Hampden-Sidney College	Garnet and Gray.
Hanover College	Red and Blue.
Harvard University	Crimson.
Hastings College	Red and White.
Haverford College	Scarlet and Black.
Hawaii, University of	Green and White.
Hedding College	Orange and Blue.
Heidelberg University	Black, Orange and Red.
Henderson-Brown Col	Red and Gray.
Highland College	Yellow and Green.
Hillsdale College	Ultramarine Blue.
Hiram College	Cherry Red and Sky Blue.
Hobart College	Orange and Purple.
Hollins College	Green and Gold.
Holy Cross	Purple.
Hood College	Blue and Gray.
Hope College	Orange and Blue.
Howard College	Crimson and Blue.
Howard University	Blue and White.
Hunter College	Lavender and White.

Name.	Colors.
Huron College	Purple and Gold.
Idaho, College of	Purple and Old Gold.
Idaho, University of	Silver and Gold.
Illinois, University of	Orange and Blue.
Illinois Wesleyan Univ	Olive Green and White.
Illinois Woman's Col	Yellow and Blue
Indiana Central	Cardinal and Gray.
Indiana University	Crimson and Cream.
International Y.M.C.A.	Maroon and White.
Iowa State University	Old Gold.
Iowa Wesleyan Univ	White and Purple.
Irving (fem.) College	Blue and Gold.
Jamestown College	Black and Orange.
Jefferson College	Blue and Gold.
Jewell, Wm., College	Red and Black.
John B. Stetson Univ	Green and White.
Johns Hopkins Univ	Black and Gold Gold.
Judson College	Red and Black.
Juniata College	Blue and Gold.
Kalamazoo College	Orange and Black.
Kansas City University	Purple and Gold.
Kansas, University of	Crimson and Blue.
Kansas Wesleyan Univ	Purple and Gold.
Kentucky, University of	Blue and White.
Kentucky Wesleyan Col	Purple and White.
Kenyon College	Purple.
King College	Maroon and Blue.
Kingfisher College	Green and White.
Knox College	Purple and Gold.
Knoxville College	Garnet and Blue.
Lafayette College (Pa.)	Maroon and White.
La Grange College	Red and Black.
Lake Erie College	Dark Green and White.
Lake Forest College	Ruby Red and Black.
Lander College	Blue and Gold.
La Salle College	Blue and Gold.
Lawrence College	White and Yale Blue.
Lebanon Valley College	Navy Blue and White.
Lehigh University	Seal Brown and White.
Lenoir College	Garnet and Black.
Lincoln College	Violet and White.
Lincoln Memorial Univ	Blue and Gray.
Lincoln University	Orange and Blue.
Lindenwood College	Gold and White.
Linfield College	Cardinal and Purple.
Little Rock College	Purple and White.
Livingston College	Black and Sky Blue.
Lombard College	Olive Green & Old Gold.
Loretto College	Gold and White.
Louisiana Col. (Pineville)	Orange and Navy Blue.
Louisville University	Scarlet and Black.
Lowell Textile School	Red and Black.
Loyola (Balt.) College	Green and Gray.
Loyola Univ., Chicago	Crimson and Gold.
Luther College	Blue and White.
Macalester College	Royal Blue and Gold.
McKendree College	Purple and White.
McPherson College	Crimson and White.
Manchester College	Black and Gold.
Maine, University of	Light Blue.
Manhattan College	Green and White.
Marietta College	Navy Blue and White.
Marion Inst.	Gold and Black.
Marquette University	Blue and Gold.
Maryland University	Sable and Gold.
Maryville College	Orange and Garnet.
Marywood College	Green and White.
Mass. Inst. of Tech	Cardinal and Gray.
Meredith (fem.) College	Maroon and White.
Miami University	Red and White.
Michigan Co. I. of Mines	Green.
Michigan, University of	Maize and Azure.
Middlebury College	Blue and White.
Midland College	Orange and Black.
Milliken, James, Univ	Navy Blue and White.
Mills College	Gold and White.
Millsaps College	Purple and White.
Milton College	Brown and Blue.
Milwaukee-Downer Col	Yale Blue.
Minnesota, Univ. of	Gold and Maroon.
Mississippi College	Yellow and Blue.
Miss. State Col., Women	Yellow and White.
Mississippi, Univ. of	Red and Blue.
Missouri, University of	Black and Old Gold.
Missouri Valley College	Purple and Orange.
Missouri Wesleyan	Red and Black.
Monmouth College	Red and White.
Montana State Univ	Copper, Silver, Gold.
Mont. State Sch. of Mines	Copper and Green.
Moravian C. & S. (fem.)	Purple and Gold.
Morgan (Col.) College	Orange and Navy Blue.
Morris Brown U. (col.)	Purple and Black.
Mount Holyoke College	Blue.
Mount St. Charles Col	Purple and Gold.
Mount St. Joseph College (Dubuque)	Purple, White and Gold.
Mount St. Joseph's Col., (Balt.)	Purple and Cream.
Mount St. Mary's (Plainfield, N. J.)	Light Blue and Gold.

Name.	Colors.
Mount St. Mary's (Emmitsburg, Md.	Blue and White.
Mt. St. Vincent, C. of	Gold and White.
Mount Union College	Royal Purple.
Muhlenberg College	Cardinal and Gray.
Municipal Un. of Akron	Navy Blue & Old Gold.
Muskingum College	Black and Magenta.
Nebraska, Univ. of	Scarlet and Cream.
Neb. Wesleyan Univ	Yellow and Brown.
Nevada, University of	Silver and Royal Blue.
Newcomb, H. S., Mem	Bronze and Blue.
New Hampshire State	Blue and White.
New Jersey Col., Women	Red and Black.
N. M. State School of Mines	Gold and Silver.
N. Mexico, State Univ. of	Cherry and Silver.
New Rochelle, College of	Blue and White.
N. Y. State College of Forestry	Orange.
New York University	Violet.
Niagara University	Purple and White.
No. Car. Woman's	Gold and White.
No. Carolina, Univ. of	White and Blue.
North Dakota Univ	Rose, Pink and Green.
Northeastern University, (Boston)	Black and Red.
Northland College	Orange and Blue.
Northwestern Col. (Ill.)	Royal Purple.
Northwestern (Wis.)	Black and Red.
Northwestern University (Chicago)	Royal Purple.
Norwich University	Maroon and Gold.
Notre Dame (Ind.) U. of	Gold and Blue.
Notre Dame (Md.)	Dark Blue and White.
Oakland City College	Blue and White.
Oberlin College	Crimson and Gold.
Occidental College	Orange and Black.
Ohio Northern Univ	Orange and Black.
Ohio State University	Scarlet and Gray.
Ohio, University of	Olive Green and White.
Ohio Wesleyan Univ	Scarlet and Jet.
Oklahoman Bapt. Univ	Green and Gold.
Oklahoma City College	White and Gold.
Oklahoma, Col., Women	Green and Gold.
Oklahoma, University of	Crimson and Cream.
Olivet College	Crimson.
Omaha University	Black and Maroon.
Oregon, Univ. of	Green & Lemon Yellow.
Ottawa University	Wheat Yellow and Black.
Otterbein College	Cardinal and Tan.
Ouachita College	Purple and Gold.
Oxford (female) College	Light Blue and Gold.
Ozarks, College of the	Purple and Gold.
Pacific, College of the	Orange and Black.
Pacific College (Ore.)	Old Gold and Navy Blue.
Pacific Union	Green and Yellow.
Pacific University	Crimson and Black.
Park College	Canary and Wine.
Parsons College	Old Rose and Green.
Payne, Howard	Navy Blue and Old Gold.
Penn College, Oscaloosa, (Iowa)	Old Gold and Blue.
Pa. Col. for Women	Purple and White.
Penn. Military College	Red, White and Yellow.
Penn. State College	Navy Blue and White.
Pennsylvania, Univ. of	Red and Blue.
Philippines, Univ. of	Red and Green.
Piedmont College	Green and Gold.
Pittsburgh, Univ. of	Blue and Gold.
Polytechnic Institute of Brooklyn	Blue and Gray.
Pomona College	Blue and White.
Porto Rico, Univ. of S. C.	Red and White.
Presbyterian College of S. C.	Garnet and Blue.
Princeton University	Orange and Black.
Providence College	White and Black.
Puget Sound	Maroon and White.
Purdue, University	Old Gold and Black.
Queens College	Dark and Light Blue.
Radcliffe College	Crimson and White.
Randolph-Macon College	Lemon and Black.
Randolph-Macon (fem.)	Black and Lemon.
Redlands University	Maroon and Silver Gray.
Reed College	Richmond Red.
Regis College	Brown and Gold.
Rensselaer Poly Inst	Cherry-White.
Rhode Island State Col	Blue and White.
Rice Inst.	Blue and Gray.
Richmond, Univ. of	Navy Blue and Crimson.
Ripon College	Crimson.
Roanoke College	Maroon and Gray.
Robert College	Blue and Crimson.
Rochester University	Yellow.
Rockford	Purple and White.
Rock Hill	Blue and White.
Rose Poly. Inst.	Rose and White.
Rollins College	Blue and Gold.
Russell Sage College	Dark Green and White.
Rutgers College	Scarlet.
Sacred Heart, Col. of	Red and White.

NAME.	Colors.
St. Ambrose	Blue and White.
St. Bernard	Blue and White.
St. Bonaventura's	Brown and White.
St. Catherine	Purple and Gold.
St. Elizabeth	Blue and Gold.
St. Francis' Col., Bklyn.	Red and Blue.
St. Francis Xavier (Chic.)	Scarlet and Gray.
St. Francis Xavier (N.Y.)	Maroon and Blue.
St. Genevieve's C. & A.	White and Gold.
St. Ignatius (Cal.)	Red and Blue.
St. Ignatius (Ohio)	Blue and Gold.
St. John's Bklyn)	Maroon and White.
St. John's, (Md.)	Black and Old Gold.
St. John's, Univ.	Cardinal and Blue.
St. Joseph (Philadelphia)	Crimson and Gray.
St. Lawrence Univ.	Scarlet and Brown.
St. Louis Univ	Blue and White.
St. Mary's (Oakl'd, Cal.)	Blue and Gold.
St. Mary's, Kan	Blue and White.
St. Mary's College	Green and White.
St. Mary's School	Blue and White.
St. Mary's C.&A. (Wa.)	Blue and White.
St. Mary of the Woods	Blue and White.
St. Michaels	Purple and Gold.
St. Olaf	Old Gold and Black.
St. Peter's	Maroon and White.
St. Stephen's College	Scarlet.
St. Teresa	White and Gold.
St. Thomas, Col. of	Purple and Gray.
St Viator's College	Purple and Gold.
St. Vincent C. & S.	Gold and Green.
St. Xavier	Blue and White.
Salem, A.&C.(Winst'n-S.)	Yellow and White.
Salem Col. (W. Va.)	Olive Green and White.
Santa Clara Univ.	Red and White.
Scott, Agnes	Purple and White.
Seton Hall College	Blue and White.
Seton Hill C. for women	Scarlet and Gold.
Shorter College	White and Gold.
Silliman Collegiate Inst.	White and Gold.
Simmons C., Abilene, Tex.	Purple (Royal) and Gold.
Simmons (Mass.)	Blue and Gold.
Simpson College	Red and Gold.
Sioux Falls College	Purple and White.
Skidmore Sch. of Arts	Yellow and White.
Smith College	White and Gold.
South. Univ. of	Purple and Gold.
So. Carolina, Univ. of	Garnet and Black.
So. Dakota, Univ. of	Vermilion or Scarlet.
Southern Cal., Univ. of	Gold.
Southern Meth. Univ.	Har. Red and Yale Blue.
Southwestern, College	Purple and White.
Southwestern Univ., Tex.	Canary and Black.
Southwest'n Pres. Univ.	Cardinal and Black.
Stanford Univ.	Cardinal.
Sterling College	Blue and Red.
Stetson, John B. & Univ.	Green and White.
Stevens Inst. of Tech	Silver Gray and Cardinal.
Susquehanna Univ.	Orange and Maroon.
Swarthmore College	Garnet.
Sweet Briar College	Rose and Green.
Syracuse Univ.	Orange
Tabor College	Cardinal and White.
Talladega College	Crimson and Azure Blue.
Tarkio College	Purple and Cream.
Taylor Univ	Purple and Gold.
Teachers' College	Light Blue and White.
Temple Univ.	Cherry and White.
Tennessee, Univ. of	Orange and White.
Texas Christian Univ.	Purple and White.
Texas Presbyterian Col.	Presbyterian Blue.
Texas, Univ. of.	Orange and White.
Thiel College	Blue and Gold.
Toledo, Univ. of City	Blue and Gold.
Transylvania College	Crimson.
Trinity College (N. C.)	Navy Blue.
Trinity (Hartford)	Old Gold and Dark Blue.
Trinity Col., Wash., D. C.	Purple and Gold.
Trinity Univ.	Maroon and White.
Tufts College	Brown and Blue.
Tulane Univ.	Olive and Blue.
Tulsa U., for. H. Kendall	Orange and Black.
Tusculum College	Princeton Orange & Blk.
Union College (Neb.)	Red and Black.
Union College (N. Y.)	Garnet.
Union Christian	Purple and Gold.
Union U. (Jackson, Tenn)	Cardinal and Cream.
Ursinus College	Red, Old Gold & Black.
U. S. Military Acad.	Black, Gold and Gray.
U. S. Naval Acad.	Blue and Gold.
Upper Iowa Univ.	Peacock Blue and White.
Utah, Univ. of	Crimson and Silver.
Valparaiso Univ	Old Gold & Bright Brown.
Vanderbilt Univ.	Black and Gold.
Vassar	Rose and Gray.
Vermont, Univ. of	Green and Gold.
Villanova College	Navy Blue and White.
Virginia Military Inst.	Red, White and Yellow.
Va. Theo. Sem. & Col.	Blue and White.
Virginia, Univ. of	Orange and Blue.
Wabash College	White and Scarlet.
Wake Forest College	Old Gold and Black.
Wartburg College	Orange and Black.
Washburn College	Yale Blue.
Wash. Col. in Sta. of Md.	Maroon and Black.
Washington Missionary	Blue and White.
Washington State Col.	Crimson and Gray.
Washington, Univ. of	Purple and Gold.
Wash. U. (St. Louis)	Red and Green.
Wash. & Jefferson Col.	Red and Black.
Washington & Lee Univ.	Blue and White.
Waynesburg College	Orange and Black.
Wellesley College	Deep Blue.
Wells College	Cardinal and White.
Wesleyan Col. for women.	Lavender and Purple.
Wesleyan U. Middlet'n,C.	Cardinal and Black.
Western (fem.) C., Oxf., O.	Blue.
Western Maryland Col.	Green and Gold.
Western Reserve Univ.	Red and White.
Western Union College	Maroon and Old Gold.
Westminster Col., Pa.	Blue and White.
Westminster Col., Mo.	Royal Blue.
West Virginia Univ.	Old Gold and Blue.
West Virginia Wesleyan.	Orange and Black.
Wheaton College, Norton, Mass.	Blue and White.
Wheaton College	Orange and Black.
Whitman College	Blue and Gold.
Whitworth (fem.)	Crimson and Black.
Willamette Univ.	Cardinal and Gold.
William & Mary Col.	White and Orange.
Williams College	Royal Purple.
Wilmington College	(Lisle) Green and White.
Wilson College	Silver and Blue.
Winthrop College	Garnet and Gold.
Wisconsin, Univ. of	Cardinal.
Wittenberg	Cream and Cardinal.
Wofford College	Old Gold and Black.
Wooster, Univ. of	Black and Old Gold.
Worcester Poly.	Crimson and Steel Gray.
Wyoming, Univ. of	Brown and Yellow.
Yale Univ.	Blue.
Yankton College	Yellow and White.
York College	Blue and White.

CANADIAN COLLEGES.

Acadia University	Garnet and Blue.
Alberta University	Green and Gold.
British Columbia Univ.	Blue and Gold.
Dalhousie University	Black and Gold.
McGill University	Red and White.
McMaster University	Silver Gray and Maroon.
Toronto, Univ. of	Royal Blue and White.
MacDonald College	Green and Yellow.
Manitoba	Purple and White.
Mount Allison	Garnet and Gold.
New Brunswick Univ.	Red and Black.
Queen's University	Red, Yellow and Blue.
Saskatchewan Univ.	Green and White.

AGRICULTURAL AND MECHANICAL SCHOOLS.

Alabama Poly Inst.	Orange and Blue.
Clemson Agric. Col.	Purple and Orange.
Colorado Agric. Col.	Green and Gold,
Connecticut Agric. Col.	Blue and White.
Georgia State C. of A.	Red and Black.
Iowa St. C. of A.&M.A.	Cardinal and Gold.
Kansas State Agric. Col.	Royal Purple.
Kentucky Nor. & Ind. C.	Green and Gold.
Louisiana St. A. & M. C.	Old Gold and Purple.
Maryland State Col.	Sable and Gold.
Mass. Agric. Col.	Maroon and White.
Michigan Agric. Col.	Green and White.
Montana State Col.	Blue and Gold.
Negro Agric. & Tech.	Blue and Gold.
New Hampshire Col.	Blue and White.
N. M. C. of A. & M. A.	Crimson and White.
N. Y. State Institute	Green and White.
N. C. A. & Eng. (State)	Red and White.
North Dakota Agric.	Green and Yellow.
Oklahoma A. & M.	Orange and Black.
Oregon State Agric.	Orange and Black.
Rhode Island State Col.	Blue and White.
S. Dakota St. Sch. of M.	Silver and Gold.
S. Dakota State Col.	Yellow and Blue.
Tarleton, John, Agric.	Purple and White.
Texas A. and M. C.	Red and White.
Tuskegee Institute	Crimson and Gold.
Utah Agric. Col.	Blue and White.
Virginia Nor. & Ind. Inst.	Orange and Blue.
Virginia Poly. Inst.	Orange and Maroon
Washington State Col.	Crimson and Gray.
Winthrop N. & I. Col.	Garnet and Gold.

COLLEGES WITH $2,000,000 ENDOWMENT OR OVER.

Instituiton.	Location.	Amount. *Dollars.*	Institucion.	Location.	Amount. *Dollars.*
Amherst College	Amherst, Mass	7,500,000	Mt. Holyoke College	So. Hadley, Mass	4,022,344
Beirut, Am. Univ. of	Beirut, Syria	2,028,553	New York Univ	New York, N. Y.	6,662,864
Beloit College	Beloit, Wis.	2,677,252	No. Dak. Agri. Coll.	Fargo, No. Dak	2,197,863
Berea College	Berea, Ky	9,059,260	Northwestern Univ.	Evanston, Ill	16,000,000
Boston Univ	Boston, Mass	4,305,707	Oberlin College	Oberlin, Ohio	17,026,532
Bowdoin College	Brunswick, Me	5,005,000	Ohio Wesleyan Univ.	Delaware, Ohio	2,200,000
Bradley Poly. Inst.	Peoria, Ill	2,913,235	Okla. Ag. & Mech. C.	Stillwater, Okla.	2,188,168
Brown Univ	Providence, R. I.	9,405,032	Penna., Univ. of	Philadelphia, Pa	16,669,000
Bryn Mawr College	Bryn Mawr, Pa	6,481,000	Pomona College	Claremont, Cal	2,408,403
Buffalo Univ	Buffalo, N. Y.	4,300,000	Princeton Univ	Princeton, N. J.	20,000,000
Calif. Inst. of Tech.	Pasadena, Calif	10,500,000	Queens Univ	Kingston, Ont., C.	2,181,381
California, Univ. of	Berkeley, Calif	14,312,531	Radcliffe College	Cambridge, Mass	5,083,000
Carleton College	Northfield, Minn	2,500,000	Redlands, Univ. of	Redlands, Cal	2,791,657
Carnegie Inst. Tech.	Pittsburgh, Pa	15,906,968	Rensselaer Poly. In.	Troy, N. Y.	5,100,000
Case Sch. Ap. Sci	Cleveland, Ohio	4,275,853	Rice Institute	Houston, Tex	10,000,000
Chicago, Univ. of	Chicago, Ill	50,889,403	Richmond, Univ. of.	Richmond, Va	2,214,958
Cincinnati, Univ. of.	Cincinnati, Ohio	6,398,658	Robert College	Constantinople, Tur.	2,385,125
Clark Univ	Worcester, Mass	5,000,000	Rochester, Univ. of.	Rochester, N. Y.	25,000,000
Colgate Univ	Hamilton, N. Y.	3,531,281	Rose Poly	Terre Haute, Ind	2,011,820
Colorado College	Colo. Spgs., Colo	2,400,000	Rutgers College	New Brunswick, N.J.	3,900,000
*Columbia Univ	New York, N. Y.	73,543,073	St. Lawrence Univ.	Canton, N. Y.	3,341,107
Cooper Union	New York, N. Y.	3,933,798	Simmons College	Boston, Mass	3,299,557
Cornell University	Ithaca, N. Y.	22,998,000	Smith College	Northampton, Mass.	5,079,661
Creighton Univ	Omaha, Neb	2,297,000	Southern Meth. U.	Dallas Tex	2,239,000
Dalhousie Univ.	Halifax, N. S.	2,204,695	Stevens Inst. Tech.	Hoboken, N. J.	3,023,879
Dartmouth College	Hanover, N. H.	9,750,000	Swarthmore College.	Swarthmore, Pa	5,500,000
Denison Univ	Granville, Ohio	3,384,609	Syracuse Univ	Syracuse, N. Y.	3,750,000
DePauw Univ	Greencastle, Ind	5,414,124	Texas Christian U.	Fort Worth, Tex	2,210,852
Drew University	Madison, N. J.	2,300,000	Texas, Univ. of	Austin, Tex	10,129,059
Drexel Institute	Philadelphia, Pa	2,935,000	Toronto, Univ. of	Toronto, Can	11,474,029
Duke University	Durham, No. Car	21,017,966	Trinity College	Hartford, Conn	3,084,150
Emory University	Atlanta, Ga	4,514,339	Tufts College	Medford, Mass	8,283,267
Goucher College	Baltimore, Md	2,386,989	Tulane Univ	New Orleans, La	10,214,025
Hamilton College	Clinton, N. Y.	4,223,327	Union College	Schenectady, N. Y.	4,500,000
Harvard University	Cambridge, Mass	90,000,000	Vanderbilt Univ.	Nashville, Tenn	11,000,000
Haverford College	Haverford, Pa	4,188,313	Vassar College	Poughkeepsie, N. Y.	7,195,611
Idaho, Univ. of	Moscow, Idaho	2,000,000	Vermont, Univ. of.	Burlington, Vt.	2,086,932
Johns Hopkins Univ.	Baltimore, Md	25,538,424	Victoria College	Toronto, Can	2,754,201
Lafayette College	Easton, Pa	2,750,000	Virginia, Univ. of.	Charlottesville, Va.	10,000,000
Lehigh University	Bethlehem, Pa	5,136,999	Wake Forest College	Wake Forest, N. C.	2,275,000
Lel'd Stanford Jr. U.	Stanford Univ., Cal.	29,900,000	Washington, St. Col.	Pullman, Wash	2,690,778
Lindenwood Fem. C.	St. Charles, Mo	2,167,234	Washington Univ	St. Louis, Mo	17,180,843
MacDonald College.	Quebec, Can	4,250,000	Washington, Univ. of	Seattle, Wash	4,802,697
Manitoba, Univ. of.	Winnipeg, Man., C.	2,138,510	Wellesley College	Wellesley, Mass	9,159,110
Marquette Univ.	Milwaukee, Wis.	2,680,201	Wesleyan Univ.	Middletown, Conn.	4,794,135
Mass. Inst. Tech.	Cambridge, Mass	31,000,000	Western Reserve U.	Cleveland, Ohio	9,710,000
McGill University	Montreal, Can	18,800,000	Williams College	Williamstown, Mass.	5,591,579
Michigan, Univ. of.	Ann Arbor, Mich	2,793,457	Wooster, College of.	Wooster, Ohio	2,922,411
Middlebury College.	Middlebury, Vt.	3,354,476	Worcester Poly. In.	Worcester, Mass.	2,897,175
Minnesota, Univ. of.	Minneapolis, Minn.	9,245,417	Wyoming, Univ. of.	Laramie, Wyo	2,173,702
Missouri, Univ. of.	Columbia, Mo	2,600,000	Yale University	New Haven, Conn.	69,867,269
Montreal, Univ. de.	Montreal, Can	2,000,000			

*Includes Barnard, Teachers, College of Pharmacy and St. Stephen's College.

SCHOOLS THEN, AND NOW.

(From a Bulletin of the U. S. Dept. of Labor.)

When Massachusetts Bay Colony passed a law in 1647 requiring towns of 50 householders "to appoint one within their towne to teach all such children as shall resort to him to write and read," the towns experienced considerable difficulty in finding teachers who were willing to undertake the task at the wages offered. Competence was a secondary consideration. Wages, under the law, were to be paid "either by ye parents or masters of such children, or by ye inhabitants in general, by way of supply."

Most towns combined these methods of payment, and appropriated a small sum of money from the town treasury, or barter in stated amounts, to pay the schoolmaster, while the pupils paid him a tuition fee in addition.

Dedham, Mass., had a "free school" supported wholly out of tax funds before the colonial law was passed, and paid the schoolmaster £20 ($66.80) per annum.

In the New Haven and Connecticut colonies schools were established almost at once, parents paying a stated sum for each child. At Guilford this fee was 4s. (67 cents) per quarter for each pupil. The New Haven colonial court ordered in 1657 that each town not already maintaining a school should open one and pay one-third of the cost of operation, the rest to be carried on a per capita basis by the families using it.

Plymouth Colony leased its fisheries on the cape coast and gave the proceeds to the support of the public schools. In the period between 1684 and 1693 the rental averaged £30 a year.

The salary of President Rogers of Harvard as fixed by the court in 1682 was £100 ($344) in money and £50 in commodities, while each of his assistants received £50 in money.

The rules of the Dorchester school in 1645 required that school be kept from 7 o'clock in the morning until 5 in the afternoon seven months in the year, and from 8 to 4 in the winter months. There was a midday intermission from 11 to 1 except on Monday, when it was required that—

"The master should call his scholars together between 12 and 1 of the clock to examine them what they have learned, at which time he shall take notice of any misdemeanor or outrage that any of his scholars shall have committed on the Sabbath, to the end that at some convenient time due admonition and correction may be administered."

The women who taught the "dame schools" received about 10 shillings ($1.67) a year. These schools were usually held in the women's homes, and were casual affairs.

Public schools did not develop in the south during the colonial period. Planters often sent their sons back to England for their schooling, but when instruction was undertaken at home, it was either through private tutors, or by groups of families combining to engage a teacher for the purpose of taking care of the educational needs of their children.

These teachers were almost entirely indentured servants, bound to servitude for a certain number of years in consideration of their passage money to America, and their maintenance during the period of service. Sometimes a servant schoolmaster was given a sum of money—£5, £6, or possibly £10—at the expiration of his term.

Jonathan Boucher, a Maryland rector who tutored Washington's stepson, makes the statement, after an investigation of the matter, that "at least two-thirds of the little education we receive are derived from instructors who are either indented servants or transported felons."

AMERICAN COLLEGES AND UNIVERSITIES.

This list is based on the 1929 Education Directory of the United States Bureau of Education, Department of the Interior. The number of students is of those studying for degrees and does not include those taking extension courses or casual courses in the summer schools. The number of teachers is for the regular courses leading to degrees. The data are from questionnaires returned by the institutions in the year 1929.

The abbreviations following the names of the colleges indicate: C., co-educational; E, has extension courses; S, summer school; W, women only. Colleges marked a star (*) are land grant colleges.

Name.	Location.	Year Organ.	Governing Official.	No. of Stud'ts.	No. of Teach's.
Abilne Christian (C., E., S.)	Abilne, Tex.	1906	Batsell Baxter	500	35
Adelphi (W., S.)	Garden City, N. Y. C.	1896	Frank D. Blodgett	650	52
Adrian (C., E., S.)	Adrian, Mich.	1852	Harlan L. Feeman	175	19
Agnes Scott (W.)	Decatur, Ga.	1889	James Ross McCain	476	56
Akron, Univ. of (C., S.)	Akron, Ohio	1870	George Fred' Zook	1,105	75
Alabama (W., E., S.)	Montevallo, Ala.	1896	O. C. Carmichael	797	76
*Alabama Poly. Inst. (C., E., S.)	Auburn, Ala.	1872	Branford Knapp	1,725	175
Alabama, Univ. of (C., E., S.)	University, Ala.	1831	George H. Denny	3,350	247
Alabama, Woman's Coll. of (E.)	Montgomery, Ala.	1909	Walter D. Agnew	450	38
Alaska Agri. Coll. & Sch. of Mines (C.)	Coll. (Fairb'ks), Al'k.	1922	Charles E. Bunnell	73	18
Albion (C.)	Albion, Mich.	1835	John L. Seaton	805	52
Albright (C., E.)	Reading, Pa.	1856	W. F. Teel	379	32
Alfred Univ. (C., S.)	Alfred, N. Y.	1857	Boothe C. Davis	497	39
Allegheny (C., S.)	Meadville, Pa.	1815	James A. Beebe	634	41
Alma (C.)	Alma, Mich.	1887	Harry M. Crooks	288	22
American Univ. (C.)	Washington, D. C.	1893	L. C. Clark	500	60
Amherst	Amherst, Mass.	1821	Arthur Stanley Pease	734	70
Anderson (W.)	Anderson, So. Car.	1911	Miss A. D. Denmark	100	20
Antioch (C.)	Yellow Springs, Ohio.	1853	Arthur E. Morgan	650	52
*Arizona, Univ. of (C., E., S.)	Tucson, Ariz.	1885	Homer L. Shantz	1,800	175
Arkansas (C., S.)	Batesville, Ark.	1872	E. B. Tucker	204	19
*Arkansas, Univ. of (C., E., S.)	Fayetteville, Ark.	1872	John Clinton Futrall	1,617	100
Armour Inst. of Tech. (S.)	Chicago, Ill.	1893	Howard M. Raymond	853	77
Asbury (C., S.)	Wilmore, Ky.	1890	Lewis R. Akers	800	52
Ashland (C., S.)	Ashland, Ohio	1878	Edwin E. Jacobs	225	33
Athens (W., S.)	Athens, Ala.	1843	Mary Moore McCoy	168	32
Atlanta Univ. (S., C.)	Atlanta, Ga.	1869	Myron W. Adams	221	19
Atlantic Christian (C., S.)	Wilson, No. Car.	1902	H. S. Hilley	210	15
Augustana Coll. & Theo. Sem. (C.,S.)	Rock Island, Ill.	1860	Gustav Andreen	619	36
Augustinian (C., E., S.)	Villanova, Pa.	1842	Rev. James H. Griffin	1,000	125
Aurora (C., E.)	Aurora, Ill.	1893	Orrin Roe Jenks	125	16
Austin (C., E., S.)	Sherman, Tex.	1849	T. S. Clyce	382	15
Baker Univ. (C. S.)	Baldwin City, Kan.	1858	Wallace B. Fleming	446	38
Baldwin-Wallace (C., E., S.)	Berea, Ohio	1845	A. B. Storms	484	34
Baltimore, Univ. of (C., S.)	Baltimore, Md.	1925	Howell A. King	500	60
Barnard (W.)	New York, N. Y.	1889	V. C. Gildersleeve	1,116	103
Bates (C., E., S.)	Lewiston, Me.	1864	Clifton Daggett Gray	632	40
Battle Creek (C., E., S.)	Battle Creek, Mich.	1923	Paul F. Voelker	385	60
Baylor (W., E., S.)	Belton, Tex.	1845	John C. Hardy	1,382	58
Baylor Univ. (C., E., S.)	Waco, Tex.	1845	S. P. Brooks	3,395	250
Beaver (W., S.)	Jenkinstown, Pa.	1853	Walter B. Greenway	475	67
Beirut, Amer. Univ. of (C., S.)	Beirut, Syria	1866	Bayard Dodge	1,350	182
Belhaven (W.)	Jackson, Miss.	1893	G. T. Gillespie	165	24
Belmont Abbey	Belmont, No. Car.	1878	Rev. C. Selhuber	90	14
Beloit (C.)	Beloit, Wisc.	1846	Irving Maurer	500	48
Benedict (C.)	Columbia, So. Car.	1870	C. B. Antisdel	149	28
Berea (C., S.)	Berea, Ky.	1855	W. J. Hutchins	428	30
Bessie Tift (W.)	Forsyth, Ga.	1849	Aquila Chamlee	316	30
Bethany (C., S.)	Lindsborg, Kan.	1881	Ernst F. Pihlblad	371	38
Bethany (C.)	Bethany, W. Va.	1840	Cloyd Goodnight	317	27
Bethel (C., E., S.)	Newton, Kan.	1887	J. W. Kliewer	200	23
Bethel (C., E., S.)	McKenzie, Tenn.	1842	Edgar B. McEuen	220	14
Birmingham-Southern (C., E., S.)	Birmingham, Ala.	1859	Guy E. Snavely	985	57
Blue Mountain (W., E., S.)	Blue Mountain, Miss.	1873	L. T. Lowrey	343	27
Bluffton (C., S.)	Bluffton, Ohio	1914	Samuel K. Mosiman	207	21
Boston (E., S.)	Chestnut Hill, Mass.	1863	Rev. J. B. Dolan, S. J.	2,403	76
Boston Univ. (C., E., S.)	Boston, Mass.	1869	Daniel L. Marsh	14,321	492
Bowdoin	Brunswick, Me.	1794	Kenneth C. M. Sills	550	55
Bradley Poly. Inst. (C., E., S.)	Peoria, Ill.	1896	Frederic R. Hamilton	700	50
Brenau (W.)	Gainsville, Ga.	1878	Haywood J. Pearce	450	50
Bridgewater (C., S.)	Bridgewater, Va.	1880	Paul H. Bowman	212	16
Brigham Young Univ. (C., E., S.)	Provo, Utah	1875	Franklin S. Harris	1,200	80
Brown Univ. (E.)	Providence, R. I.	1764	Clarence A. Barbour	1,603	162
Bryn Mawr (W.)	Bryn Mawr, Pa.	1885	Marion Edwards Park	436	83
Bucknell Univ. (C., E., S.)	Lewisburg, Pa.	1846	Emory W. Hunt	1,107	68
Buffalo, Univ. of (C., E., S.)	Buffalo, N. Y.	1846	Samuel P. Capen	3,244	383
Butler Univ. (C., S.)	Indianapolis, Ind.	1855	Robert Judson Aley	1,900	100
California Christian (C., E.)	Los Angeles, Calif.	1920	C. F. Cheverton(A't'g)	371	23
California Inst. of Tech.	Pasadena, Calif.	1891	Robert A. Millikan	668	209
*California, Univ. of (C., E., S.)	Berkeley, Calif.	1868	William W. Campbell	18,652	1,614
Calvin (C.)	Grand Rapids, Mich.	1876	Johannes Broene	250	20
Canisius (part C., E., S.)	Buffalo, N. Y.	1870	Rev. Peter F. Cusick	600	35
Capital Univ. (C., E., S.)	Columbus, Ohio	1850	Otto Mees	355	60
Carleton (C.)	Northfield, Minn.	1866	Donald J. Cowling	837	73
Carnegie Inst. of Tech. (part C., S.)	Schenley Park, Pa.	1900	Thomas S. Baker	3,246	265
Carroll (C.)	Waukesha, Wisc.	1846	William A. Ganfield	400	28
Carson and Newman (C., S.)	Jefferson City, Tenn.	1851	James Warren	500	29
Carthage (C., E., S.)	Carthage, Ill.	1870	N. J. G. Wickey	288	28
Case Sch. of Applied Science (S.)	Cleveland, Ohio	1880	William E. Wickenden	650	65
Catawba (C., E., S.)	Salisbury, No. Car.	1851	Elmer Rhodes Hoke	320	32
Catholic Univ. of Amer. (part C., S.)	Washington, D. C.	1887	James H. Ryan	1,502	144
Cedar Crest (W.)	Allentown, Pa.	1868	William F. Curtis	170	24
Cedarville (C.)	Cedarville, Ohio	1894	W. R. McChesney	171	25
Central (C., S.)	Fayette, Mo.	1854	Bish. W. F. McMurry	731	42
Central Univ. (C., S.)	Pella, Iowa	1853	John Wesselink	220	18
Central Wesleyan (C., S.)	Warrenton, Mo.	1864	Ira Nelson Chiles	250	21
Center (C., E.)	Danville, Ky.	1819	Charles J. Turck	321	29
Charleston, College of (C.)	Charleston, So. Car.	1785	Harrison Randolph	251	18
Chattanooga, Univ. of (C., E., S.)	Chattanooga, Tenn.	1886	Alex Auerry	434	33

Name.	Location.	Year Organ.	Governing Official.	No. of Stud'ts.	No. of Teach's
Chicago, Univ. of (C., E., S.)	Chicago, Ill.	1892	Robert M. Hutchins	12,961	742
Chicora (W.)	Columbia, So. Car.	1906	S. C. Byrd	196	22
Chowan (W.)	Murfreesboro, No. Car.	1848	W. B. Edwards	160	15
Cincinnati, Univ. of (C., E., S.)	Cincinnati, Ohio	1874	Herman Schneider	4,824	571
Citadel, The	Charleston, So. Car.	1842	Col. O. J. Bond	720	40
City of Detroit, Coll. of (C., S.)	Detroit, Mich.	1923	Wilford L. Coffey	2,057	163
City of N.Y., Coll. of (part C., E., S.)	New York, N. Y.	1848	Frederick B. Robinson	17,930	350
City of Toledo, Univ. of (C., E., S.)	Toledo, Ohio	1872	Henry John Doermann	1,170	58
Clark Univ. (part C., E., S.)	Worcester, Mass.	1889	Wallace W. Atwood	325	38
Clarkson Memorial Coll. of Tech	Potsdam, N. Y.	1896	Joseph E. Rowe	380	26
*Clemson Agric. (S.)	Clemson, So. Car.	1893	Enoch Walter Sikes	1,250	104
Colby (part C.)	Waterville, Me.	1820	Franklin W. Johnson	630	35
Coe (C., E., S.)	Cedar Rapids, Iowa	1881	Harry M. Gage	831	72
Coker (W.)	Hartsville, So. Car.	1908	Carlyle Campbell	249	26
Colgate Univ.	Hamilton, N. Y.	1819	George Barton Cutten	993	76
Colorado (C., S.)	Colorado Spgs., Colo.	1874	Charles C. Mierow	660	62
Colorado School of Mines (S.)	Golden, Colo.	1874	Melville F. Coolbaugh	434	47
*Colorado Agricultural (S.)	Fort Collins, Colo.	1877	Charles A. Lory	1,200	100
Colorado, Univ. of (C., E., S.)	Boulder, Colo.	1877	George Norlin	3,000	300
Colorado Woman's	Denver, Colo.	1889	S. J. Vaughn	200	35
Columbia (C., S.)	Dubuque, Iowa	1873	Rt. Rev. Thos. Conry	309	23
Columbia Univ. (C. E., S.)	New York, N. Y.	1754	Nicholas M. Butler	36,587*a*	1,667
Columbus	Sioux Falls, So. Dak.	1921	Rev. A. F. Amirault	100	25
Concordia (C.)	Moorhead, Minn.	1891	Rev. J. N. Brown	448	42
*Connecticut Agric. (C.)	Storrs, Conn.	1881	George Alan Works	565	65
Connecticut Coll. for Women	New London, Conn.	1911		540	62
Converse (W.)	Spartanburg, So. Car.	1890	Robert P. Pell	323	41
Cooper Union (C.)	New York, N. Y.	1859	R. Fulton Cutting	1,051	102
Cornell (C., S.)	Mount Vernon, Iowa	1853	H. J. Burgsthaler	535	45
*Cornell Univ. (C., S.)	Ithica, N. Y.	1865	Livingston Farrand	5,569	1,084
Cotner (C., S.)	Lincoln, Nebr.	1888	James B. Weldon	204	23
Creighton Univ. (C., E., S.)	Omaha, Nebr.	1878	William H. Agnew	2,935	200
Culver-Stockton (C., E., S.)	Canton, Mo.	1853	John H. Wood	460	26
Cumberland Univ. (C., E., S.)	Lebanon, Tenn.	1842	Ernest L. Stockton	615	20
Dakota Wesleyan Univ. (C., S.)	Mitchell, So. Dak.	1888	Earl A. Roadman	380	26
Daniel Baker (C., S.)	Brownwood, Tex.	1889	S. E. Chandler	27	13
Dartmouth	Hanover, New Hamp.	1769	Ernest M. Hopkins	2,274	220
Davidson (S.)	Davidson, No. Car.	1837	Walter L. Lingle	611	45
Davis and Elkins (C.)	Elkins, W. Va.	1904	James E. Allen	200	18
Dayton, Univ. of (part C., S.)	Dayton, Ohio	1850	Rev. P. O'Reilly	782	61
Defiance (C., S.)	Defiance, Ohio	1903	Albert G. Caris	222	27
*Delaware, Univ. of (C., E., S.)	Newark, Del.	1833	Walter Hullihen	706	86
Denison Univ. (C., E., S.)	Granville, Ohio	1831	Avery Albert Shaw	760	67
Denver, Univ. of (C., E., S.)	Denver, Colo.	1864	Frederick M. Hunter	2,706	155
DePaul Univ. (C., E., S.)	Chicago, Ill.	1898	Vy. Rev. T. F. Levan	3,800	145
DePauw Univ. (C., E., S.)	Greencastle, Ind.	1837	G. Bromley Oxnam	1,672	109
Dickinson (C.)	Carlisle, Pa.	1783	Mervin G. Filler	550	35
Doane (C.)	Crete, Nebr.	1872	Edwin B. Dean	238	25
Drake Univ. (C., S.)	Des Moines, Iowa	1881	Daniel W. Morehouse	1,400	100
Drew Univ. (C., S.)	Madison, N. J.	1867	Arlos Ayres Brown	304	44
Drexel Institute (C., E., S.)	Philadelphia, Pa.	1891	Ken. G. Matheson	1,199	97
Dropsie (C., E.)	Philadelphia, Pa.	1905	Cyrus Adler	23	6
Drury (C.)	Springfield, Mo.	1873	Thomas W. Nadal	480	35
Dubuque, Univ. of (C., E., S.)	Dubuque, Iowa	1852	Paul H. Buchholz	210	24
Duke Univ. (C., S.)	Durham, No. Car.	1838	William P. Few	1,906	133
Duquesne Univ. (C., E., S.)	Pittsburgh, Pa.	1878	Very Rev. M. A. Hehir	2,885	120
D'Youville (W.)	Buffalo, N. Y.	1908	Mother Mary	210	19
Earlham (C., E.)	Richmond, Ind.	1859	William C. Dennis	415	38
Elizabethtown (C., E., S.)	Elizabethtown, Pa.	1899	H. H. Nye	175	18
Elmhurst	Elmhurst, Ill.	1870	Timothy Lehmann	150	17
Elmira (W., E.)	Elmira, N. Y.	1855	Frederick Lent	593	53
Elon (C.)	Elon College, No. Car.	1889	William A. Harper	400	30
Emmanuel (W., S.)	Boston, Mass.	1919	Sister Frances	302	36
Emmanuel Missionary (C., S.)	Berrien Springs, Mich.	1874	Guy F. Wolfkill	181	40
Emory and Henry (C., S.)	Emory, Va.	1836	James N. Hillman	415	20
Emory Univ. (part C., E., S.)	Atlanta, Ga.	1914	Harvey W. Cox	1,169	250
Emporia, Coll. of (C.)	Emporia, Kan.	1882	John Bailey Kelly	400	32
Erskine (C.)	Due West, So. Car.	1839	R. C. Grier	334	28
Eureka (C.)	Eureka, Ill.	1855	J. M. Allen (A't'g)	270	25
Evansville (C., E., S.)	Evansville, Ind.	1919	Earl E. Harper	460	25
Findlay (C., E.)	Findlay, Ohio	1882	Homer R. Dunathan	125	13
Fisk Univ. (C., S.)	Nashville, Tenn.	1867	Thomas E. Jones	527	38
Fletcher, John (C., S.)	University Park, Iowa	1908	Joseph Owen	145	22
Flora Macdonald (W.)	Red Springs, No. Car.	1896	C. G. Vardell	221	25
Florida State (W., S.)	Tallahassee, Fla.	1905	Edward Conradi	1,575	143
*Florida, Univ. of (E., S.)	Gainesville, Fla.	1905	John J. Tigert	2,270	126
Fordham Univ. (part C., E., S.)	New York, N. Y.	1841	Rev. William J. Duane	7,858	212
Franklin (C., E.)	Franklin, Ind.	1834	Homer P. Rainey	307	28
Franklin and Marshall	Lancaster, Pa.	1787	Henry H. Apple	715	44
Friends Univ. (C., S.)	Wichita, Kan.	1898	W. O. Mendenhall	438	43
Furman Univ. (part C., S.)	Greenville, So. Car.	1825	W. J. McGlothlin	493	31
Gallaudet (for the Deaf) (C.)	Washington, D. C.	1864	Percival Hall	120	15
Galloway Woman's	Searcy, Ark.	1888	J. M. Williams	208	26
Geneva (C., E., S.)	Beaver Falls, Pa.	1848	M. M. Pearce	475	30
George Washington Univ. (C., S.)	Washington, D. C.	1821	Cloyd H. Marvin	5,961	388
Georgetown Univ.	Washington, D. C.	1789	W. Coleman Nevils	2,687	423
Georgia Sch. of Tech. (S.)	Atlanta, Ga.	1888	M. L. Brittain	2,300	150
Georgia State (W., S.)	Milledgeville, Ga.	1889	Jasper L. Beeson	1,166	82
*Georgia, Univ. of (C., E., S.)	Athens, Ga.	1785	Chas. M. Snelling	1,834	140
Gettysburg (E., S.)	Gettysburg, Pa.	1832	Henry W. A. Hanson	642	48
Gonzaga Univ. (C., E., S.)	Spokane, Wash.	1887	Daniel J. Reidy	1,189	51
Gooding (C., S.)	Gooding, Idaho	1913	Charles W. Tenney	185	14
Goshen (C., S.)	Goshen, Ind.	1894	Sanford C. Yoder	221	20
Goucher (W.)	Baltimore, Md.	1885	Hans Froelicher	660	96
Graceland (C.)	Lamoni, Iowa	1895	George N. Briggs	275	25
Grand Island (C., E., S.)	Grand Island, Nebr.	1892	John Mason Wells	180	14

(*a*) The figures for Columbia University include Columbia College, the professional schools Barnard College, Teachers' College, College of Pharmacy and St. Stephens College. (These last four are also carried separately).

Name.	Location.	Year Organ.	Governing Official.	No. of Studts.	No. of Teach'rs
Greensboro (W., E.)	Grensboro, No. Car.	1838	S. B. Turrentine	317	30
Greenville (C., E., S.)	Greenville, Ill.	1892	Leslie Ray Marston	236	24
Greenville Woman's	Greenville, So. Car.	1854	David M. Ramsay	313	28
Grenada (W.)	Grenada, Miss.	1852	J. R. Countiss	200	17
Grinnell (C.)	Grinnell, Iowa	1846	John H. T. Main	700	65
Grove City (C., S.)	Grove City, Pa.	1876	Weir C. Ketler	660	41
Guilford (C., S.)	Guilford Coll. No. Car.	1888	Raymond Binford	300	26
Gustavus Adolphus (C., S.)	St. Peter, Minn.	1862	Oscar J. Johnson	510	31
Hamilton	Clinton, N. Y.	1812	Frederick C. Ferry	442	43
Hamline U niv. (C.)	St. Paul, Minn.	1854	Alfred F. Hughes	415	39
Hampden-Sydney	Hampden-Sydney, Va.	1776	J. D. Eggleston	254	16
Hanover (C., E., S.)	Hanover, Ind.	1827	Lewis F. Hillman	225	20
Harvard Univ. (part C., E., S.)	Cambridge, Mass.	1636	A Lawrence Lowell	8,110	1,244
Hastings (C., E., S.)	Hastings, Nebr.	1883	Calvin H. French	617	37
Haverford	Haverford, Pa.	1830	William W. Comfort	298	35
*Hawaii, Univ. of (C., E., S.)	Honolulu, T. H.	1907	David L. Crawford	802	75
Heidelberg (C.)	Tiffin, Ohio	1850	Charles E. Miller	524	41
Hendrix-Henderson (C., S.)	Conway, Ark.	1884	John Hugh Reynolds	306	21
Hillsdale (C.)	Hillsdale, Mich.	1855	William G. Spencer	400	35
Hiram (C.)	Hiram, Ohio	1850	Miner Lee Bates	319	29
Hobart	Geneva, N. Y.	1822	Murray Bartlett	312	37
Hollins (W.)	Hollins, Va.	1842	Matty L. Cocke	350	35
Holy Cross, Coll. of the (E.)	Worcester, Mass.	1843	Rev. John M. Fox	1,090	43
Hood College (W.)	Frederick, Md.	1897	Joseph H. Apple	425	53
Hope (C.)	Holland, Mich.	1866	Edward D. Dimnent	434	24
Houghton (C.)	Houghton, N. Y.	1884	James S. Luckey	208	26
Howard (C., E., S.)	Birmingham, Ala.	1842	John C. Dawson	832	45
Howard Payne (C., E., S.)	Brownwood, Tex.	1889	Edgar Godbold	531	38
Howard Univ. (C., E., S.)	Washington, D. C.	1866	Mordecai W. Johnson	2,563	184
Hunter (W., E., S.)	New York, N. Y.	1870	James M. Kieran	5,331	370
Huron (C., S.)	Huron, So. Dak.	1883	Royal C. Agne	517	24
Idaho, Coll. of (C., S.)	Caldwell, Idaho	1891	Wm. J. Boone	415	25
*Idaho, Univ. of (C., E., S.)	Moscow, Idaho	1889	F. J. Kelly	1,945	135
Illinois (C.)	Jacksonville, Ill.	1829	C. H. Rammelkamp	427	26
*Illinois, Univ. of (C., S.)	Urbana, Ill.	1867	David Kinley	14,183	1,454
Illinois Wesleyan Univ. (C.)	Bloomington, Ill.	1850	Wm J. Davidson	692	53
Illinois Woman's	Jacksonville, Ill.	1846	C. P. McClelland	342	41
Immaculata (f'm'ly Villa Maria) (W., E., S.)	Immaculata, Pa.	1920	M. M. Loyola	127	32
Incarnate Word (W., S.)	San Antonio, Tex.	1900	Sister M. Columkille	624	25
Indiana Central Univ. (C., S.)	Indianapolis, Ind.	1905	Irby J. Good	350	25
Indiana Univ. (C., E., S.)	Bloomington, Ind.	1820	William L. Bryan	4,515	299
Intermountain Union (C., E., S.)	Helena, Mont.	1878	Edward J. Klemme	160	16
Int'l. Y. M. C. A. (S.)	Springfield, Mass.	1885	Laurence L. Doggett	534	42
Iowa State C. of A. & M. A. (C., S.)	Ames, Iowa	1869	R. M. Hughes	5,308	525
*Iowa, State Univ. of (C., E., S.)	Iowa City, Iowa	1847	Walter Albert Jessup	8,230	600
Iowa Wesleyan (C., S.)	Mt. Pleasant, Iowa	1842	James E. Coons	450	24
James Millikin Univ. (C., E.)	Decatur, Ill.	1901	Mark E. Penney	607	55
Jamestown (C., S.)	Jamestown, No. Dak.	1909	B. H. Kroeze	445	30
Jewell, Wm. (C., S.)	Liberty, Mo.	1849	John F. Herget	423	23
John B. Stetson Univ. (C.)	De Land, Fla.	1887	Lincoln Hulley	517	35
John Carroll Univ. (S.)	Cleveland, Ohio	1886	Rev. Albert Fox	301	18
Johns Hopkins Univ. (part C., S.)	Baltimore, Md.	1876	Joseph S. Ames	1,825	525
Judson (W., E., S.)	Marion, Ala.	1838	P. V. Baldy	258	31
Juniata (C., E., S.)	Huntington, Pa.	1876	Martin G. Brumbaugh	506	38
Kalamazoo (C.)	Kalamazoo, Mich.	1833	Allan Hoben	376	24
Kansas City Univ. (C., S.)	Kansas City, Kan.	1896	William O. Jones	175	15
*Kansas State Agric. (C., E., S.)	Manhattan, Kan.	1863	Francis D. Farrell	3,800	328
Kansas, Univ. of (C., E., S.)	Lawrence, Kan.	1866	Ernest H. Lindley	5,337	275
Kansas Wesleyan Univ. (C., S.)	Salina, Kan.	1886	Larkin B. Bowers	461	26
Kentucky, Univ. of (C., E., S.)	Lexington, Ky.	1866	Frank LeRond McVey	2,959	239
*Kentucky Wesleyan (C., S.)	Winchester, Ky.	1866	Clar. M. Dannelly		
Kenyon	Gambier, Ohio	1824	William F. Pierce	274	28
Keuka (W., E.)	Keuka Park, N. Y.	1921	A. H. Norton	250	28
King	Bristol, Tenn.	1867	Tilden Scherer	142	11
Knox (C.)	Galesburg, Ill.	1837	Albert Britt	618	45
Knoxville (C.)	Knoxville, Tenn.	1875	James F. Giffen	250	14
Lafayette	Easton, Pa	1825	William M. Lewis	1,000	96
La Grange Female	La Grange, Ga.	1831	W. E. Thompson	133	11
Lake Erie (W.)	Painesville, Ohio	1856	Vivian B. Small	190	27
Lake Forest (C.)	Lake Forest, Ill.	1837	Herbert McC. Moore	375	22
Lander (W.)	Greenwood, So. Car.	1872	R. H. Bennett	182	26
Lane (C., E., S.)	Jackson, Tenn.	1882	J. F. Lane	227	21
Lawrence (C.)	Appleton, Wisc.	1847	Henry W. Wriston	810	63
Lebanon Valley (C., E., S.)	Annville, Pa.	1866	George D. Gossard	381	20
Lehigh Univ. (S.)	Bethlehem, Pa.	1866	Charles R. Richards	1,566	151
Leland Stanford Jr. Univ. (C., S.)	Stanford Univ., Calif.	1885	Robt. E. Swain (A't'g)	4,674	525
Lenoir-Rhyne (C., E., S.)	Hickory, No. Car.	1891	H. B. Schaeffer	312	21
Lewis Inst. (C., E., S.)	Chicago, Ill.	1894	George N. Carman	820	50
Limestone (W., S.)	Gaffney, So. Car	1845	R. C. Granberry	326	24
Lincoln (C.)	Lincoln, Ill.	1865	Archelaus E. Turner	305	16
Lincoln Memorial Univ. (C., S.)	Harrogate, Tenn.	1897	Hervin U. Roop	474	39
Lincoln Univ.	Lincoln University, Pa.	1854	Wm. H. Johnson	336	20
Lindenwood Female	St. Charles, Mo.	1827	John L. Roemer	459	46
Linfield (C., S.)	McMinnville, Ore.	1858	Leonard W. Riley	315	25
Little Rock (C.)	Little Rock, Ark.	1907	James P. Moran	150	24
Livingstone (C., E., S.)	Salisbury, No. Car.	1879	William J. Trent	374	28
Long Island Univ. (C., S.)	Brooklyn, N. Y.	1926	George R. Hardie	1,026	67
Loretto Heights (W., E., S.)	Loretto, Colo.	1918	Mother M. Eustachia	304	20
Louisiana (C., E., S.)	Pineville, La.	1906	C. Cottingham	563	24
Louisiana Poly. Inst. (C., E., S.)	Ruston, La.	1895	G. W. Bond	1,100	70
*Louisiana State Univ. and Agric. and Mech. Coll. (C., E., S.)	Baton Rouge, La.	1860	Thomas W. Atkinson	1,985	180
Louisville, Univ. of (C., S.)	Louisville, Ky.	1837	Raymond A. Kent	1,913	230
Lowell Textile Inst. (C.)	Lowell, Mass.	1895	Charles H. Eames	139	34
Loyola (E.)	Baltimore, Md.	1852	Rev. Henri. J. Wiesel	175	17
Loyola Univ. (part C., E., S.)	Chicago, Ill.	1909	Robert M. Kelley	4,953	400
Lynchburg (C.)	Lynchburg, Va.	1903	J. T. T. Hundley	258	24
Macalester (C.)	St. Paul, Minn.	1885	John C. Acheson	495	41

Name.	Location.	Year Organ.	Governing Official.	No. of Stud'ts.	No. of Teach's.
*Maine, Univ. of (C., E., S.)	Orono, Me.	1865	Harold S. Boardman	1,377	151
Manchester (C., E., S.)	No. Manchester, Ind.	1895	Otho Winger	486	40
Manhattan	New York, N. Y.	1864	Brother Cornelius	710	46
Marietta (C.)	Marietta, Ohio	1835	Edward S. Parsons	406	34
Marion (C., S.)	Marion, Ind.	1920	Henry A. West (A't'g)	217	16
Marquette Univ. (C., E., S.)	Milwaukee, Wisc.	1881	William M. Magee	2,832	334
Marygrove (W., E., S.)	Detroit, Mich.	1910	Mother M. Theodosia	500	58
*Maryland, Univ. of (C., E., S.)	Baltimore, Md.	1807	R. A. Pearson	3,585	445
Marymount (W., E., S.)	Tarrytown, N. Y.	1907	M. Gerard	155	40
Maryville (W.)	St. Louis, Mo.	1923	Mother Mary Reid	70	23
Maryville (C.)	Maryville, Tenn.	1819	Samuel T. Wilson	803	47
Marywood (W., E., S.)	Scranton, Pa.	1915	Sister M. Immaculate	360	35
*Massachusetts Agric. (C., E, S.)	Amherst, Mass.	1863	Roscoe W. Thatcher	708	100
*Mass. Inst. of Tech. (C., S.)	Cambridge, Mass.	1861	Samuel W. Stratton	2,868	487
McKendree (C. S.)	Lebanon, Ill.	1828	Cameron Harmon	216	26
McMurry (C., S.)	Abilene, Tex.	1923	J. W. Hunt	450	00
McPherson (C., S.)	McPherson, Kan.	1887	Vernon F. Schwalm	350	30
Mercer Univ. (part C., E., S.)	Macon, Ga.	1833	Spright Dowell	560	42
Meredith (W.)	Raleigh, No. Car.	1891	Chas. E. Brewer	469	55
Miami, Univ. of (C.)	Coral Gables, Fla.	1925	B. F. Ashe	500	50
Miami Univ. (C., E., S.)	Oxford, Ohio	1809	Alfred H. Upham	1 740	127
Mich. Coll. of Mining and Tech. (S.)	Houghton, Mich.	1885	Wm. Otis Hotchkiss	360	35
*Mich. State Coll. of Agric. and Applied Science (C., E., S.)	East Lansing, Mich.	1862	Robert S. Shaw	3 056	360
Michigan, Univ. of (C., E., S.)	Ann Harbor, Mich.	1817	Alexander G. Ruthven	9,529	773
Middlebury (C., S.)	Middlebury, Vt.	1800	Paul Dwight Moody	626	59
Midland (C., E., S.)	Fremont, Nebr.	1887	H. F. Martin	243	32
Mills (W., S.)	Oakland, Calif.	1852	Aurelia H. Reinhardt	590	77
Millsaps (C., E., S.)	Jackson, Miss.	1890	David M. Key	508	25
Milton (C.)	Milton, Wisc.	1867	Alfred E. Whitford	181	20
Milwaukee-Downer (W.)	Milwaukee, Wisc.	1851	Lucia R. Briggs	412	46
*Minnesota, Univ. of (C., E., S.)	Minneapolis, Minn.	1851	Lotus Delta Coffman	13,146	780
Mississippi (E., S.)	Clinton, Miss.	1826	John W. Provine	410	27
Mississippi Agric. and Mech.	Starkville, Miss.	1878	B. M. Walker	1.470	90
Mississippi State (W., S.)	Columbus, Miss.	1884		1,400	90
Mississippi, Univ. of (C., E., S.)	Oxford, Miss.	1848	Alfred Hume	1,162	65
Mississippi Woman's (S.)	Hattiesburg, Miss.	1912	J. L. Johnson	397	23
*Missouri, Univ. of (C., E., S.)	Columbia, Mo.	1839	Stratton D. Brooks	5,583	310
Missouri Valley (C., S.)	Marshall, Mo.	1869	George H. Mack	248	22
Monmouth (C., S.)	Monmouth, Ill.	1856	T. H. McMichael	506	35
*Montana State (C.)	Bozeman, Mont.	1893	Alfred Atkinson	1,073	90
Montana State Sch. of Mines (C.)	Butte, Mont.	1900	Francis A. Thomson	165	18
Montana, State Univ. (C., E., S.)	Missoula, Mont.	1895	C. H. Clapp	1,564	91
Moravian	Bethlehem, Pa.	1807	William N. Schwarze	150	15
Moravian Sem. (W., E.)	Bethlehem, Pa.	1742	Edwin J. Heath	100	20
Morehouse (E., S.)	Atlanta, Ga.	1867	John Hope	473	25
Morgan (C., S.)	Baltimore, Md.	1867	John O. Spencer	419	36
Morningside (C., E., S.)	Sioux City, Iowa	1894	Frank E. Mossman	704	50
Morris Harvey (C., E., S.)	Barboursville, W. Va.	1888	George W. Diehl	150	18
Mt. Holyoke (W.)	South Hadley, Mass.	1837	Mary E. Woolley	1,030	107
Mt. Morris (C., S.)	Mt. Morris, Ill.	1839	C. Ernest David	187	17
Mt. St. Charles	Helena, Mont.	1910	Norbert C. Hoff	108	16
Mt. St. Joseph (W., E., S.)	Dubuque, Iowa	1843	Sr. Mary B. Bates	200	35
Mt. St. Joseph, Coll. of (W., E., S.)	Mt. St. Joseph, Ohio	1852	Sister Mary Zoe	112	18
Mt. St. Mary's	Emmitsburg, Md.	1808	Mar. B. J. Bradley	280	21
Mt. St. Vincent, Coll. of (W., E., S.)	Mt. St. Vincent, N. Y.	1910	Sr. Miriam Alacoque	200	35
Mt. Union (C., S.)	Alliance, Ohio	1846	W. H. McMaster	500	35
Muhlenberg (E., S.)	Allentown, Pa.	1867	John A. W. Hass	438	32
Muskingum (C., E., S.)	New Concord, Ohio	1837	J. Knox Montgomery	850	50
National Univ. (C., S.)	Washington, D. C.	1869	Charles F. Carusi	1,050	61
*Nebraska, Univ. of (C., E., S.)	Lincoln, Nebr.	1869	Edgar A. Burnett	7,049	347
Nebraska Wesleyan Univ. (C., E., S.)	Lincoln, Nebr.	1886	I. B. Schreckengast	781	60
*Nevada, Univ. of (C., S.)	Reno, Nev.	1874	Walter E. Clark	944	70
Newberry (C., S.)	Newberry, So. Car.	1856	S. J. Derrick	400	24
*New Hamp., Univ. of (C., E., S.)	Durham, N. H.	1866	Edward M. Lewis	1,834	143
*New Mexico Coll. of Agric. and Mech. Arts (C., S.)	State College, N. M.	1889	Harry L. Kent	325	46
New Mexico Sch. of Mines (C.)	Socorro, N. M.	1889	E. H. Wells	93	8
New Mexico, Univ. of (C., E., S.)	Albuquerque, N. M.	1892	Jas. F. Zimmerman	981	00
New Orleans Univ. (C., E., S.)	New Orleans, La.	1873	Otto E. Kriege	350	33
New Rochelle, Coll. of (W.)	New Rochelle, N. Y.	1924	Mgr. J. P. Chidwick	550	48
New York Univ. (C., E., S.)	New York, N. Y.	1831	Elmer E. Brown	27,881	1,423
North Carolina (W., E., S.)	Greensboro, No. Car.	1892	J. I. Foust	1,869	186
North Carolina, Univ. of (E., S.)	Chapel Hill, No. Car.	1793	Harry W. Chase	2,750	200
*North Carolina State Coll. of Agric. and Eng. (C., E., S.)	Raleigh, No. Car.	1889	E. C. Brooks	1,682	140
North Central (C.)	Naperville, Ill.	1861	Edward E. Rall	522	43
*North Dakota Agric. (C., E., S.)	Fargo, No. Dak.	1890	John Lee Coulter	1,295	123
North Dakota, Univ. of (C., E., S.)	Grand Forks, No. Dak.	1883	Thomas F. Kane	1,769	141
North Georgia Agric. (C., S.)	Dahlonega, Ga.	1871	John W. West	180	15
Northeastern Univ. (part C., E.)	Boston, Mass.	1898	Frank P. Speare	3,838	125
Northland (C., S.)	Ashland, Wisc.	1907	Joseph D. Brownell	150	17
Northwestern (C.)	Watertown, Wisc.	1865	E. E. Kowalke	112	17
Northwestern Univ. (C., E., S.)	Evanston, Ill.	1851	Walter D. Scott	6,032	619
Norwegian Luther	Decorah, Iowa	1861	Oscar L. Olson	353	30
Norwich Univ. (C., S.)	Northfield, Vt.	1819	Chas. A. Plumley	322	34
Notre Dame (W., S.)	South Euclid, Ohio	1922	Mother M. Evarista	135	29
Notre Dame, Coll. of (W., E., S.)	Baltimore, Md.	1896	Sister M. Philemon	128	19
Notre Dame, Univ. of (S.)	Notre Dame, Ind.	1842	Rev. C. L. O'Donnell	2,600	174
Oakland City (C., E., S.)	Oakland City, Ind.	1885	W. P. Dearing	487	20
Oberlin (C., S.)	Oberlin, Ohio	1833	Ernest H. Wilkins	1,746	171
Occidental (C.)	Los Angeles, Calif.	1887	Remsen duBois Bird	700	65
Oglethorpe Univ. (C., E., S.)	Oglethorpe Univ., Ga.	1913	Thornwell Jacobs	300	15
Ohio Northern Univ. (C., E., S.)	Ada, Ohio	1871	Robert Williams	1,440	60
*Ohio State Univ. (C., E., S.)	Columbus, Ohio	1873	Geo. W. Rightmire	13,546	875
Ohio Univ. (C., E., S.)	Athens, Ohio	1804	Elmer B. Bryan	2,361	200
Ohio Wesleyan Univ. (C.)	Delaware, Ohio	1844	Edmund D. Saper	1,798	142
Oklahoma (W., E.)	Chickasha, Okla.	1908	M. A. Nash	797	46
*Oklahoma Agri. and Mech. (C., E., S.)	Stillwater, Okla.	1891	Henry G. Bennett	2,600	235

Name.	Location.	Year Organ.	Governing Official.	No. of Stud'ts.	No. of Teach'r
Oklahoma Baptist Univ. (C., E., S.)	Shawnee, Okla.	1910	W. W. Phelan	800	33
Oklahoma City Univ. (C., E., S.)	Okla. City, Okla.	1911	Eugene M. Antrim	1,200	37
Oklahoma, Univ. of (C., E., S.)	Norman, Okla.	1892	Wm. B. Bizzell	7,091	273
Olivet (C., S.)	Olivet, Mich.	1844	A. E. Vestling	350	30
Omaha, Univ. of (C., E., S.)	Omaha, Nebr.	1908	Ernest W. Emery	1,081	89
Oregon State Agric. (C., E., S.)	Corvallis, Ore.	1868	William J. Kerr	3,828	273
Oregon, Univ. of (C., E., S.)	Eugene, Ore.	1872	Arnold B. Hall	3,475	240
Ottawa Univ. (C., S.)	Ottawa, Kan.	1865	Erdmann Smith	450	32
Otterbein (C., E.)	Westerville, Ohio	1847	W. G. Clippinger	399	40
Ouachita Baptist (C.)	Arkadelphia, Ark.	1886	Chas. D. Johnson	318	26
Our Lady of the Lake (W., S.)	San Antonio, Tex.	1896	Vy. Rev. Constantineau	479	38
Ozarks, College of the (C., S.)	Clarksville, Ark.	1891	Rev. Wiley L. Hurle	253	21
Pacific (C.)	Newberg, Ore.	1891	Levi T. Pennington	119	18
Pacific, College of (C., S.)	Stockton, Calif.	1851	Tully C. Knoles	976	72
Pacific Union (C., S.)	Angwin, Calif.	1909	W. E. Nelson	165	30
Pacific Univ. (C.)	Forest Grove, Ore.	1849	John F. Dobbs	225	22
Park (C.)	Parkville, Mo.	1875	Fred. W. Hawley	509	37
Parsons (C., E., S.)	Fairfield, Iowa	1875	Clarence W. Greene	355	30
Pasadena (C., E., S.)	Pasadena, Calif.	1902	Orval J. Nease	143	18
Pembroke (W.) (Brown Univ.)	Providence, R. I.	1892	M. S. Morriss(Dean)	499	Br'n U
Penn (C., S.)	Oskaloosa, Iowa	1873	Harlan L. McCracken	325	27
Pennsylvania (W.)	Pittsburgh, Pa.	1870	Miss Cora H. Coolidge	129	37
*Pennsylvania State (C., E., S.)	State College, Pa.	1855	Ralph D. Hetzel	3,980	404
Pennsylvania, Univ. of (part C., E., S.)	Philadelphia, Pa.	1740	Josiah H. Penniman	12,564	1,503
Pharmacy, Coll. of (C.)	New York, N. Y.	1829	H. H. Rusby (Dean)	713	41
Philippines, Univ. of (C., S.)	Manila, P. I.	1908	Rafael Palma	5,698	550
Phillips Univ. (C., S.)	Enid, Okla.	1907	I. N. McCash	809	39
Piedmont (C., S.)	Demorest, Ga.	1897	Frank E. Jenkins	230	23
Pittsburgh, Univ. of (C., E., S.)	Pittsburgh, Pa.	1787	John G. Bowman	12,725	961
Polytechnic Inst. of B'klyn	Brooklyn, N. Y.	1854	E. J. Streubel	450	45
Pomona (C., S.)	Claremont, Calif.	1887	Chas. K. Edmunds	787	86
*Porto Rico, Univ. of (C., S.)	Rio Piedras, P. R.	1903	Gildo Masso (A't'g)	897	150
Presbyterian	Clinton, So. Car.	1880	John McSween	225	18
Princeton Univ.	Princton, N. J.	1746	John Grier Hibben	2,486	523
Providence (E., S.)	Providence, R. I.	1917	L. C. McCarthy	705	40
Puget Sound, Coll. of (C., E., S.)	Tacoma, Wash.	1903	Edward H. Todd	619	29
*Purdue Univ. (C., E., S.)	Lafayette, Ind.	1869	Edward C. Elliott	4,000	303
Queens (W.)	Charlotte, No. Car.	1857	W. H. Frazer	327	31
Radcliffe (W., S.)	Cambridge, Mass.	1879	Ada L. Comstock	1,163	215
Randolph-Macon	Ashland, Va.	1832	Robt. E. Blackwell	221	29
Randolph-Macon Woman's	Lynchburg, Va.	1893	Dice R. Anderson	825	62
Redlands, Univ. of (C.)	Redlands, Calif.	1907	Victor Leroy Duke	540	43
Reed Institute (C.)	Portland, Ore.	1911	Norman F. Coleman	350	29
Regis	Denver, Colo.	1888	A. A. Breen	182	17
Rensselaer Poly. Inst.	Troy, N. Y.	1824	Palmer C. Ricketts	1,468	114
R. I. Coll. of Education (C., E., S.)	Providence, R. I.	1854	John L. Alger	601	49
*Rhode Island State (C.)	Kingston, R. I.	1892	Howard Edwards	600	50
Rice Inst. (C.)	Houston, Tex.	1912	E. O. Lovett	1,309	90
Richmond, Univ. of (C., S.)	Richmond, Va.	1832	F. W. Boatwright	827	55
Rio Grande (C., S.)	Rio Grande, Ohio	1876	Willard W. Bartlett	220	12
Ripon (C.)	Ripon, Wisc.	1851	Silas Evans	402	32
Roanoke (part C., E., S.)	Salem, Va.	1853	Charles J. Smith	200	25
Robert	ConstantinopleTurkey	1863	Caleb Frank Gates	720	97
Rollins (C., E.)	Winter Park, Fla.	1885	Hamilton Holt	325	42
Rockford (W., E.)	Rockford, Ill.	1847	Wm. A. Maddox	421	37
Rosary (S.)	River Forest, Ill.	1922	Sr. Mary Ruth	285	00
Rochester, Univ. of (C., E., S.)	Rochester, N. Y.	1850	Rush Rhees	1,543	230
Rockhurst	Kansas City, Mo.	1914	William P. Manion	145	12
Rose Poly. Inst.	Terre Haute, Ind.	1875	J. B. Peddle (A't'g)	256	20
Rosemont (W., S.)	Rosemont, Pa.	1922	Mother M. Ignatius	119	22
Russell Sage (W.)	Troy, N. Y.	1916	J. L. Meader	350	33
*Rutgers Univ. (C., E., S.)	New Brunswick, N. J.	1766	John M. Thomas	3,281	275
Sacred Heart, Coll. of the (W.)	New York, N. Y.	1847	Mme. Charlotte Lewis	203	34
St. Ambrose (E.)	Davenport, Iowa	1885	U. A. Houber	204	22
St. Anslem's	Manchester, N. H.	1893	Bertrand C. Dolan	200	20
St. Benedict's (S.)	Atchison, Kan.	1858	Sylvester Schmitz	206	22
St. Bonaventure's (E., S.)	Allegany, N. Y.	1858	Rev. Thos. Plassmann	756	45
St. Catherine, Coll. of (W., S.)	St. Paul, Minn.	1911	Sister Antonia	415	45
St. Edward's Univ.	Austin, Tex.	1885	Rev Joseph Burke	178	15
St. Elizabeth, Coll. of (W., S.)	Convent Station, N. J.	1899	Sister Marie Jose	269	35
St. Francis	Brooklyn, N. Y.	1858	Rev. Bro. Columba	200	17
St. Francis (S.)	Loretto, Pa.	1845	John P. J. Sullivan	300	25
St. Ignatius	San Francisco, Calif.	1855	Rev. Edw. J. Whelan	671	62
St. John's	Annapolis, Md.	1784	Robert E. Bacon	250	25
St. John's (part C., E.)	Brooklyn, N. Y.	1870	V. Rev. J. J. Cloonan	5,240	127
St. John's Univ.	Collegeville, Minn.	1857	Alcuin Deutsch	225	20
St. Joseph's	Princeton, N. J.	1914	Joseph S Dunn	96	14
St. Joseph's (W.)	Brooklyn, N. Y.	1916	Wm. T. Dillon	281	32
St. Joseph's	Philadelphia, Pa.	1851	William T. Tallon	260	24
St. Lawrence Univ. (C., E., S.)	Canton, N. Y.	1856	Richard E Sykes	4,009	100
St. Louis Univ. (C., S.)	St. Louis, Mo.	1818	Charles H. Cloud	4,340	550
St. Mary-of-the-Woods (W.)	St. Mary-of-the-Woods, Ind.	1840	Mother Mary Raphael	267	36
St. Mary's	Oakland, Calif.	1863	Bro. U. Lewis	556	38
St. Mary's (W., S.)	Notre Dame, Ind.	1855	Mother M. Pauline	349	42
St. Mary's	Winona, Minn.	1913	Mgr. J. H. Peschges	162	16
St. Olaf (C.)	Northfield, Minn.	1874	L. W. Boe	996	78
St. Rose, Coll. of (W., S.)	Albany, N. Y.	1920	Rt. Rev. E. F. Gibbons	187	17
St. Stephen's (S.)	Annandale-on-Hudson N. Y.	1860	B. I. Bell (Warden)	123	18
St. Teresa, Coll. of (W., S.)	Winona, Minn.	1910	Sister M. A. Molloy	380	37
St. Thomas, Coll. of	St. Paul, Minn.	1885	Rev. M. Schumacher	402	67
St. Viator (E.)	Bourbonnais, Ill.	1874	Rev. J. W. R. Maguire	125	18
St. Vincent (E.)	Latrove, Pa.	1870	Aurelius Stehle	331	38
St. Xavier (S.)	Cincinnati, Ohio	1831	H. F. Brockman	856	57
Salem (W., E.)	Winston-Salem, N. C.	1772	H. E. Rondthaler	350	35
Santa Clara, Univ. of	Santa Clara, Calif.	1851	Cornelius J. McCoy	475	51
Seton Hall	South Orange, N. J.	1856	Mgr. T. F. McLaughlin	325	16
Seton Hall (W., S.)	Greensburg, Pa.	1918	Daniel R. Sullivan	302	42

Name	Location.	Year Organ.	Governing Official.	No. of Stud'ts.	No. of Teach'rs
Shaw Univ. (C., E., S.)	Raleigh, No. Car.	1865	J. L. Peacock	328	23
Shorter (W.)	Rome, Ga.	1873	W. D. Furry	260	26
Shurtleff (C., S.)	Alton, Ill.	1827	George M. Potter	271	20
Simmons (W., S.)	Boston, Mass.	1899	Henry Lefavour	1,400	125
Simmons Univ. (C., E., S.)	Abilene, Tex.	1891	J. D. Sandefer	150	51
Simpson (C., S.)	Indianola, Iowa	1867	John W. L. Hillman	851	44
Skidmore (W., S.)	Saratoga Spgs., N. Y.	1911	Henry T. Moore	583	61
Smith (W., S.)	Northampton, Mass.	1875	Wm. A. Neilson	2,083	227
Smith Univ., Johnson C. (E.)	Charlotte, No. Car.	1867	H. L. McCroery	312	19
South, Univ. of (S.)	Sewanee, Tenn.	1857	Benj. F. Finney	345	38
South Carolina, Univ. of (C., E.)	Columbia, So. Car.	1801	D. M. Douglas	1,513	97
*South Dakota State Coll. of Agric. and Mech. Arts (C., S.)	Brookings, So. Dak.	1883	C. W. Pugsley	929	98
South Dakota State School of Mines (C.)	Rapid City, So. Dak.	1885	C. C. O'Harra	353	21
South Dakota, Univ. of (C., E., S.)	Vermillion, So. Dak.	1882	Herman C. James	1,063	95
Southern (C., E., S.)	Lakeland, Fla.	1886	Ludd M. Spivey	454	36
Southern California, U. of (C., E., S.)	Los Angeles, Calif.	1880	R. B. von KleinSmid	9,000	450
Southern Methodist Univ. (C.,E.,S.)	Dallas, Tex.	1911	Chas. C. Selecman	2,866	150
Southwestern (C., S.)	Winfield, Kan.	1885	E. T. Franklin	750	54
Southwestern (C., S.)	Memphis, Tenn.	1875	Chas. E. Diehl	420	25
Southwestern Louisiana In.(C.,E.,S.)	Lafayette, La.	1898	Edwin L. Stephens	900	45
Southwestern Univ. (C., E., S.)	Georgetown, Tex.	1873	King Vivion	500	30
Spring Hill	Spring Hill, Ala.	1830	Joseph M. Walsh	171	21
Sterling (C., E., S.)	Sterling, Kan.	1887	R. T. Campbell	400	17
Stevens Inst. of Tech.	Hoboken, N. J.	1870	Harvey N. Davis	425	55
Susquehanna Univ. (C., E., S.)	Selinsgrove, Pa.	1894	G. Morris Smith	550	52
Swarthmore (C.)	Swarthmore, Pa.	1864	Frank Aydelotte	540	65
Sweet Briar (W.)	Sweet Briar, Va.	1906	Meta Glass	445	46
Syracuse Univ. (C., E., S.)	Syracuse, N. Y.	1870	Charles W. Flint	5,885	680
Talladega (C.)	Talladega, Ala.	1867	F. A. Sumner	254	62
Teachers (C., E., S.)	New York, N. Y.	1888	W. F. Russell (Dean)	5,219	327
Temple Univ. (C., E., S.)	Philadelphia, Pa.	1884	Charles E. Beury	12,390	569
Tennessee (W.)	Murfreesboro, Tenn.	1907	E. L. Atwood	175	17
*Tennessee, Univ. of (C., E., S.)	Knoxville, Tenn.	1794	Harcourt A. Morgan	3,288	398
*Texas, Agric. & Mech. Coll. (E., S.)	College Station, Tex.	1876	Thomas O. Walton	3,000	000
Texas Christian Univ. (C., S.)	Fort Worth, Tex.	1873	E. M. Waits	1,687	91
Texas State (W.)	Denton, Tex.	1903	L. H. Hubbard	1,736	130
Texas Tech. (C., E., S.)	Lubbock, Tex.	1925	P. W. Horn	2,088	135
Texas, Univ. of (C., E., S.)	Austin, Tex.	1881	H. Y. Benedict	5,780	428
Texas Woman's (E., S.)	Fort Worth, Tex.	1914	H. E. Stout	250	29
Thiel (C., S.)	Greenville, Pa.	1866	Enos Clyde Xander	257	28
Transylvania (C., S.)	Lexington, Ky.	1780	E. Campbell (A't'g)	357	26
Trinity (E.)	Hartford, Conn.	1823	Remsen B. Ogilby	276	32
Trinity (W.)	Washington, D. C.	1897	Sister Raphael	346	50
Trinity Univ. (C., S.)	Waxahachie, Tex.	1869	John H. Burma	580	34
Tufts (C.)	Medford, Mass.	1852	John Albert Cousens	2,027	411
Tulane Univ. (part C., S.)	New Orleans, La.	1834	A. B. Dinwiddie	2,490	421
Tulsa, Univ. of (C., E., S.)	Tulsa, Okla.	1894	John D. Finlayson	800	42
Union (C., S.)	College View, Nebr.	1890	P. L. Thompson	310	34
Union (E.)	Schenectady, N. Y.	1795	Frank P. Day	800	80
Union Univ. (C., E., S.)	Jackson, Tenn.	1834	H. E. Watters	800	50
U. S. Military Academy	West Point, N. Y.	1803	Gen. W. R. Smith	1,255	194
U. S. Naval Academy (S.)	Annapolis, Md.	1845	Rear Adm. S.S. Robison	1,664	245
Upper Iowa Univ. (C., E., S.)	Fayette, Iowa	1854	J. W. Dickman	155	20
Upsala (C., S.)	East Orange, N. J.	1893	G. G. Erickson	324	20
Ursinus (C.)	Collegeville, Pa.	1869	George L. Omwake	460	33
Ursuline (W., E., S.)	Cleveland, Ohio	1922	Mother M. Mercedes	105	20
*Utah, Agric. Coll. of (C., E., S.)	Logan, Utah	1888	Elmer G. Peterson	1,152	76
Utah, Univ. of (C., E., S.)	Salt Lake City, Utah	1850	George Thomas	3,132	190
Valparaiso Univ. (C., S.)	Valparaiso, Ind.	1859	W. H. T. Dau	400	42
Vanderbilt Univ. (C.)	Nashville, Tenn.	1873	J. H. Kirkland	1,429	307
Vassar (W., S.)	Poughkeepsie, N. Y.	1861	Henry N. MacCracken	1,150	150
Vermont, Univ. of (C., E., S.)	Burlington, Vt.	1791	Guy W. Bailey	1,215	198
Villanova (C., E., S.)	Villanova, Pa.	1842	James H. Griffin	1,000	75
Virginia Agric. and Mech. Coll. and Poly. Inst. (C., E., S.)	Blacksburg, Va.	1872	Julian A. Burruss	1,932	150
Virginia Military Inst. (S.)	Lexington, Va.	1839	W. H. Cocke	704	53
*Virginia Poly. Inst. (C., E., S.)	Blacksburg, Va.	1872	Julian A. Burruss	1,334	126
Virginia Union Univ. (C., E., S.)	Richmond, Va.	1899	William J. Clark	468	25
Virginia, Univ. of (part C., E., S.)	Charlottesville, Va.	1819	E. A. Alderman	2,400	138
Wabash	Crawfordsville, Ind.	1832	Louis B. Hopkins	421	28
Wake Forest (part C., S.)	Wake Forest, No. Car.	1834	Francis P. Gaines	665	39
Walla Walla (C., S.)	College Place, Wash.	1892	Walter I. Smith	350	25
Wartburg (C.)	Clinton, Iowa	1868	Otto L. Proehl	105	17
Washburn (C., S.)	Topeka, Kan.	1865	Parley Paul Womer	861	72
Washington and Jefferson (E., S.)	Washington, Pa.	1787	Simon S. Baker	512	14
Washington and Lee Univ.	Lexington, Va.	1749	Henry Louis Smith	930	56
Washington (C., S.)	Chestertown, Md.	1782	Paul E. Titsworth	255	20
Washington Missionary (C., S.)	Takoma Park, Washington, D. C.	1904	H. H. Hamilton	127	25
*Washington, St. Coll. of (C., E., S.)	Pullman, Wash.	1890	Ernest O. Holland	3,143	192
Washington Univ. (C., E., S.)	St. Louis, Mo.	1853	George Reeves Throop	3,413	500
Washington, Univ. of (C., E., S.)	Seattle, Wash.	1861	M. Lyle Spencer	8,309	460
Waynesburg (C., E., S.)	Waynesburg, Pa.	1849	Paul R. Stewart	278	22
Webster (W.)	Webster Groves, Mo.	1916	Mother Mary Linus	184	33
Wellesley (W.)	Wellesley, Mass.	1875	Ellen F. Pendleton	1,580	161
Wells (W.)	Aurora-on-Cayuga, N. Y.	1868	Kerr D. Macmillan	260	42
Wesleyan (W.)	Macon, Ga.	1836	Wm. F. Quillian	370	42
Wesleyan Univ.	Middletown, Conn.	1831	Jas. L. McConnaughy	621	65
West Virginia State (C., E., S.)	Institute, W. Va.	1891	John W. Davis	497	51
*West Virginia Univ. (C., E., S.)	Morgantown, W. Va.	1867	John R. Turner	3,030	243
West Virginia Wesleyan (C., E., S.)	Buckhannon, W. Va.	1890	Homer E. Wark	350	30
Western (W.)	Oxford, Ohio	1853	William Waddell Boyd	406	41
Western Maryland (C., E.)	Westminster, Md.	1868	Albert N. Ward	417	40
Western Reserve Univ. (part C., E., S.)	Cleveland, Ohio	1826	Robert E. Vinson	4,096	654
Western Union (C., E.)	Le Mars, Iowa	1900	C. A. Mock	167	23
Westminster	Fulton, Mo.	1849	M. E. Melvin	302	17

Name.	Location.	Year Organ.	Governing Official.	No. of Stud'ts.	No. of Teach's
Westminster (C.)	New Wilmington, Pa.	1852	W. Charles Wallace	560	29
Wheaton (C., S.)	Wheaton, Ill.	1860	Jas. O. Buswell, Jr.	555	33
Wheaton (W.)	Norton, Mass.	1834	John Edgar Park	448	51
Whitman (C.)	Walla, Walla, Wash.	1866	Stephen B. L. Penrose	579	40
Whittier (C.)	Whittier, Calif.	1901	Walter F. Dexter	471	35
Whitworth (W., E., S.)	Brookhaven, Miss.	1858	G. F. Winfield	155	18
Wichita, Muni. Univ. of (C., E., S.)	Wichita, Kan.	1926	H. W. Foght	1,624	83
Wilberforce Univ. (C., E., S.)	Wilberforce, Ohio	1856	Gilbert H. Jones	369	81
Willamette Univ. (C., S.)	Salem, Ore.	1842	Carl Gregg Doney	558	43
William & Mary, Coll. of (C., E., S.)	Williamsburg, Va.	1693	J. A. C. Chandler	1,400	79
Williams	Williamstown, Mass.	1793	Harry A. Garfield	820	89
Wilmington (C., E., S.)	Wilmington, Ohio	1871	B. O. Skinner	326	22
Wilson (W.)	Chambersburg, Pa.	1869	Ethelbert D. Warfield	406	46
Winthrop (W., E., S.)	Rock Hill, So. Car.	1886	James P. Kinard	1,619	100
Wisconsin, Univ. of (C., E., S.)	Madison, Wisc.	1848	Glenn Frank	9,746	697
Wittenberg (C., E., S.)	Springfield, Ohio	1845	Rees E. Tulloss	1,108	92
Wofford (S.)	Spartanburg, So. Car.	1854	Henry N. Snyder	454	26
Wooster, Coll. of (C., S.)	Wooster, Ohio	1866	Charles F. Wishart	846	75
Worcester Poly. Inst.	Worcester, Mass.	1865	Ralph Earle	616	69
Wyoming, Univ. of (C., E., S.)	Laramie, Wyo.	1887	A. G. Crane	1,200	180
Yale Univ. (part C., S.)	New Haven, Conn.	1701	James Rowland Angell	5,025	882
Yankton (C., S.)	Yankton, So. Dak.	1881	G. W. Nash	295	34
York (C., S.)	York, Nebr.	1890	J. R. Overmiller	185	19

CANADIAN COLLEGES.

Name.	Location.	Year Organ.	Governing Official.	No. of Stud'ts.	No. of Teach's
Acadia Univ. (C., E.)	Wolfville, N. S.	1838	F. W. Patterson	513	46
Alberta, Univ. of (C., E., S.)	Edmonton, Alberta	1908	R. C. Wallace	1,238	147
Bishop's Coll., Univ. of (C.)	Lennoxville, P. Q.	1843	A. H. McGreer	155	14
British Columbia, Univ. of (C., S.)	Vancouver, B. C.	1912	Leonard S. Klinck	1,730	130
Dalhousie Univ. (C., E.)	Halifax, N. S.	1818	A. Stanley Mackenzie.	758	140
King's Coll., Univ. of (C.)	Halifax, N. S.	1789	A. H. Moore	60	15
Laval Univ. (part C., E.)	Quebec, P. Q.	1852	Ph. J. Fillion	6,035	179
Loyola	Montreal	1896	V. Rev. E. G. Bartlett	404	32
Macdonald (C., E., S.)	Ste. A. de Bellevue, Que.	1907	Sir Arthur W. Currie.	415	63
Manitoba, Univ. of (C., E., S.)	Winnipeg, Man.	1877	James A. MacLeao	2,419	258
McGill Univ. (C., E., S.)	Montreal	1821	Sir Arthur W. Currie.	2,365	465
McMaster Univ. (C., E.)	Hamilton, Ont.	1887	H. P. Whidden	367	25
Montreal Univ. (C., S.)	Montreal	1878	F. L. Beique	4,264	434
Mt. Allison Univ. (C., E., S.)	Sackville, N. B.	1858	George J. Trueman	300	25
New Brunswick, Univ. of (C., S.)	Fredericton, N. B.	1800	C. C. Jones	280	14
Ottawa, Univ. of (E., S.)	Ottawa	1849	Ulderic Robert	980	75
Queen's Univ. (C., E., S.)	Kingston, Ont.	1841	R. Bruce Taylor	2,019	115
St. Dunstan's Univ.	Charlottetown, P. E. I.	1855	J. A. Murphy	180	13
St. Francis Xavier Univ. (C., S.)	Antigonish, N. S.	1855	H. P. MacPherson	275	24
Saskatchewan, Univ. of (C., E., S.)	Saskatoon, Sask.	1907	W. C. Murray	1,597	81
Toronto, Univ. of (C., E., S.)	Toronto, Ont.	1829	Sir Robt. A. Falconer.	5,986	689
Victoria Univ. (C.)	Toronto, Ont.	1841	Richard P. Bowles	814	46
Western Ontario, U. of (C., E., S.)	London, Ont.	1878	W. Sherwood Fox	1,060	127

RHODES SCHOLARSHIPS.

Two Rhodes Scholarships to the University of Oxford are assigned to each State in the Union.

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Selections are made on the basis of the candidate's record in school and college, supplemented by references of persons who know him and by a personal interview with the Committee of Selection.

There is no written examination. Elections are made on the basis of—(1) Qualities of manhood, force of character, and leadership; (2) Literary and scholastic ability and attainments; (3) Physical vigor, as shown by interest in outdoor sports or in other ways. No restriction is placed on a Rhodes scholar's choice of studies. He may read for the Oxford B. A. in any of the Final Honor Schools, he may enter for any one of the so called Diploma Courses, or, if qualified by previous training, may be admitted to read for advanced degrees such as the B. Sc., B. Litt., B. C. L., or Ph. D.

An election is held each year in two thirds of the States of the Union.

Application blanks and further information may be obtained from the officers of any college or university in the United States or from President Frank Aydelotte, American Secretary to the Rhodes Trustees, Swarthmore College, Swarthmore, Pa.

PRESIDENT HOOVER AND FELLOW MEDALISTS.

Following are the names of the distinguished persons [on whom the Mining and Metallurgical Society of America has conferred gold medals:

1914 Herbert Hoover and Lou Hoover, "Contributions to the Literature of Mining."
1915, Robert Hallowell Richards, "Advancement in the Art of Ore Dressing."
1916, James Furman Kemp, "Advancement of the Science of Economic Geology."
1917, Edward Payson Mathewson, "Art of Non-ferrous Metallurgy."
1918, Pope Yeatman, "Administration of Mines."
1919, Charles Eugene Schneider, "Metallurgy of Iron and Steel."
1920, E. A. Cappelen Smith, "Art of Hydro-Metallurgy."
1921, Charles Warren Goodale, "Increasing the Safety of Men in Mining and Metallurgical Operations.
1922, Robert Peele, "Literature of Mining."
1924, Frederick Gardner Cottrell, "Development of a Method of Electrical Precipitation of Solid and Liquid Particles from Smelter Smoke, and in Recognition of his Public Spirit in making a gift of the Proceeds of his invention for the support of Scientific Research."
1926, Daniel Cowan Jackling, "Development of Low-grade Mines."
1929, Cornelius Francis Kelley, "Expansion and Stabilization of the Mining Industry."

ASSOCIATIONS AND SOCIETIES IN THE UNITED STATES.

The year of establishment is in parentheses. The other figures are those of membership. For organizations not in this list, see Index. Some appear elsewhere with more detail. N. Y. C. is New York City.

Abolish Capital Punishment, Inc., Amer. League to (1925), 104 Fifth Ave., N. Y. C.; membership in 34 states; Pres., Clarence Darrow; Sec., Vivian Pierce.

Accountants, Amer. Inst. of (1916), 135 Cedar St., N. Y. C., 2,185; Pres., Frederick H. Hurdman; Sec., A. P. Richardson.

Actors Equity Association (1913), 45 W. 47th St., N. Y. C.; 13,000; Pres., Frank Gillmore; Exec. Sec., Paul Dullzell.

Actors' Fidelity League (1919) 17 E. 45th St., N. Y. C.; 150; Pres., George M. Cohan; Sec., Howard Kyle.

Actors' Fund of America (1882), 701 Seventh Ave., N. Y. C.; 1,500; Pres., Daniel Frohman; Sec., W. C. Austin.

Actuarial Society of America (1889), 256 Broadway, N. Y. C.; 508; Sec., Ray D. Murphy.

Actuaries, Amer. Inst. of (1909), 720 No. Michigan Ave., Chicago, Ill.; 372; Pres., Arthur Coburn; Sec., E. G. Fassel, 210 E. Wisconsin Ave., Milwaukee, Wisc.

Advertising Club of New York, Inc. (1915), 23 Park Ave., N. Y. C.; 2,538; Pres., James Wright Brown; Sec., J. R. Bolton.

Advertising Federation of America (1905), 420 Lexington Ave., N. Y. C.; 18,000; Pres., Charles C. Younggreen; Sec., W. Frank McClure.

Advertising Managers, Assoc. of Newspaper Classified (1919); 347; Pres., J. A. Finneran, The Times, N. Y. C.; Sec., E. F. Emmel, Item & Tribune, New Orleans, La.

Aeronautic Assoc. of U. S. A., Inc., Nat'l. (1922), 910 - 17th St., N. W., Washington, D. C.; 8,000; Pres., Senator Hiram Bingham; Sec., Valentine Gephart.

Aeronautical Chamber of Commerce of Amer., Inc. (1921) 10 E. 40th St., N. Y. C.; 830; Sec., Luther H. Bell.

Air Transport Assoc., Amer. (1928), Rm. 1610, 105 W. Adams St., Chicago, Ill.; 23; Man., Winsor Williams.

Amen Corner (1900); Pres., Harold MacD. Anderson, The Sun, N. Y. C.; Sec., T. O. McGill, 1607 Broadway, N. Y. C.

American Academy in Rome (1894), 101 Park Ave., N. Y. C.; Pres., Charles A. Platt; Exec. Sec., Roscoe Guernsey.

American Antiquarian Soc. (1812), Worcester, Mass.; 200 resident, 30 foreign; Librarian, Clarence S. Brigham.

American Asiatic Assoc. (1898), 501 Fifth Ave., N. Y. C.; 200; Pres., Martin Egan; Sec., John B. Chevalier.

American Federation of Labor (1881), A. F. of L. Bldg., Washington, D. C.; 3,396,063; Pres., William Green; Sec., Frank Morrison.

American Institute of the City of New York (1828), 250 W. 57th St., N. Y. C.; 550; Pres., Edwin Forrest Murdock; Dir., L. W. Hutchins.

American Irish Historical Soc. (1897), 132 E. 16th St., N. Y. C.; 2,500; Pres.-Gen., Alfred M. Barrett; Sec., James McGurrin.

American Legion, The (1919), 777 No. Meridian St., Indianapolis, Ind.; 766,850; Nat'l. Commander, O. L. Bodenhamer; Nat'l. Adjt., James F. Barton.

American Relief Administration Assoc. (1925), 42 Broadway, N. Y. C.; 600; Pres., Dr. Lincoln Hutchinson; Sec., Robert C. Wright.

American-Scandinavian Foundation (1911), 25 W. 45th St., N. Y. C.; 6,000; Pres., Henry Goddard Leach; Sec., Nellson Abeel.

American Wars of the U. S., Soc. of (1897), 314 7th St., N. E., Washington, D. C.; 225; Comm.-Gen., Major George J. Newgarden; Rec.-Gen., Lieut. Milo C. Summers.

American Woman's Assoc. (1922), 353 W. 57th St., N. Y. C.; approx. 5,000; Pres., Miss Anne Morgan; Sec., Mrs. Kathryn Low Pierrepont.

Americanists, Int'l. Congress of (1875); abt. 575; Sec. 1930 Congress, Prof. Geo. Thilenius, Univ. of Hamburg, Germany.

Andiron Club of N. Y. City (1907), Box 84, University Heights, N. Y. C.; 255; Pres., Royal J. Davis; Sec., Prof. H. Stanley Schwarz.

Anthropological Soc., Amer. (1923), 45 W. 45th St., N. Y. C.; 3,000; Pres., A. C. Risdon, Gales Ferry, Conn.; Sec., H. T. Avery, 270 Madison Ave., N. Y. C.

Anti-Profanity League (1902), Ware, Mass.; 30,000; Sec., Rev. R. D. Sawyer.

Anti-Saloon League of America (1893); 30 Bliss Bldg., Washington, D. C.; Gen. Supt., F. Scott McBride, as above; Sec., S. E. Nicholson, 370 7th Ave., Suite 701, N. Y. C.

Anti-Saloon League of N. Y. (1899), 370 Seventh Ave., N. Y. C.; Pres., Judge Harvey F. Remington, Rochester, N. Y.; State Supt., Arthur J. Davis; Sec., S. E. Nicholson.

Aquarium Soc. of N. Y. (1892), Museum of Natural History, N. Y. C.; 110; Pres., William G. Holbein; Sec., I. Engel, 235 W. 110th St., N. Y. C.

Archaeological Institute of Amer. (1879), New York Univ., Univ. Heights, N. Y. C.; 3,200; Pres., Prof. Ralph Van Deman Magoffin; Gen. Sec. Prof. Rollin H. Tanner.

Archery Assoc. of the U. S., Nat'l. (1879), 616 Old South Bldg., Boston, Mass.; 225; Sec.-Treas., Louis C. Smith.

Architects, Amer. Inst. of (1857), The Octagon, 1741 New York Ave., N. W., Washington, D. C.; 4,000; Exec. Sec., E. C. Kemper.

Architects, American Institute of, (N. Y. Chapter), (1869), 101 Park Ave., N. Y. C.; 500; Pres., Wm. Adams Delano; Sec., Julian C. Levi.

Architects, N. Y. Society of (1906), 29 W. 39th St., N. Y. C.; 300; Pres., Jas. Riely Gordon; Sec., M. W. Del Gaudio.

Architects, Soc. of Beaux Arts (1894), 304 E. 44th St., N. Y. C.; 287; Pres., William Adams Delano; Sec., Julian Clarence Levi.

Architectural League of N. Y. (1880), 115 E. 40th St., N. Y. C.; 1,200; Pres., Raymond M. Hood; Sec., S. F. Voorhees.

Arion Singing Soc. (1865), 1002 Bushwick Ave., Brooklyn, N. Y.; 550; Pres., Max Oehler; Sec., Rudolph Fischer.

Army of Santiago de Cuba, Soc. of the (1898), Rm. 1006, Munitions Bldg., Washington, D. C.; 2,000; Pres., Maj. Gen. Kenzie W. Walker; Sec., Major R. D. LaGarde, U. S. A., Ret.

Art Alliance of Amer. (1914), 65 E. 56th St., N. Y. C.; 950; Pres., John Clyde Oswald; Sec., Mrs. Harriet E. Brewer.

Art Center, Inc. (1920), 65-67 E. 56th St., N. Y. C.; 2,800; Pres., Richard DeWolfe Brixey; Sec., Wilford S. Conrow.

Art Soc. of N. Y., Municipal (1892), 119 E. 19th St., N. Y. C.; 500; Pres., George McAneny; Sec., Samuel H. Ordway, Jr.

Art Students League of N. Y. (1875), 215 W. 57th St., N. Y. C.; 2,750; Pres., Gifford Beal; Sec., Margaret L. Campbell.

Arts, Amer. Federation of (1909), Barr Bldg., Farragut Sq., Washington, D. C.; abt. 6,000; Pres., Robert W. de Forest; Sec., Miss Leila Mechlin.

Arts and Letters, Amer. Academy of (1904), 633 W. 155th St., N. Y. C.; 50; Pres., Nicholas Murray Butler; Sec., Robert Underwood Johnson.

Arts and Letters, Nat'l. Inst. of (1898), 633 W. 155th St., N. Y. C.; Pres., Dr. Walter Damrosch; Sec., Spurton J. Hendrick.

Arts and Letters, Soc. of Int'l. (1922), 15 W. 107th St., N. Y. C.; 180; Pres., Mrs. M. Voolman Cantwell; Sec., E. Frye Barker.

Arts and Sciences, Amer. Academy of (1780), 28 Newbury St., Boston, Mass.; 600 fellows, 100 foreign hon. members, 33 associates; Pres., Prof. Edwin B. Wilson; Sec., Dr. Robert P. Bigelow.

Asiatic Assoc., Amer. (1898), 501 Fifth Ave., N. Y. C.; 200; Pres., Martin Egan; Sec., John B. Chevalier.

Associated Press (1900), 383 Madison Ave., N. Y. C.; 1,275; Pres., Frank B. Noyes; Sec., Kent Cooper.

Astronomical Soc., Amer. (1899), Princeton Univ. Observatory, Princeton, N. J.; 492; Pres., Prof. E. W. Brown; Sec., Prof. Raymond S. Dugan.

Athletic Union of U. S., Amateur (1888), Woolworth Bldg., 233 Broadway, N. Y. C.; abt. 2,500,-000; Pres., Avery Brundage; Sec., Daniel J. Ferris.

Audubon Societies, Nat'l. Assoc. of (1901), 1974 Broadway, N. Y. C.; 10,000 senior, 347 junior; Pres., Dr. T. Gilbert Pearson; Sec., William P. Wharton.

Authors' League of Amer., Inc. (1912), 2 E. 23rd St., N. Y. C.; 2,100; Pres., Arthur Richman; Sec., Luise Silcox.

Automobile Association, American (1902), Pennsylvania Ave. at 17th St., Washington, D. C., 969 clubs and branches with 800,000 members, Pres., Thomas P. Henry; Sec., Chas. C. James, Exec. Vice-Pres., Ernest N. Smith.

Automobile Assoc., N. Y. State (1903), 184 State St., Albany, N. Y.; approx. 100,000; Pres., John Wright; Sec. Warner Bates.

Automobile Chamber of Commerce, Inc., Nat'l. (1913), 366 Madison Ave., N. Y. C.; 88; Gen. Man., Alfred Reeves; Sec., John N. Willys.

Automobile Club of America (1899), 12 E. 53rd St.; 7,000; Pres., Dave H. Morris; Sec., Elmer Thompson.

Automobile Club, New York (1926), Hotel Park

Plaza, 50 W. 77th St., N. Y. C.; 25,000; Pres., Owen B. Augspurger; Sec., J. R. Crossley.

Automobile Merchants Assoc. of N. Y., Inc. (1911), 250 W. 57th St., N. Y. C.; 270; Gen. Man., Harry G. Dragg.

Automotive Engineers, Inc., Soc. of (1905), 29 W. 39th St., N. Y. C.; 7,229; Pres., E. P. Warner; Sec. and Gen. Man., C. F. Clarkson.

Ayrshire Breeders' Assoc. (1875), Brandon, Vt.; 2,827; Pres., W. L. Glatfelter; Sec., C. T. Conklin.

Aztec Club of 1847 (Military Society of the Mexican War) (1847), P. O. Box 1704, Washington, D. C.; Pres., William W. Mackall; Sec., Edmund H. Bell.

Bacteriologists, Soc. of Amer. (1899), 1,200; Pres., Stanhope Bayne-Jones, Univ. of Rochester, N. Y.; Sec., J. M. Sherman, Cornell Univ., Ithica, N. Y.

Bankers Assoc., Amer. (1875), 110 E. 42nd St., N. Y. C.; 20,000; Exec. Man., F. N. Shepherd; Sec., William G. Fitzwilson.

Bankers Assoc. of Amer.. Investment (1912). 33 So. Clark St., Chicago, Ill.; 670; Pres., Trowbridge Callaway; Exec. Vice-Pres. and Sec., Aiden H. Little.

Bankers Assoc., N. Y. State (1894), 128 Broadway, N. Y. C.; 1,204; Pres., William K. Payne; Sec., Edward J. Gallien.

Banking, Amer. Inst. of (1900), 110 E. 42nd St., N. Y. C.; 65,300; Pres., W. J. Evans; Sec., Richard W. Hill.

Baptist Convention, Board of Education of the Northern (1889), 276 Fifth Ave., N. Y. C.; 27; Exec. Sec., Frank W. Padelford.

Baptist Foreign Mission Soc., Amer. (1814), 276 Fifth Ave., N. Y. C.; Pres., Rev. Frederick E. Taylor; Sec., P. H. J. Lerrigo.

Baptist Home Mission Soc., Amer. (1832), 23 E. 26th St., N Y. C.; Exec. Sec., Rev. Charles L. White.

Baptist Publication Soc. Amer. (1824), 1701 Chestnut St., Philadlephia, Pa.; 5,000; Exec. Sec., William H. Main.

Baptist Young People's Union of Amer. (1891); 2328 So. Michigan Ave., Chicago, Ill.; 175,0000; Pres., J. Willard McCrossen; Gen. Sec., Edwin Phelps.

Bar Assoc., American, abt. 27,500; Pres., Henry Upson Sims, Birmingham, Ala.; Sec., William P. MacCracken, Jr., Chicago, Ill.

Bar Association, Bronx County (1902), Concourse Plaza Hotel, 161st and Grand Concourse, N. Y. C.; 500; Pres., Bernard S. Deutsch; Sec., William F. Wund.

Bar Assoc., Brooklyn (1889), 123 Remsen St., Brooklyn, N. Y.; 750; Pres., James P. Judge; Rec. Sec., Henry S. Rasquin.

Bar Assoc., N. Y State (1876), 112 State St., Albany, N. Y.; 5,200; Pres., Frank H. Hiscock; Sec., Charles W. Walton.

Bar of the City of New York, Assoc. of the (1871), 42 W. 44th St., N. Y. C.; 3,848; Pres., Chas. C. Burlingham; Sec., Charles H. Strong.

Baron de Hirsch Fund (1891), 233 Broadway, N. Y. C.; 13; Man. Dir., Eugene S. Benjamin; Sec., Max J. Kohler.

Bavarian Nat'l. Assoc. of No. Amer. (1884), 758 Broadway, Buffalo, N. Y.; 3,500; Pres., Phil. A. Hoernig; Sec., Charles H. North.

Better Films Nat'l. Council (1915), 70 Fifth Ave., N. Y. C.; 1,000; Chmn., Dr. Wm. B. Tower; Sec., Mrs. Bettina Gunczy.

Better Homes in Amer. Inc. (1922), 1653 Pennsylvania Ave., N. W., Washington, D. C.; Pres. Dr. Ray Lyman Wilbur; Exec. Dir., Dr. James Ford.

Beverages, Amer. Bottlers of Carbonated (1919),, 726 Bond Bldg., Washington, D. C.; 2,200; Pres., Carl A. Jones; Sec., Junior Owens.

Bible and Fruit Mission to the Public Hospitals of New York City (1874), 5 E. 48th St., N. Y. C.; Pres., Mrs. Warner M. Van Norden; Corr. Sec., Mrs. James Fearon Brown.

Bible Soc. Amer. (1816), Bible House, Astor Place, N. Y. C.; Pres., E. Francis Hyde; Rec. Sec., Rev. Lewis B. Chamberlain.

Biblical Literature and Exegesis, Soc. of (1880), abt. 400; Pres., Prof. J. E. Frame; Sec., Prof. Henry J. Cadbury, Bryn Mawr College; Bryn Mawr, Pa.

Bibliographical Soc. of Amer. (1904), 390; Pres., H. M. Lydenberg, N. Y. Public Library, N. Y. C.; Sec., Augustus H. Shearer, Grosvenor Library, Buffalo, N. Y.

Big Brother and Big Sister Federation, Inc. (1917), 425 Fourth Ave., N. Y. C.; 86 organizations; Pres., George MacDonald; Exec. Sec., Rowland C. Sheldon.

Big Brother Movement, Inc. (1904), 315 Fourth Ave., N. Y. C.; 635; Pres., Alonzo Potter; Gen. Sec., J. H. McCoy.

Biological Chemists, Inc., Amer. Soc. of (1906); 330; Pres., Dr. W. R. Bloor, Univ. of Rochester, N. Y.; Sec., Dr. H. B. Lewis, Univ. of Michigan, Ann Harbor, Mich.

Birth Control League, Inc., Amer. (1921), 104 Fifth Ave., N. Y. C.; 75,000; Pres., Mrs. F. Robertson Jones; Sec., Mrs. Annie G. Porritt.

Blind, Inc., Amer. Foundation for the (1921), 125 E. 46th St., N. Y. C.; 32,000; Pres., M. C. Migel; Exec. Dir., Robert B. Irwin.

Blind, Inc., N. Y. Assoc. for the (1906), 111 E. 59th St., N. Y. C.; 5,000; Pres., Dr. John H. Finley; Sec., D. F. Rogers.

Blue Goose, International, Honorable Order of (1906), 413 Caswell Block, Milwaukee, Wisc.; 6,550; Pres., J. Charles Harris; Sec., Paul E. Rudd.

B'nai B'rith, Ind. Order, Dist. Grand Lodge No. 1, (1878), 1819 Broadway, N. Y. C.; 10,000; Sec., Lawrence White.

Boat Owners Assoc., Inc., N. Y. (1914), 80 Broad St., N. Y. C.; 150; Pres., Reginald G. Marelli; Sec., Ernest Stavey.

Boiler Makers' Assoc., Master (1907), 29 Parkwood St., Albany, N. Y.; 450; Sec., Albert F. Stiglmeier.

Book Publishers, Nat'l. Assoc. of (1920), 25 W. 33rd St., N. Y. C.; 81; Pres., Jos. W. Lippincott, Philadelphia, Pa.; Sec., Henry Hoynes, care Harper & Bros., 49 E. 33rd St., N. Y. C.

Bookfellows, Order of (1909), 1223 E. 53rd St., Chicago, Ill.; 7,600; Clerk, Flora Warren Seymour.

Booksellers Assoc. Amer. (1900), 35 E. 20th St., N. Y. C.; 800; Pres., Arthur Brentano, Jr.; Sec., Ellis W. Meyers.

Botanical Society of Amer. (1893), Cornell Univ., Ithaca, N. Y.; 1,250; Pres., Prof. Margaret C. Ferguson; Sec., Dr. Arthur J. Eames.

Boy Rangers of Amer. (1913), 186 Fifth Ave., N. Y. C.; 18,000; Nat'l. Chief Ranger, Emerson Brooks; Sec., E. Wendell Brooks.

Boy Scout Foundation of Greater New York (1922), 220 W. 42nd St., N. Y. C.; Pres., Franklin D. Roosevelt; Act. Pres., Barron G. Collier; Sec., Arthur W. Procter.

Boy Scouts of Amer. (1910), 2 Park Ave., N. Y. C.; 848,559; Chief Exec., James E. West.

Boys' Club Fed. of Amer. (1906), 630 Graybar Bldg., N. Y. C.; boy members, 225,000; Exec. Dir., C. J. Atkinson; Sec., William Zeigler, Jr.

Breeders Assoc. Amer. Polled Hereford (1900). 701 Old Colony Bldg., Des Moines, Iowa; 2,285; Pres., H. J. Smith; Sec., B. O. Gammon.

Brewers' Assoc., U. S. (1862), 55 W. 42nd St., N. Y. C.; 100; Pres., Jacob Ruppert; Sec., Hugh F. Fox.

Brith Abraham, Ind. Order of (1887), 37 E. 7th St., N. Y. C.; 110,000; Grand Master, Nathan D. Perlman; Grand Sec., Max L. Hollander.

Brith Abraham, Order of, U. S., Grand Lodge (1859), 266 Grand St., N. Y. C.; 18,536; Grand Master, Morris Green; Grand Sec., Geo. W. Leisersohn.

Brith Sholom, Ind. Order of (1905), 506 Pine St., Philadelphia, Pa.; 24,500; Gr. Master, William M. Lewis; Gr. Sec., Martin O. Levy.

Broadway Assoc. Inc., (1912), Fisk Bldg., Broadway at 57th St., N. Y. C.; 1,200; Man. Dir., John E. Gratke; Sec., J. B. Vandever.

Bronx Board of Trade (1894), 349 E. 149th St., The Bronx, N. Y. C.; 1,600; Pres., Frederick A. Wurzbach; Exec. Sec., Charles E. Reid.

Brooklyn Teachers Assoc. (1847), John J. Pershing Junior High School, 9th Ave. and 48th St., Brooklyn, N. Y.; 8,617; Pres., Augustus Ludwig; Sec., Elizabeth Jarrett.

Brotherhood of Amer., Sup. Circle (1847), 2410 Frankford Ave., Philadelphia, Pa.; 10,000; Sup. Washington, Andres H. Schuler; Sec., John Ruhl.

Building and Loan Assocs., U. S. League of Local (1892); 22 E. 12th St., Cincinnati, O.; 1,400; Sec., H. F. Cellarius.

Building Trades Employers' Assoc. of the City of New York, (1903), 2 Park Ave., N. Y. C.; 1,150; Chmn. Bd. of Governors, C. G. Norman.

Camp Fire Girls, Inc. (1912), 41 Union Square, N. Y. C.; 132,982; Nat'l. Exec., Lester F. Scott.

Canadian Club of N. Y., Inc. (1885), Hotel Belmont, E. 42nd St., N. Y. C.; 850; Pres., Edwin A. Scott; Sec., A. W. J. Flash.

Cancer, Inc., Amer. Soc. for the Control of (1913), 25 W. 43rd St., N. Y. C.; 2,094; Man. Dir., Dr. C. C. Little; Sec., Thomas Debevoise.

Canners Assoc., Nat'l. (1909), 1739 H St., N. W., Washington, D. C.; abt. 800; Pres., E. B. Cosgrove; Sec., Frank E. Gorrell.

Carnegie Endowment for International Peace (1910), 2 Jackson Pl., N. W., Washington, D. C.; 28 trustees; Pres., Dr. Nicholas Murray Butler; Sec., James Brown Scott.

Carnegie Hero Fund Commission (1904), 2307 Oliver Bldg., Pittsburgh, Pa.; 21 trustees; Pres., W. J. Holland; Sec., F. M. Wilmot.

Carnegie Institution of Washington (1902),

16th and P Sts., N. W., Washington, D. C.; Pres., John C, Merriam; Sec., W. Cameron Forbes.

Casualty Actuarial Soc. (1914), 75 Fulton St., N. Y. C.; 287; Pres., George D. Moore; Sec.-Treas., Richard Fondiller.

Catholic Actors Guild of Amer. (1914), 220 W. 42nd St., N. Y. C.; 5,000; Pres., Donald Brian; Sec., Edward J. Kelly.

Catholic Alumnae, Int'l. Federation of (1914); 81,500; Pres., Mrs. Mary B. Finan, 6931 Yale Ave., Chicago, Ill.; Sec., Miss Katie A. Griscoll; 1116 Garvin Pl., Louisville, Ky.

Catholic Benevolent Legion, Sup. Council (1881), 186 Remsen St., Brooklyn, N. Y.; 8,000; Sec., John E. Dunn.

Catholic Daughters of Amer. (1903), 10 W. 71st St., N. Y. C.; 200,000; Pres., Miss Mary C. Duffy; Sec., Miss Katherine M. Rosney.

Catholic Knights of Amer. (1877), 211 No. 7th St., St. Louis, Mo.; 14,713; Sup. Pres., Dr. F. Gaudin; Sec., Henry Siemer.

Catholic Order of Foresters (1883), 30 No. La Salle St., Chicago, Ill.; 125,000; High Chief Ranger, Thos. H. Cannon; High Sec., John A. Byrne.

Catholic Welfare Conference, Nat'l. (1919), 1312 Massachusetts Ave., Washington, D. C.; approx. 3,000 national, state and local organizations; Gen. Sec., Rev. John J. Burke.

Catholic Women, Nat'l. Council (1920), 1312 Massachusetts Ave., Washington, D. C.; 50,000; Pres., Miss Mary G. Hawks; Sec., Miss Agnes G. Regan.

Catholic Writers Guild of Amer. (1919), 128 W. 71st St., N. Y. C.; 500; Pres., Dr. James J. Walsh; Sec., Thomas C. Quinn.

Cattle Assoc. of Amer., Dutch Belted (1909), Rockville, Conn.; 237; Pres., R. W. Kinnaman; Sec., R. J. Leonard.

Cattle Breeders' Assoc. of the U. S. of Amer., Brown Swiss (1880), Beloit, Wisc.; 2,000; Pres., Prof. B. H. Hibbard; Sec., Ira Inman.

Cattle Club, American Guernsey (1877), Peterboro, New Hamp.; 1,537 active; Pres., Robert Scoville; Sec., Karl B. Musser.

Cattle Club, Amer. Jersey (1880), 324 W. 23rd St., N. Y. C.; 1,081; Pres., Sam F. Crabbe; Sec., Lewis W. Morley.

Cattle Club of Amer., Red Polled (1883), 361 No. Park St., Richland Center, Wisc., 1,400; Pres. Charles Graff; Sec., Harley A. Martin.

Ceramic Soc., Amer. (1899), 2525 No. High St., Columbus, O.; 2,700; Sec., Ross C. Purdy.

C. P. A's., Amer. Soc. of (1921), 1202 National Press Bldg., Washington, D. C.; 2,517; Pres., James F. Hughes; Sec., D. W. Springer.

Chamber of Commerce of the Borough of Queens (1911), 24-16 Bridge Plaza South, L. I. City, N. Y.; 1,700; Pres., Fred C. Lemmerman; Sec., William J. Russell.

Chamber of Commerce of the State of New York (1768), 65 Liberty St., N. Y. C.; 2,119; Pres., Leonor F. Loree; Sec., Jere D. Tamblyn.

Chamber of Commerce, Long Island (1926), Suite 912, 225 W. 34th St., N. Y. C.; Man. Dir. and Sec., Meade C. Dobson.

Chamber of Commerce, Staten Island (1895), 57 Bay St., St. George, S. I., N. Y.; 575; Pres., Mark W. Allen; Sec., W. Irving Lewis.

Chamber of Commerce of the U. S. of Amer. (1912), 1615 H St., N. W., Washington, D. C.; 16,275; Pres., William Butterworth; Sec., D. A. Skinner.

Charities Aid Assoc., State (1872), 105 E. 22nd St., N. Y. C.; abt. 12,000; Pres., George F. Canfield; Sec., Homer Folks.

Charity Organization Soc. of the City of N. Y. (1882), 105 E. 22nd St., N. Y. C.; 14,930; Pres., Robert W. de Forest; Sec., Lawson Purdy.

Chautauqua Assoc., Int'l. Lyceum and (1903), 1015 Auditorium Bldg., Chicago, Ill.; 600; Pres., William Rainey Bennett; Sec., Harold M. Kramer.

Chautauqua Institution (1874), Chautauqua, N. Y.; 50,000; Pres., Dr. Arthur E. Bestor; Sec., Charles E. Peirce.

Chemical Industry, Soc. of (1881), 46 Finsbury Sq. London, E. C. 2, England; 4,600; Pres., Arthur D. Little, Cambridge, Mass.; Sec., (Amer. Section), Foster D. Snell.

Chemical Soc. Amer. (1876), Mills Bldg., Washington, D. C.; 17,300; Pres., Dr. Irving Langmuir; Sec., Dr. Charles L. Parsons.

Chicago Crime Commission (1919), 300 W. Adams St., Chicago, Ill.; 145; Pres., Frank J. Loesch; Operating Dir., Henry Barrett Chamberlain.

Child Conservation League of Amer. (1913), 205 Monroe St., Chicago, Ill.; Pres., Dr. Winfield Scott Hall; Sec., Mrs. Judith A. Henry.

Child Health Assoc., Amer. (1923), 370 Seventh Ave., N. Y. C.; Gen. Exec., S. J. Crumbine; Sec., Dr. Philip Van Ingen.

Child Labor Committee, Nat'l. (1904), 215 Fourth Ave., N. Y. C.; 11,000; Chmn., Dr. Samuel McCune Lindsay; Sec.,

Child Welfare Assoc., Inc., Nat'l. (1914), 70 Fifth Ave., N. Y. C.; 1,700; Pres., Dr. John H. Finley; Exec. Sec., Charles F. Powlison.

Child Welfare Committee of Amer., N. Y. Auxiliary of (1927), 730 Fifth Ave., N. Y. C.; 100; Founder, Sophie Irene Loeb; Chairman, Rose Rothenberg; Sec., Belle Millinger.

Child Welfare League of Amer., Inc. (1921), 130 E. 22nd St., N. Y. C.; 138; Exec. Dir., C. C. Carstens; Sec., Miss Jessie P. Condit.

Children of the American Revolution, Nat'l. Soc. of (1895), Memorial Continental Hall, Washington, D. C.; abt. 10,000; Nat'l. Pres., Mrs. Rhett Goode; Sec., Miss Aimee E. Powell.

Children's Aid Soc. of the City of N. Y. (1853) 105 E. 22nd St., N. Y. C.; Pres., William Church Osborn; Sec., Owen R. Lovejoy.

Children's Village (1852), Dobbs Ferry-on-Hudson, N. Y.; Man. Dir., Leon C. Faulkner; Sec., Randolph Hurry.

China Society of America, Inc. (1912), 19 W. 44th St., N. Y. C.; Pres., James G. Harbord.

Citizenship, Inc., League for Amer. (1913), 122 E. 42nd St., N. Y. C.; 8,000; Pres., Nathaniel Phillips; Exec. Dir., Harold Fields.

Christian and Missionary Alliance (1887) 260 W. 44th St., N. Y. C.; 30,000; Pres., Rev. H. M. Shuman; Rec. Sec., Rev. D. J. Fant.

Christian Endeavor, Int'l. Soc. of (1881), 41 Mt. Vernon St., Boston, Mass.; 4,000,000; Pres., Rev. Dr. Daniel A. Polling; Sec., E. P. Gates.

Churches of Christ in America, Inc., Federal Council of the (1908), 105 E. 22nd St., N. Y. C.; 27 Protestant denominations with membership of 22,000,000; Pres., Bishop Francis J. McConnell; Sec., Charles S. Macfarland.

Churchwomen's League for Patriotic Service, Inc. (1919), 130 E. 57th St., N. Y. C.; 1,225; Pres., Mrs. Henry G. Sanford; Sec., Mrs. Robert G. Clarkson.

Cincinnati, Soc. of the (1783), 136 W. Lanvale St., Baltimore, Md.; Pres. Gen., Winslow Warren; Sec. Gen., John C. Daves.

Citizens Union of the City of N. Y. (1897), 177 William St., N. Y. C.; 5,700; Chmn., William Jay Schieffelin; Sec., R. E. McGahen.

City Managers' Assoc., Int'l. (1914), 923 E. 60th St., Chicago, Ill.; 481; Pres., R. W. Rigsby; Exec. Sec., Clarence E. Ridley.

Civic Assoc., Amer. (1904), 901 Union Trust Bldg., Washington, D. C.; 1,500; Pres., Frederic A. Delano; Exec. Sec., Miss Harlean James.

Civic Educational League of America (1925), 501 Newfield Bldg., Bridgeport, Conn; 26,783; Counsellor, William E. Burton; Sec., Charles H. Rahn.

Civic Federation, Nat'l. (1900), 33rd floor, 1 Madison Ave., N. Y. C.; Chmn. Exec. Council, Ralph M. Easley; Sec., W. N. Doak.

Civic Legion (1924), 163 W. Washington St., Chicago, Ill.; 21,200; Nat'l. Pres., Rt. Rev. James H. Darlington; Sec., John P. Tansey.

Civic Service Club Executives, Assoc. of (1926), 84 William St., N. Y. C.; 350; Pres., James N. MacLean; Sec., Charles E. Roth.

Civil Engineers, Amer. Soc. of (1852), 33 W. 39th St., N. Y. C.; 13,993; Pres., Anson Marston; Sec., George T. Seabury.

Civil Legion (1924), 163 W. Washington St., Chicago, Ill.; 18,000; Pres., Col. Wade H. Cooper; Sec., Capt. John P. Tansey.

Civil Liberties Union, Amer. (1920), 100 Fifth Ave., N. Y. C.; 5,000; Field Sec., Lucielle B. Milner.

Civil Service Forum (1909); 105,000; Pres., Frank J. Prial, 1756 - 46th St., Brooklyn, N. Y.; Sec., Wm. R. Bradley, 335 - 96th St., Brooklyn, N. Y.

Classical League, American (1920), New York University, Univ. Hghts., N. Y. C.; 5,900; Pres., Prof. R. V. D. Magoffin; Sec., Prof. Rollin H. Tanner.

Cleanliness Institute (1927), 45 E. 17th St., N. Y. C.; 11 organizations; Gen. Dir., Roscoe C. Edlund.

Cloak and Suit Mfrs. Assoc., Inc., Amer. (1919), 101 W. 31st St., N. Y. C.; 850; Mgr., H. Willer.

Coffee and Sugar Exchange, Inc., N. Y. (1882), 113-7 Pearl St., N. Y. C.; 338; Pres., F. C. Lowry; Supt., C. B. Stroud.

College Entrance Examination Board (1900), 431 W. 117th St., N. Y. C.; 50; Sec., Prof. Thomas S. Fiske.

Colleges and Universities, Inc., Nat'l. Assoc. of (1920), 320 Wellington St., S. W., Atlanta, Ga.; abt. 40; Pres., Senator A. A. Galbreath; Sec., Rev. Jay D. Bradley.

Colleges Assoc. of Amer. (1915), 111 Fifth Ave., N. Y. C.; 405; Permanent Sec., Dr. Albert L. Kelly.

Colonial Dames of Amer. (1890), 421 W. 61st St., N. Y. C.; 1,081; Pres., Mrs. Charles L. Riker; Sec., Miss Katherine de B. Parsons.

Colonial Sons and Daughters (1920), 15 W. 107th St., N. Y. C.; 240; Gov. Gen., E. Frye Barker.

Colonial Wars, Gen. Soc. of (1892), 200 W. 58th St., N. Y. C.; Gov. Gen., W. W. Ladd, 20 Nassau St., N. Y. C.; Sec., Walter Geer.

Colonization Soc., Amer. (1816), Colorado Bldg., Washington, D. C.; Pres., Henry L. West; Sec., Paul Sleman.

Colored People, Nat'l. Assoc. for the Advancement of (1909), 69 Fifth Ave., N. Y. C.; Pres., Moorfield Storey; Exec. Sec., James Weldon Johnson.

Columbia University, Inc., Alumni Fed. of (1913), 110 Library, Columbia Univ., N. Y. C.; 7,500; Pres., John K. Fitch; Sec., C. E. Lovejoy.

Commercial Law League of Amer. (1895), 137 So. La Salle St., Chicago, Ill.; 8,500; Pres., Frederick A. Lind; Sec., Martin J. Teigan.

Commercial Travelers of Amer., Order of United (1888), 632 No. Park St., Columbus, O.; 112,000; Sup. Counselor, C. P. Dogherty; Sup. Sec., W. D. Murphy.

Commission Merchants of the U. S., Nat'l. League of (1893), 624 Munsey Bldg., Washington, D. C.; 750; J. Earle Roberts; Gen. Man. and Sec., E. L. Roberts.

Community Councils of the City of New York (1918), 2240 Municipal Bldg., N. Y. C.; Exec. Sec., Frank P. Beal.

Community Trust, N. Y. (1923), 149 Broadway, N. Y. C.; Dir., Ralph Hayes.

Companions of the Forest of Amer. (1885), 271 W. 125th St., N. Y. C.; 17,900; Sec., Annie E. Pott.

Composers, Authors and Publishers, Amer. Soc. of (1914), 1501 Broadway, N. Y. C.; Pres., Gene Buck; Sec., Charles K. Harris.

Coney Island Center, Inc. (1922), 559 Neptune Ave., Coney Island, N. Y.; 400; Pres., Mrs. Henry Adler; Sec., Charles W. Weickmann.

Confederate Veterans, United (1889), New Orleans, La.; 39,000; Com.-in-Chief, Gen. R. A. Sneed; Adj. Gen., Lieut.-Gen. Harry Rene Lee, 150 Fourth Ave., No., Nashville, Tenn.

Congregational Assoc., Amer. (1853), 14 Beacon St., Boston, Mass.; 169; Pres., Rev. C. M. Noyes; Sec., Thomas Todd.

Congregational Churches, Nat'l. Council of (1871), 287 Fourth Ave., N. Y. C.; 775; Pres., Fred B. Smith; Sec., Rev. Charles E. Burton.

Congregational Conference, Inc., N. Y. (1914); 71,845; Pres. Bd. of Dir., Rev. W. W. Pickett; Rev. Walter H. Rollins.

Congregational Education Soc. (1816), 14 Beacon St., Boston, Mass.; 1,000; Pres., William H. Day; Sec., Herbert W. Gates.

Consumers' League, Nat'l. (1899), 156 Fifth Ave., N. Y. C.; 3,000; Gen. Sec., Mrs. Florence Kelley.

Consumers' League of N. Y. (1891), 150 Fifth Ave., N. Y. C.; 1,600; Pres., Miss Mary W. Dewson; Sec., Mrs. Elinore M. Herrick.

Cooperative League of U. S. A. (1916), 167 W. 12th St., N. Y. C.; Pres., James P. Warbasse; Sec., Cedric Long.

Cootie, Military Order of the (1920), Memorial Bldg., Kansas City, Kan.; 5,000; Sup. Com., Edward H. Giguere; Sup. Quartermaster, Fred B. Cook.

Cotton Assoc., Amer. (1914), St. Matthews, So. Car.; 500,000; Pres., J. S. Wannamaker, as above; Sec., Col. Harvie Jordan, 67 W. 14th St., Atlanta, Ga.

Cotton Exchange, N. Y. (1870), 60 Beaver St., N. Y. C.; limited to 450; Pres., Gardiner H. Miller; Sec., Thomas Hale.

Cotton Manufacturers, Nat'l. Assoc. of (1854), 80 Federal St., Boston, Mass.; 1,030; Pres., Lincoln Bayliss; Sec., Russell T. Fisher.

Credit Men, Nat'l. Assoc. of (1896), 1 Park Ave., N. Y. C.; 27,000; Pres., Lawrence Whitty; Sec., Dr. Stephen I. Miller.

Credit Men's Assoc., N. Y. (1895), 468 Fourth Ave., N. Y. C.; 3,236; Sec., Wm. Walker Orr.

Crippled Children, Walter Scott School for (1900), 55 W. 68th St., N. Y. C., (summer, Claverack, N. Y.); abt. 300; Pres., Col. Walter Scott; Sec., Mrs. Alton B. Parker.

Crop Protection Inst. (1921), c/o Nat'l Research Council, 21st and B Sts., Washington, D. C.; 400; Pres., Prof. W. C. O'Kane; Sec., Paul Moore.

Dairymen's League Co-Operative Assoc., Inc. (1916), 11 W. 42nd St., N. Y. C.; Pres., F. H. Sexauer; Sec., J. A. Coulter.

Danish Brotherhood in Amer. (1882), 610 Farnam Bldg., Omaha, Nebr.; 21,000; Pres., John Christensen; Sec., Frank V. Lawson.

Dante League of America, Inc. (1916), Nat'l. Arts Club, 15 Gramercy Park, N. Y. C.; 212; Pres., Dr. James J. Walsh; Sec., Mrs. Heloise Durant Rose.

Daughters of America, Nat'l. Council (1910), 1002 Home Savings and Loan Bldg., Youngstown, O.; 149,000; Pres., Mrs. Sarah W. Johnson; Sec., Max C. Roth.

Daughters of 1812, U. S. Nat'l. Soc. (1892), 1461 Rhode Island Ave., N. W., Washington, D. C.; Nat'l. Pres., Mrs. Samuel Z. Shope; Nat'l. Corr. Sec., Mrs. Henry W. Warren.

Daughters of Founders and Patriots of Amer., Nat'l. Soc. (N. Y. State Chapter) (1902), 444 E. 57th St., N. Y. C.; 150; Pres., Mrs. Stanley L. Otis; Sec., Miss Annie M. Holywell.

Daughters of the Amer. Revolution, Nat'l. Soc. (1890), Memorial Continental Hall, Washington, D. C.; 170,767 in 2,341 chapters; Pres. Gen., Mrs. Lowell Fletcher Hobart; Sec., Miss Margaret B. Barnett.

Daughters of the American Revolution, New York State, 17,953 members in 169 chapters; State Regent, Mrs. Frank H. Parcells, 409 Park Pl., Brooklyn, N. Y.; State Corr. Sec., Mrs. Henry D. Bixby, Cove Road, Halesite, N. Y.

Daughters of the King (1885), 150 Fifth Ave., N. Y. C.; 7,000; Pres., Mrs. George H. Ames; Sec., Mis Edna C. Penniman.

Daughters of the Revolution (1891), Graybar Bldg., 420 Lexington Ave., N. Y. C.; Pres.-Gen., Mrs. Henry T. Kent; Corr. Sec., Mrs. D. Roger Englar.

Daughters of the Revolution, State of N. Y. (1893) Graybar Bldg., 420 Lexington Ave., N. Y. C.; 276; Pres., Mrs. Axel O. Ihlseng; Sec., Mrs. Sydney I. Prescott.

Deaf, Amer. Assoc. to Promote the Teaching of Speech to the (1890), 1601 - 35th St., N. W., Washington, D. C.; 2,500; Pres., Harris Taylor; Exec. Sec., Josephine B. Timberlake.

Deaf, Nat'l Assoc. of the (1880), Box 113, Trenton Junction, N. J.; 2,000; Pres., A. L. Roberts; Sec., F. A. Moore.

Deaf, Nat'l. Fraternal Soc. of (1901), 130 No. Wells St., Chicago, Ill.; 6,500; Pres., Francis P. Gibson; Sec.-Treas., Arthur L. Roberts.

Dental Soc., State of N. Y. (1868), 4,000; Pres., Dr. William C. Fisher, 501 Fifth Ave., N. Y. C.; Sec., Dr. A. P. Burkhart, 57 E. Genesee St., Auburn, N. Y.

Design, National Academy of (1825), 175 W. 109th St., N. Y. C.; 280; Pres., Cass Gilbert; Sec., Chas. C. Curran.

Dialect Soc., Amer. (1889), Warren House, Harvard Univ., Cambridge, Mass.; 400; Pres., W. A. Neilson; Sec., Dr. Percy W. Long.

Dickens Fellowship of N. Y., Inc. (1905), Nat'l. Arts Club, 119 E. 19th St., N. Y. C.; 300; Pres., John Philip Bramer; Sec., Miss Betty F. Martin.

Dickens League, Inc., American, Met. Opera House Bldg., 1425 Broadway, N. Y. C.; Pres., Mortimer Kaphan; Hon. Sec., Harold Flatto.

Diesel Soc. of Amer., Inc. (1928), 15 Whitehall St., Rm. 415, N. Y. C.; 700; Gen. Pres., Richard A. Meyer; Gen. Sec., M. T. Meyer.

Disabled American Veterans of the World War (1920), 2840 Melrose Ave., Walnut Hills, Cincinnati, O.; 31,000; Commander, William J. Murphy; Adjt., Vivian D. Corbly.

Downtown League, Inc. (1917), 225 Broadway, N. Y. C.; 2,150; Pres., David Robinson; Sec., Andrew J. Smith.

Dragon, Imperial Order of the (1909) 424 Irving Ave., Brooklyn, N. Y.; 1,000; Grand Viceroy, Fernando E. Fisher; Sec., John Maguth.

Drama League of Amer. (1910), 59 E. Van Buren St., Chicago, Ill.; abt. 10,000; Exec. Sec., Miss Sue Ann Wilson.

Drama League of Amer., N. Y. Center of the (1928), 29 W. 47th St., N. Y. C.; 600; Pres., Dr. Richard Burton; Sec., Mrs. Chance Vought.

Dramatists, American (1891), 2 East 23rd St., N. Y. C.; 1,470; Exec. Sec., Miss Luise Sillcox; Sec., Percival Wilde.

Dress Industries of Amer., Assoc. (1917), 570 Seventh Ave., N. Y. C.; 1,000; Exec. Chairman, David N. Mosessohn.

Druggists, Nat'l. Assoc. of Retail (1898), 168 No. Michigan Ave., Chicago, Ill.; 22,000; Sec., Samuel C. Henry.

Druggists' Assoc., Nat'l. Wholesale (1876), 51 Maiden Lane, N. Y. C.; 678; Sec., E. L. Newcomb.

Druids of U. S. A., United Ancient Order of, Supreme Grove (1832); 29 South Delaware St., Indianapolis, Ind.; 35,000; Sup. Arch, Chas E. Paulsen; Sup. Rec., Chas. G. N. Geider.

Dutch Treat Club (1904), Hotel McAlpin, N. Y. C.; Pres., Clarence Budlong Kelland; Sec., Frank Fleming, 461 Eighth Ave., N. Y. C.

Eagles, Fraternal Order of (1898), Kirkwood Bldg., Kansas City, Mo.; 60,400; Pres., Charles J. Chaum; Sec., J. S. Parry.

Eastern Star, Order of the, Gen. Grand Chapter (1876), Masonic Temple, Washington, D. C.; 2,005,601; Most Worthy Gr. Matron, Mrs. Emma P. Chadwick; Sec., Mrs. Minnie E. Keyes.

Economic Assoc., Amer. (1885), Northwestern

Univ., Evanston, Ill.; 3,614; Pres., Prof. E. F. Gay; Sec., Prof. F. S. Deibler.

Economic Entomologists, Amer. Assoc. of (1889), Melrose Highlands, Mass.; 1,038; Pres., T. J. Headlee; Sec., C. W. Collins.

Economic League, Nat'l. (1912), 6 Beacon St., Boston, Mass.; 5,500; Sec. and Treas., J. W. Beatson.

Economic Research, Inc., Nat'l. Bureau of (1920), 51 Madison Ave., N. Y. C.; 21 Directors; Pres., Thomas S. Adams; Exec. Sec., Gustav R. Stahl.

Editorial Assoc., Nat'l. (1885), 1501 University Ave., St. Paul, Minn.; 4,500; Pres., L. C. Hall; Sec., H. C. Hotaling.

Education Assoc. of the U. S., Nat'l. (1857), 1201 - 16th St., N. W., Washington, D. C.; 200,000; Pres., Miss E. Ruth Pyrtle; Sec., J. W. Crabtree.

Education Board, General (1903), 61 Broadway, N. Y. C.; 17; Pres., Trevor Arnett; Sec., William W. Brierley.

Education, Council of Church Boards of (1911), 111 Fifth Ave., N. Y. C.; 20 Protestant Church Boards of Edu. rep. 20,000 adherents; Exec. Sec., Robert L. Kelly.

Education, Inc., Institute of Int'l. (1919) 2 W. 45th St., N. Y. C.; Dir., Dr. Stephen P. Duggan; Exec. Sec., Mary L. Walte.

Educational Foundation, Inc. (Commission for Relief in Belgium) (1920), 42 Broadway, N. Y. C.; 100; Pres., Herbert Hoover; Sec., Perrin C. Galpin.

Eighteen Twelve, Gen. Soc. of War of (1814); 592; Pres.-Gen., Dr. James Davidson Iglehart; Sec.-Gen., J. Albert Van Horn, 56 Overlook Rd., Upper Montclair, N. J.

Eighth Avenue Assoc., Inc. (1925), 678 Eighth Ave., N. Y. C.; Man. Dir., James W. Danahy.

Electric Light Assoc., Nat'l. (1885), 420 Lexington Ave., N. Y. C.; 20,000; Man. Dir., Paul S. Clapp; Sec., A. Jackson Marshall.

Electric Railway Asoc., Amer. (1882), 292 Madison Ave., N. Y. C.; 3,546; Man. Dir., Charles Gordon; Gen. Sec., Guy C. Hecker.

Electrical Soc., N. Y. (1881), 29 W. 39th St., N. Y. C.; 1,261; Pres., H. C. Rentschler; Sec., F. M. Delano.

Electrochemical Soc., Amer. (1902), Columbia Univ., N. Y. C.; 2,000; Sec., Dr. Colin G. Fink.

Elks, B. P. O. of (1868), 108 W. 43rd St., N. Y. C.; 5,898; Exalted Ruler, Abraham I. Menin; Sec., William T. Phillips.

Elks of the U. S. A., B. P. O., Grand Lodge (1868), 2750 Lake View Ave., Chicago, Ill.; 800,000; Gr. Exalted Ruler, Walter P. Andrews; Gr. Sec., J. E. Masters.

Engineering Council, Amer. (1920), 26 Jackson Pl., Washington, D. C.; 24 societies rep. 57,673 individuals; Pres., A. W. Berresford; Exec. Sec., L. W. Wallace.

Engineering Foundation (1914), 29 W. 39th St., N. Y. C.; 16, 4 rep. from 4 senior nat'l. engineering societies; Chmn., H. Hobart Porter; Dir. and Sec., Alfred D. Flinn.

Engineering Soc., United (1904), 29 W. 39th St., N. Y. C.; 12 trustees; Pres., Roy V. Wright; Sec., Alfred D. Flinn.

Engineers, Amer. Inst. of Electrical (1884), 33 W. 39th St., N. Y. C.; 18,100; Pres., Harold B. Smith; Nat'l. Sec., F. L. Hutchinson.

Engineers, Amer. Soc. of Civil (1852), 33 W. 39th St., N. Y. C.; 13,833; Pres., Dean Anson Marston; Sec., George T. Seabury.

Engineers, Amer. Soc. of Heating and Ventilating (1895), 29 W. 39th St., N. Y. C.; 1,950; Pres., Thornton Lewis; Sec., A. V. Hutchinson.

Engineers, Amer. Soc. of Mechanical (1881), 29 W. 39th St., N. Y. C.; 19,335; Sec., Calvin W. Rice.

Engineers of the City of N. Y., Municipal (1902), 29 W. 39th St., N. Y. C.; 500; Pres., Harry W. Levy; Sec., Vernon S. Moon.

Engineers of the U. S., Inc., Soc. of Professional Automobile (1907), 153 W. 64th St., N. Y. C.; Pres., Stephen J. O'Brien; Sec., Edward J. Costigan.

English-Speaking Union of the U. S. (1918), Rm. 701, 19 W. 44th St., N. Y. C.; 18,991; Nat'l. Sec., John Daniels; Sec., Edith Briggs.

Entomological Soc., Amer. (1859), Academy of Natural Sciences, Logan Square, Philadelphia, Pa.; 109; Pres., R. C. Williams, Jr.; Corr. Sec., James A. G. Rehn.

Epiphany Guild of Amer. (1924), 9148 - 193rd St., Hollis, L. I., N. Y.; 395; Pres., Very Rev. Mgr. Arthur H. Brooks; Sec., Mrs. Jane Nagle Brooks.

Episcopal Actors' Guild of Amer. Inc. (1923), 1 E. 29th St., N. Y. C.; 1,825; Pres., George Arliss; Exec. Sec., Percy Moore.

Erectors' Assoc. Nat'l. (1906), 33 W. 42nd St., N. Y. C.; 43; Counsel, Walter Drew.

Ethical Culture in the City of New York, Soc. for (1876), 2 W. 64th St., N. Y. C.; 1,200; Pres., Robert D. Kohn; Sec., Royal J. Davis.

Ethnological Soc., Amer. (1842), Amer. Museum of Natural History, 77th St. and Central Park West, N. Y. C.; 172; Pres., N. C. Nelson; Sec., Mrs. E. G. Nelson.

Eugenics Research Assoc. (1913), Cold Spring Harbor, L. I., N. Y.; 350; Pres., Clarence G. Campbell; Sec., H. H. Laughlin.

Eugenics Society, Inc., Amer. (1926), 185 Church St., New Haven, Conn.; 1,212; Exec. Sec., Leon F. Whitney.

Evangelistic Bureau of U. S. A., Int'l. (1915), 1111 Walnut St., Cairo, Ill.; Pres., Rev. Samuel R. Skelton; Sec., Rev. Joseph S. Kem.

Exchange Club, Nat'l. (1911), Ohio Bldg., Toledo, Ohio; 40,000; Pres., George S. Greene; Sec., Herold M. Harter.

Fair Trade Assoc., Amer. (1913), 71 W. 23rd St., N. Y. C.; 500; Sec.-Treas., Edmond A. Whittier.

Farm and Garden Assoc., Woman's Nat'l. (1914), Dearborn, Mich.; 3,708; Pres., Mrs. Henry Ford; Sec., Miss Jane L. Hicks.

Farm Congress, Amer. (1906), 1002 Walnut St., Kansas City, Mo.; 300,000; Man. Dir., W. I. Drummond.

Federation de l'Alliance Francaise (1902), 32 Nassau St., N. Y. C.; Pres., Frank D. Pavey; Sec., Felix Weill.

Federation of Churches, Brooklyn (1920), 306 Livingston St., Brooklyn, N. Y.; all Brooklyn Protestant Churches; Pres., Dr. Robert Rogers; Sec., Dr. Frederick M. Gordon.

Federation of Churches, Greater N. Y. (1895), 71 W. 23rd St., N. Y. C.; Pres., Dr. Ralph W. Sockman; Gen. Sec., Dr. William B. Miller.

Fifth Avenue Assoc., Inc. (1907), 358 Fifth Ave., N. Y. C.; 1,800; Gen. Man., Capt. Wm. J. Pedrick; Sec., Thomas W. Hughes.

Fine Arts Soc., Amer. (1889), 215 W. 57th St., N. Y. C.; Pres., John Ward Dunsmore; Sec., Charles H. Higgins.

Fire Chiefs, Int'l. Assoc. of (1871), Fire Dept. Hdqrs., New Orleans, La., Pres., John M. Evans; Sec., James J. Mulcahey.

Fire Underwriters, Nat'l. Board of (1866), 85 John St., N. Y. C.; 241; Gen. Man., W. E. Mallalieu.

Firemen's Assoc. of Greater N. Y., Uniformed (1917), Rm. 402, Pulitzer Bldg., 63 Park Row, N. Y. C.; 5,000; Pres., Lawrence A. Gorman; Financial Sec., Abraham Rosenberg.

First Avenue Association, Inc. (1926), 1025 First Ave., N. Y. C.; 700; Pres., Congreve Jackson; Sec., James J. Hackett, Jr.

Fisheries Soc., Amer. (1870), 2273 Woolworth Bldg., N. Y. C.; 700; Pres., Capt. C. F. Culler; Sec., Carlos Avery.

Flag Assoc., U. S. (1924) 923 - 15th St., N. W., Washington, D. C.; 50,000; Pres.-Gen., Col. James A. Moss.

Florists' Club, N. Y. (1887), 247 Park Ave., N. Y. C.; 750; Pres., A. M. Dauernheim; Sec., John Young.

Florists, Society of American (1885), 247 Park Ave. (Rm. 1011), N. Y. C.; 15,000; Pres., Earl H. Mann; Sec., John Young.

Folk-Lore Soc., Amer. (1888), Barnard College, N. Y. C.; Pres., Edward Sapir; Sec., Gladys A. Reichard.

Foreign Consuls in N. Y., Soc. of (1925); 53; Pres., Sir Harry Gloster Amrstrong; Sec., T. Tileston Wells, Consul General of Roumania, 1819 Broadway, N. Y. C.

Foreign Missions, Amer. Board of Commissioners for (1810), 14 Beacon St., Boston, Mass.; 841 corporate members, 769 missionaries; Pres., Rev. Rockwell H. Potter; Sec., Cornelius H. Patton.

Foreign Policy Assoc., Inc. (1918), 18 E. 41st St., N. Y. C.; 9,500; Chmn., James G. McDonald; Sec., Esther G. Ogden.

Foreign Press Correspondents in the U. S., Assoc. of (1917), 51 University Pl., N. Y. C.; 75 active and 50 honorary; Pres., E. K. Moy; Sec., Sydney J. Clarke.

Foreign Trade Council, Nat'l. (1914), 1 Hanover Sq., N. Y. C.; 90; Sec., O. K. Davis.

Foresters, Ind. Order of (1874), I. O. F. Temple Bldg., cor. Bay and Richmond Sts., Toronto, Ont., Can.; 150,000; Sup. Chief Ranger, Frank E. Hand; Sup. Sec., John F. Lang.

Foresters of America (1790), 591 Summit Ave., Jersey City, N. J.; 190,000; Sup. Chief Ranger, Maurice F. Roche; Sup. Sec., Thomas M. Donnelly.

Foresters, Soc. of Amer. (1900), Rm. 517 Lenox Bldg., 1523 L St., N. W., Washington, D. C.; 1,500; Pres., Paul G. Redington; Sec., R. E. Marsh.

Forestry Assoc., Amer. (1875), 1523 L St., N. W., Washington, D. C.; 20,000; Pres., George D. Pratt; Exec. Sec., Ovid M. Butler.

Fossils, Inc., The (1904), Rm. 1302, 150 Nassau St., N. Y. C.; 235; Pres., Chas. H. Class; Sec., Frank L. Seaver; Editor, Charles C. Heuman.

Founders and Patriots of Amer., Order of (1896),

140 West St., N. Y. C.; 1,100; Gov.-Gen., Dr. Arthur Adams; Sec.-Gen., Ralph C. Hawkins.

Foundrymen's Assoc., Amer. (1896), 222 W. Adams St., Chicago, Ill.; 2,500; Pres., Fred Erb; Sec., C. E. Hoyt.

France-America Soc. (1911), 411 W. 117th St., N. Y. C.; 300; Pres., William D. Guthrie; Sec., Twining Tousley.

Free Sons of Israel, Ind. Order (1849), 3109 Broadway, N. Y. C.; 8,700; Gr. Master, Samuel Sturtz; Sec., Henry J. Hyman.

Freemasonry, Ancient Accepted Scottish Rite, Northern Masonic Jurisdiction, Sup. Council, 330 (1813), Rm. 1117 Statler Bldg., Boston, Mass.; 293,547; Sovereign Gr. Comm., Leon M. Abbott; Gr. Sec.-Gen., Charles H. Spilman.

Freemasonry, Ancient and Accepted Scottish Rite of, Southern Jurisdiction Sup. Council, 330 (1801), 1733 - 16th St., N. W., Washington, D. C.; Sov. Gr. Comm., John H. Cowles; Sec. Gen., H. W. Witcover.

Freemasons, Ancient, Free and Accepted, St. John's Grand Lodge (1908); 4 Monroe St., Brooklyn, N. Y.; 775; Grand Master, Louis N. Paultry; Sec., LaForge H. Jackson.

Freemasons, A. F. & A., of State of N. Y., Most Worshipful King Solomon Grand Lodge, Inc. (1906), 71 W. 131st St., N. Y. C.; 2,500,—31 subordinate lodges; Grand Master, John H. Smith, 589 Herkimer St., Brooklyn, N. Y. (This is the only legal and regular body for colored men in the State).

Freemasons of the State of New York, Grand Lodge of Free and Accepted (1781), 71 W. 23rd St., N. Y. C.; 343,700; Gr. Master, John A. Dutton; Gr. Sec., Robert J. Kenworthy.

Freemasons, U. S. A., Royal Arch, General Grand Chapter (1797), Coldwater, Mich.; 808,-852; Gen. Gr. High Priest, Charles C. Davis; Sec., Charles A. Conover.

French Chamber of Commerce of New York (1896), 4 E. 52nd St., N. Y. C.; 1,200; Pres., Pierre de Malglaive; Sec., Armand E. Sieper.

French Legion of Honor, Inc., Amer. Soc. of the (1924), 7 E. 48th St., N. Y. C.; abt. 450; Pres., George W. Wickersham; Sec. and Treas., W. Francklyn.

Friends General Conference (1890), 1515 Cherry St., Philadelphia, Pa.; Chmn., Arthur C. Jackson; Rec. Sec., Josephine H. Tilton.

Game Protective Assoc., Amer. (1911), 233 Broadway, N. Y. C.; 10,000; Pres., Carlos Avery; Sec., Augustus S. Houghton.

Gas Assoc., Amer. (1919), 420 Lexington Ave., N. Y. C.; 6,500; Man. Dir., Alexander Forward; Sec., Kurwin R. Boyes.

Genetic Assoc., Amer. (1906), 306 Victor Bldg., Washington, D. C.; 3,700; Pres., Dr. David Fairchild; Sec., Dr. C. E. Leighty.

Geographic Soc., Nat'l. (1888), 16th and M Sts., N. W., Washington, D. C.; 1,300,000; Pres., Dr. Gilbert Grosvenor; Sec., O. P. Austin.

Geographic Society, American (1852); 5,209; Dir., Dr. Isaiah Bowman, Broadway at 156th St., N. Y. C.

Geological Soc. of Amer. (1888), Columbia Univ., N. Y. C.; 570; Pres., Prof. Heinrich Ries; Sec., Prof. Charles P. Berkey.

German Beneficial Union (1892), 1505 Carson St., Pittsburgh, Pa.; 72,000; Sec., Ernest Herklotz.

German Press Club of N. Y. (1884), 22 No. William St., N. Y. C.; 120; Pres., Dr. Ludwig Oberndorf; Sec., Heinrich Heide.

German Soc. of the City of N. Y. (1784), 147 Fourth Ave., N. Y. C.; abt. 1,000; Pres., F. W. Lafrentz; Sec., Hermann Irion.

Girl Scouts, Inc. (1915), 670 Lexington Ave., N. Y. C.; 199,784; Pres., Mrs. William H. Hoffman; Dir., Mrs. Jane Deeter Rippin.

Girls Clubs, Inc., N. Y. League of (1885), 222 Madison Ave., N. Y. C.; 2,500; Exec. Sec., Miss Marie Keller.

Girls' Friendly Soc. (Diocese of N. Y.) (1883), 129 E. 52nd St., N. Y. C.; 4,000; Pres., Mrs. W. W. Smith; Sec., Mrs. C. K. Gilbert.

Girls' Friendly Soc. of the U. S. A. (1877), 386 Fourth Ave., N. Y. C.; 50,000; Pres., Miss Margaret M. Lukens; Exec. Sec., Miss Florence Lukens Newbold.

Girls' Service League of Amer., Inc. (1908), 138 E. 19th St., N. Y. C.; Pres., Mrs. Alexander M. Hadden; Sec., Miss Stella A. Miner.

Golden Eagle, Knights and Ladies of the (1872), 814 North Broad St., Philadelphia, Pa.; 75,000; Sup. Chief, Charles Rigg; Sec., John B. Pearce.

Golden Rule Foundation (1929), 1 Madison Ave., N. Y. C.; 75 incorporaters, trustees, directors, founders and officers; Exec. Vice-Pres., Chas. V. Vickrey; Sec., William B. Millar.

Golf Assoc., U. S. (1894), 110 E. 42nd St., N. Y. C.; 1,100 member clubs; Pres., Findlay S. Douglas; Sec., Prescott S. Bush.

Good Roads Assoc., Inc., U. S. (1913), 3200 Cliff Road, Birmingham, Ala.; 25,000; Pres., W. W. Brandon; Dir. Gen., J. A. Rountree.

Good Templars, Int'l. Order of (1851), approx. 12,000; Nat'l. Chief Templar, Dr. Edwin C. Dinwiddie, Rm. 644, Transportation Bldg., Washington, D. C.; Nat'l. Sec., C. Wilmer King, Jersey City, N. J.

Gorgas Memorial Inst., of Tropical and Preventive Medicine, Inc., (1921), 1331 G St., N. W., Washington, D. C.; 3,500; Pres., Rear Adm. Cary T. Grayson; Sec., Dr. W. H. G. Logan.

Grand Army of the Republic (1866), Rm. 27, State House, Boston, Mass.; 57,483; Com.-in-Chief, Edwin J. Foster, 16 Catherine St., Worcester, Mass., address all communications to Adjt.-General, State House, as above.

Grand Army of the Republic, Memorial and Executive Committee (Dept. of Manhattan) (1885), Rm. 5, City Hall, N. Y. C.; 250; Chairman, Edward M. Griffith; Sec., Henry J. Kearney.

Grocers' Assoc., N. Y. Wholesale (1888), 105 Hudson St., N. Y. C.; 100; Pres., E. F. Cohen; Sec., John H. Meyer.

Grover Cleveland Assoc. (1908), 225 Broadway, N. Y. C.; 250; Sec., David Robinson.

Gyro Clubs, Int'l. Assoc. of (1912), 784 Union Trust Bldg., Cleveland, O.; 3,600; Pres., Gordon A. Stovel; Sec., Edmund L. Kagy.

Hackney Horse Soc., Amer. (1891), Merrick, N. Y.; 208; Pres., J. Macy Willets; Sec., Gurney C. Gue.

Harlem Board of Commerce (1896), Hotel Theresa, 125th St and 7th Ave., N. Y. C.; 356; Pres., Albert Behning; Sec., Matthew J. Eder.

Health Council, National (1921), 370 Seventh Ave., N. Y. C.; 15 national organizations; Exec. Officer, Thomas C. Edwards.

Hebrew Congregations, Union of Amer. (1873), Merchants Bldg., Cincinnati, O.; 278; Ludwig Vogelstein; Sec., Rabbi George Zepin.

Hebrew Educational Soc. of Brooklyn (1899), 564 Hopkinson Ave., Brooklyn, N. Y.; 3,000; Pres., Nathan Sweedler; Sec., Nathaniel Bloom; Supt., Rabbi Alter F. Landesman.

Hebrew Sheltering Guardian Soc. of N. Y. (1882), Pleasantville, N. Y.; Pres., Adolph Lewisohn, 61 Broadway, N. Y. C.; Sec., Bernard Naumburg, 36 W. 44th St., N. Y. C.

Hebrew Sheltering and Immigrant Aid Soc. of Amer. (HIAS) (1911), 425 Lafayette St., N. Y. C.; Pres., Abraham Herman; Gen. Man., Isaac L. Asofsky.

Hiberians in Amer., Ancient Order of (1832), 51 View St., Holyoke, Mass.; 200,000; Nat'l. Pres., Judge Martin L. Sweeney; Sec., P. J. Dowd.

Highways Assoc., Nat'l. (1911), Bass River, Cape Cod, Mass.; abt. 3,000,000; Pres., Charles Davis.

Historical Assoc., Amer. (1884), 1140 Woodward Bldg., Washington, D. C.; 3,500; Pres., James Harvey Robinson; Sec., Dexter Perkins.

Historical Assoc., N. Y. State (1899), Ticonderoga, N. Y.; 1,500; Pres., James Sullivan; Sec., Frederick B. Richards.

Historical Soc., Nat'l. (1915), 175 Fifth Ave., N. Y. C.; Pres., Mabel R. Washburn; Sec., Paul H. Van Der Zee.

Historical Soc., N. Y. (1804), 170 Central Park West, N. Y. C.; 970; Pres., John A. Weekes; Librarian, Alexander J. Wall.

History Club of N. Y., City (1896), 2 W. 46th St., N. Y. C.; 300; Pres., Mrs. A. Barton Hepburn; Exec. Sec., Mary F. Smart.

Holland Soc. of N. Y. (1885), 90 West St., N. Y. C.; limited to 1,000; Pres., Charles M. Dutcher; Sec., Walter M. Meserole.

Holstein-Friesian Assoc. of Amer. (1885), 1 So. Main St., Brattleboro, Vt.; 30,000; Pres., Frank O. Lowden; Sec., Houghton Seaverns.

Home Economics Assoc., Amer. (1908), 617 Mills Bldg., Washington, D. C.; 9,704; Pres., Dr. Margaret M. Justin; Exec. Sec., Alice L. Edwards.

Home Market Club (1887), 38 Chauncey St., Boston, Mass.; 763; Pres., Channing M. Wells; Sec., William H. Cliff.

Home Missions, Council of Women for (1908), 105 E. 22nd St., N. Y. C.; Boards of 24 Denominations of U. S. and Canada; Exec. Sec., Florence E. Quinlan.

Home Missions Council (1908), 105 E. 22nd St., N. Y. C.; 28 Denominations, 37 Boards and Societies; Pres., Dr. Charles L. White; Exec. Sec., Dr. William R. King.

Homeopathy, Amer. Institute of (1844), 43 Broad St., N. Y. C.; 3,000; Pres., Dr. Irvin D. Metzger; Sec., Dr. Garth W. Boericke, care of Hahnemann Medical College, 216 No. Broad St., Philadelphia, Pa.

Honest Ballot Assoc. (1912), 120 Broadway, N. Y. C.; 350; Pres., William M. Chadbourne; Sec., Nathaniel J. Palzer.

Horological Institute of Amer. (1921), care of National Research Council, 21st and B Sts.,

Washington, D. C.; abt. 400; Pres., E. H. Hufnagel; Exec. Sec., Paul Moore.

Horse Show Assoc. of Amer., Nat'l. (1883); 342 Madison Ave., N. Y. C.; Pres., John McEntee Bowman; Sec., Reginald W. Rives.

Hospital Assoc., Amer. (1899), 18 E. Division St., Chicago, Ill.; 3 338; Pres., C. G. Parnall; Sec., Bert W. Caldwell.

Hospital Fund of N. Y., United (1879), 151 Fifth Ave., N. Y. C.; 59 Non-municipal hospitals; Pres., Henry J. Fisher; Gen. Dir., Homer Wickenden.

Hotel Assoc., N. Y. State (1887), 221 W. 57th St., N. Y. C.; 1,125; Pres., Philip E. Rice; Sec., Mark A. Cadwell.

Horticultural Soc. of N. Y. (1900), 598 Madison Ave., N. Y. C.; 2,200; Exec., Elizabeth Pelerny; Sec., F. R. Newbold.

Housing Assoc., Nat'l. (1910), 105 E. 22nd St., N. Y. C.; 475; Sec., Lawrence Veiller.

Huguenot Soc. of Amer. (1883), The Library, 2 W. 45th St., N. Y. C.; abt. 500; Pres., Dr. William Jay Schieffelin; Sec., Miss Margaret A. Jackson.

Humane Assoc., Amer. (1877) 50 Howard St., Albany, N. Y.; 9,409; Pres., Sydney H. Coleman; Sec., Nathaniel J. Walker.

Humane Education Soc., Amer. (1889), 180 Longwood Ave., Boston, Mass.; 5,000; Pres., Dr. Francis H. Rowley; Sec., Guy Richardson.

Hungary Soc. of Amer. (1922), 522 Fifth Ave., N. Y. C.; Pres., Dr. Philip M. Brown; Exec. Sec., Miss Meda Lynn.

Hunter College, Associate Alumnae of (1870), Hotel Woodward, 55th St. and Broadway, N. Y. C.; 2,567; Pres., Mrs. Maxwell Hall Elliott; Sec., Selma M. Lobsenz.

Ice Industries, Nat'l. Assoc. of (1917), 163 West Washington St., Chicago, Ill.; 1,843; Pres., M. H. Robbins; Sec., Leslie C. Smith.

Illuminating Engineering Soc. (1906), 29 W. 39th St., N. Y. C.; 1,700; Pres., M. C. Huse; Gen. Sec., A. B. Oday.

Illustrators, Soc. of (1901), Art Center Bldg., 65 E. 56th St., N. Y. C.; 250; Pres., Wallace Morgan; Sec., Norman Price.

Immigration Policy, Conference on (1921), 122 E. 42nd St., N. Y. C.; 100; Chmn., Harold Fields; Sec., Edith L. Jardine.

Independent Artists, Inc., Soc. of (1917), 1947, Broadway, N. Y. C.; 800; Pres., John Sloan; Sec., A. S. Baylinson.

Indian Rights Assoc. (1882), 995 Drexel Bldg., Philadelphia, Pa., 1,500; Pres., Jonathan M. Steere; Sec., Matthew K. Sniffen.

Industrial Conference Board, Inc., Nat'l. (1916), 247 Park Ave., N. Y. C.; 98; Pres., M. W. Alexander; Sec., James M. Robertson.

Industrial Democracy, League for (1905), 112 E. 19th St., N. Y. C.; Exec. Directors, Harry W. Laidler and Norman Thomas.

Insurance Soc. of N. Y., Inc. (1901), 100 William St., N. Y. C.; 1,546; Pres., William D. Winter.

Irish Temperance Soc. of Amer. (1920); 50; Editor and Sec., Thomas P. Burke, 310 W. 48th St., N. Y. C.

Iron and Steel Institute, Amer. (1908), 75 West St., N. Y. C.; 2,500; Pres., Charles M. Schwab; Sec., E. A. S. Clarke.

Italian Auxiliary, Inc., (Italica Gens) (1923), 45 West St., N. Y. C.; Dir., Rt. Rev. Mgr. G. Formica; Sec., E. S. Salway.

Italian Chamber of Commerce in N. Y. (1888), 27 Cleveland Pl., N. Y. C.; 689; Pres., Dr. A. H. Giannini; Sec., Dr. Alberto C. Bonaschi.

Japan Society (1907), 36 W. 44th St., N. Y. C.; 1,300; Exec. Sec., Douglas L. Dunbar.

Jewelers Assoc., American Nat'l. Retail (1908), 22 W. 48th St., N. Y. C.; 2,800; Pres., Wm. G. Frasier; Sec., Chas. T. Evans.

Jewelers' Security Alliance of the U. S. (1883), 15 Maiden Lane, N. Y. C.; abt. 4,500; Pres., Harry C. Larter; Sec., James H. Noyes.

Jewish Agricultural Soc., Inc. (1900), 301 E. 14th St., N. Y. C.; 45; Gen. Man. Gabriel Davidson; Sec., Reuben Arkush.

Jewish Charities, Brooklyn Federation of (1909), 305 Washington St., Brooklyn, N. Y.; 10,000; Pres., Nathan D. Shapiro; Sec., Dr. Samuel C. Kohs.

Jewish Committee, Amer. (1906), 171 Madison Ave., N. Y. C.; 2,500; Sec., Morris D. Waldman.

Jewish Historical Soc., Amer. (1892), 531 W. 123rd St., N. Y. C.; 418; Pres., A. S. W. Rosenbach; Sec., A. M. Friedenberg.

Jewish Philanthropic Societies of N. Y. City, Fed. for the Support of (1917), 71 W. 47th St., N. Y. C.; 35,000; Pres., Dudley D. Sicher; Sec., Herman Lissner.

Jewish Social Research, Bureau of (1919), 71 W. 47th St., N. Y. C.; Pres., David M. Heyman; Sec., Solomon Lowenstein.

Jewish Welfare Board (1917), 71 W. 47th St., N. Y. C.; 300 constituent societies; Pres., Judge Irving Lehman; Exec. Dir., Harry L. Glucksman.

Jewish Women, Nat'l. Council of (1893), 1860 Broadway, N. Y. C.; 52,000; Pres., Mrs. Joseph E. Friend; Exec. Sec., Mrs. Estelle M. Sternberger.

Jewish Women, Nat'l. Council of, New York Section (1894), 1776 Broadway, Rm. 508, N. Y. C.; Pres., Mrs. Nathan Straus, Jr.; Sec., Sara X. Schottenfels.

Juilliard Musical Foundation (1920), 49 E. 52nd St., N. Y. C.; Sec., Eugene A. Noble.

Junior League of the City of New York, Inc. (1900), 221 E. 71st St., N. Y. C.; Pres., Mrs. John DeWitt Peltz; Sec., Miss Marian Willard.

Juvenile Civic League (1909), Dept. of Street Cleaning, Rm. 1240 Municipal Bldg., N. Y. C.; Supervisor, Sadie E. Garland; Sec., Miss Geofery.

Kahn Foundation (for the Foreign Travel of Amer. Teachers), Albert (1911), 531 W. 116th St., N. Y. C.; Pres. of Board of Trustees, Edward D. Adams; Sec., Frank D. Fackenthal.

Kennel Club, Amer. (1888), 221 Fourth Ave., N. Y. C.; 150; Pres., John E. deMund; Sec., Perry B. Rice.

Kindergarten Assoc., Nat'l. (1909), 8 W. 40th St., N. Y. C.; Exec. Sec., Miss Bessie Locke.

Kiwanis International (1915), 164 W. Jackson Boulevard, Chicago, Ill.; 103,200; Sec., Fred C. W. Parker.

Knights of Columbus (1882), 45 Wall St., New Haven, Conn.; 637,122; Sup. Knight, Martin H. Carmody; Sup. Sec., William J. McGinley, P. O. Drawer 1670, New Haven, Conn.

Knights of Pythias (1864), 1054 Security Bldg., Minneapolis, Minn.; 666,000; Sup. Chancellor, Alva M. Lumpkin; Sup. Keeper of Records and Seal, Harry M. Love.

Knights of St. Antony (1890), 717 Leonard St., Brooklyn, N. Y.; 500; Pres., Patrick F. Curran; Sec., Thomas J. Tormey.

Knights Templar of the State of New York, Grand Commandery (1814), 608 Terminal Bldg., Rochester, N. Y.; 37,299; Gr. Commander, Wm. D. Cushman; Gr. Recorder, John B. Mullan.

Kosciuszko Foundation (1925), 953 Third Ave., N. Y. C.; 4,000; Pres., Henry N. MacCracken; Sec., Stephen P. Mixwa.

Ku Klux Klan, Inc., Knights of the (1915), Box 1204, Atlanta, Ga.; Imperial Wizard, Hiram Wesley Evans; Imperial Klaliff, H. K. Ramsey; Sec., N. B. Forrest.

Labor Legislation, Amer. Assoc. of (1906), 131 E. 23rd St., N. Y. C.; 3,300; Sec., Dr. John B. Andrews.

Lake Mohonk Conference on the Indian (1883), Mohonk Lake, Ulster Co., N. Y.; abt. 175; Pres., Daniel Smiley; Sec., Henry G. Miner.

Language Assoc. in the U. S., Inc., Int'l. Auxiliary (1924), 525 W. 120th St., N. Y. C.; 125; Pres., Dr. Earle B. Babcock; Exec. Sec., Dr. Herbert N. Shenton, Box 118, as above.

Laryngological Assoc., Amer. (1878), 120; Pres., Dr. Lewis A. Coffin, 114 E. 54th St., N. Y. C.; Sec., Dr. Geo. M. Coates, 1721 Pine St., Philadelphia, Pa.

Laryngological, Rhinological and Otological Soc., Inc., Amer. (1896); 425; Sec., R. L. Loughran, 33 E. 68rd St., N. Y. C.

La Societe Des 40 Hommes et 8 Chevaux (Playground of the American Legion) (1920), 777 No. Meridian St., Indianapolis, Ind.; 40,000; Pres., E. Snapper Ingram; Nat'l. Sec., Charles W. Ardery.

Latter Day Saints, Church of Jesus Christ of (Reorganized) (1830), Independence, Mo.; 105,-667; Pres., Frederick M. Smith; Sec., I. S. Smith.

Latvia, American Friends of (1923), Suite 651, 120 So. La Salle St., Chicago, Ill.; 981; Man. Dir., Dr. M. D. A. R. von Redlich, P. O. Box 882, Chicago, Ill.

Latvian-Estonian Chamber of Commerce in America, Inc., Suite 651, 120 So. La Salle St., Chicago, Ill.; 1,009; Man. Dir., Dr. M. D. A. R. von Redlich; Sec.-Gen., J. M. Ullman.

Law, Amer. Soc. of Int'l. (1906), 2 Jackson Pl., Washington, D. C.; 1,300; Pres., Dr. James Brown Scott; Rec. Sec., George A. Finch.

Law Institute, Amer. (1923), 3400 Chestnut St., Philadelphia, Pa.; 653 life, 143 official members; Dir., William D. Lewis.

Law Schools, Assoc. of Amer. (1900), Pres., H. C. Horack, 102 Law Bldg., Iowa City, Iowa; Sec., Dean Albert J. Harno, Univ. of Illinois, Urbana, Ill.

Lawyers' Assoc., N. Y. County (1908), 165 Broadway, N. Y. C.; 6,000; Pres., W. N. Cromwell; Sec., Tenence J. McManus.

League of Nations Assoc., Inc. (1923), 6 E. 39th St., N. Y. C.; 25,000; Pres., G. W. Wickersham; Sec., Philip C. Nash.

Learned Societies, Amer. Council of (1919), 907

15th St., Washington, D. C.; 17 societies; Chairman, Edward C. Armstrong; Permanent Sec., Waldo G. Leland.

Legal Aid Organizations, Nat'l. Assoc. of (1923), 3660 University Ave., Los Angeles, Calif.; 35; Sec., John S. Bradway.

Legal Aid Society (1876), 11 Park Place, N. Y. C.; approx. 1,750; Atty.-in-Chief, Leonard McGee; Sec., Cornelius P. Kitchel.

Legion of Valor of the U. S. A., Army and Navy (1890), Court House, Pittsburgh, Pa.; 592; Commander, Col. R. G. Woodside; Adjt. and Q. M., Lieut. Ben. Prager.

Legislators' Assoc., Amer. (1925), 730 Equitable Bldg., Denver, Colo.; 480 Councilors, 7,500 ex-officio members; Sec., Stanley H. Johnson.

Leonard Wood Memorial for the Eradication of Leprocy (1925), One Madison Ave., N. Y. C.; Nat'l Chairman, Gen. James G. Harbord; Sec., Perry Burgess.

Lepers, Amer. Mission to (1911), 156 Fifth Ave., N. Y. C.; 12; Gen. Sec., W. M. Danner.

Libraries Assoc., Special (1909), 11 Nisbet St., Providence, R. I.; abt. 1,200; Pres., William Alcott; Sec., Mrs. Mary H. Brigham.

Library Assoc., Amer. (1876), 520 No. Michigan Ave., Chicago, Ill.; 11,597; Pres., Andrew Keogh; Sec., Carl H. Milam.

Life Underwriters' Assoc. of the City of N. Y., Inc. (1887), 149 Broadway, N. Y. C.; 2,000; Pres., John C. McNamara, Jr.; Sec., William C. Bowden.

Lions Clubs, Int'l. Assoc. of (1917), 350 McCormick Bldg., 332 S. Michigan Ave., Chicago, Ill.; 72,000; Pres., Ray L. Riley; Sec., Melvin Jones.

Lithuanian Alliance of Amer. (1886), 307 W. 30th St., N. Y. C.; 22,000; Exec., Miss P. Jurgeliute.

Lord's Day Alliance of N. Y. State, Inc. (1890) 1123 Broadway, N. Y. C.; Pres., Rev. J. Stanley Durkee; Sec., Rev. John Ferguson.

Loyal Legion of the U. S., Military Order of the (1865), 1805 Pine St., Philadelphia, Pa.; 3,715; Comm.-in-Chief, Col. Robert M. Thompson; Recorder-in-Chief, Capt. John O. Foering.

Lumber Trade Assoc., N. Y. (1886), 5624 Grand Central Terminal, N. Y. C.; 165; Pres., Frank A. Niles; Sec., Herbert B. Coho.

Luther League of America (1895), 806 Muhlenberg Bldg., Philadelphia, Pa.; 47,800; Gen. Sec., Rev. A. J. Traver, 1228 Spruce St., as above.

Lutheran Council, Nat'l. (1918), 39 E. 35th St., N. Y. C.; 19; Exec. Dir., Rev. J. A. Morehead.

Mammalogists, Amer. Society of (1919); 1,000; Sec., A. Brazier Howell, Dept. of Anatomy, Johns Hopkins Medical School, Baltimore, Md.

Manganese Producers Assoc., Amer. (1927), 302 Metropolitan Bank Bldg., Washington, D. C.; 172; Pres., J. Carson Adkerson; Sec., Harold A. Pumpelly.

Manufacturers, Nat'l. Assoc. of (1895), 11 W. 42nd St., N. Y. C.; Pres., John E. Edgerton; Sec., J. Lewis Benton.

Marine Institute, Inc. (1928), 50 Church St., N. Y. C.; 14; Pres., Ludwig Weindling; Sec., James J. Markham.

Marine Painters' Assoc. (1920), 50 Broadway, N. Y. C.; 7; Pres., H. Firmin; Sec., Henry C. Hunter.

Marine Underwriters, Amer. Institute (1898) 56 Beaver St., N. Y. C.; 35 Marine Ins. Companies; Pres., Henry H. Reed; Exec. Sec., Ernest G. Driver.

Maritime Assoc. of the Port of New York (1873), 78-80 Broad St., N. Y. C.; 1,500; Pres., John Dowd; Sec., F. D. Denton.

Mathematical Assoc. of Amer. (1915), Peters Hall, Oberlin College, Oberlin, O.; 2,210; Pres., Prof. J. W. Young; Sec., Prof. W. D. Cairns.

Mathematical Soc., Amer. (1888), 501 W. 116th St., N. Y. C.; 1,800; Pres., Prof. E. R. Hedrick; Sec., R. G. D. Richardson.

Mayflower Descendants, Soc. of, State of New York (1894), 120 E. 71st St., N. Y. C.; 1,005; Sec., George E. Fahys.

Mechanics, Junior Order United Amer. (1853), 3027 Broad St., Philadelphia, Pa.; 400,000; Nat'l. Councilor, Omer C. Stubbs; Nat'l. Sec., James L. Wilmeth.

Mechanics and Tradesmen of the City of N. Y., Gen. Soc. of (1785), 20 W. 44th St., N. Y. C.; 375; Pres., John E. Wade; Sec., E. L. Hoffman.

Medica' Assoc., Amer. (1847), 535 No. Dearborn St., Chicago, Ill.; Sec. and Gen. Man., Dr. Olin West.

Medical Assoc. of N. Y. City, Women's, Pres., Dr. Anna Platt, 1140 Fifth Ave., N. Y. C.; Sec., Dr. Laila Coston Conner, 333 E. 68th St., N. Y. C.

Medical Soc. of N. Y. State, Women's (1912), abt. 225; Pres., Dr. Daisy O. Robinson, N. Y. State Dept. of Health, Albany, N. Y.

Medical Assoc., Southern (1906), Empire Bldg., Birmingham, Ala.; 8,100; Sec., C. O. Loranz.

Medical Jurisprudence, Soc. of (1883), N. Y. Academy of Medicine, 5th Ave. and 103rd St., N. Y. C.; 530; Pres., Dr. L. Howard Moss; Sec., George B. Schoonmaker.

Medical Soc. of the County of Kings (1822), 1313 Bedford Ave., Brooklyn, N. Y.; 2,027; Pres., Thomas M. Brennan; Sec., James Steele.

Medical Soc. of the County of New York (1806), N. Y. Academy of Medicine, 2 E. 103rd St., N. Y. C.; abt. 3,852; Dir. of Activities, Daniel S. Dougherty; Sec., Daniel S. Dougherty.

Medical Soc. of the State of New York (1807), 2 E. 103rd St., N. Y. C.; 12,241; Sec., Dr. Daniel S. Dougherty.

Medicine, N. Y. Academy of (1847), Fifth Ave. and 103rd St., N. Y. C.; 2,500; Dir., Dr. Linsly R. Williams; Ass't. Sec., Dr. Frederick P. Reynolds.

Mental Hygiene, Nat'l. Commission for (1912), 370 Seventh Ave., N. Y. C.; Pres., Dr. William A. White; Sec. Gen., Clifford W. Beers.

Mercantile Assoc., Central (1912), 111 Fifth Ave., N. Y. C.; 800; Pres., C. Stanley Mitchell; Sec., Joseph E. Kean.

Merchant Marine Library Assoc., Amer. (1921), 67 Wall St., N. Y. C.; 23; Pres., Mrs. Henry Howard; Sec., Miss A. H. Lingsweiler.

Merchants' Assoc. of N. Y. (1897), 233 Broadway, N. Y. C.; 8,000; Pres., Willis H. Booth; Sec., S. C. Mead.

Meteorological Soc., Amer. (1919), Clark Univ., Worcester, Mass.; 662; Pres., Dr. W. J. Humphreys; Sec., Dr. Charles F. Brooks.

Methodist Episcopal Church, Board of Education of (1869), 740 Rush St., Chicago, Ill.; 45; Pres., Bishop William F. Anderson; Corr. Sec., Rev. William S. Bovard.

Methodist Episcopal Church, Epworth League of (1889), 740 Rush St., Chicago, Ill.; 622,363; Sec., Blaine E. Kirkpatrick.

Methodist Episcopal Church, Woman's Home Missionary Soc. of the (1880), 420 Plum St., Cincinnati, Ohio; Pres., Mrs. W. H. C. Goode; Corr. Sec., Mrs. May Leonard Woodruff, 122 Lake Ave., Ocean Grove, N. J.

Methodist Historical Soc. in the City of N. Y. (1892), 150 Fifth Ave., N. Y. C.; 70; Pres., Dr. Frank B. Upham; Sec., Dr. William B. Tower.

Metric Assoc. (1916), 156 Fifth Ave., N. Y. C.; 1,000; Pres., George F. Kunz; Sec., Howard Richards.

Mexican Society of New York (1909), 3,000; Pres., F. Juarez; Sec., A. Paz, 23 Chatam Square, N. Y. C.

Michigan Automotive Trade Assoc. (1921), 5-218 General Motors Bldg., Detroit, Mich.; 539 auto dealers; Pres., Albert B. Parfet; Sec., W. D. Edenburn.

Microscopical Soc., N. Y. (1877), Amer. Museum of Natural History, N. Y. C.; 250; Pres., R. A. Wetzel; Sec., Geo. H. Needham.

Middle States Regatta Assoc. (1891), about 35 clubs; Pres., Samuel H. Truitt, Malta Boat Club, Philadelphia, Pa.; Sec.-Treas., C. Fred Muller, Rm. 628, 466 Lexington Ave., N. Y. C.

Milbank Memorial Fund (1905), 49 Wall St., N. Y. C.; membership corporations; Pres., Albert G. Milbank; Sec., John A. Kingsbury.

Military and Naval Officers of World War, Inc., N. Y. Soc. (1920), 432 Fourth Ave., N. Y. C.; 600; Pres., Brig. Gen. George A. Wingate; Sec., Capt. N. W. Muller.

Military Engineers, Soc. of American (1919), 810 Mills Bldg., Washington, D. C.; 8,000; Pres., S. M. Felton; Sec., Lieut. Col. J. N. Hodges.

Military Order of Foreign Wars of the U. S., Nat'l. Commandery (1894), 149 Broadway, N. Y. C.; 5,020; Commander-General, Commander Wm. Seaman Bainbridge; Sec.-Gen., Lt. Col. David Banks.

Military Order of Foreign Wars of the U. S., N. Y. Commandery (1894), 149 Broadway, N. Y. C.; 555; Commander, Maj. Albert E. Gunther; Sec., Col. Noel Bleecker Fox.

Military Order of the Serpent, Supreme Lair (1904), 216 No. Fairfield St., Chicago, Ill.; 10,000; Pres., William Orthman, as above; Sec., Frank Warner, (Grand Lair) Schenectady, N. Y.

Military Order of the World War (1920), 1518 K St., N. W., Washington, D. C.; 4,300; Pres., Lt. Col. Thatcher T. P. Luquer; Sec., Lt. Col. David T. Abercrombie.

Military Surgeons of the U. S., Assoc. of (1891), Army Medical Museum, Washington, D. C.; 4,500; Pres., C. H. Lavinder; Sec., Col. J. R. Kean, U. S. A. Ret.

Mineraloiogical Soc. of Amer. (1919); 340; Pres., Prof. Arthur L. Parsons, Univ. of Toronto, Toronto, Ont.; Sec., Dr. Frank R. Van Horn, care Case School of Applied Science, Cleveland, O.

Mining and Metallurgical Engineers, Amer. Institute of (1871), 29 W. 39th St., N. Y. C.; 8,732; Pres., F. W. Bradley; Sec., Dr. H. Foster Bain.

Mining Congress, Amer. (1897), 841 Munsey Bldg., Washington, D. C.; 8,703; Sec., J. F. Callbreath.

Mission Society, N. Y. City (1827), 105 E. 22nd St.. N. Y. C.; Sec., Luther H. Lewis.

Missionary Assoc., Amer. (1846), 287 Fourth Ave., N. Y. C.; Exec. Sec., Rev. George L. Cady.

Missionary Council, Int'l. (1910), 230 Park Ave., N. Y. C.; Chmn., Dr. John R. Mott; Sec., Dr. A. L. Warnshuis.

Missionary Union, Int'l. (1884), 71 W. 23rd St., N. Y. C.; Pres., Rev. J. S. Stone; Sec., Rev. H. F. Laflamme.

Moderation League, Inc. (1923), 385 Madison Ave., N. Y. C.; Chmn., Austen G. Fox; Sec., Thomas W. Therkildsen.

Modern Language Assoc. of Amer. (1883), New York Univ., Washington Square East, N. Y. C.; 3,800; Sec., Carleton Brown.

Modern Woodmen of America (1883), 1504 Third Ave., Rock Island, Ill.; 1,081,242; Head Consul, A. R. Talbot; Head Clerk, J. G. Ray.

Moose, Loyal Order of (1888), Mooseheart, Ill.; 669,759; Dir. Gen., James J. Davis; Sec., Malcolm R. Giles.

Motion Picture Producers and Distributors of Amer., Inc. (1922), 469 Fifth Ave., N. Y. C.; 25; Pres., Will H. Hays; Sec., Carl E. Milliken.

Motion Pictures, Nat'l. Board of Review of (1909), 70 Fifth Ave., N. Y. C.; 1,000; Chairman, Dr. Wm. B. Tower; Sec., Wilton A. Barrett.

Municipal League, Nat'l. (1894), 261 Broadway, N. Y. C.; 3,000; Sec., Russell Forbes.

Municipal Research, Bureau of (1906), 261 Broadway, N. Y. C.; Dir. and Sec., Luther Gulick.

Museums, Amer. Assoc. of (1906), Smithsonian Institution, Washington, D. C.; 900; Dir. Laurence Vail Coleman; Ass't. Sec., Ralph Clifton Smith.

Museums of the Peaceful Arts (1927), 24 W. 40th St., N. Y. C., 7th floor; Pres. of Board, Frederic B. Pratt; Sec., Dr. Calvin W. Rice.

Music Teachers Nat'l. Assoc. (1876); 560; Pres., William Arms Fisher, 179 Tremont St., Boston, Mass.; Sec., D. M. Swarthout, Univ. of Kansas, Lawrence, Kan.

Musicians, Amer. Fed. of (1896), 1440 Broadway, N. Y. C.; 135,000; Pres., Jos. N. Weber; Sec., Wm. J. Kerngood.

Mystic Shrine for North America, Ancient Arabic Order of Nobles of the (1876), Corporate Headquarters, Denver, Colo.; 576,193; Imperial Potentate, Leo V. Youngworth; Sec., James H. Price, Times-Dispatch Bldg., Richmond, Va.

National Parks Assoc. (1919), 1512 H St., N. W., Washington, D. C., Pres., George B. Grinnell; Sec., Robert Sterling Yard.

Natural History, Boston Soc. of (1830), 234 Berkeley St., Boston, Mass.; 800; Dir., Edward Wigglesworth; Sec., Clinton V. MacCoy.

Naturalists, Amer. Soc. of (1883); abt. 450; Pres., Prof. G. H. Parker, Harvard Univ., Cambridge, Mass.; Sec., L. J. Cole, Dept. of Genetics, Univ. of Wisconsin, Madison, Wisc.

Nature Study and Gardening Supervisors, Nat'l. Council of (1920); 30; Pres., Miss Lillian Hethershaw, Drake Univ., Des Moines, Iowa; Sec., Miss LaVerne Argabright, Western State Teachers' College, Kalamazoo, Mich.

Nature Study Soc., Amer. (1908), Pres., Dr. Bertha Chapman Cady; Sec., Miss Ellen Eddy Shaw, Brooklyn Botanic Garden, 1000 Washington Ave., Brooklyn, N. Y.

Naval Architects and Marine Engineers, Soc. of (1893), 29 W. 39th St., N. Y. C.; 1,400; Pres., Homer L. Ferguson; Sec., Daniel H. Cox.

Naval Engineers, Amer. Soc. of (1888), Bureau of Engineering, Navy Dept., Washington, D. C.; 1,200; Sec.-Treas., Commander H. T. Smith.

Naval Order of the U. S. (1893), 299 Madison Ave., N. Y. C.; 450; Com. Gen., Rear Admiral Albert Gleaves; Rec. Gen., Kenneth Fisk.

Naval Order of the U. S., N. Y. Commandery (1890), 220 Broadway, N. Y. C.; 175; Commander, Howland H. Pell; Sec., Richard Condon.

Naval Reserve Officers' Assoc., U. S., 3rd Naval District (1919), 2205 Municipal Bldg., N. Y. C.; 400; Dir., Lieut. Comm. R. H. Nexsen, Sec., Lieut. R. A. Van Voorhis.

Naval Veterans, U. S. A., 1861-1865. Nat'l. Assoc. (1885), G. A. R. Hall, Somerville, Mass.; 1,800; Pres., Commodore Loomis Scofield; Paymaster-Sec., Mrs. Eva M. Wyse.

Navy League of the U. S. (1902), 1749 E St., Washington, D. C.; 5,000; Chmn. of Board, Walter B. Howe; Exec. Sec., William M. Galvin.

Navy Mutual Aid Assoc. (1879), Rm. 1054, Navy Bldg., Washington, D. C.; 6,102, Sec. and Treas., T. J. Cowie, Rear Admiral.

Needlework Guild of America (1885), 505 Franklin Bldg., 133 So. 12th St., Philadelphia, Pa.; abt. 850,000; Nat'l. Pres., Mrs. Thomas J. Preston; Sec., Miss Rosamond K. Bender.

Negro Rural School Fund (Anna T. Jeanes Foundation) (1908); Pres., Dr. J. H. Dillard. Box 418, Charlottesville, Va.; Sec., John T. Emlen, Fourth and Chestnut Sts., Philadelphia, Pa.

Neptune Assoc., Inc. (1910), 82 Broad St., N. Y. C.; 2,000; Sec.-Treas., Capt. John F. Milliken.

Netherland-American Foundation, Inc. (1921), 551 Fifth Ave., Rm. 2415, N. Y. C.; 200; Pres., William Van Wyck; Sec., G. Evans Hubbard.

Netherlands Assoc. of No. Amer. (1922), 179 So. Trenchard St., Yonkers, N. Y.; 337; Gen. Pres., Prof. F. E. H. Gebhardt van Roonburgh.

New England Historic Genealogical Soc. (1845), 9 Ashburton Pl., Boston, Mass.; abt. 2,700; Pres., John Carroll Chase; Rec. Sec., Henry Edwards Scott.

Newspaper Advertising Executives Assoc. (1915); 350; Pres., Leslie M. Barton; Sec., Irving C. Buntman, care Milwaukee Herold, Milwaukee, Wisc.

Newspaper Editors, Amer. Soc. of (1922); 232; Pres., Walter M. Harrison; Sec., Marvin H. Creager, Milwaukee Journal, Milwaukee, Wisc.

Newspaper Women's Club, N. Y. (1916), 47 W. 44th St., N. Y. C.; 65; Pres., Mrs. Josephine Robb Ober; Sec., Marjory Shuler.

Non-Smokers' Protective League of Amer. (1910), 101 W. 72nd St., N. Y. C.; over 2,000; Pres., Charles G. Pease; Sec., Eugenio di Pirani.

Numismatic Soc., Amer. (1858), Broadway at 155th St., N. Y. C.; 571; Pres., Edward T. Newell; Sec., Sydney P. Noe.

Nurses' Assoc., Amer. (1897), 370 Seventh Ave., N. Y. C.; 76,252; Dir. at Headquarters, Janet M. Geister.

Nurses, Guild of St. Barnabas for (1886), Rm. 1700, 370 Seventh Ave., N. Y. C.; 6,000; Chaplain-Gen., Rev. Howard Chandler Robbins; Sec., Miss Nellie F. Oxley, R. N.

Odd Fellows, Ind. Order of, Sovereign Grand Lodge of (1819), 12-20 W. Chase St., Baltimore, Md.; 2,463,177; Grand Sire, Frank Martin; Sec., J. Edw. Kroh.

Ohio Society of N. Y. (1885), Hotel Pennsylvania, 7th Ave. and 33rd St., N. Y. C.; 1,300; Pres., Charles C. Green; Exec. Sec., C. E. Althouse.

Ohio State Automobile Assoc. (1901), Neil House, Columbus, O.; 150,000; Pres., R. B. Crawford; Sec., Charles C. Janes, as above, Box 282.

Old Age Security, Amer. Assoc. for (1927), 104 Fifth Ave., Rm. 1603, N. Y. C.; 1,800; Pres., Bishop Francis J. McConnell; Sec., Abraham Epstein.

Optimist International (1911), 1973 Railway Exchange Bldg., St. Louis, Mo.; 8,000; Pres., Nicholas F. Nolan; Sec., Russell F. Meyer.

Optometric Assoc., Inc., Amer. (1898), 5,000; Pres., Dr. George S. Houghton, 312 Little Bldg., Boston, Mass.; Sec., Dr. Ernest H. Kiekenapp, Glass Block, Faribault, Minn.

Optometric Assoc., N. Y. State (1895), 2482 Broadway, N. Y. C.; 805; Pres., J. W. Jarvis; Sec., D. K. Uttal.

Orange Assoc., Int'l. (Nat'l. Grand Lodge) (1926); Chester, N. J.; abt. 14,000; Nat'l. Gr. Master, David McWatters, 6745 So. Morgan St., Chicago, Ill.; Nat'l. Gr. Sec., Rev. Geo. T. Lemmon.

Orange Institution, Loyal (Orangemen) (1688, in U. S. 1878); 35,000, Sup. Gr. Master, Robert E. Douglas, 8060 American Ave., Detroit, Mich.; Sup. Gr. Sec., John A. H. Thompson, 7229 Monticello St., Pittsburgh, Pa.

Organists, Amer. Guild of (1896), Rm. 210, 217 Broadway, N. Y. C.; 3,600; Pres., Frank L. Sealy; Sec., Ralph A. Harris.

Oriental Soc., Amer. (1842); 725; Pres., Prof. A. V. Williams Jackson, Columbia Univ., N. Y. C.; Sec., Dr. Charles J. Ogden, 628 W. 114th St., N. Y. C.

Ornithologists' Union, Amer. (1883), 1939 Biltmore St., N. W., Washington, D. C.; abt. 1,800; Pres., Dr. Alexander Wetmore; Sec., Dr. T. S. Palmer.

Osteopathic Assoc., Amer. (1897), 844 Rush St., Chicago, Ill.; 4,400; Pres., Dr. John A. MacDonald; Exec. Sec., Dr. C. J. Gaddis.

Owls, Order of (1904), Owl Bldg., 31 Wethersfield Ave., Hartford, Conn.; 400,000; Sup. Pres., Ferdinand D'Esopo; Sup. Sec., John W. Talbot.

Pacific Relations, Inst. of, Amer. Council (1927), 129 E. 52nd St., N. Y. C.; 182; Chmn., Jerome D. Greene; Honorary Sec. of Amer. Council, Edward C. Carter.

Pan American Society, Inc. (1912), 67 Broad St., N. Y. C.; 800; Pres., John L. Merrill; Sec., W. P. Flower.

Pan Pacific Union (1917), Honolulu, T. H., 30 Trustees; Dir., Alexander Hume Ford.

Paper and Pulp Assoc., Amer. (1878), 18 E. 41st St., N. Y. C.; 300; Pres., S. L. Willson; Sec., Chas. W. Boyce.

Parents and Teachers, Nat'l. Congress of (1897), 1201 - 16th St., N. W., Washington, D. C.; 1,382,-

741; Pres., Mrs. S. M. N. Marrs; Sec., Mrs. Arthur C. Watkins.

Park Assoc. of New York City, Inc. (1928), 71 W. 23rd St., N. Y. C.; 2,800; Pres., Nathan Straus, Jr.; Sec., M. Lawrence Craner.

Park Avenue Association (1922), 342 Madison Ave., N. Y. C.; 1,400; Treas., Frederick W. Duval; Sec., Horace H. Griswold.

Peace Society, Amer. (1828), 20 Jackson Pl., Washington, D. C.; Pres., William Fortune; Sec., Dr. Arthur D. Call.

Peace Society, Women's (1919), 20 Vesey St., N. Y. C.; 3,500; Chmn., Mrs. Florence Hamilton; Exec. Sec., Mrs. Annie E. Gray.

Peace, World League for Permanent (1928), P. O. Box 882, Chicago, Ill.; 12,018; Pres. and Man. Dir., Prof. Dr. Marcellus D. Ritter von Redlich; Sec. Gen., Miss Anna Morgan.

Pennsylvania Soc. (1899), 249 W. 13th St., N. Y. C.; Pres., Charles M. Schwab; Sec., Robert Mazet.

People's University Extension Soc. (1898), 2025 Broadway, (Rm. 235), N. Y. C.; Pres., Dr. Rossiter Johnson; Sec., Florence K. Johnson.

Persian Chamber of Commerce in U. S. (1926), Suite 651, 120 So. La Salle St., Chicago, Ill.; Man. Dir., Consul General Dr. M. D. A. R. von Redlich; Sec., Vice Consul Jevne Haugan.

Persian National League, Inc. (1926), Suite 651, 120 So. La Salle St., Chicago, Ill.; 6,357; Pres., Consul General, Dr. M. D. A. R. von Redlich, Box 882, Chicago, Ill.; Sec., Vice Consul Jevne Haugan.

Petroleum Institute, Amer. (1919), 250 Park Ave., N. Y. C.; 3,700; Exec. Vice. Pres., W. R. Boyd, Jr.; Sec., Lacey Walker.

Pharmaceutical Assoc., Amer. (1852), 10 W. Chase St., Baltimore, Md.; 5,000; Pres., D. F. Jones; Sec., E. F. Kelly.

Phi Beta Kappa Alumni in N. Y. (1877); 800; Pres., Edward R. Finch; Sec., John Kirkland Clark, 72 Wall St., N. Y. C.

Phi Beta Kappa, United Chapters of (1776), 145 W. 55th St., N. Y. C.; 57,600 living members; Pres., Clark S. Northup; Sec., Oscar M. Voorhees.

Philatelic Americans, Soc. of (1894); 1,600; Pres., Dr. N. P. McGay, 1000 E. 105th St., Cleveland, O.; Sec., Wm. Lycett, 1221 Washington St., Cape May, N. J.

Philatelic Soc., Amer. (1886); 4,300; Pres., A. H. Wilhelm, 428 Capp St., San Francisco, Calif.; Sec., Dr. H. A. Davis, 3421 Colfax "A", Denver, Colo.

Philharmonic Symphony Soc. of N. Y. (1842), 113 W. 57th St., N. Y. C.; 507; Chmn. Bd. of Directors, Clarence H. Mackay; Sec., Arthur Judson.

Philological Assoc., Amer. (1869), Wesleyan Univ., Middletown, Conn.; 1,056; Sec., Joseph William Hewitt.

Philosophical Assoc., Amer. (1900), Univ. of Oregon, Eugene, Ore.; 550; Pres., M. R. Cohen; Sec., H. G. Townsend.

Philosophical Soc., Amer. (1727), 104 So. 5th St., Philadelphia, Pa.; 450; Pres., Francis X. Dercum; Sec., Dr. Arthur W. Goodspeed.

Physical Education Assoc., Amer. (1885), 820 State St., Springfield, Mass.; 2,000; Pres., F. W. Maroney; Sec., J. H. McCurdy.

Physical Soc., Amer. (1889), Columbia University, N. Y. C.; 2,300; Pres., Dean Henry G. Gale; Sec., W. L. Severinghaus.

Physicians, Assoc. of Amer. (1886); 280; Pres., Dr. Thomas McCrae, 1929 Spruce St., Philadelphia, Pa.; Sec., Dr. James H. Means, Massachusetts General Hospital, Boston, Mass.

Physiological Soc., Amer. (1889); 403; Pres., Jos. Erlager, Washington Univ. Medical School, St. Louis, Mo.; Sec., Walter J. Meek, Univ. of Wisconsin Medical School, Madison, Wisc.

Piano Merchants Assoc., N. Y. (1916), 105 W. 40th St., N. Y. C.; 45; Pres., E. J. Pettinato; Sec., Albert Behning.

Pilgrim Society (1820), Pilgrim Hall, Plymouth, Mass.; Pres., Howland Davis; Sec., Henry W. Royal.

Pilgrims of the U. S. (1903), 509 Fifth Ave., N. Y. C.; 900; Chmn. Exec. Comm., Frank L. Polk, 44 Wall St., N. Y. C.; Sec., Elihu C. Church.

Plant, Flower and Fruit Guild, Nat'l. (1893), 70 Fifth Ave., N. Y. C.; abt. 7,000; Dir., Ida White Parker; Sec., Olive Hyde Foster.

Playground and Recreation Assoc. of Amer. (1906), 315 Fourth Ave., N. Y. C.; abt. 15,000; Pres., Joseph Lee; Sec., Howard S. Braucher.

Polish Chamber of Commerce and Industry in the U. S., Inc., Amer. (1920), 953 Third Ave., N. Y. C.; 145; Pres., H. S. Demarest; Sec., W. Eric Lord.

Polish Jews in Amer., Fed. of (1908), 32 Union Square, N. Y. C.; 50,000; Exec. Dir., Z. Tygel; Sec., David Trautman.

Polish National Alliance of the U. S. of No. Amer. (1880), 1406 W. Division St., Chicago, Ill.; 281,225; Pres., John Romaszkiewicz; Sec., C. Kowalski.

Polish Roman Catholic Union of Amer. (1887), 984-6 Milwaukee Ave., Chicago, Ill.; 154,000; Pres., John J. Olejniczak; Sec., Walter J. Przybylinski.

Political and Social Science, Amer. Academy of (1889), 3622 Locust St., Philadelphia, Pa.; 9,500; Pres., Dr. L. W. Rowe; Sec., Dr. J. P. Lichtenberger.

Political Science, Academy of (1880), Fayerweather Hall, Columbia Univ., N. Y. C.; 7,000; Pres., Samuel McCune Lindsay; Exec. Dir., Ethel Warner.

Political Science Assoc., Amer. (1903), 2034 Angell Hall, Univ. of Michigan, Ann Harbor, Mich.; 1,800; Pres., Prof. John A. Fairlie; Sec., Prof. J. R. Hayden.

Polo Assoc., U. S. (1890), 347 Madison Ave., N. Y. C.; 91 clubs; Chmn., Louis E. Stoddard; Sec., F. S. O'Reilly.

Poor, N. Y. Assoc. for Improving the Condition of the (1843), 105 E. 22nd St., N. Y. C.; Pres., Cornelius N. Bliss; Gen. Dir., Bailey B. Burritt.

Posture League, Inc., Amer. (1913), 1 Madison Ave. (Metropolitan Tower), N. Y. C.; 500; Pres., Dr. George J. Fisher; Sec.-Treas., Dr. L. E. LaFetra.

Power Boat Assoc., Amer. (1903), 5-218 General Motors Bldg., Detroit, Mich.; 174 clubs; Pres., Frederick R. Still; Sec., W. D. Edenburn.

Power Transmission Assoc. (1926), 644 Drexel Bldg., 5th and Chestnut Sts., Philadelphia, Pa.; 90; Sec., W. S. Hays.

Pratt Institute (1887), Ryerson St., Brooklyn, N. Y.; 4,500; Pres., Frederic B. Pratt; Sec., Charles Pratt, Pratt Institute, as above.

Precancel Stamp Society (1912), New Berlin, N. Y.; 500; Pres., Dr. W. J. Mitchell; Sec., John Spaulding.

Presbyterian Board of Christian Education (1923), Witherspoon Bldg., Philadelphia, Pa.; 40 Board Members; Pres., Rev. Hugh T. Kerr; Sec., Rev. Wm. Chalmers Covert.

Presbyterian Church in the U. S. A., General Assembly of the (1789), 514 Witherspoon Bldg., Philadelphia, Pa.; 2,004,467; Moderator, Rev. Cleland B. McAfee; Stated Clerk, Rev. Lewis S. Mudge.

Presbyterian Church of No. Amer., Board of Amer. Missions of the United (1859), 702 Publication Bldg., Pittsburgh, Pa.; 15; Sec., Rev. R. A. Hutchison.

Presbyterian Historical Soc. (1852), 520 Witherspoon Bldg., Philadelphia, Pa.; 200; Pres., Rev. Henry van Dyke; Sec., Rev. William P. Finney.

Press Assoc., Nat'l. Amateur (1876), 360 Palmyra St., Warren, Ohio; 300; Pres., Harry Marlowe; Sec., Walter Davenport, Montpelier, Vt.

Prevention of Cruelty to Animals, Amer. Soc. for the (1866), 50 Madison Ave., N. Y. C.; 2,553; Pres., Frank K. Sturgis; Sec., Richard Welling.

Prevention of War, Nat'l. Council for (1921), 532 - 17th St., Washington, D. C.; 20,000; Chmn., Clement Biddle; Exec. Sec., Frederick J. Libby.

Prison Assoc., Amer. (1870), 135 E. 15th St., N. Y. C.; 500; Pres., George C. Erskine; Gen. Sec., E. R. Cass.

Prison Assoc. of New York (1844), 135 E. 15th St., N. Y. C.; 3,200; Pres., Edwin O. Holter; Gen. Sec., E. R. Cass.

Prisons and Prison Labor, Nat'l. Committee on (1909), Rm. 1006, 4 W. 57th St., N. Y. C.; 3,000; Exec. Dir., Dr. E. Stagg Whitin; Sec., Miss J. K. Jaffray.

Probation Assoc., Nat'l. (1909), 370 Seventh Ave., N. Y. C.; 9,000; Gen. Sec., Charles L. Chute.

Produce Exchange, N. Y. (1861), 2 Broadway, N. Y. C.; 1,577; Pres., William Beatty; Sec., W. C. Rossman.

Professional Woman's League, Inc. (1893); abt. 200; Pres., Mrs. George Lessey, 340 W. 89th St., N. Y. C.; Sec., Frances Brooke, 575 W. 172nd St., N. Y. C.

Professors and Students, Assoc. of (Wabash Univ., Central Coll. of Law and Jefferson Park Coll.) (1928), 211 E. Delaware Pl., Chicago, Ill.; 121; Pres., Prof. Frederick Juchhoff; Sec. Gen., Edward W. Jaeger.

Prohibition Amendment, Assoc. Against the (1918); Sec., Emmet Dougherty, National Press Bldg., Washington, D. C.

Propagation of the Faith, Soc. for the (1873), 109 E. 38th St., N. Y. C.; 1,280,000; Nat'l. Dir., Rt. Rev. Monsignor William Quinn; Nat'l. Sec., Rev. Hubert A. Campo.

Proportional Representation League (1893), 505 Social Service Bldg., 311 So. Juniper St. Philadelphia, Pa.; 1,000; Exec. Sec., George H. Hallett, Jr.

Psychiatric Assoc., Amer. (1844), 1,350; Pres., Dr. E. D. Bond, 4401 Market St., Philadelphia,

Pa.; Sec., Dr. C. O. Cheney, Hudson River State Hospital, Poughkeepsie, N. Y.

Psychical Research, Amer. Soc. for (1904), 15 Lexington Ave., N. Y. C.; 1,200; Sec., Thomas H. Pierson.

Psychological Corporation (1921), 3937 Grand Central Terminal Bldg., N. Y. C.; Pres., Dr. R. S. Woodworth; Sec., Paul S. Achilles.

Public Administration, Nat'l. Institute of (1907), 261 Broadway, N. Y. C.; Dir., Luther H. Gulick; Man., Carl E. McCombs.

Public Health Assoc., Amer. (1872), 370 Seventh Ave., N. Y. C.; 4,500; Sec., Homer N. Calver.

Public Spirit Club, International (1922), 1023 Hearst Bldg., San Francisco, Calif.; 5,000; Pres., George B. Monk; Exec. Sec., Earle C. Miles.

Rabbinical Assembly of the Jewish Theological Seminary of America (1902), 531 W. 123rd St., N. Y. C.; 201; Pres., Dr. Louis Finkelstein; Sec., Dr. Israel Goldstein.

Racing Assoc., United Hunts (1905), 250 Park Ave., N. Y. C.; 800; Pres., John McEntee Bowman; Sec., H. A. Buck.

Radio Engineers, Inc., Institute of (1913), 33 W. 39th St., N. Y. C.; 5,500; Pres., A. Hoyt Taylor; Sec., John M. Clayton.

Radio Relay League, Inc., Amer. (1915), 1711 Park St., Hartford, Conn.; 19,000; Pres., Hiram Percy Maxim; Sec., K. B. Warner.

Railroad Club, New York (1872), Rm. 904, 26 Cortlandt St., N. Y. C.; 2,100; Pres., Eliot Sumner; address communications to the Secretary.

Railroad Superintendents, Amer. Assoc. of (1893), 111 Union Station, St. Louis, Mo.; 2,200; Pres., J. J. Franco; Sec., J. Rothschild.

Railroads, Committee on Public Relations of the Eastern (1923), 143 Liberty St., N. Y. C.; Chmn. E. E. Loomis; Vice Chmn., Robert S. Binkerd.

Railway Accounting Officers Assoc. (1888),11124 Woodward Bldg., Washington, D. C.; 1,158; Pres., T. O. Edwards; Sec., E. R. Woodson.

Railway Business Assoc. (1906), 1406 Packard Bldg., Philadelphia, Pa.; 600; Pres., Alba B. Johnson; Sec., Frank W. Noxon.

Railway Economics, Bureau of (1910), Transportation Bldg., Washington, D. C.; R. R. Cos. of the U. S.; Dir., Dr. Julius H. Parmelee; Chief Clerk, E. K. Kloman.

Railway Engineering Assoc., Amer. (1899), 431 So. Dearborn St., Chicago, Ill.; 2,845; Pres., Louis Yager; Sec., E. H. Fritch.

Railways Assoc., N. Y. (1897), 352 W. 54th St., N. Y. C.; 2,000; Pres., H. J. Sheeran; Sec., H. A. Newell.

Rationalist Assoc., Amer. (1924), 635 No. Clark St., Chicago, Ill.; Pres., Spencer M. De Goller; Sec., Franklin Steiner.

Real Estate Board of N. Y., Inc. (1896), 12 E. 41st St., N. Y. C.; 3,000; Pres., Peter Grimm; Sec., William H. Class.

Real Estate Boards, Nat'l. Assoc. of (1906), 310 So. Michigan Ave., Chicago, Ill.; 20,000 individuals in 619 member real estate boards; Pres., L. P. Reaume; Sec., Herbert U. Nelson.

Reciprocity Club of Amer. (1912), 80 Boylston St., Boston, Mass.; 2,000; Pres., George A. Mosher; Sec., D. L. Raine.

Red Men, Improved Order of (1847), 1521 W. Girard Ave. Philadelphia, Pa.; 395,298; Pres., Harry Cathriell; Sec., H. F. Stetser.

Reform Assoc., Nat'l. (1863), 6th floor Publication Bldg., 209 Ninth St., Pittsburgh, Pa.; 10,000; Pres., Rev. R. H. Martin; Sec., Rev. R. W. Redpath.

Reform Federation, Int'l. (1896), 206 Pennsylvania Ave., S. E., Washington, D. C.; abt. 15,000; Pres., Rev. Robert Watson; Sec., Prof. George S. Duncan.

Reformed Church in Amer., Board of Education (1828), 25 E. 22nd St., N. Y. C.; 24; Pres., Rev. Albertus T. Broek; Sec., Rev. Willard Dayton Brown.

Reformed Church in Amer., Board of Foreign Missions of the (1832), 25 E. 22nd St., N. Y. C.; 27; Pres., Rev. Dr. H. E. Cobb; Sec., Rev. W. I. Chamberlain.

Reformed Church in Amer., General Synod of the (1794), 25 E. 22nd St., N. Y. C.; 159,664; Pres., Rev. Daniel A. Poling; Stated Clerk, Rev. Henry Lockwood.

Reformed Church in the U. S., Board of Foreign Missions of (1838), Rm. 310, Schaff Bldg., 1505 Race St., Philadelphia, Pa.; Pres., Rev. Charles E. Creitz; Sec., Rev. Allen R. Bartholomew.

Religious Education, Int'l. Council of (1922), 5 So. Wabash Ave., Chicago, Ill.; 190; Chmn. Exec. Com., Robert M. Hopkins; Gen. Sec., Hugh S. Magill.

Research Assoc., Modern Humanities (International) (1918), 32 Waverly Pl., N. Y. C.; over 900; Pres., Prof. Edmund G. Gardner; Amer Sec., Prof. Oliver Jowles.

Rhodes Scholars, Assoc. of Amer. (1928), Bank of the Manhattan Co., 40 Wall St., N. Y. C.; 500; Sec., F. F. Russell.

Rifle Assoc. of America., Nat'l. (1871), Barr Bldg., 17th and I Sts., Washington, D. C.; 150,000; Sec., C. B. Lister.

Road Builders' Assoc., Amer. (1902), 914 National Press Bldg., Washington, D. C.; 3,000; Pres., F. A. Reimer; Sec., Charles M. Upham.

Roerich Museum (1923), 310 Riverside Drive, N. Y. C.; Pres., Louise L. Horch; Dir., Sviatoslav Roerich.

Roerich Museum, Master Institute of (1921); 310 Riverside Drive, N. Y. C.; several hundred. Pres.-Founder, Prof. Nicholas Roerich, Master Bldg., 310 Riverside Drive, N. Y. C.; Dir., Mrs. Sina Lichthmann.

Roosevelt Memorial Assoc., Inc. (1919), Roosevelt House, 28 E. 20th St., N. Y. C.; abt. 1,000,000; Pres., James R. Garfield; Sec., Hermann Hagedorn.

Rose Society, Amer. (1899), West Grove, Pa.; 5,000; Pres., J. Horace McFarland; Sec., Robert Pyle.

Rosicrucian Fraternity (S. R. I. A.) (Societas Rosicruciana In America) (1909), 420 City Hall Station, N. Y. C.; Sup. Magus, George W. Plummer; Sec., Gen., Adrian C. Grover.

Rosicrucian Order (AMORC), Rosicrucian Park, San Jose, Calif.; 40,000; Imperator, Dr. H. S. Lewis; Sec., R. M. Lewis.

Rotary Club of N. Y. (1909), The Commodore, 42nd St. and Lexington Ave., N. Y. C.; 490; Pres., J. Robert Stout; Sec., Edwin H. Rushmore.

Rotary International (1905), 211 W. Wacker Drive, Chicago, Ill.; 144,300; Pres., M. Eugene Newsom; Sec., Chesley R. Perry.

Royal Arcanum, Sup. Council of the (1877), 407 Shawmut Ave., Boston, Mass.; Sup. Regent, Harold C. Knoeppel; Sec., H. F. Hotchkiss.

Royal Neighbors of Amer. (1895), Rock Island, Ill.; 674,703; Sup. Oracle, Mrs. Mary E. Arnholt; Sup. Recorder, Miss Erna M. Barthel.

Rubber Manufacturers Assoc., Inc. (1900), 250 W. 57th St., N. Y. C.; 132; Gen. Man., A. L. Viles; Sec., A. D. Kunze.

Russell Sage Foundation (1907), 130 E. 22nd St., N. Y. C.; Gen. Dir., John M. Glenn.

Safety Council, National (1912), 108 E. Ohio St., Chicago, Ill.; 5,050 unit memberships, 59 local councils in leading cities of U. S.; Man. Dir., W. H. Cameron.

St. Andrew's Soc. of the State of N. Y. (1756), 104 E. 22nd St., N. Y. C.; 800; Sec., William W. Peake.

St. David's Soc. of the State of N. Y. (1835), 289 Fourth Ave., N. Y. C.; 246; Pres., Thomas D. Bowen; Sec., George Morgan Lewis.

St. George's Soc. of N. Y. (1770), 19 Moore St., N. Y. C.; 1,000; Chmn., K. L. Wedgwood; Sec., C. W. Bowring, Jr.

Santa Claus Assoc., Inc. (1914), 152 W. 42nd St., N. Y. C.; 16,000; Pres., John Duvall Gluck; Sec., Emma Croft Germond.

Save-a-Life League, Inc., Nat'l. (1906), 50 E. 42nd St., N. Y. C.; 3,000; Pres., Dr. Harry M. Warren; Sec., George H. Warwick.

Save-the-Redwoods League (1918), 220 California Hall. Univ. of Calif., Berkeley, Calif.; 7,000; Exec. Sec., Newton B. Drury.

Savings Bank Assoc. of the State of N. Y. (1894), 110 E. 42nd St., N. Y. C.; 150; Pres., Philip A. Benson; Sec., Paul W. Albright.

Scenic and Historic Preservation Soc., Amer. (1895), 154 Nassau St., N. Y. C.; 500; Pres., Dr. George F. Kunz; Sec., Raymond H. Torrey.

School Garden Assoc. of N. Y. (1908), 121 E. 51st St., N. Y. C.; 10,500; Pres., Van Evrie Kilpatrick; Sec., Marvin M. Brooks.

Science, Amer. Assoc. for the Advancement of (1848), Smithsonian Institution Bldg., Washington, D. C.; 18,500; Sec., Dr. Burton E. Livingston.

Science League of America, Inc. (1924), 504 Gillette Bldg., San Francisco, Calif.; Pres., Maynard Shipley; Sec., George E. Coleman, Box 119, Hot Springs Rd., Santa Barbara, Calif.

Science Service, Inc. (1921), 21st and B Sts., Washington, D. C.; 15 trustees; Man. Editor and Sec., Watson Davis.

Sciences, National Academy of (1863), B and 21st Sts, Washington, D. C.; 245 members; Home Sec., Dr. David White.

Sciences, N. Y. Academy of (1817); 770; Pres., Dr. Charles P. Berkey; Columbia Univ., N. Y. C.; Rec. Sec., Roy Waldo Miner, Amer. Museum of Natural History, N. Y. C.

Scottish Clans, Order of (1878) 248 Boylston St., Boston, Mass.; 30,000; Royal Chief, Duncan MacInnes; Royal Sec., Thomas R. P. Gibb.

Scottish Society, N. Y. (1887), 100 W. 72nd St., N. Y. C.; Pres., Thomas M. Lennox, 36 Queens

Blvd., Elmhurst, L. I.; Sec., Peter Hendric, 53 W. 114th St., N. Y. C.

Sculpture Soc., Nat'l. (1893), 115 E. 40th St., N. Y. C.; 300; Pres., Adolph A. Weinman; Sec., Ulric E. Ellerhusen.

Seaman's Union of Amer., Int'l. (1892), 623 So. Wabash Ave., Chicago, Ill.; 16,000; Sec.-Treas., Victor A. Orlander.

Security League, Inc., Nat'l. (1914), 45 W. 45th St., N. Y. C.; 12,000; Pres., Gen. Robert Lee Bullard; Exec. Sec., John W. Tiedemann.

Sentinels of the Republic (1922), 8 Jackson Pl., N. W., Washington, D. C.; Pres., Alexander Lincoln; Sec., Mrs. John Balch, 162 Adams St., Milton, Mass.

Seventh-Day Adventist Denomination (1863), 140 Eastern Ave., Washington, D. C.; 286,387; Pres., W. A. Spicer; Sec., C. R. Meyers.

Shipbuilders, Nat'l. Council of Amer. (1926), 11 Broadway, N. Y. C.; 34; Pres., H. Gerrish Smith; Sec., Clifford C. Knorr.

Signers of the Declaration of Independence, Descendants of the (1907); 540; Pres., Gen. John Calvert, 1615 Sansom St., Philadelphai, Pa.; Sec.-Gen., O. Hopkinson Baird, 269 So. 4th St., Philadelphia, Pa.

Silk Assoc. of Amer., Inc. (1872), 468 Fourth Ave., N. Y. C.; 416; Pres., H. Schniewind, Jr.; Sec., Ramsay Peugnet.

Simplified Spelling Board (1906), Lake Placid Club, Essex Co., N. Y.; 450, Advisory Council 250; Pres., Prof. Charles H. Grandgent; Sec., Godfrey Dewey.

Slate Assoc., Nat'l. (1922), 644 Drexel Bldg., 5th and Chestnut Sts., Philadelphia, Pa.; 225; Sec., W. S. Hays.

Slater Fund, John F. (1882), 61 Broadway, N. Y. C.; Pres., Dr. J. H. Dillard; Sec., Miss Gertrude C. Mann, Box 418, Charlottesville, Va.

Social Hygiene Assoc., Amer. (1915), 370 Seventh Ave., N. Y. C.; approx. 11,000; Pres., Edward L. Keyes; Sec., Donald R. Hooker.

Social Sciences, Nat'l. Institute of (1899), 280 Madison Ave., N. Y. C.; 785; Pres., William C. Redfield; Sec., Miss Rosina Hahn.

Social Service Commission, Diocese of New York (1912), 416 Lafayette St., N. Y. C.; 17; Exec. Sec., Rev. Charles K. Gilbert.

Social Work, Nat'l. Conference (1873), 277 E. Long St., Columbus, Ohio; 3,000; Pres., Dr. Miriam Van Waters; Sec., Howard R. Knight.

Sociological Society, Amer. (1905), 58th St. and Ellis Ave., Chicago, Ill.; 1,500; Pres., William F. Ogburn; Sec., Ernest W. Burgess.

Sons and Daughters of Liberty (1875), 13 No. 13th St., Philadelphia, Pa.; 109,000; Nat'l. Councilor, Eleanor Palmer; Sec., Matthew Kenney.

Sons of America, Patriotic Order (1847), 1157 Butler St., Easton, Pa.; 250,000; Nat'l. Pres., H. H. Koontz; Nat'l. Sec., Herman A. Miller.

Sons of Confederate Veterans (1896), Law Bldg., Richmond, Va.; 50,000; Comm.-in-Chief, Jno. Ashley Jones; Adj.-in-Chief, Walter L. Hopkins.

Sons of the Amer. Revolution, Empire State Society (1890), 154 Nassau St., N. Y. C.; 2,286; Pres., Brig.-Gen. Oliver B. Bridgman; Sec., Major Charles A. Dubois, Rm. 1811, as above.

Sons of the Amer. Revolution, Nat'l Soc. of the (1889), 1127 - 16th St., N. W., Washington, D. C.; 21,000; Pres. Gen., Howard C. Rowley; Sec. Gen., Frank B. Steele.

Sons of the Revolution in the State of N. Y. (1876), Fraunces Tavern, 54 Pearl St., N. Y. C.; 2,874; Pres., George A. Zabriskie; Sec., George P. Nichols.

Sons of the Revolution, Nat'l. Soc. of (1881), approx. 10,000; Gen. Pres., Col. Thomas Penney; Sec., W. Hall Harris, Jr., 433-445 Title Bldg., Baltimore, Md.

Sons of Italy, Grand Lodge, Inc. (1911), 231 E. 14th St., N. Y. C.; 20,000; Grand Venerable, Santo Modica; Sec., Luigi Campioni.

Sons of St. George, Amer. Order (1870), 311 W. 23rd St., N. Y. C.; 30,000; Sup. Pres., Robert Butland; Sec., Arthur Brown.

Sons of Zion, Order of (1910), 111 Fifth Ave., N. Y. C.; 4,000; Sec., Harry A. Pine.

Southern Society, N. Y. (1886), 52 Broadway, N. Y. C.; 1,038; Pres., Herbert Noble; Sec., Silas McBee, Jr.

Sovereign Malta Order, Amer. Committee to Help Austrian Branch of the (1928), P. O. Box 882, Chicago, Ill., and 1 Freyung 3, Vienna, Austria; 82; Pres., (in America) Prof. Dr. M. D. A. Ritter von Redlich.

Spanish-American War, Naval and Military Order (1899), Rm. 184, State House, Boston, Mass.; 1,000; Pres., Major George H. Kemp; Rec.-in-Chief, H. B. Parker.

Spanish War Veterans, United (1904), 712 Woodward Bldg., Washington, D. C.; 112,000; Com.-in-Chief, William L. Grayson; Qm.-Gen., James J. Murphy.

Sphinx Club of New York (1896), Rm. 4608, Woolworth Tower, N. Y. C.; 250; Pres., R. F. R. Huntsman; Sec., Roger J. O'Donnell.

Spiritualist Assoc., Nat'l. (1893), 600 Pennsylvania Ave., S. E., Washington, D. C.; Pres., Jos. P. Whitwell. 17 E. 3rd St., St. Paul, Minn.; Sec., H. P. Strack.

Stable Money Assoc. (1925), 104 Fifth Ave., N. Y. C.; Exec. Vice-Pres., Norman Lombard; Sec., Charles W. Birtwell.

Standards Assoc., Amer. (formerly Amer. Engineering Standards Assoc.) (1918), 29 W. 39th St., N. Y. C.; 300 sustaining members, 40 member bodies; Pres., Wm. J. Serrill; Sec., Paul G. Agnew.

State Parks, Inc., Nat'l. Conference on (1921), 905 Union Trust Bldg., Washington, D. C.; Chmn., Stephen T. Matther; Exec. Sec., Herbert Enison.

Staten Island Civic League (1913), 1210 Castleton Ave., West New Brighton, S. I., N. Y.; 600; Pres., Francis F. Leman; Sec., Charles E. Hoyer, 11 Catlin Ave., Stapleton, S. I., N. Y.

Statistical Assoc., Amer. (1839), Rm. 530, 236 Wooster St., N. Y. C.; 2,200; Pres., Dr. Edwin B. Wilson; Sec., Dr. Williford I. King.

Steamship Owners' Assoc., Amer. (1906), 11 Broadway, N. Y. C.; 54; Pres., H. B. Walker; Sec., R. J. Baker.

Steeplechase and Hunt Assoc., Nat'l. (1895), 250 Park Ave., N. Y. C.; 60; Pres., Joseph E. Davis; Sec., Frank J. Bryan.

Steuben Society of Amer. (1919), 369 Lexington Ave., N. Y. C.; approx. 3,500,000; Nat'l. Chmn., Carl E. Schmidt; Sec., Charles J. Wolfram.

Stock Exchange, N. Y. (1792), 11 Wall St., N. Y. C.; 1,375; Pres., E. H. H. Simmons; Sec., Ashbel Green.

Stone Mountain Confederate Monumental Assoc. (1916), P. O. Box 1398, Atlanta, Ga.; abt. 350; Pres., G. F. Willis; Sec., Rogers Winter.

Sugar Brokers Assoc., Nat'l. (1902), 84 Wall St., N. Y. C.; 375; Pres., William H. Burns; Sec., William W. Gardiner.

Sunday School Assoc., World's (1889), 216 Metropolitan Tower, N. Y. C.; 33,014,952; Pres., Sir Harold Mackintosh, Conyngham Hall, Halifax, England; Business Sec., Samuel D. Price.

Suppression of Vice, N. Y. Soc. for the (1873), 215 W. 22nd St., N. Y. C.; abt. 300; Pres., Rev. Anson P. Atterbury; Sec., John S. Sumner.

Surgeons, Amer. College of (1913), 40 E. Erie St., Chicago, Ill.; 8,500; Dir. Gen., Franklin H. Martin.

Synagogue of America, United (1913), 531 W. 123rd St., N. Y. C.; Pres., Nathan Levy; Sec., Dr. Charles I. Hoffman, 624 High St., Newark, N. J.

Tall Cedars of Lebanon, Supreme Forest (1902), Box 413, Trenton, N. J.; 45,000; Sup. Tall Cedar, H. Franklin Brossman; Sec., John M. Wright.

Tammany, Soc. of, or Columbian Order (1789), Tammany Society Bldg., Union Square, N. Y. C.; Grand Sachem, John R. Voorhis; Sec., Willis Holly.

Teachers, Amer. Federation of (1916), 506 So. Wabash Ave., Chicago, Ill.; Pres., Mary C. Barker; Sec., Mrs. Florence Curtis Hanson.

Teachers' Council (1913), Hall of Board of Education, 500 Park Ave., N. Y. C.; 45; Pres., William J. McAuliffe; Corr. Sec., Helen A McKeon.

Teachers Union of N. J., Local No. 5, of Amer. Fed. of Teachers (1916), 70 Fifth Ave., N. Y. C.; 1,100; Pres., Dr. Henry R. Linville; Sec., Miss Laura Branson.

Temperance Soc. and Publication House, Nat'l. (1865), 289 Fourth Ave., N. Y. C.; 65; Pres., Rev. J. Stanley Durkee; Sec., Miss Annie E. Oldrey.

Tempians of Honor and Temperance (1845), 35 Liberty St., New Britain, Conn.; abt. 8,000; Pres., W. J. Leigh; Sec., John Sloan.

Temple Sisterhoods, Nat'l. Fed. of (1913), 7th floor, Merchants Bldg., Cincinnati, Ohio; 55,000; Pres., Mrs. Maurice Stemfeld; Sec., Miss Helen Strauss.

Theatrical Managers Assoc., Legitimate (1928), Pres., Sam H. Harris, 239 W. 45th St., N. Y. C.; Sec., Joseph T. Bickerton, Jr.

Theosophical Society, Amer. (1875), Wheaton, Ill.; 6,917; Pres., L. W. Rogers; Sec., Mrs. H. Kay Campbell.

Thrift, Amer. Soc. for (1914), 9 E. 46th St., N. Y. C.; 1,000; Sec., H. R. Daniel.

Thirty-Fourth Street Midtown Assoc., Inc. (1918), 47 W. 34th St., N. Y. C.; 350; Pres., William F. H. Koelsch; Sec., Thomas A. Mason.

Thomas Hunter Assoc. of Grammar School No. 35 (1897), 1133 Mansfield Pl., Brooklyn, N. Y.; 400; Sec.-Treas., Charles D. Graham.

Tobacco Merchants Assoc. of the U. S. (1915), 341 Madison Ave., N. Y. C.; 860; Man. Dir., Charles Dushkind.

Toy Fair Chamber of Commerce, Inc. (1923),

200 Fifth Ave., N. Y. C.; 400; Pres., James S. Lehren; Sec., Horatio D. Clark.

Toy Manufacturers of the U. S. A., Inc. (1916), 200 Fifth Ave., N. Y. C.; 200; Pres., W. Ogden Coleman; Sec., Fletcher D. Dodge.

Tract Soc., Amer. (1825), 7 W. 45th St., N. Y. C.; Pres., William P. Hall; Exec. Sec., Rev. Edwin Noah Hardy.

Trade, Inc., N. Y. Board of (1873), 41 Park Row, N. Y. C.; 750; Gen. Man., M. D. Griffith; Sec., James P. Roe.

Trap Shooting Assoc., Amateur (1923), Vandalia, Ohio; 12,000; Pres., Guy V. Dering, Columbus, Wisc.; Sec., Horace Bonser.

Travelers Aid Societies, Nat'l. Assoc. of (1917), 25 W. 43rd St., N. Y. C.; organizations in 145 cities in U. S.; Pres., Marcus L. Bell; Gen. Dir., Sherrard Ewing.

Travelers Aid Soc. of N. Y. (1907), 144 E. 44th St., N. Y. C.; Exec. Sec., Miss Virginia M. Murray.

Tropical Medicine, Amer. Soc. of (1904), P. O. Box 131, Pennsylvania Ave. Station, Washington, D. C.; 242; Pres., Dr. W. E. Deeks; Sec., Dr. E. Peterson.

Trotting Assoc., Nat'l. (1870), 18 Asylum St., Hartford, Conn.; Pres., Reese Blizzard; Sec., W. H. Gocher.

Tuberculosis Assoc., Nat'l. (1904), 370 Seventh Ave., N. Y. C.; 2,442 members; Man. Dir., Dr. Kendall Emerson; Exec. Sec., Frederick D. Hopkins.

Turnerbund, American (1848), 308 So. Craig St., Pittsburgh, Pa.; abt. 100,000; Pres., George Selbel; Sec., William Voelker, 1812 Evans St., McKeesport, Pa.

Typographical Union No. Six, N. Y. (1850), 24 W. 16th St., N. Y. C.; 10,500; Pres., Leon H. Rouse; Sec., James J. McGrath.

Typothetae of America, United (1887), Tower Bldg., 14th and K Sts., N. W., Washington, D. C.; 2,400; Pres., R. J. Smith; Sec., John J. Deviny.

Unitarian and Other Liberal Christian Women, Gen. Alliance of (1890), 25 Beacon St., Boston, Mass.; 24,016; Pres., Mrs. Thomas G. Rees; Sec., Miss Bertha Langmaid.

Unitarian Assoc., Amer. (1825), 25 Beacon St., Boston, Mass.; Pres., Rev. Louis C. Cornish; Sec., Parker E. Marean.

Unitarian Laymen's League (1919), 16 Beacon St., Boston, Mass.; 10,000; Pres., Percy Gardner; Sec., Arthur Bartlett.

Unitarian Sunday School Society (1827), 25 Beacon St., Boston, Mass.; 1,500; Pres., Rev. Lyman V. Rutledge; Sec., Mrs. J. Harry Hooper.

United Press Associations (1907), 63 Park Row, N. Y. C.; Pres., Karl A. Bickel; Sec., R. H. Fancher.

United Workmen of North Dakota, Ancient Order of (1895), A.O.U.W. Bldg., Fargo, No. Dak.; 28,000; Grand Master Workman, B. C. Marks; Grand Recorder, E. J. Moore.

Unity Foundation, World (1928), 4 E. 12th St., N. Y. C.; 7 trustees; Pres. and Dir., John H. Randall; Sec., Horace Holley.

Universalist Church, Young People's Christian Union of the (1889), 176 Newbury St., Boston, Mass.; 2,500; Pres., Mrs. Dorothy Tilden Spoerl; Sec., Arthur I. Olson.

Universalist General Convention (1866), 176 Newbury St., Boston, Mass.; 50,079; Pres., Rev. F. D. Adams; Sec., Rev. Roger F. Etz.

Universities, Assoc. of Amer. (1900), University of California, Berkeley, Calif.; 28; Sec., Charles B. Lipman.

University Extension Assoc., Nat'l. (1915); 42 institutions; Pres., N. C. Miller; Sec., W. S. Bittner, Indiana Univ., Bloomington, Ind.

University Extension Soc., People's (1898), 2067 Broadway, N. Y. C.; Pres., Dr. Rossiter Johnson; Sec., Florence K. Johnson.

University Professors, Amer. Assoc. of (1915), 26 Jackson Pl., Washington, D. C.; 6,896; Sec., Prof. H. W. Tyler, Mass. Institute of Tech., Cambridge, Mass.

University Women, Amer. Assoc. of (1882), 1634 Eye St., N. W., Washington, D. C.; abt. 30,000; Pres., Dr. Mary E. Woolley; Exec. Sec., Miss Belle Rankin.

Urban League, Inc., N. Y. (1918), 202-6 W. 136th St., N. Y. C.; 10,000; Chmn., Arthur C. Holden; Exec. Sec., James H. Hubert.

Veteran Police Assoc., N. Y. (1891); 156 Greenwich St., N. Y. C.; 3,000; Pres., John A. Summers; Sec., John J. Churchill.

Veterans of Foreign Wars of the U. S. (1899), Memorial Bldg., Kansas City, Kan.; 125,000; Com.-in-Chief, Hezekiah N. Duff; Adj. Gen., R. B. Handy, Jr.

Veterans of Foreign Wars of the U. S. Dept. of the State of N. Y. 32 Union Square, N. Y. C.; 20,000; approx. 200 Posts; Commander, Monroe Curtis; Quartermaster, Stephen C. Parker.

Veterinary Medical Assoc., Amer. (1877), 716 Book Bldg., Detroit, Mich.; 4,250; Pres., Dr. T. E. Munce; Sec., Dr. H. Preston Hoskins.

Vocational Assoc., Amer. (1925), Rm. 225, State House, Indianapolis, Ind.; 3,057; Pres., R. L. Cooley; Sec., Z. M. Smith.

Walther League, International (1893), 6438 Eggleston Ave., Chicago, Ill.; 60,000; Pres., E. J. Gallmeyer; Exec. Sec., Rev. Erwin Umbach.

Waterways Assoc., N. Y. State (1910), 1012 Prudential Bldg., Buffalo, N. Y.; abt. 200; Pres., Henry W. Hill; Sec., George Clinton, Jr.

Weights and Measures, Amer. Institute of (1916), 33 Rector St., N. Y. C.; approx. 500; Pres., W. R. Ingalls; Sec., William E. Bullock.

Welding Soc., Amer. (1919), 33 W. 39th St., N. Y. C.; 1,030; Pres., F. T. Lleyellyn; Sec., Miss M. M. Kelly.

Westchester County Children's Assoc., Inc. (1914), 185 Main St., White Plains, N. Y.; 3,000; Pres., Mrs. Carroll Dunham; Exec. Sec., Mrs. Edith J. Mitchell.

Woman Geographers, Soc. of (1924), 917 - 18th St., Washington, D. C.; 150; Pres., Harriet Chalmers Adams; Sec., Helen Fitzgerald.

Woman's Christian Temperance Union, Nat'l. (1874), 1730 Chicago Ave., Evanston, Ill.; 600,000; Pres., Mrs. Ella A. Boole; Corr. Sec., Mrs. Anna Marden DeYo.

Woman's Party, Nat'l. (1916), 21 First St., N. E., Washington, D. C.; Pres., Mrs. Oliver H. P. Belmont; Exec. Sec., Miss Mabel Vernon.

Woman's Relief Corps, Nat'l. (Auxiliary to G. A. R.) (1883); Pres., Mrs. Margaret J. Bennett, 3313 Ward St., Oakland Sta., Pittsburgh, Pa.; 200,000; Sec., Flo Jamison Miller, Lodge Court, Monticello, Ill.

Woman's Roosevelt Memorial Assoc. (1919), 28 E. 20th St., N. Y. C.; 300,000; Pres., Mrs. John Henry Hammond; Sec., Mrs. Alexander Lambert.

Women for Suffrage and Equal Citizenship, Int'l. Alliance of (1904), societies in 46 countries; Pres., Mrs. Corbett Ashby; Sec., Mrs. Katherine Bompas, 190 Vauxhall Bridge Road, London, S.W.1, England.

Women Teachers, Interborough Assoc. of (1906), 564 Clinton St., Brooklyn, N. Y.; 8,400; Pres., Helen A. McKeon; Sec., Ella T. Sullivan.

Women Voters, Nat'l. League of (1919), 532 Seventeenth St., N. W., Washington, D. C.; Pres., Miss Belle Sherwin; Exec. Sec., Miss Gladys Harrison.

Women Voters, N. Y. League of (1920), 420 Lexington Ave., N. Y. C.; abt. 14,000; Pres., Mrs. Henry G. Leach; Sec., Mrs. Thomas J. Goddard.

Women's Apparel Industries of Amer., Associated (1928), 570 Seventh Ave., N. Y. C.; 100; Exec. Chairman, David N. Mossessohn.

Women's Clubs, Gen. Federation of (1889), 1734 N St., N. W., Washington, D. C.; 15,000 clubs with 2,000,000 women members; Pres., Mrs. John F. Sippel. Address communications to the Secretary.

Women's Clubs, Long Island Fed. of (1895); approx. 55,000; Pres., Mrs. Isaac Franklin Russell, 1108 Dean St., Brooklyn, N. Y.; Sec., Mrs. Mary W. Banker, 1228 Pacific St., Brooklyn, N. Y.

Women's Clubs, N. Y. State Fed. of (1894), 956 State St., Carthage, N. Y.; Pres., Mrs. Charles J. Reeder; Sec., Mrs. R. J. Richardson Reeder.

Women's Educational and Industrial Union (1877), 264 Boyleton St., Boston, Mass.; 3,726; Pres., Mrs. Eva Whiting White; Sec., Miss Mary H. Tolman.

Women's League for Animals, Inc., N. Y. (1910), 350 Lafayette St., N. Y. C.; 1,000; Sec., Miss Ruth Stillman.

Women's National Democratic Club, Inc. (1921), 230 W. 105th St., N. Y. C.; over 900; Pres., Lillian R. Sire; Sec., Mrs. Veit, care of Sally Thomas, 40 Roff Ave., Palisade Park, N. J.

Women's National Republican Club, Inc. (1921), 8 E. 37th St., N. Y. C.; 3,000; Pres., Miss Maude K. Wetmore; Sec., Mrs. Charlotte Farrar.

Women's Trade Union League, N. Y. (1903), 247 Lexington Ave., N. Y. C.; 80,000; Pres., Miss Rose Schneiderman; Sec., Miss Mabel Leslie.

Woodmen Circle, Supreme Forest (1892), W. O. W. Bldg., Omaha, Nebr.; 165,544; Nat'l. Pres., Mrs. Mary E. LaRocca; Nat'l. Sec., Mrs. Dora Alexander Talley.

Woodmen of America, Modern (1883), 1504 Third Ave., Rock Island, Ill.; 1,095,198; Head Consul, A. R. Talbot; Head Clerk, J. G. Ray.

Woodmen of the World (1890), 1447 Tremont St., Denver, Colo.; 73,814; Head Consul, Peter F. Gilroy; Head Clerk, Thomas M. Robinson.

Woodmen of the World, Sovereign Camp. (1890), Woodmen of the World Bldg., Omaha, Nebr.; 1,500,000; Sovereign Comm., W. A. Fraser; Sec., John T. Yates.

Woodrow Wilson Foundation (1921), 6 E. 39th St., N. Y. C.; abt. 100,000; Pres., Newton D. Baker; Sec., Katherine C. Blackburn.

Wool Manufacturers, Nat'l. Assoc. of (1864), 80 Federal St., Boston, Mass.; Pres., Franklin W. Hobbs; Sec.-Treas., Walter Humphreys.

World Agriculture Soc. (1919), Eddy Place, Brookfield, Mass.; 5,000; Exec. Sec., Prof. Laurence H. Parker.

World Alliance for Int'l. Friendship Through the Churches, Church Peace Union and (1914), 70 Fifth Ave., N. Y. C.; Pres., Dr. William P. Merrill; Gen. Sec., Dr. Henry A. Atkinson.

World Peace Foundation (1910), 40 Mount Vernon St., Boston, Mass.; Pres. of Bd. of Trustees, Dr. W. H. P. Faunce; Gen. Sec., Raymond T. Rich.

World War Amputations Assoc., Inc. U. S. (World War AMPS), (1924), 244 Lexington Ave., N. Y. C.; 261; Commander, Howard J. Kelly; Sec., A. F. Hughes.

Yellowstone Trail Assoc. (1912), 403 Evanston Bldg., Minneapolis, Minn.; Gen. Man., H. O. Cooley.

Young Judaea (1907), 111 Fifth Ave., N. Y. C.; 12,000; Exec. Chmn., Samuel J. Borowsky; Sec., Edna Suer.

Young Men's Christian Association of the U. S. of A., Nat'l. Council of the (1924), 347 Madison Ave.,-N. Y. C.; 355; Pres., W. Spencer Robertson; Gen. Sec., Fred W. Ramsey.

Young Men's Hebrew Assoc. of N. Y. (1874), 148 E. 92nd St., N. Y. C.; 3,000; Pres., Joseph M Proskauer; Exec. Dir., E. H. Paul.

Young People's Religious Union (1896), 25 Beacon St., Boston, Mass.; abt. 7,000; Pres., Frank Frederick; Sec., Miss Ruth M. Twiss; also offices in Berkeley, Calif., Chicago, Ill. and New York City.

Young Women's Christian Assoc., Nat'l Board (1906), 600 Lexington Ave., N. Y. C.; 609,739; Pres., Mrs. Robert E. Speer; Sec., Miss Anna V. Rice. Address all communications to Publicity Department.

Young Women's Hebrew Assoc. (1902), 31 W. 110th St., N. Y. C.; Pres., Mrs. Felix M. Warburg; Exec. Dir., Mrs. Ray F. Schwartz.

Zinc Institute, Inc., American (1918), 27 Cedar St., N. Y. C.; 200; Pres., R. M. Roosevelt; Sec., Julian D. Conover.

Zionist Organization of America (1895), 111 Fifth Ave., N. Y. C.; 60,000; Pres., Louis Lipsky; Sec., Meyer W. Weisgal.

Zoologists, Amer. Soc. of (1903), 500; Pres., Dr. Charles B. Davenport, Cold Spring Harbor, L. I., N. Y.; Sec., Dr. Dwight E. Minnich; Department of Zoology, University of Minnesota, Minneapolis, Minn.

ODD FELLOWS, INDEPENDENT ORDER OF.

Sovereign Grand Lodge—*Grand Sire*, M. M. Logan, Bowling Green, Ky.; *Grand Secretary*, J. Edward Kroh, 12 W. Chase St., Baltimore. Total membership in the world, 2,463,177, of which 1,712,529 are males; lodges, 15,484; subordinate encampments, 3,561; Rebekah lodges, 15,484, with 1,022,041 members (women); relief, paid out in 1928 was $6,593,158.

N. Y. State Grand Lodge—*Grand Master*, G. Edward Coon, 614 Jefferson Avenue, Rochester, N. Y.; *Grand Secretary*, Clayton W. Boyce, 31 Union Square, West, New York City; *Grand Treasurer*, John F. Bullenkamp, 205 Floral Boulevard, Floral Park, N. Y. Membership, 142,731, not including 82'297 in Rebekah Lodges.

Next annual session is scheduled for August 19, 1930, at Rochester.

Manchester Unity—*Grand Master*, John Brown 501 John St., E. Newark, N. J.; *Dep. Grand Master*, Edward Thompson, 238 Essex St., Beverly, Mass.; *Grand Secretary*, J. S. B. Clarke, Swansea, Mass.. *Grand Treasurer*, W. A. Bedworth, 1055 Morris Park Ave., N. Y. City; *I. P. Grand Master*, James R. Stewart, 1931 E. Wensley St., Philadelphia.

Board of Directors: John Ed. Aram, 3446 Bowman St., Philadelphia; James MacGowan, 21 Waldo Ave., White Plains, N. Y.; J. S. D. MacMillan, 279 Devon St., Kearny, N. J.; Thomas Turner, Oakville, Conn.; George W. Emsley, Winter Hill, Somerville, Mass.

WOODROW WILSON FOUNDATION.

(National Headquarters are located at No. 6 E. 39th St., New York City)

Officers: Newton D. Baker, *President;* Henry Morgenthau and Hamilton Fish Armstrong, *Vice-Presidents;* Katherine C. Blackburn, *Secretary;* Central Hanover Bank & Trust Co., New York, *Treasurer*.

Acclaimed by 1,500 men and women for his services to international friendship, particularly between the United States and Latin America, Col. Charles A. Lindbergh on March 19, 1928 received the Woodrow Wilson medal and the Woodrow Wilson Foundation's $25,000 peace award at a dinner at New York City.

Two other men have been similarly honored—Viscount Cecil of Chelwood for his work in behalf of the League of Nations and Elihu Root for his part in the creation of the Permanent Court of International Justice.

The awarding of the Nobel Peace Prize in 1920 to Woodrow Wilson gave Mrs. Charles E. Simonson and Mrs. Charles L. Tiffany, both of New York, the idea that a similar foundation should be established in this country in recognition of the national and international services of Mr. Wilson.

The Foundation was established Dec. 23, 1920. The first appeal for funds was made Jan. 16, 1922, when the permanent organization of the Foundation was accomplished; it was announced that the contributions to the proposed $1,000,000 fund at that time amounted to over $800,000.

FRANKLIN INSTITUTE MEDAL WINNERS.

(15 South Seventh Street, Philadelphia, Pa.)

The Franklin Institute awards eight medals for accomplishment in different fields.

The Franklin Medal, the highest award, is made for an outstanding career in physical sciences; the Elliott Cresson Medal, for discovery and original research; the Howard N. Potts Medal for important inventions; the Louis Edward Levy Medal for the paper of highest merit published in the Journal of The Franklin Institute during the preceding year; the George R. Henderson Medal for inventions or discoveries in railway engineering; the Walton Clark Medal for advances in the gas industry; the John Price Wetherill Medal for discoveries, inventions, and utilization of facts already known; and the Edward Longstreth Medal for elementary inventions or discoveries in physical science.

Franklin Medals have been awarded to the following scientists:

Arrhenius, Svante August (1920).
Berliner, Emile (1929).
Bohr, Prof. Niels (1926).
Brush, Charles F. (1928).
Carty, John J. (1916).
Dewar, Sir James (1919).
Edison, Thomas Alva (1915).
Fabry, Charles (1921).
Ferrie, Auguste Gustave, General (1923).
Hale, Dr. George Ellery (1927).
Howard, Sir Esme (1929).
Lorentz, Hendrik Antoon (1917).
Marconi, Guglielmo (1918).
Mendenhall, Thomas Corwin (1918).
Michelson, Albert A. (1923).
Modjeski, Ralph (1922).
Nernst, Prof. Walter. (1928).
Onnes, Heike Kamerlingh (1915).
Parsons, Sir Charles Algernon (1920).
Planck, Prof. Dr. Max (1927).
Rea, Samuel (1926).
Richards, Theodore William (1916).
Rutherford, Sir Ernest (1924).
Sprague, Frank J. (1921).
Squier, George Owen (1919).
Taylor, David Watson (1917).
Thomson, Prof. Elihu (1925).
Thomson, Sir Joseph John (1922).
Weston, Edward (1924).
Zeeman, Prof. Pieter (1925).

The Cresson Medal of the Institute was awarded in 1928 to Henry Ford, "in consideration of his rare inventive ability and power of organization, by means of which he was able to effect high-speed production of automobiles, revolutionizing the industry, and his outstanding executive powers and industrial leadership."

METROPOLITAN MUSEUM OF ART.

(Revised by the Staff of the Institution.)

The Metropolitan Museum of Art, on Fifth Avenue, opposite East 80th to 84th Street, New York City, was incorporated April 13, 1870, "for the purpose of establishing and maintaining . . . a Museum and a library of art, of encouraging and developing the study of the fine arts, and the application of the arts to manufactures and practical life, of advancing the general knowledge of kindred subjects, and, to that end, of furnishing popular instruction."

After one-half century of growth it has today, through bequests, gifts, and purchases, collections of incalculable value, embracing both fine and decorative arts. They comprise objects in almost every material—marble, stone, wood, pottery, porcelain, glass, metals, lace, textiles, etc.—and embody man's attempts throughout the ages to achieve his ideals of beauty.

In date they range from 3000 B.C. to the twentieth century and represent the ancient world—Assyria, Babylonia, Cyprus, Egypt, Greece, and Rome; the Orient, including China, Japan, Korea, India, Persia, and Asia Minor; Europe from the Early Christian and Byzantine through the Romanesque, Gothic, and later periods; and our own country.

These collections are housed in a building erected by the City in Central Park, affording 313,572 square feet of exhibition floor space.

THE COLLECTIONS.

There are comprehensive collections of Egyptian and classical antiquities, the latter grouped about the reproduction of a Roman court. Among the more noteworthy individual objects or collections dating from antiquity are the mastaba tomb erected about 4,500 years ago in the Egyptian cemetery of Sakkara, for a Theban dignitary named Perneb, and re-erected here in its original form, with its painted scenes in low relief still preserved; the Carnarvon Collection of Egyptian art; six large alabaster reliefs from the palace in Nimroud of Ashur-nasir-pal, who reigned over Assyria from 885-860 B.C.; an Etruscan bronze chariot of the sixth century B. C., the only complete ancient bronze chariot known; the Cesnola antiquities from Cyprus; a group of Roman fresco paintings from Boscotrecase and Boscoreale, especially those on the walls of a reconstructed cubiculum (bedchamber), and a gathering of ancient glass, "one of the richest and most important in the world." A representative collection of classical casts occupies ten galleries.

In the accumulations of Near Eastern art of special interest are the domed room from a Jain temple in India, the gift of Robert W. and Lockwood de Forest, which represents the wood carving of India; an extensive collection of Indian and Thibetan jewelry; the Indian miniatures in the Alexander Smith Cochran Collection, and some remarkable examples of early Indian stone carving; the Persian miniatures and manuscripts in the Cochran Collection; twenty-four manuscripts and a number of single sheets representing such masters of decoration as Behzad and Mirak, and some of the greatest names in Persian calligraphy from the fifteenth to the eighteenth century.

The Department of Far Eastern Art includes early paintings, bronzes, sculpture, and the ceramic wares of China, Japan, and Korea; Siamese, Thibetan, and Cambodian sculpture; the Heber R. Bishop Collection of jades; and the Benjamin Altman Collection of seventeenth- and eighteenth-century Chinese porcelains and snuff-bottles.

The paintings, over fourteen hundred in number, represent the Italian, Spanish, German, Dutch, Flemish, French, English, and American schools. There is an unusual showing of works by Rembrandt, twenty in all, thirteen received in the bequest of the late Benjamin Altman. Through the gift of J. Pierpont Morgan the Museum possesses a Raphael, the so-called Colonna altarpiece, a Virgin and Child Enthroned with Saints, and by recent purchase Titian's Portrait of Alfonso d'Este. Groups of paintings kept together by the conditions under which they were received are: the George A. Hearn Collection, principally American in character; the Benjamin Altman Collection, strongest in its Dutch paintings, but including four Memlings, a Durer, a Giorgione, a Fra Angelico, two Velasquezs, and other works of rare excellence; the Michael Dreicer Collection of Italian and northern primitives in which such artists as Memling, Roger van der Weyden, Schongauer, and Piero di Cosimo are represented; and the Catharine Lorillard Wolfe Collection, consisting largely of works by French artists of the early and middle years of the nineteenth century.

The Dreicer Collection also contains valuable examples of Gothic and Renaissance sculpture and decorative arts. Other collections of special note are the Crosby Brown gathering of 3,600 musical instruments, including representative specimens of all nations, among them the earlier of the two existing pianos by Bartolommeo di Francesco Cristofari, the inventor of the pianoforte and the Edward C. Moore Collection of Oriental art, classical pottery, and glass.

The Altman Collection, assembled in seven rooms of Wing K, includes, besides the paintings and the Chinese porcelains already noted, examples of goldsmith's work and rock crystals, Renaissance and eighteenth-century furniture, tapestries, and sculpture, Limoges enamels, and Oriental rugs. Notable are the Rospigliosi Cup, attributed to Cellini, and the enameled terracotta relief of the Madonna and Child by Luca della Robbia.

The Pierpont Morgan Collection, the gift of J. Pierpont Morgan, father and son, fills an entire wing and is a priceless gathering of the decorative arts of Europe from Gallo-Roman and Merovingian periods to the end of the eighteenth century. The rarest and most precious section of the collection represents the supreme work of the goldsmiths and Byzantine and mediaeval enamelers and ivory carvers. The most comprehensive gathering included in the Pierpont Morgan Wing is that brought together by Georges Hoentschel of Paris, the collector, and consisting of two parts: sculpture, furniture, textiles, ivories, woodwork, and architectural fragments of the Gothic period, chiefly of French, Flemish, Dutch, German, Spanish, and Italian origin; and French decorative arts of the seventeenth and eighteenth centuries—furniture and woodwork, many samples from historic buildings, decorative paintings, and ormolu fittings. Among the treasures of the Pierpont Morgan Collection are also five Gothic tapestries, known as the Sacrament Set because they picture the sacraments of the church; two sculptured groups, an Entombment and a Pietà, from the famous Château de Biron in southwestern France; superb examples of the goldsmith's craft from the fifteenth to the eighteenth century; a unique collection of snuff boxes, vanity boxes, scent bottles, and dance programs, signed by famous jewelers of the eighteenth century; and a large collection of watches representative of the work of the best craftsmen in Europe from the sixteenth to the nineteenth century.

Through the gift of Mr. and Mrs. Robert W. de Forest the Museum now has a wing devoted entirely to American decorative arts of the Colonial and Early Republican periods. It contains the original woodwork of fifteen rooms representative of early American architecture in the territory occupied by the thirteen colonies.

Unique in this country is the collection of arms and armor—European, Japanese, and Oriental. The European section, consisting primarily of the William H. Riggs Benefaction, together with the Ellis and Dino Collections, contains over 300 specimens with historical associations, and many of the highest artistic merit. For the study of the development of armor from the fifteenth to the eighteenth century the present collection is second to none as a representative whole, and it is admirably supplemented by one of the best libraries on the subject.

The Museum's collection of prints, one of the largest and most broadly conceived in the country, includes examples of representative masters, rare illustrated books, and a collection of early ornament or pattern designs.

SERVICE AND PRIVILEGES.

A reference library and collection of photographs and departmental study rooms are open to the public and various handbooks as well as photographic and other reproductions are on sale. Expert guidance may be secured. Lecture courses are offered, both free and with charge. Lantern slides, cinema films, photographs, and postcards may be rented from the Museum Extension Division. Through its Educational Department the Museum cooperates with schools and universities, and through its Associates in Industrial Arts with manufacturers, dealers, and designers. Opportunities are granted to copy objects in the collections.

THE CLOISTERS.

The Cloisters, 698 Fort Washington Ave., formerly the Barnard Cloisters, purchased through the gift of John D. Rockefeller, Jr., is a branch of the Museum devoted to European mediaeval art. An interesting feature is the reconstructed Cuxa Cloister, of the Romanesque period.

AMERICAN MUSEUM OF NATURAL HISTORY.

(Revised annually by the Staff of the Institution.)

The American Museum of Natural History located at 77th Street and Central Park West, N. Y. City, was founded and chartered in 1869 for the purpose of encouraging and developing the study of natural science, of advancing the general knowledge of kindred subjects, and to that end of furnishing popular instruction. It is open free every day in the year from 9 A. M. to 5 P. M., on Sundays from 1 to 5 P. M.

The Museum is under the control of a self-perpetuating Board of thirty-three Trustees, including the Mayor, the Comptroller and the President of the Department of Parks, *ex-officio*. The Trustees have entire direction of all the activities of the Museum, as well as the guardianship of the collections and exhibits.

Through gifts by the Trustees, members and friends of the institution, all the exhibition and study collections are obtained, explorations to many parts of the world are conducted, scientific papers are prepared and published, and the library is enlarged. The contributions which make possible all these activities are divided into three classes: (1) The Endowment Fund; (2) The Membership Fund; (3) Voluntary Subscriptions.

The application of the Endowment Fund, which now totals, in book value, upwards of $13,000,000, is limited in the main to research, the purchase of collections, and the issuing of publications. The Membership Fund, derived from subscriptions, is of particular importance in the educational work of the Museum.

Voluntary contributions may be used for general purposes, or for such special objects as the donors may specify.

The Museum building has been erected from funds voted by the City of New York. It is one of the largest municipal structures of the City and has cost upward of $11,000,000, and has, including the new section recently completed, fifteen acres of floor space, nine of which are devoted to exhibits.

It is intended that the building, when completed, shall cover Manhattan Square. The present south facade is 710 feet in length from tower to tower.

The School Service Building, for cooperation between the Museum and the schools, was opened in 1926.

Four additional sections will be under construction in 1930, three by appropriation of the City of New York and private gift, and the fourth, the Roosevelt Memorial, provided by the State of New York, will when completed be the central and dominant feature of the eastern façade on Central Park West.

The membership totals 14,180; the attendance, all free, was 901,231 in 1928.

First Floor—Collections illustrating the life of the Indians of the North Pacific Coast, the Eskimo, Indians of the woodlands, plains and Southwest. Two new and large groups (Hopi and Apache) in the Southwest Hall. Forestry Hall—Sections of trees, including one from a big tree of California which measures 16 feet in diameter and is 1,341 years old. Natural woods, with specimens of their leaves and flowers, and sections of the finished woods. Darwin Hall—Specimens, models and groups showing invertebrate life, the Nahant Tide-pool, the new Hall of Fishes, and the Wharf-Pile Groups.

Second Floor—Collections from Africa. Material illustrating the life of prehistoric man of North America. Ancient monuments of Mexico and Central America. Bird Dome. Birds of the world. Mammals of North America.

Third Floor—Collections from the living tribes of Asia, including Chinese bamboos, porcelain, basketry, inlaid work, embroidery, cloisonne enamel, agricultural implements, carvings in wood, ivory and stone and an especially valuable collection of ancient bronzes and pottery; material illustrating the mode of living, costumes and war implements of Siberia. Large and fine collections from the Indians of South America. Hall of Primates—Monkeys, apes and primitive man. Mammals of the world, including whales. Insect life. Birds of North America (the famous habitat groups).

The new Reptile Hall reptile and amphibian material, including a number of beautiful groups (Lower California lizard, bullfrog, great salamander and New England spring groups), and Komodo Lizard group.

Fourth Floor—Collections from the Philippine Islands and the South Seas. Mineral and gem collections. Hall of Gems, the gift of J. Pierpont Morgan—Collections including practically every variety of known gem, cut and uncut, some of remarkable size and purity of color; largest perfect crystal in the world, mounted on bronze base supported by three Chinese figures; exceptionally fine cameos, carved jade, etc. Hall of Fossil Invertebrates and Historical Geology—Large collections and models of caves and of Copper Queen Mine, showing cross sections and surrounding country. Halls of Fossil Vertebrates devoted to the great collections of the remains of creatures which lived from 30,000 to 20,000,000 years ago. These collections, by right of extent, variety, quality and methods of preparation and exhibition, are the finest in the world. The collections illustrating the evolution of the horse approach in importance and value the combined collections of this sort to be found in all other institutions. Hall of the Age of Man—Casts of prehistoric men and skeletons of the animals of their time (mammoths, mastodons and giant ground sloths). In the adjoining hall are fossil camels, giant pigs, a pygmy hippopotamus and primitive rhinoceros-like animals; fossil lemurs and monkeys which have an important bearing on the ancestry of man. Dinosaur Hall—Remains of fossil reptiles and fishes which lived from three million to ten million years ago. "Mummy" of dinosaur (trachodon) in which the texture of the skin has been preserved and the famous dinosaur eggs found by the Museum's Third Asiatic Expedition in 1923. Fossil aquarium.

Fifth Floor—Public reference library. Osborn Library of Vertebrate Paleontology.

In the course of its development, the American Museum has done an unusual and important work throughout the civilized world, in research and publication, and in education from the primary school to the highest university grade, not alone in America but in distant countries like Russia, Mongolia and China.

It is no exaggeration to say that no school, college or university in the entire civilized world to-day is untouched by current American Museum discoveries and exploration, by profound and far-reaching American Museum research, and by the ever-widening knowledge of Nature in all its phases, obtained by its adventurous and highly trained explorers.

The American Museum has contributed so largely to the educational activities of the City of New York that it has been called, "The Biggest Schoolhouse in the World," for in addition to its scientific activity in securing and exhibiting natural history specimens, the Museum maintains a department of Public Education which works in conjunction with the City's public schools and institutions for the blind, giving lectures and circulating loan collections, slides and motion picture films.

Through its contact with the schools, the Museum has brought thousands of children within its walls.

Officers of the Museum for 1928 are: *President*, Henry Fairfield Osborn; *Secretary*, Percy R. Pyne; *Treasurer*, James H. Perkins; *First Vice President*, George F. Baker; *Second Vice President*, J. P. Morgan.

THE NEW YORK AQUARIUM IN BATTERY PARK.

The New York Aquarium is one of the largest in the world and the oldest in the United States. It has 7 large floor pools, 89 large wall tanks and 30 smaller tanks. There are also 26 reserve tanks containing specimens not on exhibition. The building is circular in form, with a diameter of 205 feet. The largest pool is 37 feet in diameter and 7 feet deep. During 1924 the space available for exhibits was increased by one-fifth. The exhibits include fishes, turtles, crocodilians, frogs, salamanders, marine mammals and invertebrates, and are both northern and tropical in character. There are usually about 200 species of fishes and other aquatic vertebrates on exhibition. The total number of specimens, exclusive of invertebrates and young fry in the hatchery, varies from 3,000 to 7,000.

The fish hatchery, maintained as a fish-cultural exhibit, produces yearly about one million young food and game fishes, which are afterward deposited in New York State waters.

The Aquarium is equipped for heating sea water for tropical fishes in winter, and has a refrigerating plant for cooling fresh water in summer. Flowing fresh water is supplied from the city water system, while the pumps circulate about 200,000 gallons of salt water daily.

An increase of 20 per cent in the exhibits is being made.

The building is open, free, every day in the year—9 A. M. to 5 P. M., April-Sept.; 10 A. M. to 4 P. M., Oct.-March.

The United States of America.

(FEDERAL REPUBLIC.)

	Continental.	*Total*
AREA; square miles	3,026,789	3,738,371
POPULATION, 1920	105,710,620	117,859,495
POPULATION, 1923, est.	120,013,000	39.6 to sq. m.
WEALTH, 1923 Census, est.	$320,803,862,000	

The United States of America, oldest republic, is bounded on the north by Canada, on the east by the Atlantic Ocean and the Gulf of Mexico, on the south by the Gulf of Mexico and Mexico, and on the west by the Pacific Ocean. It comprises 48 States and the Federal District of Columbia. This is called for convenience in reference Continental United States. Its non-contiguous areas are the Territories of Alaska and Hawaii; Porto Rico, the Philippine Islands, the Virgin Islands of the United States, American Samoa, Guam, Wake and scattered islands in the Pacific; and the Panama Canal Zone, all aggregating 711,582 square miles, which, added to the 3,026,789 square miles of Continental United States, give a total of 3,738,371 square miles.

The population of Continental United States, Census of 1920, was 105,710,620; of the non-contiguous areas (partly estimated) 12,148,875, the grand total being 117,859,495. The estimate of the Census Bureau of the population of Continental United States for July 1, 1928, is 120,013,000, for it is growing by about 1,400,000 a year. The Census Bureau estimate for July 1, 1930, is 123,283,325. A total of 392,668 Americans were residing abroad permanently or semi-permanently in 1929, according to computations made by 330 American consulates.

TOPOGRAPHY.

The general topography of Continental United States is so varied, and the climate, natural resources and racial elements also, that the country may be said to be several countries articulated in one national body. In the eastern part, excepting in the south, are several mountain ranges of the Appalachian system, rising never to more than 6,000 to 7,000 feet of altitude, and ranging north and south. The Adirondacks, in northern New York State, are declared by the United States Geological Survey to have been the first land that rose from the original chaos in the western world.

Sweeping westward from the eastern mountains is a vast, fertile plain, the valley of the Mississippi River, a thousand miles wide and about as long, to where the mountain formation again is found, the Rocky Mountain range, highest in North America, beyond which westwardly is a tableland of mean elevation of 3,000 to 5,000 feet, and still further to the westward are other mountain ranges of lesser altitudes, with a low coast range skirting the shores of the Pacific Ocean.

The United States has seven great rivers—the Hudson, entering the Atlantic at the harbor of New York City in the northeastern corner of the country; the Delaware, entering the Atlantic through Delaware Bay, midway down the coast; the Potomac, entering the Atlantic through Chesapeake Bay, just south from Delaware Bay; the Mississippi, greatest of North American rivers in its relationship to civilization, rising in Minnesota, near to Canada, entering the Gulf of Mexico on the southern side of the country; the Ohio, flowing from the eastern mountains westwardly to join the Mississippi in the east central part of the country; the Missouri, which flows from the northwestern mountains eastwardly to the Mississippi, being confluent with that stream just north of where the Ohio joins it; the Columbia, which rises in British territory, and flows across a vast tableland west of the Rocky Mountains, into the Pacific Ocean one-third of the way down that coast; the Colorado, non-navigable, which rises in the State of Colorado, flows in general course southwestwardly through Utah and Arizona, and between Arizona and California, into the Gulf of California, in Mexico.

Besides these streams, there are many of considerable and navigable size in the areas east from the Rocky Mountains, and the great St. Lawrence River, the outlet of the Great Lakes on the northern border between the United States and Canada.

The Great Lakes, Superior, largest inland body of fresh water in the world; Michigan, Huron, Erie, and Ontario, are a striking phase of the geological formation, and carry immense passenger and freight tonnage. The Mississippi, Potomac, Delaware, Hudson and Columbia Rivers are navigable for considerable distances inland from the sea, and the Missouri for light-draught craft quite a distance up from the Mississippi. The Sacramento in California, navigable for 180 miles, carries over 1,000,000 tons of freight and over 100,000 passengers annually.

Of the lesser rivers, the most important are the Connecticut, Susquehanna, James, Cumberland, Tennessee, Tombigbee, Warrior, in the eastern half of the country and the Arkansas and Red west of the Mississippi. The Rio Grande, rising in Colorado, non-navigable, save for 61 miles from its mouth, is in the eastern half boundary between the United States and Mexico.

The Yukon in Alaska, which rises in small lakes in the Dominion of Canada, flows northwestwardly into Alaska, then westwardly and then southwestwardly into Norton Sound, which in turn makes into Bering Sea. It is 1,765 miles long and navigable for 1,200 miles.

NATURAL RESOURCES.

In natural resources, the United States is one of the richest countries in the world. Its coal, oil, timber and precious metals exist in vast natural stores, and practically every base mineral known to civilization is deposited in its areas. The timber resources have been depleted seriously; but the Federal Forest Service has begun reforestation, and has matured plans to make the natural timber lands perpetual by replanting. Of the original area of forests, 822,238,000 acres, 469,475,000 remain (1922), of which 138,160,000 are virgin forests. There are 158,800,424 acres in the 160 national forests and about 7,280,000 in the 19 national parks.

The potential value of the 193,847,240 acres of public lands remaining July 1, 1928, under care of the General Land Office of the Interior Department is estimated at $26,000,000,000.

The climate of the United States is of every gradation, from the north temperate, with rather cold winters and pleasant summers, to the sub-tropical, with every variety of flora adapted to so wide a range of latitude. Eastwardly and westwardly, even greater variation is found. For there are regions of normal moisture precipitation in the northeast, of excessive precipitation in the southeast, of normal precipitation in the central tableland regions, and then of varying degrees of aridity and moistness as one proceeds westwardly, until on the coast of Oregon, at Tillamook, is the heaviest average precipitation in the United States—120 inches a year.

The Southwestern United States is marked by several almost deserts, susceptible of reclamation by irrigation, some of which were the beds of great inland salt water seas, at some points the present surface elevation being below sea-level.

POPULATION DISTRIBUTION.

The United States has been known as a melting-pot of the peoples of the earth, its population at first of the ancient races such as the Aztecs, then of the American Indian, and in the first days of settlement by white people from Europe, English predominating. From the beginning immigration has been numerous, and attained a million persons a year up to the beginning of the World War, Chinese and Japanese being rigidly restricted. (See Index for tables.)

The 1920 census assigned of the total 105,710,620 of population, native white, 81,108,161; native parentage, 58,421,957; foreign parentage, 15,694,539; with 6,991,665 of mixed parentage. Those of foreign parentage and of recently immigrated foreign blood number more than 30,000,000. The Indian population on June 30, 1925, was 346,962, a gain of 16,283 in eleven years. (See Index for tables.)

Migration of Americans, mostly farmers, to Canada for six fiscal years has been, 1921, 48,059; 1922, 29,345; 1923, 22,007; 1924, 20,171; 1925, 19,689; and 18,778 in 1926. From Canada came 81,506 immigrants in 1926–27, and from Mexico, 67,721.

The increase in population in the decade 1910-20 was 13,738,354. Twelve States—New York, Pennsylvania, California, Ohio, Michigan, Illinois, Texas, New Jersey, Massachusetts, Oklahoma, North Carolina and Minnesota, in that order—supplied 8,979,722 of that increase, while three—Mississippi, Nevada and Vermont—returned a decrease totalling but 14,494. During this period the urban communities absorbed 7,000,000 of the 9,000,000 increase in native whites of native parentage, and the aggregate population of the sixty-eight cities of over 100,000 inhabitants comprised more than one-quarter of the entire population of the United States.

The Census makes use of nine subdivisions in its classification of occupations. These subdivisions

and their importance, in the sense of number of workers in each, at the Census of 1920 are:

Agriculture, forestry, animal husbandry	10,953,158
Extraction of minerals	1,090,223
Manufactures and mechanical industries	12,818,524
Transportation	3,063,589
Trade	4,242,970
Public service (not elsewhere classified)	770,462
Professional service	2,143,889
Domestic and personal service	3,404,892
Clerical	3,126,541
Total	41,614,248

The first three groups, agriculture, mining and manufactures, represent the basic occupations, and upon the location of these industries depends the location of the other six groups. If manufacturing settles in a particular centre, transportation, trade, public, professional and domestic service and clerical workers distribute themselves accordingly.

The number of women wage earners in 1920 was 8,549,571, of which 42 per cent. were under the age of twenty-five.

There were 122,519 lawyers and judges; 150.007 physicians and surgeons; 127,270 clergymen; and 136,121 civil, electrical, mechanical and mining engineers.

On the Federal civil service list, June 30, 1928, were 568,715; the record number was 917,760 on Armistice Day, Nov. 11, 1918.

In the registration district the death rate in 1928 was 12.3 (11.4 in 1927) and the birthrate 19.7 (20.4 in 1927). All but four states were included in 1927. Texas has recently passed satisfactory laws and New Mexico will soon be admitted. South Dakota and Nevada are still without efficient workable laws. Infant mortality rates in 1928 and 1927 were 68 and 64.6 respectively.

Marriages in 1927 numbered 1,200,694 (1,202,574 in 1926); and divorces 192,037 (180,853 in 1926).

STATISTICS OF EDUCATION.

For the school year 1925-26 it is estimated that there were 30,064,621 children of school age (5 to 17 inclusive) in the United States. Of these, 24,741,468 were enrolled in the public elementary, secondary and high schools, and 2,438,725 in the private schools, making a total of 27,180,193, or more than 90% of all children. Enrolled in the public elementary schools, including 673,231 in kindergartens, were 20,984,002; 3,757,466 in public high schools; 2,143,100 in private and parochial elementary and secondary schools, including kindergartens; 295,625 in private high schools; 55,632 in preparatory departments of colleges; 23,402 in secondary courses in normal schools; a total of 4,132,125 in all types of secondary schools and high schools.

In addition there were 188,363 students in private commercial and business schools; 187,828 in private trade and industrial schools; 77,768 in nurses training schools. There were 814,170 teachers (138,810 men, 675,359 women) in the public schools, whose average salary was $1,277, in 1926. The number of teachers in the private schools was 76,415.

Public elementary and high school property was valued in 1926 at $4,676,603,539, and increase of nearly 100% over 1920. Private high school property was valued at over $400,000,000, excluding endowments of over $67,000,000; private elementary school property at over $300,000,000; teacher training institutions at over $140,000,000, excluding endowments of nearly $19,500,000; and colleges and universities at over $1,100,000,000, excluding endowments which reached nearly $990,000,000.

There were in use in 1926, 256,104 public elementary and high school buildings of which number 161,521 were one-room schools, a decrease in the number of each owing to consolidation of the latter schools. There were approximately 22,500 public high schools; 2,500 private high schools; 90 teachers' colleges; 115 state normal schools; 30 city normal schools; and 70 private normal schools. There were about 145 colleges and universities under public control and 770 under private control.

The expenditures for public school education in 1926 were $2,026,308,190 ($1,036,151,209 in 1920, and $426,250,434 in 1910). The cost per capita, based on average daily attendance, was $102.05 in 1926 ($95.45 in 1925 and $64.16 in 1920). In addition 31 states reported 825,681 students in night schools with 21,213 teachers.

Students in American universities and colleges, 1925-26, numbered 821,052 (508,714 men, 312,338 women). Students enrolled in universities and colleges (including preparatory schools) were, public, 290,893; private, 532,002; teachers' colleges, 177,816; normal schools, 116,248. There were also in industrial schools for delinquents 84,317; in schools for the deaf, 17,496; for the blind, 6,084; for feeble minded and subnormal, 104,021; and in government schools for Indians and in Alaska, 31,393. Summer school enrollment in the universities and colleges in 1926 was 209,454, and in extension courses, 268,481.

The United States Bureau of Education estimated that in the American colleges for the year 1928-29 there will be about 920,000 enrolled, of which 250,000 entered college in 1928. From 1890 to 1926 enrollments in the collegiate departments increased 529%. The statistician of the Bureau declares that 2.14% of all persons more than 21 years of age are college graduates, and that 4.55% have done some college work. Secondary schools now enroll about 53% of those of secondary school age.

The number of institutions for the higher education of the Negro more than doubled and enrollments increased sixfold in the decade from 1917 to 1927. Of these 77 offered college work in 1927 to 13,680 students. Their annual income was $8,560,000 and the value of the plant was $38,680,000 and the productive endowments totalled $20,713,000. There are approximately 46,950 Negro teachers in elementary and high schools and 1,050 in institutions of higher learning. There are 22 publicly supported institutions under state government and control made up of land-grant colleges under independent control privately supported; 31 universities and colleges, privately supported; owned and controlled by Northern white church boards; and 17, privately supported, owned and controlled by Negro church organizations.

There were 3,114,750 colored children from 5 to 17 years of age, inclusive in the 16 states south of the Mason and Dixon line in 1926 of which 2,141,206 were enrolled in the elementary and secondary schools and 45,666 colored teachers there.

Of the population of 10 years of age and over, the percentage of illiteracy shown by the Census of 1920 was 5.9 (7.7 in 1910); of this native white 2 per cent. were illiterate; of the foreign born, 13.1; of the Negro, 22.9; attending school were 90.6 per cent. of those between 7 and 13 years of age; 79.9 of chose of 14 and 15; 42.9 of those of 16 and 17; and 14.8 of those of 18 to 20. The percentage of decrease in illiteracy in the United States from 1900 to 1910 was 27.74 per cent.; and from 1910 to 1920 it was 32.04 per cent.

AGRICULTURAL DEVELOPMENT.

The agricultural interests of the country are very large. The Farm Census reported for 1925 that, of the approximate land area of 1,903,215,360 acres all farm lands contained 924,319,352 (955,863,715 in 1920) acres; improved lands, 505,027,000 (503,073,067) acres, or 54.6 (52.6) per cent. of all the land in the farm lands classification; that the value of all farm property was $57,017,740,040 ($77,924,100,338); of land alone $37,721,018,222 ($54,829,563,059); of buildings, $11,746,629,065 ($12,486,439,543); and of livestock, $4,858,389,124 ($8,013,324,808); the value of all farm crops in being $9,531,495,000 (against $14,755,364,894 in 1919 and $9,523,514,211 in 1909). In woodland were 143,794,192 (167,730,794) acres, and in pasture land 407,935,558.

The number of farms in 1925 was 6,371,640 (6,448,343 in 1920). Those under 20 acres numbered 966,584 (796,535); from 20 to 49 acres, 1,450,643 (1,503,732); from 50 to 99 acres 1,421,078 (1,474,745); from 100 to 174, 1,383,777 (1,449,630); from 175 to 499 acres 942,378 (1,006,447); from 500 to 999 acres, 143,852 (149,819); 1,000 acres and over, 63,328 (67,405). Farms operated by owners numbered 3,868,336 (3,925,090) and by tenants, 2,464,608 (2,454,804). White farmers numbered 5,540,185 (5,498,454); colored farmers, 831,455 (949,889); and foreign-born farmers, in 1920 numbered 581,068.

It is interesting to note that in 1920 it was reported 1,979,564 farms had automobiles (being 307 per 1,000 of all farms) also 131,551 had motor trucks and 229,332 tractors which by 1925 had increased to 437,850. Farms supplied in 1920 with telephones numbered 2,498,498 (38.7% of all the farms) 643,899 (10%) had water piped into the house, and 452,620 (7%) had gas or electric light. In 1925 the number of farms having radio outfits was 284.608.

There were 3,085,000 laborers on tue farms on Jan. 1, 1925, (3,194,000 in 1924). An estimate of the Department of Agriculture gave the number of people living on farms on Jan. 1, 1928, as 27,699,000. The estimate for 1927 was 27,892,000. and for 1925, 28,981,688. The census of 1920 returned the farm population as 31,614,269.

Output of industry per worker employed increased during 1899-1925 according to the National Industrial Conference Board, 49%, and per farm worker, 47%; horsepower per industrial worker increased from 1.9 to 3.6 and per farm worker from 2.2 to 4.5 total horsepower on farms increased from 23,500,000 in 1899 to 47,400,000 in 1925.

Meat consumption including lard, 13.8 pounds per capita in 1927 was 153.1 pounds.

The Bureau of Agricultural Economics of the Department of Agriculture estimated the agricultural capital of the United States at $59,712,000,000 in 1927, as compared with $58,255,000,000 in 1926; and the gross agricultural income for the fiscal year 1926-27 at $12,080,000,000, a decrease of 5%, due to cotton prices, compared with $12,670,000,000 in 1925-26. This is made up of $9,549,000,000 computed as cash income from sales and $2,531,000,000, the value of food and fuel consumed on farms.

	1926	1927
Value of farm products:	*(millions of dollars)*	
Dairy and poultry	3,589	3,754
Meat animals	2,848	2,842
Fruits and vegetables	1,686	1,511
Grains	1,594	1,456
Cotton and cottonseed	1,749	1,291
Miscellaneous	1,204	1,176
Total value	12,670	12,080
Paid out of income:		
Wages to hired labor		1,238
Operating costs		2,987
Taxes on operator-owned investments		654
Rent on property from non-operator		1,042
Interest on debt to non-operator		750
Total paid out		6,671

The value of all farm crops in 1926 was estimated by the Department of Agriculture at $8,415,778,000 from 356,433,000 acres, and of all animal products at $6,694,222,000, making the total farm production, omitting crops fed to livestock, $15,110,000,000. The value of all farm property was estimated in 1925 at $56,913,567,000. Of this the value of the land was $37,779,050,000; of buildings, $11,767,473,000; of implements and machinery, $2,691,703,000; and of livestock, $4,675,340,000. The survey showed the number of farms to be 6,372,263, with a total acreage of 924,889,000.

Production of staple crops in 1928 was:

	Acreage.	*Bushels.*	*Farm Value.*
	——000 *omitted*——		
Wheat	57,724	902,749	$877,193
Corn	100,761	2,939,959	2,132,991
Oats	41,733	1,449,531	592,674
Potatoes	3,825	462,943	250,043
Tobacco	1,912 lbs.	1,373,501	254,322
Hay	70,919 tons	105,953	1,243,359

Cotton production for five years was:

Year.	*Bales.*	*Acreage. Picked.*	*Yield.*
1928	14,373,000	45,326,000	151.8 lbs.
1927	12,955,000	40,168,000	154.5 lbs.
1926	18,618,000	47,653,000	182.6 lbs.
1925	16,104,000	45,467,000	167.2 lbs.
1924	13,639,399	41,360,000	157.4 lbs.
Pre-war average	12,754,000	33,233,000	183.7 lbs.

The value was: 1928, $1,291,589,000 (farm value only); 1927, $1,269,885,000; 1926, $1,016,346,000; 1925, $1,597,670,000; 1924, $1,573,399,000. To this should be added the production of cotton seed, 6,390,000 tons in 1928 valued at $231,923,000; 5,759,000 tons in 1927 valued at $211,926,000; 8,267,000 tons in 1926 valued at $154,089,000; 7,150,000 tons valued at $194,970,000 in 1925; 6,051,000 tons valued at $195,951,000 in 1924.

To the commercial truck crop 2,710,970 acres were devoted in 1928 (2,435,340 acres in 1927), and the produce valued at $326,478,000 ($347,543,000); the output of fruit, apples, peaches, pears, grapes, oranges, grapefruit, lemons and cranberries in 1928 was valued at about $250,000,000.

The census of livestock was (in thousands):

	1910.	1920.	1926.	1927.	1928.
Cattle	61,804	66,505	59,184	57,521	55,696
Sheep	52,448	38,300	39,864	41,099	44,545
Swine	58,186	66,130	52,055	52,536	58,969
Horses	19,833	18,059	15,840	15,279	14,541
Mules	4,210	5,446	5,733	5,734	5,566

The number of dairy cows on Jan. 1, 1928, was 21,948,000 as against 21,824,000 in 1927 and 22,148,000 in 1926.

Even dogs were enumerated by the Department of Agriculture in 1926, the number reported being 7,000,000.

MINING.

The total value of mineral products of the United States in 1927 as given by the Bureau of Mines was $5,520,000,000; of these metallic products were valued at $1,217,000,000 and fuels, coal, petroleum, etc., at $3,084,000,000.

Bituminous coal production in 1928 was 492,755,000 short tons, (519,804,000 in 1927 valued at $1,039,608,000); and anthracite, 76,734,000 long tons (72,011,000 long tons in 1927 valued at $432,295,000).

Natural gas production in 1927 was 1,370,000,000 M. cubic feet valued at $298,000,000; and natural gas gasoline 1,627,600,000 gallons at $111,100,000.

The output of petroleum in 1928 was 902,000,000 barrels, and in 1927 901,129,000 barrels valued at $1,203,000,000. This was 68.2% of the world's production in 1928, and 71.5% in 1927. Production in the month of July, 1929, reached a highwater mark of 91,327,000 barrels. The oil lands held in the United States, Jan. 1, 1928, totaled 168,958 acres with 318,600 producing wells.

The gold production for the United States and its possessions for 1928 was 2,233,251 troy ounces valued at $46,165,400 (in 1927, 2,197,125 troy ounces valued at $45,418,000), and silver 58,462,507 troy ounces valued at $34,200,567 (in 1927, 60,434,441 troy ounces valued at $34,266,328).

The production of copper in 1927 from domestic ores was 1,684,040,983 pounds valued at $220,609,000. Lead production in 1927 from domestic ore was 668,320 short tons valued at $73,966,000.

The record production of pig iron was made in 1923, 38,363,509 long tons, which was nearly equalled in 1926, 38,181,053. Production fell to 34,866,644 tons in 1927, valued at $646,266,139. Output in 1926 was valued at $935,905,540. The output in 1928 was 38,155,714 long tons. The output of steel ingots in 1928 was 49,853,225 long tons (43,397,743 in 1927 and 48,293,763 in 1926).

MANUFACTURING.

The census of manufactures taken in 1927 returned 191,863 establishments (187,224 in 1925) with an output valued at $62,713,947,403 ($62,668,259,591) of which $27,585,792,755 ($26,771,373,163) was added by manufacture; the average number of wage earners was 8,351,257 (8,381,511); total wages paid $10,848,782,433 ($10,727,337,625).

Expansion of output per person has been 10% from 1923 to 1925, and 40% from 1919 to 1926. This is held to be due to increased utilization of machinery and power, new labor-saving devices, increased efficiency and elimination of waste.

The fourteen chief industries (including kindred products) by value of products in 1927 with number of wage earners and amount of wages paid, were:

Class of Industries	Wage Earners. *No.*	Wages. *Thous.Dol.*	Value of Products. *Thous.Dol.*
Food, etc	679,158	823,388	10,999,790
Textiles, etc	1,692,473	1,760,168	8,964,143
Iron and steel, etc, (not incl. mach.)	835,091	1,264,406	6,199,252
Chemicals, etc	394,817	534,948	6,404,914
Transportation equipment, air, land and water	494,905	803,298	4,702,378
Machinery not inc. trans. equipm'nt	886,344	1,287,778	5,367,015
Paper, printing, etc.	553,040	858,337	4,638,572
Lumber, etc	866,581	929,790	3,457,427
Metals and metal products other than steel & iron	270,665	380,365	2,668,697
Leather and its manufactures'	316,421	364,229	1,868,320
Stone, clay & glass	350,397	464,273	1,612,549
Railroad rep.shops	428,291	648,908	1,289,695
Rubber products	141,997	198,074	1,225,077
Tobacco manufac.	129,299	105,251	1,163,768

TRADE AND COMMERCE.

The balance of trade for the fiscal year 1928-29 was $1,082,000,000, the largest amount since 1921-22, offset in part by net imports of $155,000,000 less net exports of silver amounting to $17,000,000. Foreign loans were also sharply reduced from the preceding year.

Exports of merchandise reached $5,374,000,000, an increase of 10%, and imports $4,292,000,000, an increase of 3.5%. Cotton, petroleum, automobiles and parts, manufactured food stuffs, iron and steel products, copper, tobacco and fruit showed notable increases in export values. In quantity and value of imports, silk, newsprint and wood-pulp, vegetable oils and copper showed notable increases. Rubber and cane sugar showed increase in quantity but decrease in value.

Imports from Europe amounted to $1,303,000,000, an increase of $45,000,000. Exports to Europe amounted to $2,397,000,000 (45%), an increase of $75,000,000. Great Britain taking $865,000,000, an increase of $56,000,000, mostly cotton. Asia took $685,000,000, an increase of $117,000,000 of which $50,000,000 was the increase of sales to China and $39,000,000 to Japan. Sales to Africa amounted to $129,000,000, an increase of $18,000,000; and to Australia and New Zealand, $193,000,000, an increase of $19,000,000.

Canada, for the second year the best customer of the United States took $988,000,000 of the exports, an increase of $126,000,000 or 15%. She ranks far ahead in supplying our imports, furnishing $505,000,000, an increase of $23,000,000 (nearly 5%)

accounted for in copper and newsprint. Latin North America took $420,000,000 of exports, an increase of $25,000,000 and furnished $477,000,000 of the imports. South America took $551,000,000 of the exports, an increase of $115,000,000 (20.8%) taken chiefly by Argentina and Brazil, and supplied $612,000,000 of the imports, an increase of $52,000,000 (9%) chiefly copper ore from Chile and Peru and petroleum and coffee from Venezuela.

Finished manufactures supplied 47% of the exports. Imports showed an increase of 14% in semi-manufactured products which totaled $849,000,000, and a decrease of 2% in crude materials which totaled $1,510,000,000. The value of finished manufactures imported was $911,000,000; of manufactured foodstuffs, $961,000,000; and in crude foodstuffs, $544,000,000, both practically unchanged.

Americans at the beginning of 1928 according to estimates made by the Department of Commerce, had invested abroad approximately $5,200,000,000 in Latin America, $4,300,000,000 in Europe, $3,900,000,000 in Canada, $700,000,000 in China, Japan and The Philippines, and $400,000,000 elsewhere. Investments in foreign corporate securities publicly offered in the United States from Jan. 1, 1914 to Jan. 1, 1928 alone totaled $3,713,307,900; and in 1928 the foreign capital issues floated totalled $1,487,861,680 par value, about $1,250,951,267 net.

The value of imports and exports was:

Year (Fiscal).	Imports.	Exports.	Excess of Exports.
	Dollars.	*Dollars.*	*Dollars.*
1920-21	2,556,869,711	6,516,510,033	3,959,640,322
1921-22	3,073,853,263	3,771,156,489	697,303,226
1922-23	3,780,958,965	3,956,733,373	175,774,408
1923-24	3,554,036,954	4,223,973,222	669,936,268
1924-25	3,824,128,375	4,778,330,897	954,190,758
1925-26	4,463,613,831	4,653,509,472	186,895,641
1926-27	4,256,825,000	4,970,541,000	713,716,000
1927-28	4,147,499,473	4,877,070,585	729,571,112
1928-29	4,291,857,565	5,373,612,728	1,081,755,163

The amount of gold and silver imported and exported was:

	Imports.		Exports.	
	Gold.	Silver.	Gold.	Silver.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*
'21-2	468,318,273	70,684,298	27,345,282	62,694,677
'22-3	284,089,550	64,947,025	49,021,975	55,906,956
'23-4	417,025,638	79,939,985	10,206,941	98,785,586
'24-5	134,145,136	71,607,902	248,729,698	108,828,727
'25-6	210,726,485	69,400,376	113,438,459	97,981,732
'26-7	251,756,000	59,605,000	103,845,000	80,881,000
'27-8	129,140,000	59,530,000	627,102,000	79,964,000
'28-9	267,406,000	69,409,000	110,316,000	86,407,000

The United States Department of Commerce estimates that in 1928 $818,600,000 was spent by American tourists in Europe and in Canada,

MERCHANT MARINE.

The United States had on July 1, 1929, on the Sea and the Lakes, a merchant marine of 3,696 vessels of 100 tons and over (4,336 in 1928) totaling 14,377,114 tonnage (14,537,958). Of these 3,254 were steam, 233 motor, 748 sailing, and 37 auxilliary.

The United States leads in oil-using vessels, having on July 1, 1929, 381 (383 tankers of above 1,000 tons each, of 2,374,358 (2,375,121) tons, and 1,793 (1,818) steamers fitted for burning fuel with a tonnage of 8,799,433 (8,892,942), nearly one-half the world total of 3,787.

There entered at American ports in 1928 a total tonnage of 80,207,772 (74,309,813 in 1927) of which 31,284,611 tonnage were American and 48,923,161 tonnage were foreign.

RAILROADS AND HIGHWAYS.

The total railroad mileage, Jan. 1, 1929, was 249,131, of which that of Class I railroads was 240,243. The capitalization of the railroads was $23,614,325,858, of which $9,622,775,686 was stock, and $13,951,550,172 funded debt. Dividends in 1927 totaled $567,280,717. Net operating income (after deduction of taxes, equipment, rental, etc.) in 1928, $1,193,133,741, a return of 4.71% on their investment; (in 1927, $1,085,141,596, a return of 4.38%). Gross operating revenues in 1928 were $6,177,761,036 ($6,210,029,786 in 1927). Operating expenses in 1928 were $4,472,480,262. The railroads paid in taxes $395,066,480 in 1928. The number of employees of all railroads in 1927 was 1,735,105 whose average wage was $1,677.24 a year.

On Jan. 1, 1927 there were 287,928 miles of state highways, of which 163,059 miles were surfaced and 2,731,172 miles of local roads. Congress in June 1926, appropriated $165,000,000 for the construction of highways during the two years ending June 30, 1929. Of this $15,000,000 was for building improved roads in the national parks. The balance, $73,125,000 a year, was matched dollar for dollar by states through which the highways were to be built except in the mountain and Pacific states where a lesser amount is accepted, making the total minimum for the states $66,015,664.

Americans spend annually $14,000,000,000 for the purchase and maintenance of automobiles; the number of passenger cars produced in 1928 was 3,827,849 and trucks 530,899; 368,328 passenger cars and 138,782 trucks valued at $522,097,974 were exported in 1928. The number of all cars registered in 1928 was 24,629,921 (23,127,315 in 1927), or about one to every 5.6 inhabitants.

The production of electric power by public utility plants in 1928 was approximately 87,851,000,000 kilowatt-hours, about 40% being from water power, and there were over 22,000,000 consumers. Capital invested exceeds $25,500,000,000.

FINANCIAL STATISTICS.

The national wealth of the United States on Dec. 31, 1922, as shown by a survey by the Census Bureau, was $320,863,862,000, an increase of 72.2 per cent. over 1912 ($186,299,664,000). The per capita wealth of the nation increased from $1,950 to $2,918 in ten years, or 49.6 per cent. It is pointed out, however, that at 1913 prices the grand total for 1922 would be $206,000,000,000 and the per capita wealth $1,885. (See Index for tables.)

Real estate not taxed in the United States, including schools, churches, and State and local public buildings and institutions, is valued at $20,032,475,000.

The national income of the United States, according to a study made by the National Industrial Conference Board, was $78,649,000,000 in 1926, $77,313,000,000 in 1925, and $70,768,000,000 in 1924. This is $671.43 per capita, and $1,805.37 per person gainfully employed. The Board estimated the National wealth had risen by Dec. 31, 1925 to $355,300,000,000.

Millionaires have increased from 7,000 in 1914 to between 30,000 and 40,000 in 1928, Carl Snyder of the Federal Reserve Bank of New York told the American Statistical Association at Chicago, Dec. 27, 1928; half of these were due to the fall in the value of the dollar, and considerable part due to the enormous rise in the value of securities and to their collossal manipulation.

The volume of money in circulation on June 30, 1929 was $4,746,296,567 ($4,796,621,260 in 1928); the amount held by Federal Reserve Banks and agents, $156,039,088; the amount in the United States Treasury, $3,789,886,214 (which does not include $1,854,372,591 held in trust against gold and silver certificates and treasury notes of 1890); total stock of money $8,538,796,197. The circulation per capita was $39.62 ($40.52 in 1928).

The United States Treasury and Federal Reserve banks on Jan. 1, 1929 held $3,746,111,000 in gold, which was 37.6% of the total gold holdings of the forty principal countries.

The United States had a gross debt of $26,596,701,684 on Aug. 13, 1919, when the war debt was at its peak. This on June 30, 1929, had been reduced to $16,931,088,484, a decrease of $673,204,717 in the fiscal year. Interest on the public debt dropped from $731,764,476 to $678,330,400, a decrease of $73,434,076. The annual interest rate on the interest bearing debt was reduced to 3.87% on June 30, 1928. The Government's ordinary receipts in the fiscal year 1928-29 (previous fiscal year figures in parentheses) amounts to $4,033,250,225 ($4,042,348,156); expenditures chargeable to same $3,848,463,190 ($3,643,519,875); surplus for year, $184,787,035 ($398,828,281).

Internal Revenue taxes collected during the fiscal year 1928-29, totaled $2,939,054,575, an increase of $148,518,838 over the preceding year. Total individual income tax collections during the fiscal year 1928-29 were $1,095,541,172, an increase of $212,814,069 from 1927-28 which were $882,727,103. Total corporation income tax collected was $1,235,733,256, a decrease of $56,112,693 from 1928. Tobacco taxes brought in to the Federal Treasury in 1928-29, $434,444,543; automobiles, $5,545,866 (tax repealed effective May 29, 1928); admission to places of amusement, $6,083,056; club dues, $11,245,255 and distilled spirits, etc., $12,776,728.

The Customs receipts for the fiscal year 1928-29 amounted to $602,262,786 ($568,986,188 in 1927-28). The total Federal taxation was $3,541,317,361.

The latest figures available for Federal State and local taxation were for the fiscal year 1926-27, the estimate of the National Industrial Conference Board being $9,074,000,000, approximately $76.50 per capita. The pre-war total per capita tax as of 1913 was $22.73, about 6.4% of the national income.

Total revenues collected by the governments of the forty-eight states in 1927 amounted to $1,758,331,000 ($1,655,495,000 in 1926) with operating and maintenance expenditures amounting to $1,726,989,016 according to the Census Bureau. The net debt of the states at the end of 1927 was $1,444,927,000 ($1,327,514,000 in 1926) and the assessed valuation of property taxes in 1927 was $146,432,287,461. Figures for municipal and local taxation, revenue and expenditures were not available.

TERRITORIAL EXPANSION OF THE UNITED STATES.

(Compiled from official sources, mainly documents and other data gathered by the United States Bureau of the Census.)

The Thirteen Original States, comprising the United States of America, as constituted in 1790, were—New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia.

The present gross (land and water) area of these thirteen States is but 326,378 square miles, inasmuch as Maine, Vermont, Kentucky, West Virginia, Tennessee, Mississippi, Alabama, Ohio, Indiana, Illinois, Michigan, Wisconsin, and part of Minnesota, have been carved from the original boundaries of the Thirteen, which extended from Canada to Florida and from the Atlantic Ocean to the Mississippi River, exclusive of a portion of the southeastern part of Louisiana.

Congress, Oct. 30, 1779, asked the States to cede to the General Government the vast areas of unsettled lands lying between the Appalachian Mountain ranges and the Mississippi River, in order to end conflicting boundary claims inherited from royal charters.

This was done, 1781-1802, by New York; Massachusetts (1785); Connecticut (1786); Virginia (1784); North Carolina and Georgia.

The General Government welded the ceded areas into two great tracts—the territory northwest of the Ohio River (in 1787); and the territory south of the Ohio River. The former comprised the Territories of Ohio and Indiana.

LOUISIANA PURCHASE.

The first accession to the territory of the United States as it was constituted in 1790 came through the Louisiana Purchase. This vast region, bought by the United States (in the administration of President Jefferson), April 30, 1803, from France, in the reign of Napoleon Bonaparte, for 60,000,000 francs ($15,000,000), plus payment of the "French Spoliation Claims," comprised the Mississippi River's west side drainage basin, except that part held by Spain. It extended from Canada to the Gulf of Mexico, and included the areas now occupied by Louisiana, Arkansas, Oklahoma, Kansas, Missouri, Nebraska, Iowa, the Dakotas, Montana, most of Minnesota, and portions of Colorado and Wyoming.

The United States took formal possession of the Louisiana Purchase regions on March 10, 1804, and Congress divided it into two parts—the Territory of Orleans (later the State of Louisiana); and the Territory of Louisiana.

Settlement of the French Spoliation Claims was effected with France for $3,750,000. Interest accruals raised the final total cost of the Louisiana Purchase to $27,267,622.

The following table shows the territorial expansion of the United States, by years and areas:—

Division.	Yr.	Added. Square Miles.	Division.	Yr.	Added. Square Miles.	Division.	Yr.	Added. Square Miles.
Louisiana purchase.	1803	827,987	Gadsden purchase.	1853	29,670	Panama Canal Zone	1904	527
Gained through			Alaska	1867	590,884	Danish West Indies		
treaty with Spain	1819	13,435	Hawaiian Islands.	1898	6,449	(now Virgin Isl.).	1917	132
Florida	1819	58,666	Porto Rico	1899	3,435			
Texas	1845	389,166	Guam	1899	210	Total added area		2,850,749
Oregon	1846	286,541	Philippine Islands.	1899	114,400	Total United States including original 13 States,		3,738,371
Mexican cession	1848	529,189	American Samoa	1900	77			

The Oregon Territory, the northern limits of which were settled in the Webster-Ashburton Treaty of 1846 between the United States and Great Britain, is not classed as an accession, because the Government at Washington claimed it, in 1848, on three grounds—(1), discovery and occupation; (2), the Louisiana Purchase; (3), the Florida Purchase.

As constituted at its organization, in 1848, the Territory of Oregon extended from the Pacific to the crest of the Rocky Mountains, north of the forty-second parallel of latitude, and comprised the areas now covered by Oregon, Washington, Idaho and part of Montana and Wyoming.

The second accession was the Floridas, which the United States bought from Spain in 1819.

No money payment was made to Spain in connection with the acquisition of the Floridas, but the United States assumed and paid the sum of $5,000,000 in satisfaction of claims of citizens of the United States against Spain.

The third accession came Dec. 29, 1845, when the Republic of Texas was admitted to the Union as a State. This area now comprises Texas, and parts of New Mexico, Colorado and Wyoming.

The Guadalupe-Hidalgo Treaty of 1848 which concluded the Mexican War gave the United States its fourth accession of national territory. Serious disagreement as to the exact extent of the newly gained region in what is now Southern Arizona and Southwestern New Mexico developed, which was wiped out in 1853 by the Gadsden Purchase for the United States of the area in dispute. The 1848 Mexican cession price of $15,000,000 was raised to $16,800,000 by interest accruals. The Gadsden Purchase cost the United States $10,000,000.

The Mexican cessions added to this country the area of California, Nevada, Utah, Arizona, New Mexico and part of Colorado.

The fifth increase of United States territory came with the purchase of Alaska from Russia, by the treaty of 1867. The price, $7,200,000 in gold, was paid Aug. 1, 1868, no interest being charged.

The sixth accession brought in the Hawaiian Islands, which voluntarily joined the United States in 1898, the Hawaiian national debt of $4,000,000 being assumed by this country.

The victory of the United States over Spain in 1898, brought into the American national area the seventh accession.

Under the treaty of Dec. 10, 1898, the United States paid to Spain $20,000,000 in connection with the relinquishment of all claims to Porto Rico, Guam and the Philippine Islands; and, under a later treaty of Nov. 7, 1900, a further payment of $100,000 was made to Spain for cession to the United States of any and all islands (Cagayan Jolo) of the Philippine Archipelago lying outside of the lines described in Article III. of the treaty of Dec. 10, 1898. No interest was paid in either case.

The Samoan Isles, in 1889, by agreement of the United States, Great Britain and Germany, in conference at Berlin, were recognized as independent, neutral territory, with Malietoa as King, under the joint protection of the three powers named. In 1898 the United States accepted Pago Pago (ceded in 1872) as a coal and naval base.

By the Anglo-German Convention of Nov. 14, 1899, effective Feb. 16, 1900, Tutuila and the adjacent isles of Tau, Olesinga and Ofu were ceded to the United States; Samoa, to Germany; the Tonga, Savage and Solomon Islands to Great Britain. The Mauna Islands were ceded to the United States in 1904 by the King of the group.

The United States did not acquire, by the Isthmian Canal Convention of Nov. 18, 1903, any title to territory in the Republic of Panama, but merely a perpetual right of occupation, use, and control of and over a zone of land ten miles in width. For this privilege it paid to the Republic of Panama the sum of $10,000,000, and undertook to pay the sum of $250,000 annually so long as such occupancy continued, such payments beginning on Feb. 26, 1913.

The United States and the Colombian Congresses ratified, in 1921, a treaty of the United States with Colombia by which Colombia has received $25,000,000 (in yearly instalments of $5,000,000) as compensation for the loss of territorial sovereignty over Panama and the Canal Zone. Ratifications of the two countries were exchanged at Bogota, Colombia, on March 1, 1922. The first payment of $5,000,000 was made six months thereafter; the last on Sept. 2, 1926.

For the Danish West Indies, consisting of the Islands of St. Croix, St. Thomas and St. John, the United States paid $25,000,000, and took possession on March 31, 1917. They then had 32,000 population.

GROWTH OF THE UNITED STATES, 1774-1800.

(Compiled mostly from Official Documents; published at London in 1801.)

Length of the United States, 1,250 miles; breadth, 1,040 miles; area, 640,000,000 acres.

Year.	Population.	Improved Lands.	Militia.	Seamen.	EXPORTS..		Tonnage Merchant Vessels.	Receipts, Rev.	Expenditure.
					Domestic Produce.	Total.			
	No.	*Acres.*	*Men.*	*Men.*	*Dollars.*	*Dollars.*	*Tons.*	*Dollars.*	*Dollars.*
1774...	2,486,000	20,860,000	421,300	15,000	6,100,000	6,100,000	198.000	.....	.....
1784...	3,250,000	21,500,000	541,666	18,000	9,000,000	10,150,000	256,000	.....	.....
1790...	3,930,000	30,000,000	654,000	25,000	14,200,900	16,000,000	486,890	.....	.....
1791...	4,047,900	31,000,000	677,650	28,000	14,600,000	18,399,202	502,698	4,771,200	3,797,436
1792...	4,169,337	32,000,000	694,889	30,090	15,060,500	21,005,568	567,698	8,771,600	8,962,920
1793...	4,294,417	33,500,000	715,736	33,060	15,420,000	26,011,788	627,570	6,450,195	6,479,977
1794...	4,423,249	34,000,000	737,208	39,900	16,200,100	33,043,725	628,617	9,439,855	9,041,593
1795...	4,555,946	34,550,000	759,324	45,000	18,064,050	47,855,556	747,964	9,515,758	10,151,240
1796...	4,692,624	35,100,000	782,104	51,500	20,024,021	67,064,097	831,900	8,740,329	8,367,776
1797...	4,833,402	35,600,000	805,567	60,200	24,052,671	51,294,710	876,912	8,758,780	8,625,877
1798...	4,978,404	36,100,000	829,734	62,300	27,991,413	61,327,441	893,329	8,179,170	8,583,618
1799...	5,127,756	36,300,000	854,626	63,500	33,142,187	78,665,522	920,000	12,549,381	11,004,969

The Navy in 1799 had 42 vessels with 950 cannon. Metallic money in circulation in 1799 was estimated at $17,000,000; the nominal public debt, calculated in paper money of that period, was $200,000,000; funded debt, $88,456,038.

THE CENSUS OF 1800.

The Federal Census of 1800 (the figures of the later censuses have since then been officially revised and now stand as published elsewhere in the Almanac) divided the population as follows:

Free white males—under 10 yrs., 741,349; 10 to 16 yrs., 333,849; 16 to 26 yrs., 383,422; 26 to 45 yrs., 422,994; 45 yrs. and up, 257,560.

Free white females—under 10 yrs., 694,178; 10 to 16 yrs., 315,254; 16 to 26 yrs., 391,841; 26 to 45 yrs., 397,122; 45 yrs. and up, 243,296.

All other free persons except Indians, not taxed, 107,685.

Slaves, 875,626.

Total population, 5,172,312 exclusive of Tennessee, which was estimated at 100,000.

Eastern States population, 1,232,511, including 1,338 slaves (N. H., Mass., Me., Conn., Vt., R. I.).

Middle States population, 1,399,544, including 34,752 slaves (N. Y., N. J., Penn.).

Southern States population, 2,540,257, including 840,536 slaves (Del., Md., Va., N. Car., S. Car., Ga., Ky., Northwest. Terr., Indian Terr., Miss. Terr.).

The population of the Northwest Territory (that is, the territory northwest of the Ohio River) was 45,365; Indian Territory, 5,641; Mississippi Terr., 8,850.

AREA OF THE UNITED STATES AND OUTLYING POSSESSIONS—1790-1920.

Census Year.	U. S., Incl. Possessions.		U. S., Excluding Possessions.				Possessions
	Land and Water.	Per Cent. of 1920.	Land and Water.	Per Cent. of 1920.	Land.	Water.	Gross Area.
	Square Miles.		*Square Miles.*		*Square Miles.*	*Square Miles.*	*Square Miles.*
1790.....	892,135	23.8	892,135	29.5	867,980	24,155	.....
1800.....	892,135	23.8	892,135	29.5	867,980	24,155	.....
1810.....	1,720,122	46.0	1,720,122	56.8	1,685,865	34,257	.....
1820.....	1,792,223	47.9	1,792,223	59.2	1,753,588	38,635	.....
1830.....	1,792,223	47.9	1,792,223	59.2	1,753,588	38,635	.....
1840.....	1,792,223	47.9	1,792,223	59.2	1,753,588	38,635	.....
1850.....	2,997,119	80.1	2,997,119	99.0	2,944,337	52,782	.....
1860.....	3,026,789	80.9	3,026,789	100.0	2,973,965	52,824	.....
1870.....	3,617,673	96.6	3,026,789	100.0	2,973,965	52,824	.....
1880.....	3,617,673	96.6	3,026,789	100.0	2,973,965	52,824	590,884
1890.....	3,617,673	96.6	3,026,789	100.0	2,973,965	52,824	590,884
1900.....	3,742,870	100.0	3,026,789	100.0	2,973,965	52,824	590,884
1910.....	3,743,397	100.0	3,026,789	100.0	2,974,159	52,630	716,081
1920.....	3,738,371	100.0	3,026,789	100.0	2,973,776	53,013	711,582

Water area does not include oceans, Gulf of Mexico, or Great Lakes.

LAND AND WATER AREA OF STATES, BY RANK, 1920 (Square Miles).

State.	Rank Area.	Gross.	Land.	Water.	State.	Rank Area.	Gross.	Land.	Water.
United States	.....	3,026,789	2,973,774	53,015					
Texas	1	265,896	262,398	3,498	Arkansas	26	53,335	52,525	810
California	2	158,297	155,652	2,645	North Carolina	27	52,426	48,740	3,686
Montana	3	146,997	146,131	866	Alabama	28	51,998	51,279	719
New Mexico	4	122,634	122,503	131	New York	29	49,204	47,654	1,550
Arizona	5	113,956	113,810	146	Louisiana	30	48,506	45,409	3,097
Nevada	6	110,690	109,821	869	Mississippi	31	46,865	46,362	503
Colorado	7	103,948	103,658	290	Pennsylvania	32	45,126	44,832	294
Wyoming	8	97,914	97,548	366	Virginia	33	42,627	40,262	2,365
Oregon	9	96,699	95,607	1,092	Tennessee	34	42,022	41,687	335
Utah	10	84,990	82,184	2,806	Ohio	35	41,040	40,740	300
Minnesota	11	84,682	80,858	3,824	Kentucky	36	40,598	40,181	417
Idaho	12	83,888	83,354	534	Indiana	37	36,354	36,045	309
Kansas	13	82,158	81,774	384	Maine	38	33,040	29,895	3,145
South Dakota	14	77,615	76,868	747	South Carolina	39	30,989	30,495	494
Nebraska	15	77,520	76,808	712	West Virginia	40	24,170	24,022	148
North Dakota	16	70,837	70,183	654	Maryland	41	12,327	9,941	2,386
Oklahoma	17	70,057	69,414	643	Vermont	42	9,564	9,124	440
Missouri	18	69,420	68,727	693	New Hampshire	43	9,341	9,031	310
Washington	19	69,127	66,836	2,291	Massachusetts	44	8,266	8,039	227
Georgia	20	59,265	58,725	540	New Jersey	45	8,224	7,514	710
Florida	21	58,666	54,861	3,805	Connecticut	46	4,965	4,820	145
Michigan	22	57,980	57,480	500	Delaware	47	2,370	1,965	405
Illinois	23	56,665	56,043	622	Rhode Island	48	1,248	1,067	181
Iowa	24	56,147	55,586	561	District of Col.	49	70	62	8
Wisconsin	25	56,066	55,256	810					

The States of the Union.

ALABAMA.

Area, square miles ..... *51,998* ..... *28th in rank*
Population, 1920 ..... *2,348,174* ..... *13th in rank*
Population, 1923 (est.) ..... *2,573,000* ..... *49.5 to sq. m.*
Wealth, 1923 (Census est.) *$3,003,043,000*

Alabama, one of the States of the Old South, is in the heart of the cotton belt, in the East South Central group, on the Gulf of Mexico, bounded on the north by Tennessee, on the east by Georgia, on the south by the Gulf and Florida, and on the west by Mississippi.

It is level and largely alluvial along the seashore and for a considerable distance inland, rising to hilly or low mountainous elevations in the northeast. Forests originally covered most of the area, but have been materially reduced by non-conservation methods of lumbering. The State is well watered, and river navigation is available. The Alabama, formerly the Coosa, and the Tallapoosa, and the Tombigbee, joined by the Black Warrior, unite about 35 miles north of Mobile Bay into which their waters discharge through the Mobile and Tensas rivers.

On the Tennessee River rapids at Muscle Shoals are the nitrate fixation plants built by the Federal Government in the World War, but not carried to point of production. The first four units of 30,000 horse power each were placed in operation in 1925. The ultimate capacity is 612,000 horse power.

Agriculture is the chief interest, although in the past thirty years the mineral industries have been wonderfully developed. Birmingham being known as "the Pittsburgh of the South." In 1928, 2,546,000 tons of pig iron were produced, the State ranking sixth. Alabama, as one of the 16 cotton States, raises normally about one-fifteenth of the country's cotton; in 1928, 1,109,126 bales from 3,534,000 acres. The peanut crop in 1928 was 223,440,000 pounds, valued at $8,714,000 from 399,000 acres. Corn, white and sweet potatoes, oats, tobacco, sugar, hay and fruits are important crops.

The Census of 1920 showed the iron and steel industries, in value of products, $121,998,000, were second to agriculture, $304,348,638, and ahead of lumber and timber products, $55,139,000, yellow pine being 91.3 per cent. of the cut, with 1,642,588,000 board feet, the oak cut being 61,189,000. Gum, maple, ash, hickory, cypress and tupelo also supply lumber. Cotton mills numbered 99 in 1928, with 24,555 looms and 1,602,534 spindles.

Coal production in 1928 was 1,740,000 tons from 272 mines. Coal underlies approximately 8,000 square miles. Iron ore deposits are sufficient to last the present blast furnaces 165 years. In 1928 6,397,844 tons were mined. Limestone and dolomite are abundant. Rich quarries of fine marble are worked; production in 1928 was valued at $59,866,040.

The United States census of manufactures ,1927, reported 2,355 establishments (2,349 in 1925, with 119,019 employees (116,599) earning $105,488,817 ($101,242,839) and a product valued at $550,372,126 ($552,824,044). The leading industry is the manufacture of cotton goods, 68 mills with 24,825 employees earning $15,927,634 and an output valued at $80,833,617 ($85,982,623). The nine steel and rolling mills with 7,473 employees earning $11,910,770 had an output valued at $73,487,368 ($74,738,760 in 1925); 12 blast furnaces with 4,157 employees earning $4,574,023 had an output valued at $49,455,982 ($54,331,148); and 34 cast-iron pipe foundries with 10,840 (11,621) employees earning $10,619,902 ($12,404,887) had an output valued at $42,590,922 ($46,184,691). The production of coke was valued at $25,510,423 ($27,240,458) and of lumber, timber and planing-mill products, $67,140,249 ($71,467,832).

Practically all of the State's foreign commerce passes through Mobile. The channel from the docks to the Gulf is thirty miles long and thirty feet deep. The State owns the port terminal railway connecting all the railway lines entering Mobile with all the docks. Exports in 1928 from this port totalled $41,492,772.

Railroad mileage, in 1928, was 5,434.

A feature of Alabama is the high proportion of Negro population. Two of each five persons are black. Alabama is intensely American, there being only about 20,000 foreign-born. In some portions the Negro population is about 80 per cent. of the total. The rate of illiteracy, by the 1920 census, was 16.1 per cent. of the total population. Of the 1,038,692 native white, 65,394 were illiterate, or 6.3 per cent.; and of the 674,004 Negroes, 210,690 were illiterate, or 31.3 per cent. Excellent progress, however, is making toward a higher standard, the percentage of illiterates having been reduced from 22.9 in 1910. Expenditures on schools in 1926 were $17,304,956.

A famous agency for this improvement is the Tuskegee Normal and Industrial Institute, founded in 1880 by the late Dr. Booker T. Washington, a Negro acknowledged as leader of his race. The enrolment was 1,736. The enrolment at the University of Alabama, a State endowed and controlled institution, at which only whites matriculate, was 3,000, with 2,000 students in other higher educational institutions.

The convict leasing system came to an end by law on June 30, 1928 when 800 negro convicts were transferred from the coal mines to state farms and road work.

Alabama has neither a State income nor a State inheritance tax; both are prohibited by the Constitution.

ARIZONA.

Area, square miles ..... *113,956* ..... *5th in rank*
Population, 1920 ..... *334,162* ..... *46th in rank*
Population, 1928 (est.) ..... *474,000* ..... *4.1 to sq. m.*
Wealth, 1923 (Census est.) *$1,314,291,000*

Whereas Alabama has 49.5 persons and Massachusetts 509 to the square mile, Arizona, a mountain State, has 4.1—and of the 334,162 of population, (1920), there are 60,325 Mexicans, which fact, together with the warm climate and the ease of life there, made Arizona one of the picturesque States in the frontier days.

It is situated in Southwestern United States, west from New Mexico, east from California, and south from Utah and Colorado, and is on the boundary between the United States and Mexico.

Arizona prides itself on being a man-made State. Vast reaches of arid and semi-arid lands, useless before irrigating water was turned on, have been made highly productive. Agriculture has greatly increased, and new irrigation projects promise further enrichment. The topography is broken, being mountainous in portions of every section; the northern plateau is 4,000 to 7,000 feet in altitude, and the southern from 500 to 2,500. On the broad plains and mountain sides livestock graze, and through the valleys the irrigating waters are led. Long staple cotton has been developed as a principal crop, other products being wheat, corn, barley, oats, hay, potatoes and immense quantities of sub-tropical fruits. Dates thrive.

The citrus industry is rapidly growing in importance, grapefruit trees covering 8,750 acres in the Salt River valley in 1929.

Mining is extremely important. Copper mines in the State are among the greatest in the world, the most famous being the United Verde. In 1928 the smelter output was 735,632,406 pounds, valued at $107,497,572. Utah being second and Montana third.

Gold production in 1928 was 190,000 ounces valued at $3,930,000 (207,064 ounces in 1927 and 234,011 in 1926). Silver production was 6,943,000 ounces in 1928, valued at $4,062,000, and total value of all mineral products in 1928 was $116,462,000.

The United States census of manufactures, 1927, reported 300 establishments (294 in 1925), with 8,967 employees (9,127) earning $12,132,957 ($11,506,159), and the product valued at $117,624,434 ($138,781,477). The leading industry is the smelting and refining of copper, 8 smelters with 2,964 employees earning $4,325,430 and an output valued at $82,745,917 ($106,926,324 in 1925 and $95,945,565 in 1923).

Railroad mileage, in 1928, was 2,496.

Apart from the generally picturesque character of the State, tourists are attracted by the Roosevelt Dam, supplying irrigating waters for the Salt River Valley, one of the two greatest dams in the world, and the Grand Canyon of the Colorado River, one of the scenic wonders of the world, 200 miles long and averaging 12 miles wide and one mile deep.

Livestock raising lends both economic value and the element of the picturesque to life in Arizona, the industry having caused the development of many very large ranches, some of which comprise hundreds of thousands of acres, with the "cowboy" an essential factor.

Of the land area of the State, about 72,838,400 acres, 11,065,291 were taken up by 10,802 farms (census of 1925). The value of the land and buildings was $194,048,696, of implements, $6,928,123, and of livestock $43,106,566. The number of cattle was 1,068,727; sheep 1,163,905; and horses 111,601. Of the land 578,246 acres were crop land and 10,101,361 pasture. Two-thirds of the farms were irrigated

in 1920. Cotton grown on 202,000 acres in 1928 yielded 149,435 bales.

On the lower areas the surface of the earth is low, having formed the bed of a primal sea in which are immense deposits of the several kinds of salts, such as potash, nitrates and others, of great potential value.

Illiteracy among the native whites is low—2.1 per cent.—while among the foreign-born, mostly Mexicans, it is 27.5.

Tucson is the seat of the University of Arizona, and Flagstaff has the Lowell Observatory. Phoenix, the capital and largest city, is the centre of the richest agricultural district, the Salt River Valley.

Arizona has a large population of Indians, 32,989 (1920), mostly Apaches, Navajos, Hopis, on reservations, a number exceeded only in Oklahoma. They occupy 18,653,014 acres, valued at $61,843,402, and with an income of $5,482,039.

ARKANSAS.

Area, square miles ..... *53,335*.....*26th in rank*
Population, 1920.....*1,752,204*.....*25th in rank*
Population, 1928 (est.)...*1,944,000*....*36.4 to sq. m.*
Wealth, 1923 (Census est.).....*$2,599,617,000*

Arkansas (pronounced Ar-kan-saw) is of the Old South, situate inland, in the West South Central group, Missouri bounding it on the north, Tennessee and Mississippi on the east, Louisiana on the south, and Texas and Oklahoma on the west. The Mississippi River, down which much of its traffic flows, forms the entire Eastern boundary. Its topography is mostly level, but in the west rise the mountainous elevations of the Ozarks.

Agriculture is the chief source of wealth. The 1920 census gave $340,813,256 as the value of all crops; lumber and timber products are next with $84,000,000, and there is considerable coal, lead and manganese mining.

Of the 33,616,000 acres 15,632,439 are farm land in 221,991 farms with 7,323,199 acres in crops as returned by the census of 1925, land and buildings valued at $540,727,221, implements at $31,254,570, and livestock at $56,864,560.

Diamonds were discovered in Murfreesboro, Pike County in 1906, and over 10,000 have been found, the best weighing 40.23 carats.

Arkansas produced in 1928. 1,245,982 bales of cotton from 3,681,000 acres. The crop in 1927 suffered severely from the Mississippi flood, 3,048,000 acres yielding but 999,983 bales. The yield in 1926 from 3,790,000 acres was 1,547,932 bales.

Petroleum output in 1928 was 32,295,000 barrels, in 1927, 40,179,000 barrels.

The United States census of manufactures, 1927, reported 1,146 establishments (1,257 in 1925), with 40,032 employees (43,977) earning $35,288,168 ($37,538,492), and a product valued at $182,750,871 ($195,208,015). The leading industry is the manufacture of lumber and timber products (including furniture), 342 establishments with 22,583 employees earning $18,579,315 and an output valued at $64,765,117.

Wheat, corn, oats, potatoes, white and sweet, hay, tobacco and fruits are produced. Roses are grown extensively for the making of perfumes.

The State is richly endowed with forest wealth, every sort of tree which grows in the temperate zone abounding, with much of the rapidly-disappearing hardwood which forms an important article of Arkansan commerce.

Railroad mileage, in 1928, was 4,946.

The Negro represents one-third of the population, with the inevitable consequent illiteracy of 21.8 per cent. among them, that of the native-born whites being 4.5, and the average for the whole population, 9.4. As in all Southern States, keen effort is exerted to improve this matter, average illiteracy having fallen from 12.6 per cent. in 1910.

Likewise, as in most of the Southern States, the Baptist Church comes first with communicants, the Methodist being second, and Roman Catholic and Presbyterian following in that order.

The Southern custom is followed by providing separate schools for black and white, about 500,000 pupils attending. Besides the State University at Fayetteville, with 1,500 students, there are several church colleges with about 750 students each.

Expenditures for public schools in 1926 was $13,965,866.

The Hot Springs, a national reservation in the western part of the State, are world famed and support thousands who attend the wants of tourists.

CALIFORNIA.

Area, square miles ..... *158,297*.....*2d in rank*
Population, 1920.....*3,426,861*.....*8th in rank*
Population, 1928 (est.)...*4,556,000*....*28.8 to sq. m.*
Wealth, 1923 (Census est.).....*$15,031,734,000*

California, in the Pacific group, occupies about one-half of the Pacific coastline of the United States; is bounded on the north by Oregon, on the east by Nevada and Arizona, and on the south by Mexico. It is 1,000 miles long. Its topography is most varied and its climate as well. Every phase of surface character is presented, and the geological peculiarity of the North and South American Continents is here seen—the aged mountain ridge that runs from the Arctic Circle southward through the States into Mexico parallel to and near the seashore. There is much plains land, too, and every kind of soil that marks the temperate and sub-tropical zones, with practically all climates which are found in such regions. The State has no navigable rivers, except the lower Sacramento, but abundant waters in smaller streams enable immense irrigation of lands otherwise virtually useless. California is the leading State in irrigation, its enormous fruit, garden and much of the grain output being attributable largely thereto.

Californians especially pride themselves in the climate, which has such fame as to attract visitors from all corners of the earth, particularly in the winter. For their accommodation many luxurious hotels are maintained. There are thousands of miles of excellent roads on which the State has spent $60,000,000. California is second in per capita ownership of motor cars.

Railroad mileage, in 1927, was 8,288.

Agriculture is enormously developed. There are about 100,000,000 acres in the State, and the farms, which include orchards and vineyards, take up 29,365,667 acres, according to the 1920 census, of which 11,878,339 are improved, some highly so, the value of all being $3,431,021,861. There are 4,219,040 acres, 67,391 farms, now under irrigation.

Literally every product of the temperate and sub-tropical zones is grown there—all cereals, forage crops, vegetables, fruits and nuts. Crops in 1920 were valued at $589,757,377; dairy products, $276,424,216; livestock, $204,378,445, with other large agricultural production. California produced 90 per cent. of the country's grape crop in 1924, the crop being valued at $54,000,000 and 57,692 carload shipments were made. Shipments in 1919, the last pre-Volstead year, totaled 21,605 carloads. Shipments in 1925 totaled 84,399 carloads (1,097,187 tons) and in addition 15,524 carloads of table grapes were shipped east.

The capital invested in the grape-growing industry in 1929 was estimated at $336,000,000 with 656,000 acres in vineyards.

California produces about one-third of the total crop of pears, also of peaches, in the United States. In 1925, 8,765 car lots of pears and 12,785 car lots of peaches were shipped.

From 218,000 acres 172,230 bales of cotton were produced in 1928.

The United States census of manufactures, 1927, reported 10,066 establishments (9,635 in 1925), with 262,816 employees (249,529) earning $378,321,461 ($350,792,214), and a product valued at $2,593,247,224 ($2,442,183,042). The leading industry is petroleum refining, there being 54 refineries, with 7,586 employees earning $14,314,173, and the product valued at $356,910,953 ($369,581,955). The 350 canning and preserving establishments, for fruits, vegetables, sea food, etc., with 27,707 employees earning $25,194,824 had an output valued at $201,895,364 ($181,272,830, excluding sea food); 94 slaughtering and meat packing establishments (wholesale), with 3,647 employees earning $5,795,544 had an output valued at $124,546,033 ($115,787,976); 496 lumber, timber and planing mills with 33,582 employees earning $46,287,451 and an output valued at $129,168,177.

Motion picture production in 1927 had 78 studios with 6,614 employees earning $15,513,665 had an output valued at $101,044,521, as compared with 72 studios in 1925, employing 3,722 earning $8,783,692 from an output valued at $62,821,194.

Enormous shipping is carried on. The value of exports from the port of Los Angeles in 1928 was $141,898,579 and in 1927, $120,573,450; the value of imports for 1928, $54,401,013 and for 1927, $47,139,691. The value of exports from San Francisco in 1928 was $201,267,790 and in 1927, $174,554,589; mports for 1928, $198,289,682; in 1927, $199,998,613.

California was fourth in rank in the value of its exports in 1928, $345,436,658 ($309,544,746 in 1927).

Mining interests are extensive, in gold, silver, copper, lead and quicksilver, California in 1926 holding third rank in mineral production, the value being $523,352,259 ($496,923,376 in 1925).

California yielded first place in the production of petroleum to Oklahoma in 1927. The output was: 1928, 231,982,000 barrels; 1927, 230,752,000; 1926, 224,673,000; and 1925, 232,492,000. The output of natural gas in 1926 was 204,915,000 M. cubic feet, valued at $35,495,000. The State produces all the borax mined in the country.

The Sacramento River, navigable for 180 miles transports 1,000,000 tons of freight and over 100,000 passengers annually.

The forests, in common with all States of the Pacific group, are very extensive, comprising every variety of tree which grows north of the purely tropical zone. Coniferous trees are most numerous. The giant redwood groves are the destination of many tourists. The Sequoia trees number 1,156,000, and in Sequoia National Park there are 12,000 exceeding 10 feet in diameter, some of which are older than the pyramids. California no longer is an exporter of ordinary lumber, being compelled to buy from Oregon and Washington.

It is a State of romance in history. Acquired from Mexican political control in 1846, gold was discovered in 1848, and in 1849 the most remarkable "gold rush" ever known began, it being said that the gold produced thereafter enabled the United States to withstand so well the economic strain of the Civil War, which began in 1861. The gold output in 1923 was $13,465,000; silver, $3,025,682; in 1924, gold, $13,041,500; silver, $2,262,596; in 1925, gold, $13,042,200; silver, $2,130,792; in 1926, gold, $12,024,800; silver, $1,234,244, in 1927, gold $11,679,200; silver, $883,279; in 1928, gold, $10,609,800.

Illiteracy is low—3.3 per cent. in 1920; it was 3.7 in 1910. Of the 2,075,467 native whites, only 8,747, or 4-10ths of 1 per cent., were illiterate, illiteracy among the foreign-born being 10.5.

The Japanese population in 1920 was 71,952, an increase of 30,596 in ten years; and of Chinese, 28,812, a decrease of 7,436.

Los Angeles, by repeated annexation of territory, is now the largest city in area in the United States—442.5 square miles (one-third the size of Rhode Island), and claimed a population by local estimate for January 1, 1929, of 1,427,480.

The State has three universities—Leland Stanford Jr., the University of California, which matriculates about 19,000; and the University of Southern California. There are many colleges. The Lick observatory is one of the most important in the world.

One of the points of interest is the motion picture colony at Hollywood, a suburb of Los Angeles. The atmosphere is so clear that motion pictures may be taken on about 350 days of the year, while the topography and flora afford most varied "locations." Yosemite National Park is a scenic wonder. The retention of the Spanish influence in architecture, the climate and the profusion of vegetation where water flows on the lands attract many tourists.

The Roman Catholic Church leads all religious bodies, the bequeathal to later generations of the work done by the Catholic missionaries who established a string of 26 missions a day's march apart from the Mexican line to upper San Francisco Bay.

COLORADO.

Area, square miles ..... *103,948* ..... *7th in rank*
Population, 1920 ..... *939,629* ..... *33d in rank*
Population, 1928 (est.) ... *1,090,000* ... *10.4 to sq. m.*
Wealth, 1923 (Census est.) *$3,229,412,000*

Colorado, one of the mountain States, is bounded on the north by Wyoming and Nebraska, on the east by Nebraska and Kansas, on the south by Oklahoma and New Mexico, and on the west by Utah.

Its topography is varied, being plains lands in the east and south, but rising to the elevations of the Rocky Mountain range in the west, 40 peaks towering to an altitude of 14,000 feet. The Denver & Rio Grande Western Railroad, noted for its scenic beauty, crosses Marshall Pass at an altitude of 10,856 feet, and Tennessee Pass, near Leadville, has an altitude of 10,240.

The Moffat double-track railroad tunnel, 32,150 feet long under James Peak at an altitude of 9,100 feet was begun, Oct., 1923, and formally opened Mar. 1, 1928. It opened up a great territory lying west of the Continental Divide.

Soils vary from arid, when non-watered, to productive. Irrigation is extensive, and has lifted agriculture to first place in the State, ahead of mining and livestock, which come next. The 1920 census showed all crops valued at $181,065,239, even mineral production, $51,217,038, being behind, although the State abounds in mineral wealth, and development is rapid, with petroleum abundant and production great. Minerals produced are gold (second in output in the country), in 1926, $7,078,033; silver, $2,935,372; copper, zinc, lead, manganese, gypsum; and the State is first in radium output and second in tungsten. Coal output in 1928 was 9,877,000 tons.

Petroleum production in 1928 was 2,772,000 barrels; 1927, 2,787,000. There are 900,000 acres of oilshale land.

The United States census of manufactures, 1927, reported 1,483 establishments (1,414 in 1925), with 32,001 employees (31,958) earning $43,193,765 ($43,002,344), and the product valued at $278,221,431 ($278,692,486). The leading industry is slaughtering and meat packing, (wholesle), with 25 establishments, with 1,246 employees earning $1,552,897, and the product valued at $30,538,016.

Sixteen beet sugar refineries had an output valued at $41,165,742 ($30,165,810 in 1923).

The western ranges abound in forage grasses, on which large numbers of food animals and horses live and produce vast annual wealth.

The climate is warm in summer and cold in winter, but dry, and stimulating. It is said that the sky is absolutely cloudless in Denver (the capital and chief city, 5,280 feet above the sea) on 300 days of the year. These qualities have attracted many persons desiring relief from tuberculosis.

Railway facilities are plentiful, and freight tonnage and tourist travel are heavy. The rapidly improving highways are covered by many trans-continental automobile parties, which, en route, seek the local attractions of mountain and valley, chief among which are the mineral springs at Colorado Springs and everywhere are unusual conformation and coloration. The State has developed a wonderful highway through the reserved State Park, which is scenic and diverse in interest. The Royal Gorge of the Arkansas, through which the Denver & Rio Grande runs, is justly famed.

Railroad mileage, in 1927, was 5,077.

Illiteracy is low at 3.2 per cent. of the whole population in 1920; native white, 1.4 per cent. and foreign-born, 12.4 Higher education is served by the State University at Boulder, University of Denver, State Agricultural College at Fort Collins, State Teachers' College at Greeley, the State Normal School at Gunnison, and the State School of Mines at Golden, which has advanced far in mineralogic science.

CONNECTICUT.

Area, square miles ..... *4,965* ..... *46th in rank*
Population, 1920 ..... *1,380,631* ..... *29th in rank*
Population, 1928 (est.) ... *1,667,000* ... *335.7 to sq. m.*
Wealth, 1923 (Census est.) *$5,286,445,000*

Connecticut, one of the Original Thirteen States of the Union, is situate in New England; bounded on the south by Long Island Sound, on the east by Rhode Island, on the north by Massachusetts, and on the west by New York. It was settled early in the seventeenth century by the Dutch from New York, then known as New Amsterdam, and by Puritans from Massachusetts at Hartford, in 1635. In 1639 it adopted a written constitution, confirmed by a charter from King Charles II. in 1662, and replaced in 1818 by a State constitution.

Connecticut's surface is broken, there being ridge after ridge, with verdant valleys between. Toward the shores of the Sound, the land is generally flat, but it rises to about 2,000 feet of altitude in the northwestern part, where the Berkshire Hills begin and extend northward into Massachusetts and Vermont. Originally, the entire State was heavily wooded with all trees known to the temperate zone, hardwood and coniferous varieties abounding. Lumbering has reduced the timber supply materially. The water supply is large for industrial uses. The Connecticut River and the Housatonic are the principal streams, their valleys immensely productive. Tobacco is a very great source of wealth, 29,346,000 pounds being grown on 21,900 acres in 1926, and 28,886,000 pounds from 24,000 acres in 1927, all of the highest grade. In 1920 the value of all crops was $44,472,644.

The State is now intensely industrial, although earlier it was agricultural. The 1920 census indicated that 62.7 per cent. of the people live in towns of 10,000 or more population, and that, including smaller towns, 85 per cent. live urban lives, practically every town having industries. Connecticut presents an unusual contrast in the presence, especially in the western part, of hundreds of beautiful country homes of New York and other city folk, alongside of towns and villages in which industry flourishes.

Besides its pre-eminence in manufacturing industry, Connecticut has in the capital, Hartford, also the insurance centre of the United States.

The United States census of manufactures, 9927, reported 2,877 establishments (3,062 in 1925), with 240,806 employees (242,362) earning $304,503,907 ($301,199,566), and a product valued at $1,284,738,563 ($1,274,951,562). The leading industry is the production of brass products, with 67 establishments with 20,442 employees earning $28,537,673 and the product valued at $152,389,739 ($156,1 41,974). The 175 foundry and machine-shops, with 16,799 em-

ployees earning $24,206,125 had an output valued at $86,168,291 ($83,7219,59); 70 electrical machinery, apparatus and supplies shops with 14,500 employees earning $16,998,723 with an output valued at $75,926,216; 57 hardware factories with 18,201 employees earning $22,298,701 had an output valued at $68,012,785; 54 cotton goods mills, including small wares, with 15,372 employees earning $16,105,660 had an output valued at $62,657,873 ($65,740,674); 35 silk mills with 9,183 employees earning $11,400,520 had an output valued at $47,498,321 ($55,600,718); 29 woolen mills with 5,938 employees earning $7,265,284 had an output valued at $27,841,649 ($32,747,738); 11 worsted goods mills with 3,055 employees earning $4,397,185 had an output valued at $27,841,649 ($17,356,835); 34 fur-felt hat factories with 5,548 employees earning $7,998,771 had an output of $37,758,465 ($30,789,819); 17 corset factories with 3,138 employees earning $2,804,576 had an output valued at $15,198,789; six typewriter factories with 8,721 employees earning $10,700,751 had an output of $26,135,205. The output of needles and pins and hooks and eyes was valued at $8,481,852.

In early days shipping was important, but is to-day relatively negligible, excepting for coastwise water-borne traffic. The prevalence of good roads has enabled the development of many motor truck lines, which haul immense quantities of goods and materials to market without utilizing the railway for any part of the haul, while the same good roads have multiplied automobile tourist travel until the State accommodates very heavy vehicular traffic.

Railroad mileage, 1927, was 969.

Before the influx of foreigners, illiteracy was almost nil. It is now 6.2 per cent. for the State; 4-10ths of 1 per cent. for the native whites, and 12.8 for the foreign-born. The whole of New England was shown by the 1920 census to be 4.9 per cent. illiterate, and the United States 6 per cent.

Yale University, at New Haven, founded in 1701, has grown to be a world-famed institution, with 5,000 students. Wesleyan University at Middletown (now a city of 22,129), Trinity College at Hartford, and Connecticut College for Women at New London are also important. About 270,000 are enrolled in the public schools, or about 27 for each 108 of population.

DELAWARE.

Area, square miles . . . . . *2,370* . . . . . *47th in rank*
Population, 1920 . . . . . *223,003* . . . . . *47th in rank*
Population, 1928 (est.) . . . . *244,000* . . . *102.9 to sq. m.*
Wealth, 1923 (Census est.) *$625,765,000*

Delaware, one of the thirteen Original States, next to Rhode Island the smallest, lies in the South Atlantic group, bounded on the north by Pennsylvania, on the east by New Jersey, Delaware Bay, and the Atlantic Ocean, on the south by Maryland, and on the west by Maryland and Pennsylvania. It is 110 miles long with an extreme breadth of 35 miles. The land is low lying, one-twentieth being marshy.

It is essentially agricultural, 85 per cent., 944,511 acres, of the 1,500,000 total State acreage, being in farms, and 653,052 improved, with corn and wheat the chief products, and also much fruit and tomatoes, Delaware being the second State in tomato packing, and famous for its peach crop. Its flat, alluvial soils, practically unbroken, yielded, Census of 1920, $23,058,906, or almost exactly $100 per capita for the 223,000 of population. Oysters and fish are taken extensively.

Relative to the size and population, Delaware has large manufacturing interests. Wilmington, at the northern tip of the State, near Philadelphia, with 119,888 persons, about one-half the population, has most of the industries. Leather and knitting lead. The large parent plant of the duPont powder works is in the valley of the Brandywine.

The United States census of manufactures, 1927, reported 446 establishments (419 in 1925), with 21,324 employees (20,704) earning $25,222,182 ($25,072,303), and a product valued at $129,809,735 ($125,406,332).

Wilmington is the chief port, ship traffic passing up the Delaware River. A Government canal connects Delaware and Chesapeake Bays and was converted in 1927 into a sea-level canal. A concrete motor highway completing a trunk line through the State was built at a cost of nearly $4,000,000 by Gen. T. Coleman duPont as a gift to the State.

Railway mileage, 1927, was 332.

About 38,000 attend the public and other schools, and the percentage of illiteracy for the State was, in the 1920 census, 5.9; native white, 1.8, and 19.1 for the Negro, who totals 15 per cent. of the whole population. Educational progress is being made as proved by the 1910 illiteracy percentage, 8.1, reduced materially by 1920. Ability to read and write are requisites for voting.

Delaware is the only State to retain the whipping post as a punishment for criminals.

DISTRICT OF COLUMBIA.

Area, square miles . . . . . *70* . . . . . *49th in rank*
Population, 1920 . . . . . *437,571* . . . . . *42d in rank*
Population, 1928 (est.) . . . . *552,000* . . . *788.5 to sq. m.*
Wealth, 1923 (Census est.) *$1,697,270,000*

The District of Columbia is the seat of the Federal Government of the United States. Its area was originally 100 square miles taken from the sovereignty of Maryland and Virginia, Virginia's portion south from the Potomac in 1846 was ceded back to that State. It lies on the west central edge of Maryland on the Potomac River, opposite Virginia. It is in the South Atlantic group. The District is co-terminous with the City of Washington.

Almost the entire activity is governmental, there being about 65,000 civil service employees in the city. Industrial activity is mostly output for local consumption. Navigation is carried on via the Potomac River, which is a branch of Chesapeake Bay. The river was naturally capable of accommodating large vessels, and has been improved in depth and otherwise, so that heavy war or commercial craft may pass. Washington is the chief railway stopping point en route between North and South. The Union Station in Washington is one of the most efficient in the world for passenger transportation handling, also one of the finest architecturally. Railroad mileage, 1927, was 36.

The distinctive feature of the city municipally is the fact that the government is by the Congress directly as to legislation, and by Executive Commissioners, named by the President of the United States, confirmed by the Senate. Each House of the Congress has a Committee on District of Columbia, and taxation current and for improvements is chiefly borne by the tax payers of the district. The district stood sixteenth in the list of States in payment of income taxes in 1923, and first in percentage (15.92) of those filing returns to the population; and of per capita net income reported ($597.99).

Residents of the District of Columbia, as such, do not enjoy the franchise and do not vote on either national or municipal matters. Many persons residing in the District of Columbia are appointed to governmental positions through the Civil Service Laws and when accepting such positions, they do not give up their voting residence in the States. If they retain this voting residence, the laws of the various States permit them to vote as residents of such states. Neither they, nor any other persons residing in the District of Columbia however, vote as such residents on any local or national questions.

Physically, the distinctive feature is the excellent town planning done there by Major Pierre l'Enfant, French engineer, at the instance of George Washington. He, drawing on French history, laid out the city with wide diagonal avenues, traversing streets planned on the "gridiron" method with "circles" at the chief intersections.

The Capitol with its white dome dominates the city. The Mall, to be flanked in the future by administrative buildings beyond the Smithsonian Institute and the National Museum, runs westward to the lofty Washington Monument due south from the White House and its park; and beyond to the Potomac River and the beautiful white marble Lincoln Memorial designed by Henry Bacon and enshrining the statue of the Emancipator by Daniel C. French.

Congress by recent acts has approved a comprehensive program for new and needed public buildings calling for the expenditure of $115,000,000. In 1929 the administration building of the Department of Agriculture was completed at a cost of $2,000,000; the Bureau of Internal Revenue ($10,000,000), and the huge Department of Commerce building, 1,050 feet long and 325 feet wide, ($17,000,000), were under construction; and an Archives building ($8,750,000), a home for the United States Supreme Court, ($10,000,000), and an addition to the House office building ($7,500,000) were authorized for immediate construction. Symmetrical development is planned.

The city plan is overseen by the Commission of Fine Arts, Charles Moore of Detroit, Chairman. Other notable buildings include the Pan-American, the Red Cross, the D. A. R. Continental Hall, Cochran Art Gallery, the U. S. Chamber of Commerce, the Scottish Rite Temple, the Freer Art Gallery and the Episcopal Cathedral of St. Peter and St. Paul now being built on Mount St. Alban.

Across the Potomac, reached by the new Key Memorial Bridge (1,452 feet long), is the Arlington

National Cemetery. Here is a chapel and open-air marble amphitheatre seating 5,000, and the Tomb of the Unknown Soldier.

Washington streets are well shaded. Rock Creek Park is noted for its natural beauties. The Zoological Garden and the Botanical Garden are also famous.

Many wealthy Americans in late years have erected palatial dwellings in Washington, and there are many fine country estates nearby, with desirable suburban centres on all sides. The Census of 1920 returned 204 farms in the District.

The United States census of manufactures, 1927, reported 503 establishments (538 in 1925), with 9,519 employees (9,753) earning $15,668,655 ($15,320,067) and a product valued at $90,389,537 ($83,576,826). The leading industry is the printing business with 173 establishments with 2,391 employees earning $4,477,690 and the output valued at $29,959,154 ($20,996,472 in 1925).

Educationally, the District of Columbia is far advanced. The higher institutions are Georgetown University (Catholic), George Washington University, the Catholic University of America, the National Methodist University, Howard University for Negroes, and two normal schools for the training of teachers.

Illiteracy in the District is low at 2.8 for all; native white, 3-10ths of one per cent., Negro, 8.6. The Negro population is 25 per cent. of the total. About 6 per cent. are foreign-born.

In addition to the great Library of Congress, there are in the departments and institutions of the city about 200 special libraries of great diversity and value.

FLORIDA.

Area, square miles ..... *58,666* ..... *21st in rank*
Population, 1920 ..... *968,470* ..... *33d in rank*
Pop., 1925 (State Census) ..... *1,263,549* ..... *21.5 to sq. m.*
Population, 1928 (est.) ..... *1,411,000* ..... *24.0 to sq. m.*
Wealth, 1923 (Census est.) *$2,440,491,000*

Florida, a South Atlantic State, discovered Easter Sunday, March 27, 1513, by the Spaniard, Ponce de Leon, in his search for the "fountain of perpetual youth," is the southeasternmost point of the United States, bounded on the north by Georgia and Alabama, on the east by the Atlantic Ocean, on the south by the Straits of Florida, and on the west by the Gulf of Mexico. Its coast line is 3,751 miles.

Florida is of coral formation, with no high elevations, and in the southern part are vast swamps, the Everglades, which are being drained and provided with roads to make available large potential agricultural wealth. The drainage district embraces 4,927,759 acres of which one-quarter is owned by the State and is valued at $105,000,000.

Less than 1 per cent. of the area is forested, but from it comes about one-third the national supply of "naval stores." In the crop year 1927-28, 343 establishments produced 10,275,713 gallons of turpentine and 711,852 500-lb. barrels of rosin valued at about $13,500,000. Employees numbered 13,237.

Coastwise, the vegetation is sub-tropical and in the interior is a coniferous tree-clad, sandy region where citrus fruits have been developed highly.

The sub-tropical products prevail in fruits which in 1928 included oranges valued at $25,800,000 and grapefruit valued at $20,400,000, and vegetables, $33,500,000, while the staple crops brought $27,306,000. Only 6,000,000 acres were in farms in 1925, and only 2,500,000 acres were being plowed.

At present and future source of great wealth are the natural deposits of phosphatic rock, whence normally, pre-war, more than 1,000,000 tons were exported for foreign use as land fertilizer, and much was used domestically. It produced 2,821,961 long tons worth $9,324,306 in 1928. A 60-acre deposit of travertine was discovered in 1929.

The United States census of manufactures, 1927, reported 1,912 establishments (1,863 in 1925), with 61,219 employees (66,204) earning $56,671,574 ($65,780,109) and the product valued at $218,790,152 ($267,009,159.) The leading industry is lumber and timber production including planing mill products, with 256 mills with 16,576 employees earning $13,843,026 and the output valued at $39,869,986 ($64,346,386). The 87 cigar and cigarette factories with 11,174 employees earning $12,323,259 had an output value of $39,817,657.

The State is penetrated by several rivers, chief of which is the St. John, up which steamers ply for 150 miles. It has 30,000 lakes.

Railroad mileage, 1928, was 5,918.

Florida is the resort of very large numbers of winter tourists, who spent, it is estimated, $250,000,000 in the winter of 1924-25.

The State Census of 1925 showed that 68% of the population was white.

The illiteracy reported in the 1920 census was 9.6 per cent., against 13.8 in 1910, indicating remarkable progress in popular education. Native white illiteracy was 2.9, and of Negroes, 21.5. Public school enrolment was 196,405, and there are the John B. Stetson University at De Land, the University of Florida at Gainesville, Rollins College at Winter Park, and the State College for Women at the capital, Tallahassee.

Expenditure for public schools in 1926 was $30,089,478.

Florida experienced a great boom in 1925-26. It is estimated $400,000,000 was spent in 1925 in building; $50,000,000 in new railway trackage and equipment; $7,500,000 in making 286 miles of new State highways; and gross banking resources more than doubled, reaching $943,272,977 on Dec. 31, 1925. The hurricane of Sept. 18, 1926, which swept the East Coast killed 372, injured 6,281, made 17,884 families temporarily homeless and caused a property loss of about $80,000,000, brought a severe depression.

The tropical hurricane that struck Florida Sept. 16-17, 1928, between Fort Lauderdale and West Palm Beach, causing great property damage there, also flooded the Lake Okeechobee district where the loss of life as estimated by the Red Cross was over 2,000, with 15,000 made destitute. The property loss exceeded $25,000,000.

The Mediterranean fruit fly appeared in 1929 and brought disaster to the citrus crop. Federal aid was immediately sent to help stamp out the pest.

The State constitution prohibits the levying of income or inheritance taxes.

GEORGIA.

Area, square miles ..... *59,265* ..... *20th in rank*
Population, 1920 ..... *2,895,832* ..... *12th in rank*
Population, 1928 (est.) ..... *3,203,000* ..... *54.0 to sq. m.*
Wealth, 1923 (Census est.) *$3,896,759,000*

Georgia, of the South Atlantic group was one of the Thirteen Original States. It is bounded on the north by Tennessee, North Carolina and South Carolina, on the east by South Carolina and the Atlantic, on the south by Florida, and on the west by Alabama.

Agriculture is very important. Of the total of 37,584,000 acres, 25,441,061 in 1920 were in farms, or 62.5 per cent.; and more than 13,000,000 actually improved, or about 32 per cent.

All crops, Census of 1920, were valued at $540,613,626, of which $69,720,000 was for cotton in 1,681,907 bales from 4,720,498 acres, Georgia then was the second cotton State, but in 1928 she had dropped to fourth with 1,029,499 bales from 3,728,000 acres. Crops are various—cotton, corn, oats, wheat, sugar cane; corn, the most important cereal, with 38,010,000 bushels produced in 1928.

The acreage devoted to tobacco was 122,300 in 1928, the yield being 84,387,000 pounds (59,088,000 in 1927). Peanuts yielded 340,200,000 pounds from 630,000 acres, valued at $14,969,000 in 1928.

Manufacturing has, however, passed agriculture in relative importance, as water power abounds.

The United States census of manufactures, 1927, reported 3,175 establishments (2,876 in 1925), with 154,168 employees (141,173) earning $108,118,193 ($99,210,003) and a product valued at $609,917,660 ($648,852,294). The leading industry is cotton goods, with 139 mills with 56,607 employees earning $36,908,790 and the output valued at $180,509,344 ($193,423,660). The 678 lumber mills, including planing mills with output, with 19,014 employees earning $11,254,711 had an output value of $45,296,954 ($55,334,281); 27 factories for manufacture of oil cake and meal from cottonseed, had an output of $27,998,981 ($21,925,257); 114 fertilizer plants had an output of $22,093,903 ($28,261,583); and four hard substitute factories had an output value of $22,011,424.

There were 3,052,474 active spindles and 62,049 active looms in the cotton mills in 1928.

The State has important mineral resources, coal, iron, manganese, gold and silver, not yet highly developed, and fisheries of oysters and other shellfish are considerable.

Transportation is highly developed, with abundant rail lines and large ocean shipping in and out from Savannah, chief port. Vessels up to 32 feet draft are accommodated at high tide across the bar, and 26 feet at all times.

Railroad mileage, 1928, was 7,072.

Negro population is 42 per cent. of the total, bringing up the percentage of illiteracy for the whole State to 15.3, that of native white being 5.4 and of Negroes 29.1. Illiteracy percentage in 1910 was 20.7. Of 2,895,832 population, there were, Census of 1920, 570,000 attending school. Ex-

penditure for public schools in 1926 was $17,357,622.

The Georgia School of Technology, with 2,000 students, and the University of Georgia are the largest institutions for higher education.

Atlanta, chief city and capital, is accounted one of the progressive cities of the South, and nationally holds high place in banking strength.

The lumber cut, mostly pine, 1927, was 1,201,008,000 feet, although production, as in most of the Southern States, is due soon to diminish to negligible quantities for exportation owing to the enormous areas of the originally large forested lands having been cut over. Naval stores production in 1927-28 from 614 establishments with 17,453 employees was valued at $18,065,937 and consisted of 15,060,761 gallons of turpentine and 953,923 500-lb. barrels of rosin, one-half of the United States production.

Okefonokee Swamp, in the southeastern corner, 400,000 acres, is, like the Everglades of South Florida, potentially rich for agriculture when drained.

IDAHO.

Area, square miles ..... *83,888*..... *12th in rank*
Population, 1920..... *431,866*..... *43d in rank*
Population, 1928 (est.)..... *546,000*..... *6.5 to sq. m.*
Wealth, 1923 (Census est.)..... *$1,533,961,000*

Idaho, of the mountain group, is situate west of the Rockies in the Pacific Coast region, bounded on the north by British Columbia and Montana, on the east by Montana and Wyoming, on the south by Utah and Nevada, and on the west by Oregon and Washington.

Its topography is mountainous, with broad level plateaus. It classes as of the irrigation States agriculturally, the lands when watered being exceedingly productive, fruit raising having been highly developed. Most of the plains lands which have not been reclaimed by irrigation remain unproductive, with considerable livestock thereon.

The Rocky Mountains form the northeastern boundary from the Yellowstone Park continued by the Bitter Root and Coeur d'Alene to Cabinet thence the line goes due north to Canada. All the drainage is west chiefly by the Snake River to the Columbia. Mount Hyndman, 12,078 feet, in the Sawtooth Range in Central Idaho is the highest peak. The Snake River rising in Wyoming flows through southern part of Idaho and north for 200 miles forms part of the western boundary between Idaho and Oregon and Washington. Its course is marked by many falls. The Salmon River, a tributary in the middle of the State, is navigable for flatboats for 400 miles and through one of the longest canyons in the world and one filled with game.

The climate is dry and stimulating, warm in summer and cold in winter.

Idaho is undeveloped, having large mineral resources, and much land yet to be covered with irrigation waters. The Federal Reclamation Service has already built several important irrigation projects, in addition to many private projects.

Mineral production in 1926 was valued at $31,752,821 ($31,611,166 in 1925) of which lead was 136,490 short tons valued at $21,838,417, and zinc 26,307 short tons valued at $3,946,102. Gold production was: 1927, $314,400; 1926, $261,300; 1925, $431,771; silver, 1928, $5,235,584; 1927, $5,062,527; 1926, $4,719,714; 1925, $5,373,947; and copper (smelter output) 1928, 2,336,654 pounds. 1927, 1,811,103; 1926, 1,171,262; 1925, 3,144,064.

The value of the agricultural yields, Census of 1920, was $126,495,111, there being thirty States that exceed it. Of the total of 60,000,000 acres, there were 42,106 farms, census of 1920, comprising 8,375,873 acres, of which 3,266,386 were irrigated. Varied crops were raised, wheat, 27,079,000 bushels; oats, 7,740,000; barley, 2,784,000; potatoes, hay, all sorts of vegetables.

The livestock industry is very great, the wool clip alone in 1920 being 21,702,000 pounds; sheep, cattle and horses abounding, cattle numbering 642,000.

Normally, almost a billion feet of lumber are cut. The forest wealth is large; white and yellow pine, larch, white fir and cedar supply activity to many mills. It is claimed that the sawmill at Potlach, Idaho, cutting 750,000 feet daily, is the largest in the world. Idaho pine is famous for ship and yacht masts.

The United States census of manufactures, 1927, reported 470 establishments (487 in 1925), with 13,513 employees (15,872) earning $18,970,643 ($20,698,119) and a product valued at $86,256,399 ($96,641,797). The leading industry is lumber and timber products, with 96 factories with 9,386 employees earning $12,887,588 and the output valued at $31,660,296 ($40,131,950). The 51 dairies had an output of $11,543,060 ($10,974,381); and 47 flour and grain mills, an output of $6,001,897.

Railroad mileage, 1927, was 2,915.

Only Iowa, with 1.1 percentage of illiteracy, and Nebraska with 1.4 per cent., show a better record than Idaho with 1.5; native white, figures of 1920 census, 3-10 of 1 per cent., foreign-born, 6.5. Educational institutions show an unusually large proportion in school—105,000 of the total State population of 431,866; or one for each four persons. Higher institutions are the University of Idaho at Moscow, the College of Idaho at Caldwell, and State normal schools at Lewiston and Albion.

Forty square miles, 150 miles southwest of Yellowstone Park, of a newly discovered volcanic field with 63 extinct craters and brilliantly colored frozen lava flows, was set aside May 2, 1924 as a National Monument, "Craters of the Moon." Forty-one square miles were added July 23, 1928.

ILLINOIS.

Area, square miles ..... *56,665*..... *23d in rank*
Population, 1920..... *6,485,280*..... *3d in rank*
Population, 1928 (est.)..... *7,596,000*..... *130.5 to sq. m.*
Wealth, 1923 (Census est.)..... *$22,232,794,000*

Illinois, the third most populous State of the Union, lies in the East North Central group, its northeastern corner touching Lake Michigan, the Mississippi River flowing along its western boundary line, the Ohio River along its southern end, and is bounded on the north by Wisconsin, on the east by Indiana, on the south by Kentucky and Missouri and on the west by Missouri and Iowa. It is intensely industrial, agricultural, mining, and foremost in water and rail transportation.

Illinois is almost uniformly level, being situate in a glacial moraine, and is alluvial in all parts, with a climate such as prevails in the whole of the Middle West. It is so level that a railway possesses one precisely straight line 100 miles long in which scarcely a dirt cut was necessary—a vast prairie, once largely wooded, now with but 10 per cent. of forest cover. With the exception of Iowa, no other State has so large a proportion of lands susceptible of cultivation.

It is provided with remarkable mileage of riverways, the Mississippi, the Ohio, and the Wabash, which skirts the southeastern corner. The Illinois River is the principal intrastate river. An artificial waterway is the important Chicago Drainage Canal, 40 miles from Chicago on Lake Michigan to Joliet on the Illinois River, a unique engineering device which supplies drainage out from the flat lake-coastal district around the city and the Chicago River, and really reverses the natural tendency to drain into Lake Michigan. Eventually, the canal will be extended by improving the Illinois River to the Mississippi, giving Chicago navigation from "the Lakes to the Gulf" of Mexico.

Traffic on the Great Lakes to and from Chicago (population, estd., July 1, 1928, 3,315,400), the second most populous city in the country, is attaining immense proportions, in general cargo as well as in ore brought from the Minnesota, Wisconsin and Michigan mines to the great works of the United States Steel Corporation in Gary, Indiana, a suburb of Chicago.

Although second to Texas, which has 16,151 miles, Illinois, in 1927, with 11,994 miles of railway has the heaviest railway transport tonnage in the United States, Chicago being the greatest railway centre in the world. To Chicago come all the great railway systems from the East and South and from Chicago radiate all the trains with central lines to the Pacific Northwest and California.

Illinois has 237,181 farms with 31,974,775 acres, and yet the industrial interest of Illinois far exceeds its agricultural. The 1920 census gave the State $864,737,833 value of all crops, and $3,250,000,000 value of manufactured products. Were the products of the Gary works included, as economically they should be, the value would be vastly more; while for the same reason, the immense Standard Oil and other steel working industries of the East Chicago-Indiana, district, should be added.

The United States census of manufactures, 1927, reported 14,711 establishments (14,104 in 1925), with 623,468 employees (622,127) earning $914,102,612 ($897,729,057) and the product valued at $5,386,003,235 ($5,317,635,887). Chief in value of output was slaughtering and meat packing, (wholesale), with 81 establishments with 29,609 employees earning $41,246,967 and output valued at $663,054,316 ($680,591,940). The 2,187 printing and publishing houses with 36,631 employees earning $69,507,058 had an output valued at $342,259,214.

The 44 steel mills and blast furnaces with 27,161 employees earning $46,050,879 had an output valued at $279,729,726; the 258 shops for electrical machinery with 34,626 employees earning $52,502,568 had

an output valued at $261,089,307; the 783 foundries and machine shops with 39,483 employees earning $62,248,281 had an output valued at $245,148,773; motor vehicles and parts (138 factories with 6,549 employees) had an output valued at $59,853,817; the 177 car construction and repair shops with 36,374 employees earning $55,992,276 had an output valued at $110,394,796, and the 25 car construction shops (exclusive of the repair shops) with 8,850 employees earning $15,057,840 had an output valued at $75,585,816; and the 46 agricultural implements shops with 17,811 employees earning $26,337,328 had an output valued at $102,206,815. The 771 clothing manufacturing establishments with 35,005 employees earning $46,818,563 had an output valued at $201,427,769.

Illinois ranked as the eighth state in value exports in 1928, $206,355,671; and in 1927, $208,045,111.

Pig iron production was: 1927, 3,466,203 long tons; 1926, 3,626,330; 1925, 3,604,255.

Everything appertaining to the temperate zone is produced on Illinois lands—all cereals, vegetables, fruits and livestock. The 1920 census gave Illinois corn production as 301,000,000 bushels, nearly 10 per cent. of the national crop; wheat, 65,675,000; oats, 123,960,000; and immense output of other crops. The Chicago Board of Trade is the principal grain dealing exchange in the country.

Bituminous coal underlies more than half the area of the State, Illinois ranking third in mineral output. Coal output in 1928 was 55,640,000 short tons and in 1927, due to the strike, 46,848,000 tons. The petroleum output in 1928 was 9,876,000 barrels; 1927, 7,024,000; 1926, 7,760,000.

The 1920 census showed 1,116,099 pupils and students in all educational institutions reporting, about one in each six persons. Besides a very extensive public school system, there are 29 colleges and universities, and five State normal schools for training of teachers. The most prominent universities are the University of Illinois at Urbana, 11,083 students; the University of Chicago (endowed with more than $30,000,000 by John D. Rockefeller), 12,745; Northwestern University at Evanston, 8,010; Loyola University at Chicago, 3,000; James Milliken University at Decatur, 1,053.

Illinois shows 3.4 per cent. of illiteracy, Census of 1920, native white, 8-10 of 1 per cent., foreign-born, 11 per cent., and Negro (of whom there has been a remarkable influx induced by the late war demand for labor), 6.7 per cent. Of the 6,485,280 of population, Census of 1920, native-born whites were 5,092,382; foreign-born, 1,206,951; per cent. of native 78.5; foreign, 18.6; Negro, 2.8. Chicago is the chief Polish centre of the country, with a large percentage of Jews and all classes of immigrants.

Tourists find a wealth of art centres in Chicago; such as the Field Museum and the Chicago Museum of Art, with many art schools. Chicago is a great national convention resort.

Chicago's park and boulevard system, as planned, is perhaps the most ambitious ever conceived by any city in the world, with three large parks already developed, connected by a wide boulevard along the lake front cutting through the heart of the city, the whole laid out by some of the greatest city planning and landscape architects in the world.

INDIANA.

Area, square miles ..... *36,354* ..... *37th in rank*
Population, 1920 ..... *2,930,390* ..... *11th in rank*
Population, 1928 (est.) ..... *3,176,000* ..... *87.3 to sq. m.*
Wealth, 1923 (Census est.) *$8,829,726,000*

Indiana, in the East North Central region, touches Lake Michigan at the northwestern corner of the State and is bounded on the north by Michigan, on the east by Ohio and Kentucky, on the south by Kentucky, and on the west by Illinois. The Ohio River, important in navigation, skirts the entire southern side, and the Wabash River, also susceptible of greater navigation development, forms about half of the western boundary line. There are 550 miles of riverways navigable.

In general, Indiana occupies a fairly level tableland and was once a glacial moraine. The climate is characteristic of the Middle West, warm in summer and rather cold in winter.

Transportation is heavy, with 7,187 miles of railways. Immense tonnage moves riverwise on the Ohio and Wabash, and also enormous tonnage enters and leaves the Lake Michigan ports of Whiting, Standard Oil town; Indiana Harbor and Gary (United States Steel Corporation city), in iron ore, steel products, cereals and coal. Electric interurban traffic is the heaviest in the country.

The United States census of manufactures, 1927, reported 4,726 establishments (4,762 in 1925), with 280,717 employees (280,633) earning $375,217,514 ($364,789,224) and a product valued at $2,153,479,432 ($2,121,382,017). The leading industry was iron and steel works and rolling mills, 24 establishments with 30,098 employees earning $50,832,415 having an output valued at $288,719,078 ($276,228,174); the 78 motor vehicles and parts plants with 26,171 employees earning $39,432,829 had an output valued at $202,557,372 ($233,589,813); the 304 foundries and machine shops with 19,166 employees earning $27,103,959 had an output valued at $114,729,157; the 58 electrical machinery shops with 16,048 employees earning $24,925,292 had an output valued at $102,690,445; the 58 slaughtering and meat packing houses, (wholesale), with 5,109 employees earning $5,767,634 had an output valued at $93,169,867. Dairy products were valued at $33,304,179.

The 1920 census showed the value of all crops to be $497,229,719, with corn leading—169,848,000 bushels—about 5 per cent. of the national crop; oats, 45,072,000; wheat, 24,144,000; and all other temperate zone products, including fruits and livestock, generously represented. Farms numbered 205,126. The mining product was valued at $59,926,558.

Evansville, on the Ohio River, is the largest hardwood market in the country, selling not only the heavy State cut from hardwood forests of vast value, which formerly covered much of the State, but also handling immense output from Southern forests.

Indiana ranks sixth in coal production, bituminous and cannel—a very fine fuel for fireplaces—with 15,965,000 short tons in 1928, and 17,699,000 tons in 1927. Petroleum production in 1927 was 852,000 barrels; 1926, 808,000.

The State has, in seven counties, more than 45,000,000,000 tons of accessible oil shale and the Federal Government has withdrawn 52,000 acres of oil lands from entry.

Indiana has four educational institutions of fame—De Pauw University at Greencastle, with 2,000 students; Indiana University at Bloomington, 5,600; University of Notre Dame, Catholic, at South Bend, 3,000; Purdue University at Lafayette, 3,700. The public schools enroll 575,000 pupils. Illiteracy is low at 2.2 per cent., Census of 1920, native white, 1.3; foreign-born white, 11.8; Negro 9.5; native whites being 91.8 per cent. of the population; foreign-born, 5.9; Negro, 2.2. A racial phase was the influx of many Germans at the time of the German revolutionary movements of the last century, the result being that now from Fort Wayne southward the German population is predominant in many districts numerically and socially. That portion of the population has always been exceedingly thrifty and dependable economically, and has aided much in the late remarkable industrial development.

For the last four decades the centre of population of the United States has been in the southern part of Indiana, moving very slowly west.

IOWA.

Area, square miles ..... *56,147* ..... *24th in rank*
Population, 1920 ..... *2,404,021* ..... *16th in rank*
Pop., 1925 (State census) ..... *2,419,927* ..... *43.1 to sq. m.*
Population, 1928 (est.) ..... *2,428,000* ..... *43.2 to sq. m.*
Wealth, 1923 (Census est.) *$10,511,632,000*

Iowa lies in the West North Central part of the Middle West, bounded on the north by Minnesota, on the east by Wisconsin and Illinois, on the south by Missouri, and on the west by Nebraska and South Dakota. The Mississippi River flows along the entire eastern boundary line, and the Missouri River along three-fourths of the western line.

It is very level, only one point of elevation being 1,600 feet above the mean. Iowa claims the largest proportion of actually arable lands of all States and proves it by the immense agricultural production, soil and climate combining to give it that prestige, the climate being Middle West characteristically.

The value of all crops, Census of 1920, was $800,391,299, exceeded only by Texas with $1,071,542,103 on five times the land area of Iowa. Farm property exceeds $8,000,000,000 in value, its area being 33,474,896 acres of the total of 36,000,000 acres in the State. 14 per cent. of the corn of the country, Census of 1920, was produced in Iowa—444,190,000 bushels—wheat being low with 10,102,000, and potatoes high with 4,128,000 bushels, hay with 4,659,000 tons, and oats with 187,045,705 bushels.

Live stock interests are immense, with all animals raised in the temperate zone abundant, and dairy and poultry outputs likewise enormous.

Fruit interests are confined mostly to the smaller varieties, and garden truck is heavily cultivated.

The farms number 213,439, averaging 156.8 acres and 134 actually improved. Iowa is the strongest centre of the late agricultural movement which resulted in the rapid development of the American

Farm Bureau Federation, and agrarian influence dominates the State. Iowa has the largest ratio of automobiles per capita of all States, the farmer-owner prevailing.

Transportation is highly developed, with railways literally ribbing the State, for vast through, as well as immense local tonnage. River tonnage on the Mississippi moves in vast volume, with much on the Missouri. Railroad mileage 1927, was 9,814. Coal underlies about 19,000 square miles, the output, 1928, was 3,910,000 short tons; and 1927, 2,526,000 tons, and lead is found in the northeastern part, and the quarry output is heavy.

The United States census of manufactures, 1927, reported 3,061 establishments (3,219 in 1925), with 73,692 employees (74,258) earning $91,246,664 ($91,516,909) and a product valued at $769,340,610 ($746,329,586). The leading industry was slaughtering and meat packing (wholesale), with 21 establishments with 7,979 employees earning $9,227,211 with an output valued at $212,353,210 ($213,741,084). The 420 dairies with 1,988 employees earning $2,544,737 had an output valued at $86,932,789 ($78,110,309).

Iowa leads all States in literacy. Only 1.1 per cent., Census of 1920, are illiterate, the percentage of native whites being 5-10ths of 1 per cent., of foreign-born whites, 4.9, and of Negro, 8.1. The State has a large percentage of native-born whites—82.8.

There are about 600,000 persons at school in Iowa, or one for each four of the population. The public school system is highly advanced, in method and provision for the people of all classes.

The College of Agriculture at Ames is claimed to be the leading institution of that character in the country. It has 5,300 students, and has pursued scientific investigation along all lines that appertain to agrarian interests, with much original research, and development of methods for crop and animal production and care. The University of Iowa at Iowa City has 8,500 matriculated.

A signal enterprise is the utilization of vast electrical power in the Mississippi River at Keokuk, where a remarkable dam has been built.

The diffusion of prosperity is indicated, Census of 1920, by the $391,505,000 deposits in savings banks by 905,970 persons, averaging $432.14 per account or almost one account for each two and a half persons.

KANSAS.

Area, square miles.....*82,158*.....*13th in rank*
Population, 1920.....*1,769,257*.....*24th in rank*
Pop. 1925 (State Census).*1,813,986*.....*22.1 to sq.m.*
Population, 1928 (est.)...*1,835,000*...*22.3 to sq. m.*
Wealth, 1923 (Census est.).....*$6,264,058,000*

Kansas, a West North Central State, in almost the exact geographical centre of the United States, is bounded on the north by Nebraska, on the east by Missouri, on the south by Oklahoma, and on the west by Colorado. It is varied in topography, with prairies extending westward, where elevations of 4,000 feet are found. There is heavy forest cover in the eastern half, much hardwood, black walnut abounding. The climate is severe in winter and warm in summer, but constantly modified by the prevalent winds. The Missouri River skirts the northeastern side for 150 miles, giving navigation to St. Joseph, Atchison, Leavenworth and Kansas City, the only other considerable rivers being the Arkansas and the Kansas.

Railway traffic is mostly east and west, and several of the largest systems have lines, with liberal provision for branch service, to care for the heavy through traffic and the large State production.

Railroad mileage, 1927, was 9,494.

Kansas is essentially agricultural, although natural mineral wealth adds heavily to production. The Census of 1920 gives $588,923,248 as value of all crops, livestock products not included.

The total acres in the State are 52,581,120, of which by the 1920 census there were 45,425,179 in 165,286 farms, averaging 275 acres each, with a total value of $2,830,063,918 for land and buildings.

For twenty years Kansas averaged 119,256,179 bushels of corn, and 93,881,169 bushels of wheat per year, but in the ten years, 1917–27, these crops have been reversed and the State has averaged 111,532,943 bushels of wheat, and 84,890,994 bushels of corn per year. For the crop of 1923 Kansas sowed more than half its total of plough land to wheat alone, and used more bushels for seed than the total wheat yield of twenty-three other States. There were thirty-seven other States which did not have as many acres in all kinds of crops together as Kansas had in wheat alone.

The wheat crop in 1924 was 153,628,000 bushels valued at $1,638,095,000, and the corn crop was 131,007,817 bushels valued at $106,313,292. The total value of all crops, farm products and livestock marketed for 1924 was $501,629,566.

Farming is marked with the most modern of equipment in machinery. Cotton and tobacco are grown to some extent, the climate and soil being such as to enable the further development thereof when economic conditions demand.

In the western reaches of the valley of the Arkansas River irrigation is extensive and becoming more important (45,000 acres under water) as demand for land increases in the whole country. Dairy and poultry products run above $60,000,000 annually.

Cheap and abundant feeds and pasturage, with a mild climate, good water and nearness to market, make Kansas one of the four greatest cattle-producing States in the Union. Fifty per cent. of all cattle received at the Kansas City stockyards come from Kansas, and Kansas City is the second largest livestock market in the world.

Kansas, in 1927, had more passenger automobiles (431,810) and motor trucks (52,688) than milk-cows (467,983). A State Highway Commission was set up in 1929 which will consolidate and control 5,000 miles of State roads.

The United States census of manufactures, 1927, reported 1,767 establishments (1,856 in 1925) with 45,368 employees (46,078) earning $59,925,089 ($58,690,699) and a product valued at $681,750,334 ($698,096,115). The leading industry was slaughtering and meat packing (wholesale), with 29 establishments with 8,783 employees earning $11,297,040, with an output valued at $249,465,685 ($248,939,792). The 159 flour and grain mills had an output valued at $133,625,683 ($135,232,063); the 15 petroleum refining plants had an output valued at $73,878,325 ($101,670,342); and the 81 dairies an output valued at $27,266,496 ($25,511,829).

The coal fields underlie more than 15,000 square miles, and the 1928 output was 2,220,000 short tons; in 1927, 2,517,000 tons. Petroleum production in 1927 was 40,740,000 barrels and natural gas (1926) 38,095,000 M. cubic feet. Other mine products are zinc, lead and salt.

Kansas, which for 20 years had outlawed cigarettes, by a law passed in February, 1927, permits their sale except to minors, taxes every package 2 cents and prohibits all cigarette advertising.

Kansas has only 1.6 per cent. of illiteracy, that of the native whites being 6-10ths of 1 per cent.; of foreign-born whites, 10.5; and of the Negroes, 8.8; the Kansas colored man having advanced far along the roadway toward normal literacy. The attendance at all educational institutions is more than 400,000, or about one for each four persons.

The State supports the University of Kansas (5,000 students) and Agricultural College at Manhattan (4,000). There are four large colleges.

The diffusion of prosperity is to be judged by the fact that agricultural, livestock, dairying, mineral and manufacturing annual production totals about $1,700,000,000, or about $2,180 for each man, woman and child in the State.

Colby with 1,800 population has the distinction of being the only town in the United States where no local tax was levied in 1928 and 1929. All expenses were met by profits of the municipally-owned and operated light and power plant.

KENTUCKY.

Area, square miles.....*40,598*.....*36th in rank*
Population, 1920.....*2,416,630*.....*15th in rank*
Population, 1928 (est.)...*2,553,000*...*62.9 to sq. m.*
Wealth, 1923 (Census est.).....*$3,582,391,000*

Kentucky, grouped as East South Central, a border State between the North and South, is bounded on the north by Illinois, Indiana and Ohio, on the east by West Virginia and Virginia, on the south by Tennessee, and on the west by Missouri, Illinois and Indiana. The Mississippi River touches the westernmost tip, and the Ohio River forms the entire northern boundary. Navigable rivers flow past the State for a total distance of 813 miles. The Appalachian Mountains cross the eastern end and many hills dot the tablelands, of which the famous Blue Grass region in the northern part, east from Louisville, is best known and most productive.

Agriculturally, the State is very productive; $347,338,888 is given by the Census of 1920 as the value of all crops, which included the highest quantity of tobacco of all States, 467,500,000 pounds; and a most varied list of temperate zone products, shading off into those distinctly Southern. The corn crop in 1928 was 66,633,000 bushels.

In 1928, 306,000,000 pounds of tobacco valued at $58,550,000 was grown on 394,700 acres.

Livestock interest is important, Kentucky horses having been for long world famed, its thoroughbreds not being excelled anywhere. Other domestic animals abound, and fruits are extensive.

Coal mined in 1928, 63,255,000 tons, and petroleum lifted, 1928, 7,325,000 barrels.

Forest wealth is great, coniferous and hardwood trees abounding, and normally yielding annually $20,000,000.

The United States census of manufactures, 1927, reported 1,851 establishments (1,860 in 1925) with 74,912 employees (76,562) earning $83,858,607 (84,939,919) and a product valued at $447,764,961 ($453,731,042). The leading industry was railroad car construction and repair, with 33 shops with 13,986 employees earning $20,399,884 with an output valued at $36,727,777; the 5 steel works and rolling mills with 4,542 employees earning $6,639,791 had an output valued at $35,987,067 ($28,772,962); and the 38 plants for manufacture of tobacco with 3,888 employees earning $2,349,669 had an output of $28,933,640 ($30,319,651).

Railroad mileage, 1928, was 4,049.

The illiteracy percentage is 8.4, that of native whites being 7, of foreign-born 7.3, and of Negroes 21. The State public school system enrolls about 550,000, and four universities, 5,200. Expenditures for public schools in 1926 was $17,599,363.

The distinctive natural phenomenon is the 9,000 square miles in Central Kentucky which is ribbed with underground passages and caves, chief of which is the Mammoth Cave, with its 150 miles of connecting passages, now to be a National Park.

In the old days before Prohibition, Kentucky was famed for its whiskeys, Bourbon County, at Paris, in the Blue Grass region, having lent its name to the corn liquor formerly made and consumed in the United States.

Kentucky has no bonded indebtedness.

LOUISIANA.

Area, square miles . . . . . 48,506 . . . . . 30th in rank
Population, 1920 . . . . . 1,798,509 . . . . . 22d in rank
Population, 1928 (est.) . . . 1,950,000 . . . . 42.2 to sq. m.
Wealth, 1923 (Census est.) $3,416,860,000

Louisiana, situate in the West South Central region, on the Gulf of Mexico, at the mouth of the Mississippi River, is bounded on the north by Arkansas and Mississippi, on the east by Mississippi State and the Gulf, on the south by the Gulf, and on the west by Texas. It is practically all alluvial, built up from the silt brought down by the Mississippi River, which has thrust out a long point into the Gulf as the southernmost part of the State.

There are no hills of consequence, and much of the lands are lower than the immediate banks of the great river, powerful levees being necessary to protect from constant overflow. As a consequence of the downwash of river sedimentary matter, the lands are naturally highly enriched, and subsequent overflowing of the waters adds food values to the soil, as does the Nile in Egypt.

The western part, immediately next to Texas, shades off toward the drier character of climate and soils, the climate of Louisiana for the greater part being rather moist and very warm in summer, with little of winter cold. It is semi-tropical.

The Sabine River bounds the State on the west, and with the Red River and the Mississippi, Louisiana has 4,794 miles of navigable waterways, much of it being on the large bayous in the south.

The Mississippi River has always largely determined the character of New Orleans, chief city, for there river traffic from earliest days has been extensive, and New Orleans has dominated the State economically. For some years after the Civil War of 1861-5, river traffic fell off, but is now being revived, and is expected to grow to very heavy volume.

New Orleans opened its new industrial canal to navigation on Feb. 6, 1923. It connects the Mississippi River and Lake Ponchartrain to the north, which is not a lake but an arm of the Gulf of Mexico. The Industrial Canal is 5¼ miles long, and makes available 96,000 acres of potential harbor sites to connect with the great ship locks, in addition to the many miles of yet unused river frontage. The canal was paid for by the people of New Orleans with no Federal aid whatever.

Lake Charles has developed a deep water harbor opened Nov. 30, 1926.

Railroad mileage, 1928, was 5,099.

Agriculturally, Louisiana is prolific—rice, cotton, sugar cane, corn, sweet potatoes, tobacco, especially fine fruits of all sub-tropical sorts, and nuts are produced largely. The value of all crops, Census of 1920, was $231,506,000.

The sugar industry represents an investment of over $200,000,000 with an annual production from about 275,000 acres, formerly, of more than $25,000,000. This had been practically wiped out when mosaic disease ruined the cane. In 1922 a disease-resisting cane (P. O. J. 234) and with a higher sucrose content from the U. S. Department of Agriculture proved so successful that 400,000 tons of cane were harvested in 1927. The new cane averaged 20 tons to the acre.

The acreage planted for the 1928 crop was 180,000, all in the new canes, and production was 166,000 short tons of sugar.

The cotton crop in 1928 was 690,958 bales from 1,990,000 acres; and in 1927 because of the flood 548,026 bales from 1,542,000 acres. The lumber cut in 1926 was 2,889,530,000 feet.

The State ranks seventh in petroleum output, 1928, with 21,626,000 barrels. Sulphur has been largely produced. There are more than 6,000 square miles water covered, suitable for the propagation of oysters; the shrimp catch is very valuable, and commercial fishing an important industry. Trappers market muskrat, opossum, raccoon, mink and other furs in great quantities.

The United States census of manufactures, 1927, reported 1,624 establishments (1,742 in 1925) with 83,415 employees (88,058) earning $79,673,477 ($79,762,794) and a product valued at $638,361,215 ($710,050,100). The leading industry was petroleum refining, with 12 establishments with 5,093 employees earning $8,186,966 with an output valued at $138,249,752 ($166,611,627). The four sugar refineries, with 2,069 employees earning $1,867,371 had an output valued at $82,574,116 ($82,950,288); the 278 lumber, timber and planing mills with 33,987 employees earning $29,221,856 had an output valued at $95,763,391.

Foreign trade through the port of New Orleans is large, totalling in 1928, exports $321,432,140; imports, $211,609,997.

Louisiana ranked sixth in value of exports in 1928, $235,467,286; and in 1927 $229,304,962.

Louisiana, in 1920, had the highest percentage, 21.9, of illiteracy in the country; the percentage for native whites being 11.4; for foreign born whites, 21.9; and for Negroes, 38.5. The percentage of illiterates of school age (10 to 15) decreased from 24.5 in 1910 to 14.1 in 1920. Expenditure for public schools in 1926 was $19,741,168.

There were in 1921, 355,000 enrolled in the public schools of a population of more than 1,800,000, divided, two-thirds white and one-third Negro. Much of the population retains the original French blood, and considerable numbers the mixture of French and Spanish, which produced the Creoles. About 6,000 attend the colleges and universities, of which Tulane University (3,000 students), and the Louisiana State University (1,700) are the leaders.

New Orleans, the chief city, is a welcome resort for tourists in the winter, having picturesqueness and the flavor of olden times, the annual Mardi Gras being the principal attraction. Much through passenger traffic flows through New Orleans to and from the Pacific Coast, railway and steamer facilities being well supplied.

MAINE.

Area, square miles . . . . . 33,040 . . . . . 38th in rank
Population, 1920 . . . . . 768,014 . . . . . 35th in rank
Population, 1928 (est.) . . . . 795,000 . . . . 24.0 to sq. m.
Wealth, 1923 (Census est.) $2,006,631,000

Maine, in New England, northeasternmost State, is bounded on the north by Quebec, Canada, on the east by New Brunswick, Canada, and the Atlantic Ocean, on the south by the Atlantic, and on the west by New Hampshire and Quebec.

It is naturally heavily wooded, mostly with coniferous trees, is of broken topography, rising to mountainous elevations in the northwest, Mount Katahdin, 5,273 feet, the highest, and slopes in broken form toward the coast, which is rugged, tortuous, picturesque and indented with many harbors.

Its waters abound in fish, its forests in wild animals, and it has a climate rather intensely cold in winter but beneficent in summer. It has 2,465 lakes and twice as many rivers and streams comprising one-tenth of its surface. The coastline is 2,486 miles long. It has 1,300 wooded islands, one Mount Desert of 60,000 acres, on which is Lafayette National Park and a notable summer colony.

Agriculture, lumbering, manufacturing, quarrying and fisheries are the chief industries.

Of the 20,000,000 total land acres, about one-third is farming area, of which about two-thirds is improved. Potatoes form the leading crop, the 1920 census showing 25,531,000 bushels worth $52,339,000. Hay is a large crop, and all vegetables and considerable small fruits are produced. The value of all crops, 1920 census, was $100,152,324. Livestock and dairy products add to the wealth, the milk production coming in part to supply New York City.

In granite output it ranks third, Vermont and Massachusetts exceeding; it is first in feldspar.

Lumber is the principal manufacturing product, the cut, Census of 1920, being 650,000,000 feet, white pine, spruce for wood pulp, hemlock, balsam, birch, cedar, oak, maple, beech, ash, and basswood or linden. The paper pulp mills produce $70,000,000 annually, and along the rivers are many water power motived textile, tanning, oilcloth, boots and shoes, canning, flour and machinery works.

The United States census of manufactures, 1927, reported 1,426 establishments (1,500 in 1925) with 68,142 employees (73,849) earning $74,212,035 ($79,777,217) and a product valued at $372,093,447 ($371,849,483). The leading industry was paper and pulp with 51 mills with 11,884 employees earning $16,140,077 and the product valued at $128,875,248. The 44 boot and shoe factories with 9,740 employees earning $9,044,294 had an output valued at $36,663,037 ($38,113,599); the 17 cotton goods mills with 10,195 employees earning $9,781,130 had an output valued at $34,414,143 ($41,128,496); the 50 woolen goods mills with 6,140 employees earning $7,525,452 had an output valued at $30,024,987 ($40,002,293); the 9 worsted goods mills with 4,244 employees earning 4,642,346 had an output valued at $21,849,221 ($24,920,845).

Transport by water is mostly coastwise, although there is some foreign. The railroad mileage, 1927, was 2,228.

Maine is distinctively a pleasure resort, summer bringing many thousands of tourists and residents for the season, and the fall many hunters. Luxurious hotels are maintained, and there are many private lodges and summer homes, while many artists go to paint the beauties of the Maine landscape and coastline.

Portland, the chief port, has a large steamer tourist traffic, as well as extensive freight tonnage by water and by rail.

Illiteracy percentage is 3.3, that of native whites 1.6, and of foreign-born 11.1. Public schools enroll about 170,000, and higher educational institutions rank well, notably Bowdoin College, the University of Maine, Colby and Bates.

MARYLAND.

Area, square miles ..... *12,327* ..... *41st in rank*
Population, 1920 ..... *1,449,661* ..... *28th in rank*
Population, 1928 (est.) ..... *1,616,000* ..... *131.1 to sq. m.*
Wealth, 1923 (Census est.) *$3,990,750,000*

Maryland, a South Atlantic border State between the North and South, is bounded on the north by Pennsylvania, on the east by Delaware and the Atlantic Ocean, on the south and west by Virginia and West Virginia. It is penetrated from the south by Chesapeake Bay, a wide arm of the Atlantic, and an important channel of water-borne commerce which has made Baltimore a great seaport. The Potomac River flows along the south western boundary, also important in commerce. The topography is varied, low and flat in the portions toward the ocean, and rising to mountain levels in the western sections, Great Backbone Mountain, 3,400 feet, the highest. The State is distinctly separated by the bay into Eastern and Western shore parts, each having social and industrial individuality. The climate is warm, with mild, humid winters.

The Census of 1920 showed $109,683,574 as the value of the crops, principally corn, tobacco, wheat, oats, hay, fruits of all kinds grown in the south temperate zone, vegetables being produced heavily for the markets of the larger cities as far north as New York. Products are varied and profitable on account of the proximity of big city markets.

The mine output of coal in 1928 was 2,780,000 short tons. Pig-iron production in 1928 was 950,000 long tons; and in 1927, 845,564 tons.

The United States census of manufactures, 1927, reported 3,205 establishments (3,179 in 1925) with 126,700 employees (125,761) earning $141,902,797 ($138,560,496) and a product valued at $943,410,896 ($925,688,028). The leading industry was the manufacture of men's clothing, 211 shops making men's clothing with 8,816 employees earning $8,339,204 had a product valued at $39,915,726 ($57,705,043); 86 shops making women's outer clothing had an output valued at $16,022,165; 31 shops making men's furnishing goods, $15,330,929; four straw hat factories, $4,700,746; and 49 shirt factories, $8,622,936. The 40 slaughtering and meat packing houses (wholesale) had an output valued at $35,166,219 ($38,425,638); the 20 tinware shops with 4,319 employees earning $4,265,855 had an output valued at $33,195,975.

Transportation is highly developed, water and rail. Railroad mileage, 1927, was 1,448 Baltimore is one of the country's principal ports, and is growing in importance much faster than the Nation's whole volume increases. Water traffic coastwise is very heavy, and several substantial steamer lines also ply between Baltimore and foreign ports. Much of the product of the South comes through Baltimore, and that port gets a large share of the tonnage of the North and West. In 1928 the value of its exports was $98,645,488, and of imports $107,939,608; and in 1927, exports, $100,613,787, imports, $106,848,262.

Baltimore, on July 1, 1928, by estimate of the Census Bureau, had a population of 830,400. Its area was increased to 91 square miles on Jan. 1, 1919, by the annexation of 60 square miles of territory, which brought an increase of over 100,000 population and of $124,884,455 in assessed valuation.

The population is 17.9 per cent. Negro, and the percentage of illiteracy for the whole State is 5.6. The swiftness with which educational advantages for the masses is sweeping away illiteracy is shown by the figure of 5.6 for 1920, compared with 7.2 in 1910. In the schools were more than 250,000, and the higher institutions are celebrated. Johns Hopkins University, at Baltimore, is not excelled in any State or country for scholarship and breadth of scientific attainment. To its hospital go patients from all parts of the world to consult eminent specialists. There are other well-known higher institutions, Goucher College one of them. Expenditure for public schools in 1926 was $21,665,229.

At Annapolis is the famous United States Naval Academy (see Index therefor).

Along artistic lines there is high development, principal centres being Peabody Institute for Education in Music, the Maryland Institute School of Art and Design, Walter's Art Gallery, and others.

MASSACHUSETTS.

Area, square miles ..... *8,266* ..... *44th in rank*
Population, 1920 ..... *3,852,356* ..... *6th in rank*
Pop., 1925 (State Census) ..... *4,144,205* ..... *499.2 to sq. m.*
Population, 1928 (est.) ..... *4,290,000* ..... *509.6 to sq. m.*
Wealth, 1923 (Census est.) *$12,980,839,000*

Massachusetts, one of the Thirteen Original States, lies in New England, bounded on the north by Vermont and New Hampshire, on the east by Massachusetts Bay and the Atlantic Ocean, on the south by Rhode Island, Connecticut and the Atlantic, and on the west by Rhode Island and New York. The highest elevations are in the Berkshires in the west, about 2,500 feet maximum, and now a great summer resort of wealthy city dwellers.

It was naturally wooded in all portions, but retains only a fraction of the original forest wealth, which consisted of all trees which grow in the temperate zone, coniferous and hardwood.

Massachusetts has grown into a first place in industry and has greatly developed its water power. The capitalization of its manufacturing establishments, which include practically all lines of industry, exceeds $3,000,000,000.

The United States census of manufactures, 1927, reported 10,037 establishments (10,027 in 1925) with 578,068 employees (591,438) earning $705,929,549 ($716,155,593) and a product valued at $3,317,851,888 ($3,405,672,159). The leading industry was the manufacture of cotton goods with 200 mills with 93,413 employees earning $90,574,225 and the product valued at $294,890,790 ($345,864,097). The 469 boot and shoe factories (other than rubber), with 55,986 employees earning $65,282,193 had an output valued at $237,516,655 ($240,943,504); the 122 electrical machinery shops with 24,759 employees earning $33,903,793 had an output valued at $139,348,725 ($147,056,901); the 64 rubber goods establishments (other than boots and shoes), with 10,364 employees earning $13,298,241 had an output valued at $97,717,724 ($108,594,705); the 496 foundries and machine shops with 19,898 employees earning $30,059,274 had an output valued at $94,149,409 ($90,638,434); the 80 paper mills with 82,027 employees earning $15,607,992 had an output valued at $91,095,083 ($90,126,831); the 99 woolen mills with 15,923 employees earning $19,818,612 had an output valued at $73,740,314 ($93,079,965); the 75 worsted mills with 35,141 employees earning $38,666,775 had an output valued at $195,095,492 ($216,448,325); the 1,022 printing and publishing houses with 14,382 employee earning $25,482,123 had an output valued at $131,975,238; the 40 slaughtering and meat packing establishments (wholesale), with 3,191 employees earning $4,127,491 had an output valued at $58,796,506; the 115 tanneries with 10,768 employees earning $14,587,638 had an output valued at $77,649,547.

The State has abundant rail and coastwise shipping facilities; there were 2,071 miles of railroads in 1927, and 2,804 of electric lines. From the earliest generations, the New England States have been efficient in ocean-going shipping, and Massachusetts not less than any.

Massachusetts is the second densest populated State. The dense industrial and residential development is indicated by the 94.8 per cent. of urban population, which leaves agriculture, once dominant,

reduced to 32,001 farms averaging 77.9 acres, value of all crops in the 1920 census being $53,700,925, taken from farm property valued at $300,471,743. In value, hay was the leading crop, tobacco next with $6,419,000, and potatoes with $6,000,000, others being wheat, corn, oats, rye, buckwheat, apples, maple sugar, and small fruits, cranberries abounding in the lands along the coast.

It is the leading fisheries State of New England, $11,000,000 of catch being reported in 1920. Boston is greatest fishing port in the country.

Mineral products consist chiefly of quarry outputs.

No State is further advanced in primary and higher educational facilities, although, owing to recent heavy influx of industrial foreigners, the percentage of illiteracy is not low at 4.7. Native whites show 4-10ths of 1 per cent., foreigners, 12.8, and Negroes, 6.8.

Of the 3,852,356 of population, 1,077,534 are foreign-born, of which 262,021 are Canadians, 117,037 Italian, 163,171 Irish, 92,034 Russian, and the others from all foreign lands, census of 1920.

Enrolment in the schools was 618,828; normal schools number 11, and the list of higher institutions is long and impressive, the greatest proportioned to population in the country. These include Harvard University, Massachusetts Institute of Technology, the State Agricultural, Amherst, Tufts, Williams, Clark, Worcester Polytechnic, Boston University, Holy Cross and Boston College. Institutions for women include Wellesley, Smith, Radcliffe, an offshoot of Harvard, and Mount Holyoke Colleges; Simmons, Lasell and Auburndale.

The colony in pre-Revolutionary times was the centre of republic-making in the North, perhaps in the country, the Boston Tea Party, which signalized the revolt against "taxation without representation" by the mother country, England, taking place on the Boston waterfront.

As with all New England, the State is a great summer resort, the North Shore above Boston being the resort of summerers and many artists, and the long hooklike Cape Cod and the adjacent islands attract thousands. At Provincetown, at the tip of the Cape, the Mayflower made its first landing, moving next to Plymouth.

MICHIGAN.

Area, square miles.....57,980.....22d in rank
Population, 1920.....3,668,412.....7th in rank
Population, 1928 (est.)....4,591,000....79.1 to sq. m.
Wealth, 1923 (Census est.).....$11,404,861,000

Michigan, lying along the Canadian border, is divided by Lake Michigan into two parts: the northern peninsula has on the north Lake Superior, and on the south Wisconsin; the southern peninsula has Lake Michigan on the west, Lake Huron, Ontario, Canada, and Lake Erie on the east, and Indiana and Ohio on the south. The interests of the northern peninsula are mostly copper and timber. In the southern there are also minerals and timber, but manufacturing has grown to chief importance.

The State is mostly flat and sandy, with large areas of cut-over timberlands, mostly coniferous, with rugged topography in the north. The State, the Federal Government and large private enterprises are now making great efforts for the reforestation of the land.

No State has greater water boundary lines proportioned to area; transport naturally is great by that means. Rail facilities are abundant, lines having sought the heavy tonnage of the recently developed industries. Railroad lines mileage, 1927, was 8,349, and the great Sault Ste. Marie Ship Canal, between Lakes Huron and Superior, accommodates more tonnage than the Suez Canal or any other like canal. In 1927 the American canal alone sent through 83,354,064 short tons of freight valued at $1,131,653,158, of which much is iron ore from Minnesota and copper from Michigan, vast supplies of grains, flour and timber, and coal and supplies for the Northwest.

The tonnage passing through the Detroit river connecting Lake Huron with Lake Erie in 1927 was 97,188,281 valued at $1,319,816,856.

Of the world's output of 4,800,321 motor cars in 1925, 3,131,524 were produced in Michigan. Total output since the industry began to flourish there is approximately 24,000,000 to Dec. 31, 1926. There are 54 motor car factories, each with an output over $1,000,000 a year, chief of which are the works of Henry Ford at Detroit, from which in June, 1926 came the 15,000,000th car, besides farm tractors at Dearborn, nearby, and steel and other mills operated by the Fords. Besides the Ford cheap car, Detroit makes some of the finest built in the world.

The United States census of manufactures, 1927, reported 5,800 establishments (5,598 in 1925) with 488,856 employees (508,573) earning $760,602,319 ($792,213,944) and a product valued at $4,244,941,132 ($4,372,996,324). The leading industry was the manufacture of automobiles, 43 plants with 114,023 employees earning $206,017,066 and the product valued at $1,664,727,963 ($1,520,296,128), and 117 factories manufacturing automobile bodies and parts with 95,435 employees earning $158,030,985 and the product valued at $568,700,760 ($921,901,337). The 513 foundries and machine shops with 35,736 employees earning $53,951,123 had an output valued at $178,048,457 ($162,545,298); the 22 engine, turbine and water wheel shops with 14,981 employees earning $23,118,918 had an output valued at $103,133,150 ($95,932,026); the 174 furniture factories with 21,337 employees earning $28,612,181 had an output valued at $94,220,740 ($99,130,108); the 761 printing and publishing establishments with 8,420 employees earning $15,199,351 had an output valued at $82,154,386; the 42 paper mills with 11,382 employees earning $15,323,895 had an output valued at $95,798,872 ($91,149,648); the 45 slaughtering and meat packing houses (wholesale), with 1,935 employees earning $2,861,488 had an output valued at $53,142,114 ($53,932,676); the 252 lumber and planing mill products establishments with 16,972 employees earning $19,842,408 had an output valued at $64,495,845 ($98,090,601); the 29 stove and range foundries with 4,589 employees earning $7,329,047 had an output valued at $36,226,480 ($37,405,828); the 86 brass, bronze, etc. products plants with 7,717 employees earning $11,715,589 had an output valued at $61,743,049 ($65,594,415); the 60 electrical machinery shops with 4,379 employees earning $5,977,053 had an output valued at $36,623,319 ($34,643,466). The 533 bakeries had an output valued at $55,022,915. The 280 dairies an output valued at $33,562,576 ($49,300,693); and 16 beet sugar plants an output valued at $14,441,318 ($22,981,153).

Michigan ranks third in the value of exports originating in the state, $367,253,146 in 1928 and $326,879,584 in 1927.

Production in 1928 of iron ore was 13,676,984 long tons (15,075,079 in 1927); of copper, 179,104,311 pounds (195,135,199 in 1927); of coal, 565,000 short tons (757,000 in 1927); and of salt, 1927, 2,271,460 short tons.

Agriculture adds annually, Census of 1920, $404,347,810 for all crops, potato production the third largest with a $32,000,000 crop. Sugar beet output is heavy, and all temperate zone crops are raised.

In shipbuilding it ranks seventh among the States. Fisheries catch annually 50,000,000 pounds.

There are more than 6,000 smaller lakes, where fishing and summer sports attract many. Apple production is fourth highest, and the State claims leadership in small fruits. Corn yields about $50,000,000.

Educationally, Michigan has its great State University at Ann Arbor, which was first to admit women matriculates, the oldest agricultural college in the country, many normal schools, and a public school system that enrolls 670,000; it has a literacy percentage of 3; native white, 7-10ths of 1 per cent., and foreign-born, 9.9.

A law enacted May 23, 1929 makes the sterilization of feeble-minded and other mentally defective persons mandatory on a Court order.

Detroit, by the Census of 1920, had 993,739, showing an increase of 527,978—113 per cent.—in the decade. The population, on July 1, 1928, by census estimate, was 1,378,900, and the approximate population of Greater Detroit is 1,500,000. The percentage of foreigners is large.

Beautifully situated along many waterways, it bids successfully for metropolitan repute and constantly attracts newcomers from home and abroad. In summer time, the Mackinac Islands, Belle Island, Ausable and St. Mary's River are popular resorts.

MINNESOTA.

Area, square miles.....84,682.....11th in rank
Population, 1920.....2,387,125.....17th in rank
Population, 1928 (est.)...2,732,000....32.1 to sq. m.
Wealth, 1923 (Census est.).....$8,547,918,000

Minnesota, a West North Central State, on the Canadian border line, is bounded on the north by Manitoba, and Ontario, on the east by Lake Superior and Wisconsin, on the south by Iowa, and on the west by the Dakotas. The Mississippi River rises in Minnesota. It is a State of widely variant natural resources and rapidly developing wealth, is in general a tableland of rolling, timbered prairies excepting in the western parts where timber is scarce, and of rugged character in the northeast, where immense deposits of ore, high-grade Bessemer prevailing, supply the steel concerns of Illinois, Pennsylvania and Ohio. Its climate is not ex-

cessively warm in summer, and is cold in winter time. There are about 10,000 lakes, many exceedingly beautiful, that abound in fish, and are the resort of pleasure-seekers in the summer.

Agriculturally, the State is rich, with $506,020,233 as the value of all crops reported by the 1920 census; it has 178,478 farms with a total acreage of 30,221,758; a billion feet of lumber cut, mostly white pine; 34,593,000 tons of iron ore, worth $128,377,174, being 61 per cent. of the national production, shipped eastward by steamers on the Great Lakes.

The United States census of manufactures, 1927, reported 3,886 establishments (3,881 in 1925) with 98,833 employees (100,514) earning $123,619,231 ($123,655,793) and a product valued at $1,066,727,215 ($1,099,687,515). The leading industry was flour and grain mill products with 115 mills with 4,617 employees earning $4,951,743 and having product valued at $185,140,950 ($215,637,578). The 12 slaughtering and meat packing houses (wholesale), with 6,159 employees earning $8,262,955 had an output valued at $173,785,796 ($182,555,429). The 871 dairies had an output valued at $130,436,949 ($123,450,850); the 606 printing and publishing establishments an output valued at $44,566,472; and the 16 paper and wood pulp mills an output valued at $28,469,444 ($20,320,392).

The iron ore output in 1927 was 35,563,177 long tons, valued at $87,935,099; and in 1928, 37,564,005 tons.

By adaptation, fruits have been made to thrive, until the crop is large of all kinds grown in the north temperate zone; while corn, in earlier years scarcely known, has by the same process been brought to high value.

The 1920 census reported the crop at 118,000,000 bushels; wheat, once the chief crop, 37,710,000; oats, 90,000,000; with generous yields of all other cereals.

Twenty-five years ago Minnesota ranked third in lumber output, but has fallen to eleventh place, although there remains an estimated 21,000,000,000 feet of spruce in the forests, which is very valuable for paper woodpulp in these years of diminishing supply. 80 per cent. of the cut is white pine, which also is rapidly disappearing.

Railroad mileage, 1928, was 8,827.

Minnesota has been especially fortunate in the heavy inflow of those European racial migrations from the northern countries whence come good farmers, Scandinavians in the majority, but with almost as many Germans; both nationalities settled in more or less clannish sections, but all helped to develop the State with great thrift and industry.

In illiteracy the State is among the lowest, only 1.8 per cent. being unable to read and write, against an average of 6 per cent. for the United States. The State claims one of the most efficient systems for popular education, with enrolment of about 550,000 in all institutions out of a population of 2,387,125. The University of Minnesota, with about 12,000 students, ranks among the greatest of the country, and a score of smaller colleges including Hamline University, St. Thomas, Macalester, Carleton, are scattered through the State.

The grain trade control in Minneapolis is second only to that of the Chicago Board of Trade; and the water and rail shipping from and to Duluth, at the head of the Great Lakes, on Lake Superior's western end, is immense in ores, coal, cereals, and general freight. The Great Northern Railway Company maintains a fleet that traverses the lakes, and initiates shipments to and from all parts of the world via the lake route.

In the carrying of iron ores, the United States Steel Corporation, which owns mines and railways in the northern ore region, has developed a fleet of monster carriers and a system of prevention of waste time not excelled by any transport agency in the world. Shipment of iron ore exceeds 40,000,000 tons a year.

MISSISSIPPI.

Area, square miles . . . . . *46,865* . . . . . *31st in rank*
Population, 1920 . . . . . *1,790,618* . . . . . *23d in rank*
Wealth, 1923 (Census est.) *$2,177,690,000*

Mississippi, one of the States of the East South Central group, is bounded on the north by Tennessee, on the east by Alabama, on the south by Louisiana and the Gulf of Mexico, and on the west by Louisiana and Arkansas; the Mississippi River is the western boundary line. It is hilly but not rugged, and in general slopes downward to the great river and the Gulf shore. The climate and production are sub-tropical. The density of population in 1920 was 38.1 to the square mile.

Agriculture is its chief interest. The 1920 census gave the value of all crops as $336,267,156, corn and cotton the main production. As a cotton state it has yielded second place to Oklahoma. It produced in 1928 1,474,875 bales from 4,029,000 acres.

Other crops are rice, sugar cane, oats, wheat, hay, peanuts, potatoes, and every character of fruit grown in its zone. Apples, plums, pears, apricots, melons, strawberries, peaches, and grapes grown in the western parts, with oranges, lemons, figs and olives in the Gulf coast sections. Nuts are abundant.

Dairying is increasing in importance.

The United States census of manufactures, 1927, reported 1,333 establishments (1,705 in 1925) with 50,569 employees (55,171) earning $40,734,359 ($41,231,045) and a product valued at $196,640,742 ($200,453,028). The leading industry, lumber, timber and planing mill products, with 575 mills with 31,394 employees earning $24,940,948 had an output valued at $86,887,700 ($110,390,744). The 44 cottonseed (oil, cake and meal) plants with 2,238 employees earning $1,596,395 had an output valued at $27,978,008 ($25,215,846). There were 14 cotton mills with 159,746 spindles and 5,037 looms employing 2,822 hands and with a product valued at $6,563,051.

The forest wealth is very great. Of the total of 33,000,000 acres, about 11,000,000 is forested, yellow pine chiefly. There is much of the fast disappearing hardwood. Lumber cut in 1927 was 2,556,612 M. ft.

Transport is supplied by the rail lines and by the Mississippi River, on which traffic, lessening in the recent era of rapid rail development, is growing again to great relative importance.

Railroad mileage, 1928, was 4,348.

The old plantation life prevails as unchanged as in any Southern State, with spacious mansion houses and large estates, the homes of the old-time aristocracy of the age of the Southern cavalier.

The rate of illiteracy is high—17.2 per cent. on the average—owing to the large number of Negroes, who are 52.2 per cent. of the whole population. Native whites showed, Census of 1920, only 3.6 per cent. illiterate, but the Negroes 29.3. Rapid progress in popular education is being made, the illiteracy percentage in 1910 having been 22.4. Expenditure for public schools in 1926 was $12,599,596.

Public school enrolment is about 600,000, more than half of which is colored.

The state has the University of Mississippi (1,000 students) and 13 other colleges, 1,000 consolidated high schools, and 52 agricultural high schools.

Mississippi has the lowest death rate and the highest birthrate in the South and ranks third in the registration area.

MISSOURI.

Area, square miles . . . . . *69,420* . . . . . *18th in rank*
Population, 1920 . . . . . *3,404,055* . . . . . *9th in rank*
Population, 1928 (est.) . . . . . *3,523,000* . . . . *50.7 to sq. m.*
Wealth, 1923 (Census est.) *$9,981,409,000*

Missouri, a West North Central border State, is bounded on the north by Iowa, on the east by Illinois, Kentucky and Tennessee, on the south by Arkansas, and on the west by Oklahoma, Kansas and Nebraska.

The Mississippi River forms the entire eastern boundary line for 500 miles, and the Missouri River the northern half of the western line, cutting then through the State to confluence with the Mississippi at St. Louis. In all it has nearly 1,000 miles of navigable waterways.

Its topography is varied—upland table in the north and west, the Ozark Mountains in the centre and south, with low-lying river bottom areas in the extreme southeast. Its climate is a compromise between the north temperate and sub-tropical.

Economically, it partakes of the characteristics of both North and South, is strong agriculturally and industrially, and foremost in education. Farms number 263,004 with 34,774,679 acres. All crops in 1920 were valued at $559,047,854.

The United States census of manufactures, 1927, reported 5,422 establishments (5,100 in 1925) with 195,378 employees (194,682) earning $230,017,241 ($230,427,696) and a product valued at $1,665,173,463 ($1,602,849,724). The leading industry was slaughtering and meat packing (wholesale), with 45 establishments with 5,605 employees earning $7,140,378 with an output valued at $168,359,556 ($175,392,412). The 68 boot and shoe (other than rubber) factories with 24,277 employees earning $22,874,378 had an output valued at $136,998,386 ($129,327,761); the 864 printing establishments with 9,423 employees earning $16,389,486 had an output valued at $77,398,298; the 248 foundry and machine shops with 7,558 employees earning $10,736,553 had

an output valued at $44,328,592; the 52 electrical shops, for machinery, apparatus and supplies, with 6,791 employees earning $8,575,253 had an output valued at $43,371,941 ($39,130,533). The output of the 226 flour and feed millsw as valued at $117,833,395, and of the butter and cheese factories, $35,023,808.

The lead output in 1927 was 198,760 tons; zinc 18,737 tons; and coal, 3,064,000 tons (3,400,000 tons in 1928).

The forty-mile circle of which St. Louis is the business and banking centre has a population of 1,246,000. St. Louis is noted for its botanical garden, zoo, parks and Municipal Open-Air Theatre (seating 9,267), and the city voters recently approved a bond issue of $87,372,500 for city developments. Twenty-one main trunk lines furnish railroad transportation.

St. Louis is the gateway for north and south travel as well as of freight traffic, and many tourists stop there en route. A feature is the famous bridge across the Mississippi, which is said to accommodate more freight cars than any other in the world. River traffic is immense, to and from New Orleans and intermediate points.

Agriculturally, it is a great State. There is a total of about 44,000,000 acres in all, of which the 1920 census assigns to farms 34,774,000, with more than 24,000,000 improved. The corn crop in 1928 was 181,540,000 bushels, wheat 19,194,000, oats 44,968,000, and tobacco, 4,750,000 pounds. The crop of cotton, mostly in the southeast, was 146,909 bales on 334,000 acres.

In livestock the Missouri mule, which is facetiously said to have won the war, has always been used much locally and exported to all States and foreign countries. The number in 1928 was 313,000.

Railroad mileage, 1928, 8,067.

With 4.8 per cent. of negro population, the average of illiteracy for the State is 3 per cent. for all classes; native white percentage, 2; and foreign-born, 9.6.

Although the native-born whites are 88.2 per cent., and foreign-born whites only 7, the influx of Germans in the revolutionary times of their native land in the last century left a large proportion of persons of that blood, especially in St. Louis to this day, those now being practically all natives. They have been noted for thrift.

The schools enroll about 750,000 of a population of 3,404,055 by the 1920 census. The State University at Columbia, and St. Louis University and Washington University at St. Louis, twelve colleges and seven normal schools are the higher institutions. Expenditure for public schools in 1926 was $53,217,104.

The legislature in 1929 enacted a state budget system and voted a $75,000,000 bond system.

MONTANA.

Area, square miles.....146,997.....3d in rank
Population, 1920.....548,889.....39th in rank
Population, 1925 (est.)...646,806.....4.4 to sq. m.
Wealth, 1923 (Census est.).....$2,223,189,000

Montana, a Mountain State, is bounded on the north by Canada, on the east by North and South Dakota, on the south by Wyoming and Idaho, and on the west by Idaho.

The Rocky Mountain range crosses the State in the west, with the Bitter Root range at the extreme western side, the country east of the Rockies sloping off into vast plains and smaller valleys between smaller hill elevations. Its rivers of note are the Missouri, up which crude boat navigation has passed for generations; the Yellowstone, Madison and Bitter Root. Of the 50,000,000 acres, the forests of about 30,000,000 acres are, with other areas, ranges for livestock grazing.

The United States census of manufactures, 1927, reported 565 establishments (606 in 1925) with 14,242 employees (14,777) earning $20,915,203 ($21,078,039) and the product valued at $203,503,250 ($205,474,257). The smelter output was about $125,000,000, and gave employment to about 3,500 men. Lumber mills had an output valued at $10,464,150; and flour mills, $14,789,731.

The value of all crops as returned by the census of 1920 was $69,975,000; the wool and sheep were next in value, and cattle third with $28,000,000. Dairy and poultry products were valued at $38,000,000.

Irrigation, by Federal Government and private initiative, has been highly developed, resulting in the production of large quantities of the standard fruits, orchard and small, of the temperate zone, the State, although far north and high in elevation, being especially suited to that activity, largest development being in the Bitter Root, Missoula and Flathead regions. Wheat, oats, flaxseed, barley, rye, corn, hay, potatoes and sugar beets are produced.

Montana has a stumpage of more than 58,000,000,000 feet of timber, of which much is the increasingly valuable white pine; other kinds are larch, spruce, cedar, Douglas fir, white fir, lodge-pole pine, valuable for telegraph poles, hemlock and yellow pine.

The mineral resources are very great. The 1925 census gave $79,261,284 as the value of coal and metals. Copper production in 1928 was 251,046,415 pounds, in 1927, 255,208,853 pounds, and in 1926, 255,372,862 pounds, the State being third to Arizona and Utah. About 25,000 tons of high grade manganese ore is produced yearly.

Coal output in 1927 was 3,205,000 short tons and the fields underlie about 20 of the whole State area. All of the metals and minerals are found in vast abundance, large fortunes having been made by organized mineral industry.

The State is second in silver output (in 1928, $6,248,780; 1927, $6,696,137; 1926, $7,471,936; 1925, $8,923,002; 1924, $8,840,118) and in zinc; seventh in gold (in 1927, $1,159,200; 1926, $1,192,900; 1925, $1,769,900; 1924, $1,924,300) and first in semi-precious stones. The petroleum output in 1926 was 5,048,000 barrels. Valuable process minerals are graphite, gypsum and tungsten.

A million potential horsepower is available in the waters, of which almost one-third has been developed. Immense reservoirs have been constructed on the Madison and Missouri Rivers to give dependable water supplies.

Railroad mileage, 1928 was 5,094.

Montana is low in illiteracy—2.3 per cent.—that of native whites being only 3-10ths of 1 per cent. Public school enrolment, 1920 census, was 122,000 of a population of 548,000, and there are four well-equipped colleges and normal schools.

Scenically, Montana is not surpassed. Its lofty mountains are rugged and picturesque, and travel by rail or automobile takes one through beautiful and grand places. Glacier National Park, on the line between the United States and Canada, is one of the most wonderful public preserves in the world.

NEBRASKA.

Area, square miles.....77,520....15th in rank
Population, 1920.....1,296,372.....31st in rank
Population, 1928 (est.)...1,408,000.....18.1 to sq. m.
Wealth, 1923 (Census est.).....$5,320,075,000

Nebraska, a West North Central State, is bounded on the north by South Dakota and Iowa, on the east by Iowa and Missouri, on the south by Kansas and Colorado, and on the west by Colorado and Wyoming. The Missouri forms the eastern boundary.

Typical of the American western plains States, its lands form a vast inclined plane sloping eastward to the Missouri River bottoms. No point rises more than 5,300 feet above sea level, while the average elevation is about 2,000. Its climate is typically north temperate, its products likewise including almost every species appropriate to this latitude. In the east rainfall is sufficient for crops with little irrigation. In the west, irrigation is resorted to, and grows in importance. The livestock industry is second to agriculture in primary wealth producing, Nebraska supplying very much of the Nation's meat, and packing a large portion of it in the stockyards at Omaha. In this industry it has taken third rank from New York State.

Of the 55,000,000 acres in the State, 42,225,475 are included in 124,417 farms (Census of 1920), with 24,587,000 improved. The corn crop was 184,000,000 bushels, fourth in rank; wheat, 60,000,000, ranking third, and large quantities of oats, barley, rye, potatoes, buckwheat, flax, cloverseed and sorghum syrup, and sugar beets to some extent. Fruit raising is not extensive.

Nebraska is not rich in mineral wealth. In the west potash lies in considerable quantity in solvent form in several lakes, from which in the war about 61,000 tons, 45 per cent. of the relatively low United States production, was taken.

Manufactures relate chiefly to the utilization of soil products and center in Omaha, one of the greatest rail traffic centers in the United States.

The United States census of manufactures, 1927, reported 1,277 establishments (1,303 in 1925) with 26,110 employees (27,108) earning $34,296,241 ($35,936,371) and a product valued at $420,296,190 ($442,083,752). The chief industry was slaughtering and meat packing (wholesale), with 14 plants with 5,949 employees earning $8,021,980 and the output valued at $183,271,414 ($198,020,335). The 73 dairies had an output valued at $44,740,330 ($38,873,667); and the 115 flour mills an output valued at $30,302,843 ($29,155,490).

Railroad mileage, 1927, was 6,189.

The University of Nebraska has 10,000 students; the state has 16 colleges and normal schools.

Percentage of illiteracy is exceedingly low at 1.4; that of native whites being 4-10ths of 1 per cent.

although the percentage of foreign-born whites is 14.8. More than 300,000 attend the public schools of a population of 1,300,000.

The State has no bonded indebtedness.

NEVADA.

Area, square miles ..... *110,690* ..... *6th in rank*
Population, 1920 ..... *77,407* ..... *49th in rank*
Wealth, 1923 (Census est.) *$541,716,000*

Nevada, least populous of all States, less even than the District of Columbia, is of the mountain group in Western United States, bounded on the north by Oregon and Idaho, on the east by Utah and Arizona, on the south and west by California.

It is mountainous, and much of the high tablelands is arid or semi-arid. Irrigation is developing to large importance. The Federal Government has a project to reclaim 160,000 acres, which when comdlete will add not less than $20,000,000 to the annual crops. Agriculture is not varied, owing hitherto to lack of water, but as irrigation advances, diversification of products proceeds. Live stock interests are relatively large.

With only 77,407 persons indicated by the Census of 1920 (.7 to the square mile), there are 2,357,000 acres in farm areas, with 595,000 improved. The value of all crops, Census of 1920, was $13,980,000, and of the mineral output $48,528,000.

The output of gold in 1927 was $3,089,300; and in 1926 $3,532,400; silver in 1927 $3,046,434, and in 1926, $4,024,940; and copper in 1927, 118,298,342 pounds, and in 1928, 159,332,977 pounds. Lead, zinc, iron, quicksilver, tungsten, sulphur, graphite, borax, gypsum and quarry stones are produced also.

The forest area is more than 5,300,000 acres, of which 4,971,335 are set aside as national forests.

The United States census of manufactures, 1927, reported 116 establishments (102 in 1925) with 2,419 employees (2,670) earning $3,915,185 ($4,473,555) and a product valued at $26,815,907 ($21,626,668). The chief industry is copper melting.

Railroad mileage, 1927, was 2,137.

Illiteracy percentage was 5.9, of which native whites showed only 4-10ths of 1 per cent. Schools for popular education are well provided, with about 15,000 enrolled.

Nevada by law inflicts the death penalty by lethal gas, a spray of liquid hydrocyanic gas being turned into the stone death chamber. It is declared to have proved instantaneous and painless.

Reno has earned a reputation as a "divorce mill." In 1925 806 divorces were granted by her courts to 491 wives and 315 husbands; 530 children were affected. The legislature in 1927 made it possible to gain a residence in the State in three months and in 1928, 2,103 divorces (1,603 in 1927) and 38 marriage annulments were granted in Reno, and 2,977 marriages were performed In the whole state 2,529 divorces were granted in 1928, 1,953 in 1927 and 648 in 1926. The number of weddings increased from 2,398 in 1927 to 4,168 in 1929 due to a change in 1927 in the marriage laws of California where the state now requires three days notice before the issuance of a marriage license.

NEW HAMPSHIRE.

Area, square miles ..... *9,341* ..... *43d in rank*
Population, 1920 ..... *443,083* ..... *41st in rank*
Population, 1928 (est.) ..... *466,000* ..... *48.8 to sq. m.*
Wealth, 1923 (Census est.) *$1,347,135,000*

New Hampshire, the Granite State of New England, is bounded on the north by Canada, on the east by Maine and the Atlantic Ocean, on the south by Massachusetts, and on the west by Vermont. It was one of the Original Thirteen States.

Its northern parts are rugged, reaching in the White Mountains the highest elevations of the Northeastern United States (Mount Washington, 6,293 feet). There are 86 mountain peaks in an area of 1,270 square miles. Toward the sea, it is more level and agricultural and industrial by utilization of river water power. In the state are 600 lakes.

The United States census of manufactures, 1927, reported 1,028 establishments (1,038 in 1925) with 65,482 employees (66,658) earning $72,803,397 ($71,725,465) and the product valued at $327,528,366 ($327,400,651). The chief industry, cotton goods manufacturing, with 17 factories with 14,722 employees earning $15,142,435 and the output valued at $57,721,546 ($57,868,732). The 63 boot and shoe factories (other than rubber) with 12,114 employees earning $12,151,051 had an output valued at $49,853,099 ($52,631,681); the 31 paper and pulp mills with 5,021 employees earning $6,268,400 had an output valued at $43,161,852 ($37,060,624).

Railroad mileage, 1927, was 1,234.

New Hampshire has in all 5,779,000 acres, of which in farm lands there are 1,441,111 cultivated. Hay is the chief crop, followed by corn, potatoes, oats, and apples, with relatively large dairy output, milk being shipped to the New York market. The value of all crops in 1920 was $23,509,000.

The State has 4.4 per cent. of illiterates; native whites having 7-10ths per cent. and foreign-born 15.4. Public school enrolment was 70,000. Dartmouth College, at Hanover, is the leading educational institution, from which many eminent men have come, among them Daniel Webster. There are four other higher institutions.

The White Mountains are par exellence a summer resort for persons from all parts of the United States. A modern system of automobile highways is maintained, ribbing the mountains.

The Waterville-Notch with 6,000 acres of primeval Spruce was in 1928 added to the White Mountain National Forest now covering 435,000 acres; and the "Great Stone Face" in Profile Notch bought for a State park.

NEW JERSEY.

Area, square miles ..... *8,224* ..... *45th in rank*
Population, 1920 ..... *3,155,900* ..... *10th in rank*
Population, 1928 (est.) ..... *3,821,000* ..... *464.6 to sq. m.*
Wealth, 1923 (Census est.) *$11,794,189,000*

New Jersey, one of the Original Thirteen States, is in the Middle Atlantic region. It is bounded on the north by New York and Pennsylvania, on the east by the Atlantic Ocean and New York, on the south by the Atlantic and Delaware Bay and on the western side by Delaware Bay and Pennsylvania. It is mostly low and flat, having hilly development in the northern end, where an extensive State park has been set aside.

New Jersey has extensive water navigation facilities, with Delaware Bay and the Delaware River along its western side, the Atlantic on the east and the valuable facilities of New York harbor and branches on the northeast.

The State grades sixth in industrial strength, production being exceedingly varied, and, although the greater part is in Newark, it is well diffused in all parts. As a consequence, railway facilities are highly developed, and especially in the northern parts the electric railway lines are unusually extensive.

Economically and to a degree politically, New Jersey and New York City have common interests. Very many New Jerseyites work or transact business in the greater city, transit facilities being afforded by ferries and tunnels (or tubes) under the Hudson (or North) River.

Railroad mileage, 1927, was 2,292.

The United States census of manufactures, 1927, reported 8,312 establishments (8,204 in 1925) with 408,093 employees (425,377) earning $570,308,502 ($576,235,826) and a product valued at $3,417,450,248 ($3,539,181,253). The chief industry, petroleum refining, with 10 refineries with 8,360 employees earning $14,316,996 had an output valued at $273,341,828 ($297,288,102). The three copper smelters with 3,145 employees earning $5,071,547 had an output valued at $210,201,789 ($224,039,089); the 137 shops manufacturing electrical machinery, apparatus and supplies, with 22,734 employees earning $31,083,557 had an output valued at $173,932,303 ($151,471,610); the 819 silk factories with 24,482 employees earning $33,476,420 had an output valued at $163,967,060 ($190,712,394); the 170 factories for dyeing and finishing textiles with 19,470 employees earning $26,904,610 had an output valued at $91,732,052 ($92,442,884); the 346 foundries and machine shops with 19,303 employees earning $30,198,001 had an output valued at $112,966,808 ($110,202,345); the 95 chemical plants with 10,347 employees earning $15,882,798 had an output valued at $115,370,137 ($122,699,406); the 87 paint and varnish factories with 4,403 employees earning $6,648,097 had an output valued at $74,555,420; the 57 factories for manufacture of motor vehicles and parts with 6,701 employees earning $11,394,557 had an output valued at $92,326,677 ($132,168,456); the 16 worsted mills with 8,777 employees earning $10,731,246 had an output valued at $47,781,728 ($78,982,704); the 17 iron and steel works and rolling mills with 7,557 employees earning $10,852,455 had an output valued at $43,512,683 ($49,054,929).

The output of the 58 canneries was valued at $61,405,429; of the 38 meat packing houses, $77,537,055; of the 38 soap and perfume factories, $54,503,325; of the 57 tanneries, $42,961,937; of the 17 gold and silver refineries, $31,662,362; and of the 138 jewelry factories, $19,860,120.

New Jersey was seventh in rank in value of exports in 1928, $221,530,869; and sixth in 1927, $232,779,892, yielding place to Louisiana.

Its agriculture is affected most vitally by the proximity of the immense markets of the greater city and the fact that 78.7 per cent. of the popula-

tion is urban. Market gardening has advanced to large magnitude, very many foreigners, especially Italians, having gone out to work in that line. The 1920 census gave $87,484,000 as the value of all crops. The total land area of the State is 5,779,840 acres, with 1,441,000 cultivated. Corn, wheat, oats, potatoes of both kinds, rye, buckwheat and hay are the chief crops. Fruits are extensively grown, the cranberry marshes supplying about one quart for each of the population of New York City, and the same of strawberries. The peach and apple crops are always important.

New Jersey produces minerals abundantly—iron ore, and about one-fourth of the Nation's supply of magnetite, zinc and much clay products.

The educational institutions are important: Princeton University at Princeton is one of the country's foremost colleges. Rutgers College, New Brunswick, and Stevens Institute of Technology at Hoboken are well known, and there are five other colleges of prominence. More than 700,000 are enrolled in the schools, percentage of illiteracy being: Census of 1920, 5.1; native white, 6-10ths of 1 per cent.; foreign-born, 15.3. In Passaic, Bergen, Union and Middlesex Counties the proportion of foreign-born is 25 to 35 per cent.

Atlantic City, three-fourths of the way down the eastern coast, is one of the great seashore resorts in the country, Cape May and Asbury Park are others. The entire coast is replete with charm.

NEW MEXICO.

Area, square miles . . . . . *122,634* . . . . . *4th in rank*
Population, 1920 . . . . . *360,350* . . . . . *44th in rank*
Population, 1923 (est.) . . . . . *396,000* . . . . . *3.2 to sq. m.*
Wealth, 1923 (Census est.) *$851,336,000*

New Mexico, of the Mountain (southeast) group, is bounded on the north by Colorado, on the east by Texas, on the south by Texas and Mexico, and on the west by Arizona. The Rocky Mountains run north and south through the centre; the eastern part is of the flatter tableland of which Texas forms also a part, and in the south are bare, sterile, desolate peaks surrounded by arid and semi-arid plains and deserts of which the mirage is an interesting phenomenon. The central western portion has drainage by the Rio Grande River, and the Pecos River flows through the eastern districts.

The climate is dry, stimulating, with annual rainfall of from 12 to 16 inches in different localities, and with 100 degrees of heat not infrequent in summer, the mean for the year being about 50.

In 1920 the agricultural output was $40,619,000 and mineral $45,000,000. The manufacturing output, 1927 census, was $20,182,672.

The gold output in 1927 was $539,500; in 1926, $415,600; silver, 1927, $428,016; in 1926, $309,900; copper 1927, 79,761,222 pounds; in 1926, 82,848,096 pounds; lead in 1926, 3,480 short tons; zinc, 1926, 12,052 short tons; and petroleum 1927, 1,203,000 barrels, 1926, 1,666,000 barrels.

A unique feature of tillage is the production from dry farming, a modern scientific process, causing otherwise dry, almost arid lands to yield. There are more than 945,000 acres included in irrigation projects, with 550,000 actually under water. The 29,845 farms averaged 840 acres, and the chief crops are hay, corn, wheat, oats, barley, rye, kaffir, milo, all the vegetables, potatoes, cotton (123,000 acres in 1928) broom corn, sugar beets, the fruit industry being extensive.

Railroad mileage, 1927, was 2,998.

The state has 21,181 Indians on Government reservations (4,697,224 acres in 1920 with a valuation of $21,916,965 and income of $2,196,417); and 13,414 of Mexican parentage.

There are 18 Indian pueblos with a population of 10,565, an increase of 22 per cent. in twenty years.

Many go to the State for wintering, and artists have lately resorted there for the painting of Indian and old Spanish types and the things that remain from the aged Aztec civilization. Albuquerque, Santa Fe, Las Vegas and other cities are popularly sought by the tourists and artists and writers, who are provided with excellent travel facilities.

Students find deep interest in the history of the areas which once were the bed of a great inland salt sea, in which were deposited all the basic salts found in the ocean waters, and which are expected to yield later rich mineral wealth for fertilization of lands and chemical uses.

NEW YORK.

Area, square miles . . . . . *49,204* . . . . . *29th in rank*
Population, 1920 . . . . . *10,385,277* . . . . . *1st in rank*
Pop., 1925 (State Census) *11,162,151* . . . . . *226.8 to sq. m.*
Population, 1923 (est.) . . *11,550,000* . . *234.7 to sq. m.*
Wealth, 1923 (Census est.) *$37,035,262,000*

New York, the Empire State, since 1820 the most populous in the Union, is bounded on the north and west by Lake Erie, Lake Ontario, Ontario and Quebec, Canada; on the east by Vermont, Massachusetts and Connecticut; and on the south by the Atlantic Ocean, New Jersey and Pennsylvania.

Its sea front consists of the southern shore of Long Island, Staten Island, and the entrance into New York Harbor, one of the greatest in the world, and the chief port of the United States, into and out from which moves the greater part of the national commerce, foreign and domestic, passenger and freight. Long Island Sound, a wide arm of the Atlantic, which separates Long Island from Connecticut on the north, is navigable for deep sea craft. The Hudson River carries heavy ship tonnage northward from New York Harbor 150 miles to Albany. There is now a 27-foot channel as far as Hudson which is being extended to Albany. Large steamers and sailing craft also ply the two Great Lakes, and the St. Lawrence River, which forms part of the northwestern boundary. On the northern part of the eastern boundary line is Lake Champlain, 100 miles long, a historic waterway bearing much commerce and drained by the Richelieu into the St. Lawrence River at Sorel. New York Harbor also includes the shores of New Jersey. (See Index for Port of New York authority.)

New York has about 800 miles of navigable ocean, lake and river waterways, the State being penetrated by the New York State Barge Canal (Erie), through which there is capacity for the passage annually of 20,000,000 tons of freight. The canal also connects with Lake Champlain, so that inland tonnage may move between New York City, Buffalo, about 500 miles northwestward on Lake Erie; Oswego, on Lake Ontario, the ports on Lake Champlain northward so far as Rouse's Point at the Canadian border, and on into the St. Lawrence River; besides to several interior New York State points on other minor canal routes.

The Adirondack Mountains (first land to appear in the United States) occupy the northeast part of the State, and are dotted with beautiful lakes and rivers. In the east the Catskill Mountains, made famous by Washington Irving's story of "Rip Van Winkle," line the western bank of the Hudson. Across from New York City the Hudson's banks take the form of lofty rock palisades, beautifully conformed and colored, and on the edge of which is a spacious Interstate Park set aside by the States of New York and New Jersey. All of New York is marked with scores of lakes and smaller rivers navigable for pleasure craft. The drainage from the crest west from Utica is in four directions—southeastward into the Atlantic Ocean; northward into Lake Ontario at Oswego, and southward into the rivers that flow into Delaware and Chesapeake bays and into the Alleghany-Ohio-Mississippi.

The area of the Forest Preserve was 2,078,993 acres on Sept. 30, 1927.

The 49,204 square miles of area, equivalent to 31,490,560 acres, contains 1,550 square miles, or 992,000 acres, of inland waterways, leaving a net land surface of 47,654 square miles, or 30,498,560 acres. The chief economic interests are the national and international financial community of New York City, the foreign commerce in New York Harbor, now the heaviest in the world; the large manufacturing, and the rich agricultural resources.

The number of farms in 1925, by the Federal Census, was 188,754 (193,195 in 1920, which was a decrease of 10.4% in the decade). The acreage was 19,270,259, of which the crop land was 9,088,291 acres, and pasture land 7,402,578. Horses, in 1925, numbered 446,747 (536,171 in 1920); and milch cows, 1,373,447 (1,481,918 in 1920).

The 1920 census gave $417,046,864 as the value of all farm crops, to which the greater part of the 17.3 per cent. of rural population gave direct or contributory attention. Only California exceeded New York in production of hay and grapes, New York's grapes being from 30,677,555 vines, and the hay weighing 928,874 tons, Kansas coming next.

Literally everything characteristic of the temperate zone is produced in fruits, vegetables, grains and forage crops. New York led all States with 2,778,761 pear trees of bearing age, Michigan being next. In apple trees of bearing age, New York led the country, although Washington, with less trees, harvested more bushels. In acreage of small fruits, New York was second only to Michigan; and only California had larger acreage devoted to vegetables produced for sale. The State was second to Vermont in output of maple sugar, and led all the States excepting Maine in production of potatoes.

Only Pennsylvania led New York in quantity of buckwheat grown; in wool New York with Pennsylvania led all Northeastern States. In the value of dairy products, New York was easily second in the country; while in value of livestock products of farms, New York led. In pure-bred sheep on farms, New York was surpassed by only seven States,

while in pure-bred cattle New York was second only to Iowa.

Mineral resources are considerable, but in rank the State is below many others. Some iron ore, 767,743 long tons valued at $2,906,055 in 1928 is mined in the Lake Champlain region; petroleum (2,573,000 barrels in 1928) is produced near the Pennsylvania border, also natural gas. Graphite is produced, also the baser minerals for building and manufacturing purposes. The output of salt in Onondaga County, fringing Lake Ontario (in 1927 1,964,080 tons), has been a large industry. Value of the total mineral output for 1926 was $112,016,262 (in 1925, $102,035,557).

In manufacturing, commerce and finance, the figures are very large. More than one-half the export and import shipments of the United States pass through the Port of New York, to organize which into an economic and non-wasteful commercial agency the sovereign State of New York has created the Port of New York Authority, to work co-ordinately with a similar body created by the sovereign State of New Jersey, to the end that commerce flow be more facile. (See Index for details.)

The number of vessels entering the Port of New York in the fiscal year 1928-29 was 5,194 of 23,778,259 tons; of these 1,550 vessels of 5,703,054 tons, were American. The value of imports exclusive of bullion in 1928 was $1,949,982,707; and of exports, $1,769,684,571; and in 1927, imports $2,042,783,288; exports, $1,726,110,117.

The value of exports originating in the State of New York in 1928 was $861,578,924; in 1927, $769,766,896; in 1926, $761,249,789; and in 1925, $810,416,054.

Railroad mileage, 1927, was 8,373.

The commerce flowing through the New York State Barge Canals, and through the ports of Buffalo and Oswego, in 1928 totaled 3,089,998 tons, and includes very heavy haulage of grains grown in the Middle West, destined for European ports.

New York State in 1927-28 paid Federal income taxes amounting to $646,604,323 and in 1928–29, $744,781,797, nearly 25% of the whole amount collected.

Total resources of all financial and banking institutions, State and National, those subject to supervision by State and Federal authorities, in New York State on Jan. 1, 1929, were $16,307,848,273; deposits totalled $12,263,137,527. The Federal Reserve Bank of New York City transacts about one-third of the total business done by the Federal Reserve System of the United States.

Total resources of savings banks of the State were $4,964,126,464; of 141 trust companies, $7,732,733,668; and of 313 savings and loan associations, $401,460,686.

Population figures of the 1920 census of New York State show the presence of large representation of every civilized people on the globe, divided: 65.8 per cent. of native parentage; 13.9 of foreign parentage; 8.1 of mixed parentage, and 11.2 of foreign-born. About fifteen times as many Jews as are in Palestine live in the State (the total in New York City being 1,643,000), and almost as many Italians as in Rome. Germans numbered 295,650, and Irish 284,747, with 135,305 English.

The State Census of 1925 returned 9,667,956 citizens and 1,494,195 aliens in the State and 4,750,330 citizens and 1,123,026 aliens in New York City (total, 5,873,356). Returns for other cities were: Buffalo, 538,016; Rochester, 316,786; Syracuse, 182,003; Albany, 117,820; Yonkers, 113,647; and Utica, 101,604. The State has sixty cities with a total population of 8,505,563.

New York's Indian population numbered 5,503 in 1920, of which 4,458 live on seven reservations, the largest 50 square miles, being the Allegany reservation in Cattaraugus County; the next largest Cattaraugus, 21,680 acres. The Senecas form the most numerous tribe with 2,485 members. Many of the Indians have attained a high state of civilization, are intelligent and are good business men. Their tribal rights are regulated by treaties and statutes, and their Peacemakers' Courts work satisfactorily.

The percentage of illiteracy was reported at 5.1; native white, ½ of 1 per cent.; foreign-born, 14.2; Negroes, who have increased rapidly since the late war, 2.9 per cent.

During 1928 the public expenditure for public schools (including teachers' wages, debt service and capital outlay) was $324,405,895. The number of teachers was 68,716, of children of school age, 3,472,435, and of average daily attendance 1,768,364.

Nearly 2,000,000 attend the educational institutions, pr mary and higher, under control of the Board of Regents of the University of the State of New York (which see), and some of the most famous colleges and universities in the country are in New York State, among them Columbia University, with 36,688 resident students in 1928–29, the New York University, the College of the City of New York, Cornell University, Syracuse University, the University of Rochester, Hamilton College, Union University, Colgate University, Buffalo University, St. Lawrence University, Hobart College, College of St. Francis, Fordham University, Rensselaer Polytechnic Institute, and scores of special schools which are suited to every requirement in letters, science, engineering, finance, economics, sociology and art. Of the latter there are many of acknowledged merit, New York City being one of the art centres of the world.

At West Point, on the Hudson above New York, is the Military Academy of the United States Army, in a location famed for beauty. (See Index.)

Under the Medical Practice Act passed in 1926 New York is the first state to register qualified medical practitioners having proved requisite academical and medical education. The first annual roster issued May 12, 1927, contained the names of 16,098 medical practitioners, 321 osteopaths and 88 physio-therapists.

The interests of the Empire State are so varied along other lines that no listing is attempted here. More than 200,000 transient travellers enter the greater city daily, so it is estimated; and to Niagara Falls, near Buffalo, many more than 1,000,000 go each year. The Adirondacks and the Catskills have each summer hundreds of thousands of tourists and campers, the other lakes their tens of thousands. Safe waters on Long Island Sound are used by many yacht clubs, and the ocean beaches daily have large throngs.

(Detailed statistics follow under the classification of New York State: consult Index.)

The United States cens us of manufactures, 1927, which reported 36,650 establishments (33,392 in 1925), with 1,072,284 employees (1,066,198) earning $1,661,378,086 ($1,533,888,975), and a product valued at $9,400,061,376 ($8,968,262,479).

The leading industry in value of output was the manufacture of clothing: Women's (outer) $1,163,589,568 ($1,025,648,160) from 5,494 establishments with 90,004 employees earning $146,096,825, and men's (outer) $443,639,188 ($470,033,681) from 1,785 establishments with 49,523 employees earning $73,547,369. Fur goods output valued at $244,941,302 ($197,437,970); corsets, $27,605,595 ($25,505,993); hats and hat materials of all kinds, $60,185,333 ($61,411,622); millinery, $133,961,262 ($197,328,664); skirts, $91,887,722 ($94,610,733); leather gloves, $23,850,506 ($19,707,861); men's collars, $12,339,152 ($26,161,244); boots and shoes, other than rubber, $190,936,330 ($191,375,288); and men's furnishing goods, $71,895,573 ($50,052,350), indicate the value of kindred products.

Printing and publishing is second in importance, the output of newspapers and periodicals being $390,815,941 ($358,009,036), 1,266 establishments having 18,726 employees earning $44,579,716; book and job, $241,840,111 ($190,295,541) with 2,341 establishments with 30,836 employees earning $241,840,111); and music, $9,255,496 ($8,977,031). The value of paper and pulp produced was $157,146,475 ($141,396,762); and of lithography, $37,386,367 ($35,634,338).

New York is third in importance among the States in the textile industry, cotton goods output, $34,782,012 ($39,332,185); silk manufactures, $100,447,466 ($112,156,313; (woolen goods, $13,368,908 ($14,929,710); worsted goods, $17,675,747 ($17,103,763). In knit goods it is first with $159,818,016 ($183,223,931) with 577 factories with 31,825 employees earning $33,953,021.

New York State is fourth in rank in the value of slaughter-house and meat packing products (wholesale), $244,150,680 ($233,901,277); the output of butter, cheese and condensed and evaporated milk is valued at $51,271,725 ($56,469,557); flour and feed, $166,971,274 ($151,599,561); cane sugar refining, $155,217,848 ($164,515,037); cigars and cigarettes, $93,267,526 ($122,613,390); ice cream, $41,751,468 ($36,878,140); confectionery, $62,108,480 ($64,472,109); chocolate and cocoa, $31,325,904 ($25,406,861).

New York was fifth in the value of products of steel (being exceeded by Pennsylvania, Ohio, Indiana and Illinois). The output of 27 steel works and rolling mills with 15,400 employees earning $24,930,532 was $112,859,480 ($107,059,150); of other foundry and machine shop products, $253,074,968 ($257,655,999), and of electrical machinery, $243,209,371 ($239,262,117); and motor vehicles and parts, $278,945,668 ($261,445,894). It might be noted that the value of the output of perfumery, cosmetics and toilet preparations was $83,494,619 ($53,116,191); of soap, $41,611,115 ($37,586,241); of patent medicines, $50,132,237 ($49,949,662; of beverages, $38,400,200 ($39,830,002); of chewing gum, $23,202,132 ($19,994,622); of flavoring extracts, $20,023,202 ($16,822,713); of jewelry, $55,664,655 ($59,506,569);

of pianos, $28,431,507 ($38,031,499); of pocketbooks and card cases, $42,802,339 ($31,564,687).

New York City is the largest manufacturing city in the country, the value of its products in 1927 being $5,722,071,259 ($5,324,413,612 in 1925). Wages paid increased from $344,648,136 in 1925 to $904,646,427 in 1927; the number of employees from 538,845 to 552,507; and the number of manufacturing plants from 23,714 to 27,062; the latter figure is 14% of the number in the nation, and 73% of the number in the State. Of the value of products in 1927 given above the borough of Manhattan furnished $3,813,495,044; the borough of Brooklyn, $1,081,923; the borough of Queens, $479,945,459; the borough of the Bronx, $155,245,385; and the borough of Richmond, $87,927,620.

NORTH CAROLINA.

Area, square miles ..... *52,426* ..... *27th in rank*
Population, 1920 ..... *2,559,123* ..... *14th in rank*
Population, 1928 (est.) ..... *2,938,000* ..... *57.0 to sq. m.*
Wealth, 1923 (Census est.) *$4,543,110,000*

North Carolina, a South Atlantic State, of the Original Thirteen, is bounded on the north by Virginia, on the east by the Atlantic Ocean, on the south by the Atlantic, South Carolina and Georgia, and on the west by South Carolina and Tennessee. Physically, it is divisible into three distinct parts—a sloping sandy coastal plain from the low-lying 300-mile sea line on the east, a tableland in the central portion, and a mountainous western one-third running into the Appalachian range, Mt. Mitchell, 6,711 ft., the maximum. The climate grades from sub-tropical in the east, to milder on the tableland and relatively cool and stimulating in the mountains.

There are many islands off the northern half of the coastline, with Pamlico Sound and its tortuous shores affording many inlets and potential harbors, a favorite resort for hunters. Cape Hatteras, the easternmost point, with its shoals, is feared by mariners as especially stormy and dangerous.

Of the 35,000,000 acres in the State, originally about 11,000,000 were forested, chiefly with yellow pine, of which it is estimated that 15,000,000,000 feet remain on about half a million acres. The annual lumber cut is about 1,000,000,000 feet, the market being largely in the North, considerable coming to New York coastwise in vessels.

Agriculture's principal crops, Census of 1920, were valued at $503,229,000. Farms numbered 269,763 with 20,021,736 acres, of which 8,198,409 were improved. In cotton production the State ranked eighth in 1928 with 836,474 bales from 1,860,000 acres. The production in 1926 was 1,212,819 bales from 1,985,000 acres. The reduction in 1928 was due to very heavy weevil damage.

North Carolina was the first tobacco State in 1928, producing 475,230,000 pounds valued at $87,918,000 from 730,000 acres. It produced 199,500 pounds of peanuts in 1928 valued at $9,776,000 from 210,000 acres; also large crops of corn, wheat, rye, potatoes and fruits are grown.

In minerals, the State ranks first in production of mica, and there is much magnetic iron ore, and some lead, zinc, copper, gold, silver, corundum, tin, feldspar, talc and graphite.

North Carolina has developed into an important manufacturing State. It is second only to Massachusetts in the production of cotton goods, its mills in 1928 numbering 429 in operation, with 6,132,564 spindles and 88,051 active looms, and consuming 1,596,564 bales of cotton.

The United States census of manufactures, 1927, reported 2,984 establishments (2,614 in 1925) with 204,590 employees (182,234) earning $158,394,434 ($134,237,097) and a product valued at $1,154,646,612 ($1,050,434,117). The chief industry was the manufacture of cigars and cigarettes, with 14 factories with 14,081 employees earning $11,582,745 and an output valued at $392,050,130 ($312,736,113). The 374 cotton goods mills with 95,786 employees earning $66,149,690 had an output valued at $310,299,138 ($316,068,931); the 128 knitting mills with 17,427 employees earning $11,961,326 had an output valued at $61,365,806 ($44,300,819); the 143 furniture factories with 14,821 employees earning $12,417,590 had an output valued at $53,551,220 ($51,208,238); and the 597 establishments for lumber and timber products with 18,403 employees earning $12,933,467 had an output valued at $38,764,039 ($54,062,615).

Railroad mileage, 1927, was 5,347.

Over 99 per cent. of the population are native born Americans.

The Negro constitutes 31.6 per cent. of the population, Census of 1920, and the State percentage of illiteracy is 13.1, having been 18.5 in 1910. Illiteracy of native whites is 6.8. Public school enrolment is 725,000, with compulsory instruction.

The chief higher institutions are the State University, Chapel Hill, Duke University, Durham (formerly Trinity College, enriched by a $15,000,000 gift from James B. Duke in 1925), and the Agricultural College, West Raleigh. Expenditure for public schools in 1926 was $34,691,669.

North Carolina adopted the budget system in 1925 (effective July 1), making the Governor the real financial head of the State.

A striking feature has been the very large migration of residents of the mountains to the cotton mill towns, where they remain as operatives, whole families accepting employment, including children.

Asheville is the chief resort, being popular in the winter; its golf course is one of the most famous in the country.

NORTH DAKOTA.

Area, square miles ..... *70,837* ..... *16th in ran*
Population, 1920 ..... *646,872* ..... *36th in ran*
Pop., 1925 (State Census) ..... *641,192* ..... *9.0 to sq. m.*
Wealth, 1923 (Census est.) *$2,467,772,000*

North Dakota, in the West North Central group, formed part of the original territory of Dakota, is bounded on the north by Canada, on the east by Minnesota, on the south by South Dakota, and on the west by Montana. It is drained in the southeastern one-third by the Missouri River, and in the northeast by the Red River, which stream is the line between North Dakota and Minnesota, and the valley of which, an old lake bed, is exceedingly fertile. "Number One Northern Hard" wheat originated there, and is a premium grade of that cereal. The surface in the eastern two-thirds is a vast rolling plain, once with scant rainfall, but now, since cultivation advanced westward, having precipitation enough for the large crops produced.

Agriculture is easily the chief interest, with the value of all crops reported in the 1920 census at $301,782,000, against $57,374,000 for all manufactured products, and that mostly of flour and other grain products consumed locally.

Every cereal and other crop known to the north temperate zone is produced, wheat being the principal crop, 61,540,000 bushels reported in the 1920 census, grown on about 9,000,000 acres, worth $147,696,000; rye, barley and corn being also extensively produced, and the total value of all cereals given at $215,764,000. Hay is raised heavily, more than 4,000,000 tons, worth $56,000,000. On 650,000 acres, 2,972,000 bushels of flaxseed were raised, highest production in the country, the value being $1,000,000.

Much of the grain and practically all of the forage crops are for local feeding to livestock, that industry being very important. More than 2,300,000 domestic animals were reported by the 1920 census. In the State were 77,690 farms with an acreage of 36,214,751, of which 24,563,178 were improved.

The United States census of manufactures, 1927, reported 307 establishments (320 in 1925) with 3,260 employees (3,261) earning $4,808,122 ($4,574,698) and a product valued at $47,003,022 ($44,631,516). The 42 dairies had an output valued at $15,460,469; and the 27 flour mills, $11,042,358.

A vast proportion of the western part is underlaid by brown or low-grade coal, which is produced not extensively and only for local domestic consumption, the State depending on the mines of other States for supply. Production 1928, 1,828,000 tons.

Railroad mileage, 1927, was 5,277.

North Dakota, with total population of 646,872, Census of 1920, had 131,590 or 27.1 per cent. of foreign-born whites. The percentage of illiteracy is very low at 2.1; native white, 4-10ths of 1 per cent.; foreign-born white, 5.6. Foreign-born whites in order of numbers were Norwegian, Canadian, Russian and German.

North Dakota has been the theatre of several advanced social and economic experiments, the State under the leadership of the Non-Partisan League, entering basic business enterprises, including banking, and co-operative grain elevators.

The recreation for outsiders is the big hunting in the west and on the prairies for game birds, the prairie chicken predominant, and the lakes and rivers abounding in geese and ducks.

OHIO.

Area, square miles ..... *41,040* ..... *35th in rank*
Population, 1920 ..... *5,759,394* ..... *4th in rank*
Population, 1928 (est.) ..... *6,826,000* ..... *166.3 to sq. m.*
Wealth, 1923 (Census est.) ..... *$18,48 ,552,000*

Ohio, an East North Central State, is bounded on the north by Michigan and Lake Erie, on the east by Pennsylvania and West Virginia, on the south by West Virginia and Kentucky, and on the

west by Indiana. It has no considerable elevations, being highest in the centre, and sloping in each direction to the lake on the north and to the Ohio River, a great traffic route, on the southern boundary line. Its climate is characteristic of the north temperate zone, with abundant rainfall.

Ohio has navigable waterways for the 430 miles of the Ohio, the 230 miles of lake frontage, and 100 miles up the Muskingum River in the southeast. It sends much tonnage down the Ohio. Rail transport is very heavy in all directions. Railroad mileage, 1928, was 8,831.

Manufacturing, mining and oil are the chief interests. The iron and steel ore and reduction and machinery industries lead all others, with 29,649,245 tons of ore received at the Lake Erie port of Cleveland, heaviest handler of ore in the world. Cleveland, Youngstown, Canton, Steubenville and Middletown are the principal iron and steel working points. Manufacturing is very extensive in other lines. Of the 264 industries classified by the Census of 1923, Ohio has considerable production in all but forty-six, ranking first in eighteen of them, and second in iron and steel products. The output of pig iron in 1928 was 9,266,936 long tons,valued at $156,883,186.

The United States census of manufactures, 1927, reported 10,961 establishments (11,131 in 1925) with 669,097 employees (676,661) earning $968,181,165 ($975,738,405) and a product valued at $5,230,323,268 ($5,345,592,745). The leading industry was the manufacture of iron and steel with 86 steel works and rolling mills with 81,562 employees earning $143,947,323 and the output valued at $672,201,290 ($789,542,038), and 28 blast furnaces with 6,496 employees earning $11,553,615 and the output valued at $159,719,253 ($178,722,017). The 38 factories for the manufacture of rubber tires and inner tubes with 51,780 employees earning $82,260,053 had an output valued at $565,074,244 ($556,262,424); the 176 plants for motor vehicles and parts with 38,899 employees earning $62,349,328 had an output valued at $441,472,642 ($514,775,843); the 851 foundries and machine shops with 53,202 employees earning $80,916,217 had an output valued at $323,648,909 ($345,222,837); the 206 electrical plants, for machinery, apparatus and supplies, with 24,423 employees earning $32,386,890 had an output valued at $188,763,978 ($181,351,409); and the 96 structural iron works with 7,964 employees earning $12,666,274 had an output valued at $52,918,317 ($52,630,751). The 1,251 printing and publishing plants with 19,155 employees earning $32,137,699 had an output valued at $175,659,959. The 120 slaughtering and meat packing houses (wholesale) had an output valued at $137,081,128 ($128,777,955); the 148 factories making men's clothing had an output valued at $64,615,217 ($78,001,683); and the 48 boot and shoe factories an output valued at $53,289,298 ($51,546,890). The 132 steam railroad construction and repair-shops with 28,432 employees earning $46,904,135 had an output valued at $86,609,324.

The 162 dairies had an output valued at $43,627,464 ($53,065,098). The 58 paper and pulp mills had an output valued at $75,219,293 ($75,923,880); the 104 paint and varnish factories an output valued at $60,453,960; and the 12 petroleum refineries an output valued at $52,892,071 ($63,296901). Pottery and clay products totaled $93,056,596. Ohio was tenth in rank in value of exports in 1928, $196,518,388; and in 1927, $186,091,545.

The State ranks sixth in mineral wealth extracted, 45,000,000 tons of bituminous coal were lifted in 1920 by 50,000 miners who received more than $48,000,000 in wages. Output in 1926 was 27,872,488 short tons in 1927, owing to the strike, 15,800,000 tons; and in 1928, 15,095,000 tons.

Its mineral wealth includes coal, iron, glass sand, clays, salt, petroleum, natural gas, limestone, sandone, gypsum,, lime, mineral waters, some potash and pyrite.

Oil production is very great, especially in the Lima district, the output in 1928 being 7,000,000 barrels; 1927, 7,520,000. The output of natural gas in 1926 was 47,363,000 M. cubic feet valued at $25,403,000.

The output of automobiles in the Toledo and Cleveland districts is second only to that of Detroit, mostly of medium or higher grades.

But the agricultural wealth also is great, value of all crops and livestock sold being as reported in the 1920 census $904,400,000, which was exceeded by only four other States. Principal crops are cereals, hay, potatoes, tobacco, vegetables, sugar beets, and all products of the zone. Corn totalled 149,844,000 bushels; oats, 46,000,000; hay, 7,600,000 tons; tobacco, 64,420,000 pounds; and canning of fruits and vegetables was extensive, the fruits being those of the north temperate zone, the 1920 report showing the value of the output more than $19,000,000. Number of farms, 256,695, with acreage of 23,515,888.

Much high-bred livestock is raised, and the meat packing industry is highly developed.

Illiteracy is low at 2.8 per cent.; native white, 9-10ths of 1 per cent.; foreign-born, 12.6, and Negro, 8.1. Foreign-born number 12.5 per cent. of the population, and are in the industrial centres chiefly, although throughout the agricultural districts the German native-born element is numerous, having come when the revolutionary movement broke out in Germany in the last century.

The State has very many institutions of higher education, the Ohio State University at Columbus, the capital, leading with 13,000 students, others being Cincinnati University, 4,000; Western Reserve University at Cleveland, 5,000; Ohio Wesleyan University at Delaware, 1,900; Oberlin at Oberlin, 1,850; and eight others with about 4,000 attendance. Public school enrolment is more than 1,000,000.

Ohio is distinguished among the States for the tenseness of its political life. It is regarded as a politically pivotal State, and has given the United States five Presidents, all native born, while two others, elected as residents of other States, were born in Ohio.

OKLAHOMA.

Area, square miles ..... *70,057* ..... *17th in rank*
Population, 1920 ..... *2,028,283* ..... *21st in rank*
Population, 1928 (est.) ..... *2,426,000* ... *34.6 to sq. m.*
Wealth, 1923 (Census est.) *$3,993,524,000*

Oklahoma, in the West South Central group originally set apart for Indian reservations, and formerly known as Indian Territory, is bounded on the north by Kansas, on the east by Arkansas and Missouri, on the south by Texas, and on the west by Texas, a small panhandle strip also touching New Mexico and Colorado. It was the home of five Indian tribes—Cherokees, Creeks, Choctaws, Chickasaws and Seminoles, whose descendants remain as a large part of the present population, numbering 119,255 in 1920, holding 19,551,890 acres with a valuation of $320,496,333 and an income of $39,393,608.

Oklahoma is mostly a vast plain of rolling, fertile prairies, rising in the west to maximum elevations of 4,000 feet, one being 4,700 feet, with mountains in the south central and southwestern portions. It has a fair share of forested area, yellow pine predominating, with about 200,000,000 feet the normal annual cut, and 4,800,000,000 feet of timber standing. It has a healthful climate, rather warm in summer, with good precipitation for watering the large areas of agricultural lands, agriculture, raising of livestock and immense oil production being the main interests. The State ranked second in mineral production in 1927.

The 1920 census gave $522,565,000 as the value of all crops, cotton, 1,006,242 bales, ranking the State fourth; corn, 74,000,000 bushels; wheat, 52,640,000; oats, 49,500,000; and heavy production of other cereals and the basic vegetables with all fruits of the temperate zone abounding.

Dry farming is practiced extensively in the western portions. Farms number 191,788, with acreage of 31,951,934. Cotton production in 1928 was 1,204,625 bales from 4,243,000 acres; in 1927 (the flood year) 1,037,141 bales from 3,601,000 acres; and in 1926, 1,772,784 bales from 4,676,000 acres. The reduction due to the boll weevil in 1928 was 26%, and in 1927 31% from a full yield per acre.

It is only twenty years since oil was discovered in Oklahoma, yet it has risen to the first rank as a producer. The 1928 figures on production were 249,558,000 barrels, and in 1927, 277,274,000 barrels. Much of the oil land is owned by persons formerly in moderate circumstances. Indians, wards of the Nation, received $36,659,810 in royalties in 1923 from oil and gas leases on their lands, their oil bonuses ranging from 12½% to 20% on a total production of 53,914,477 barrels. The field is like that of Texas. Of natural gas 326,864,000 M. cubic feet valued at $21,508,000 was produced in 1927.

The United States census of manufactures, 1927, reported 1,373 establishments (1,274 in 1925) with 27,932 employees (26,163) earning $35,785,266 ($34,035,813) and the product valued at $371,718,409 ($400,291,825). The leading industry, petroleum refining, with 46 refineries with 5,207 employees earning $7,749,884 had an output valued at $153,278,576 ($182,007,298). The 64 flour mills had an output valued at $25,950,079; and the 45 cottonseed oil, cake and meal factories had an output valued at $20,295,804. Zinc smelters and refineries had an output valued at $15,207,105.

Zinc production was 272,567 short tons valued at $40,885,050 in 1926, and lead 69,704 tons valued at $11,152,640; and coal, 3,050,000 tons.

Railroad mileage, 1928, was 6,802.

The percentage of illiteracy is 3.8; native whites 2.3; Negroes, 12.4; and foreign-born whites, 14; Negroes being about 10 per cent. of the whole.

The public school enrolment is about 600,000 with several promising higher institutions. Expenditure for public schools in 1926 was $28,999,229.

OREGON.

Area, square miles.....96,699.....9th in rank
Population, 1920.....783,389.....34th in rank
Population, 1928 (est.).....902,000.....9.3 to sq. m.
Wealth, 1923 (Census est.).....$3,419,459,000

Oregon, of the Pacific (northwest) group, is bounded on the north by Washington, on the east by Idaho, on the south by California and Nevada and on the west by the Pacific Ocean.

It has every character of climate and soil and production known to the temperate zone, the lands ranging from the heavily vegetated coast areas where rainfall is abundant, to the large stretches of semi-arid lands of the southeastern parts, with a touch here and there of almost desert, although negligible in extent.

The coast climate is salutary, never very cold, and seldom very hot. That of the eastern portion, east from the Cascade Mountains, is drier and often colder.

It has very important navigation facilities—the Columbia River flowing into the Pacific with a width at the mouth of up to 14 miles, the river carrying tonnage along the whole of the 400 miles of its seaward course from the Idaho line; and the Snake, running along the northern half of the eastern boundary, already conveying much traffic and being susceptible of greater development.

Into Oregon pour the products of "The Inland Empire," a region comprising 250,000 square miles in Eastern Oregon, Eastern Washington and Northern Idaho, the Columbia being the waterway outlet, and the railways following the water grades from the Empire through the Columbia River Gorge to Portland, the "Rose City," which is actually on the Willamette River, ten miles from the Columbia, but economically on the Columbia.

The products of that Inland Empire are most varied, as are those of Oregon, which are very large fruit production, immense salmon fisheries, most extensive cereal production, and timber from forests that are the most extensive of any American State. It being estimated that the standing timber is 500,000,000,000 board feet.

The part of Oregon west from the Cascade Mountain range, which has peak elevations up to 12,000 feet, is slashed north and south by the Coast Range, very aged ridge now eroded to lower levels. The whole of the western one-third of the State has abundant rainfall, the average precipitation at Portland being about that of Chicago or New York.

Oregon has almost one-half of more than one trillion feet of timber standing in the three Coast States, Oregon, Washington, and California. Some of the trees are more than 300 feet high. In the southwest are found forests of the redwoods, with at least 20 other varieties of timber in abundance, some of it excellent for furniture manufacture, which is a considerable industry. The cut of timber is the third in the United States, Washington and Louisiana exceeding. The lumber is shipped to all foreign markets, more than a billion feet comes by the Panama Canal to the Atlantic Coast, and much is distributed by rail to the Middle West.

The fruit industry is among the most important in the country. Especially in apples the world calls for Oregon products, and the varieties of fruit grown include also peaches, pears, prunes—ranked the best known—apricots, plums, etc. Hood River, Medford, The Dalles and other towns are the centres of highly developed fruit raising.

In agriculture, development has been rapid, there being about 1,000,000 acres under water, and more than 2,000,000 included in irrigation projects, Federal and private. The lands not needing irrigation, which are very extensive, produce richly. The 1920 census returned $131,884,000 as the value of all crops; wheat, about 20,000,000 bushels; more than 2,100,000 tons of alfalfa; hops, 4,783,000 pounds; and more than 8,000,000 bushels of oats. Farms number 50,206, with 13,542,318 acres.

In livestock the State is productive. The wool clip was 16,000,000 pounds, and $17,000,000 was realized from dairy products. The Coast States are especially fine for dairying.

Although undeveloped as yet, there are all the basic minerals in Oregon. Gold, silver and copper are mined, with also stores of lead, oil, quicksilver, chromic iron ore, platinum, and all the clays.

The United States census of manufactures, 1927, reported 1,779 establishments (1907 in 1925) with 61,401 employees (59,563) earning $75,716,972 ($78,190,094) and a product valued at $342,852,371 ($352,763,595). The 414 lumber products mills and planing mills, with 36,284 employees earning $43,014,973 had an output valued at $121,941,142 ($130,496,672). The 49 flour mills had an output valued at $21,201,405; the 118 dairies, $15,843,494; the 12 paper and pulp mills, $20,002,341; and the 17 meat packing houses, $15,310,566.

The salmon fisheries centering in Astoria, at the mouth of the Columbia, are among the world's greatest, the pack in 1926 being 346,200 cases (426,200 cases in 1925).

Railroad mileage, in 1928, was 3,362.

In illiteracy Oregon ranks with Iowa, Nebraska and Idaho as the lowest in the country, the percentage being 1.5, that of native-born 4-10ths of 1 per cent. There are several colleges, the State University at Eugene, the celebrated Agricultural College at Corvallis, with about 4,000 students, Reed Institute at Portland, and others.

Oregon initiated the national movement for direct primaries, the initiative and referendum, and the recall, and adopted Prohibition independently of the national amendment.

Its great Columbia Highway, unexcelled for scenic beauty, running up the river from Portland; Mt. Hood and other lofty mountains, and the unique Crater Lake, are points of tourist interest.

PENNSYLVANIA.

Area, square miles.....45,126.....32d in rank
Population, 1920.....8,720,017.....2d in rank
Population, 1928 (est.)...9,854,000...218.3 to sq. m.
Wealth, 1923 (Census est.).....$28,833,745,000

Pennsylvania, of the Middle Atlantic group, is bounded on the north by Lake Erie and New York, on the east by New York and New Jersey, on the south by Delaware, Maryland and West Virginia, and on the west by West Virginia and Ohio. It is one of the Thirteen Original States.

It is of varied topography, like most Atlantic States, having leveler lands to the east, and rising to higher altitudes to the westward. The Appalachian range traverses the central part from northeast to southwest, a higher mountain region being in the extreme west, and another lower plane running down to the shores of Lake Erie. It has rivers important in navigation—the Susquehanna, the Delaware and the Allegheny and the Monongahela, which unite at Pittsburgh to form the Ohio.

Pennsylvania easily ranks first of the States in mineral production, the value of its output in 1926, $1,055,766,077, being 17% of the total for the country. It is second to New York only in the value of its industrial output, $6,715,563,455, in 1927.

The output of petroleum in 1928 was 9,876,000 barrels (in 1927, 9,596,000); natural gas in 1926, 107,089,000 M. cubic feet valued at $50,040,000; bituminous coal, 1928, 124,720,000 short tons, 1927, 131,007,000 tons; anthracite coal, 1928, 74,552,312 tons, (1927, 80,652,000 tons); and coke, 1927, 16,647,264 short tons (1926, 21,922,976 tons valued at $96,318,119).

The State has built its industries largely on these basic elements. It produced nearly half the steel of the country, shipping it to all parts of the world. Its production in pig iron in 1927 was 11,145,334 long tons and in 1928, 12,289,455 tons. Pittsburgh is the centre of the greatest metal production ever attained in one locality. Its supplies of iron ore come mostly from Minnesota, and its operations have made more millionaires than any other single industrial centre in the country. It was there that the late Andrew Carnegie built up his fortune, developing new steel making processes. The perfected tonnage from Pittsburgh is the heaviest, excepting at New York and Chicago. Electrical goods and equipment are made in Pittsburgh in large quantity.

The United States census of manufactures, 1927, reported 17,314 establishments (17,298 in 1925) with 987,414 employees (999,460) earning $1,315,993,319 ($1,324,481,001) and a product valued at $6,715,563,455 ($6,901,762,098). The 165 steel works and rolling mills with 137,568 employees earning $223,629,312 had an output valued at $1,012,297,366 ($1,086,935,222), and the 33 blast furnaces with 8,330 employees earning $14,018,331 had an output valued at $244,501,253 ($275,526,857). The 490 silk mills with 59,608 employees earning $57,661,075 had an output valued at $306,524,028 ($329,121,498); the 107 cotton goods mills with 12,160 employees earning $17,060,128 had an output valued at $75,001,362 ($79,116,369); the 67 worsted mills with 10,546 employees earning $11,491,549 had an output $63,790,023 ($82,682,258); the 79 woolen mills with 6,718 employees earning $8,106,544 had an output valued at $41,832,191 ($46,466,746); and the 487 knit goods mills with 51,967 employees earning $63,393,860 had an output valued at $234,166,337 ($230,069,530).

The 888 foundries and machine shops with 53,801 employees earning $78,037,139 had an output valued at $303,116,526 ($307,693,851); the 136 shops making electrical machinery, apparatus and supplies with 37,020 employees earning $52,415,303 had an output valued at $247,442,426 (236,843,492); the 1,645 printing and publishing plants with 24,647 employees earning $41,225,240 had an output valued at $255,-333,000 ($175,472,647); the 171 steam railroad construction and repair shops with 56,784 employees earning $88,837,030 had an output valued at $193,-988,387; and the 48 petroleum refineries with 9,126 employees earning $14,185,370 had an output valued at $186,568,769 ($189,839,486). The 1,900 bakeries with 22,385 employees earning $29,-849,988 had an output valued at $164,863,331; the 152 slaughtering and meat packing hcuses, wholesale, with 5,443 employees earning $8,179,992 had an output valued at $131,473,427 ($128,347,290); the 67 tanneries with 9,305 employees earning $11,696,-717 had an output valued at $101,814,881 ($87,-383,057); the 460 cigar and cigarette factories with 30,028 employees earning $22,575,034 had an output valued at $124,324,967 ($123,474,097); and the 419 men's clothing factories with 17,378 employees earning $20,176,368 had an output valued at $97,338,993 ($101,336,738). The 127 structural iron works with 10,687 employees earning $16,357,499 had an output valued at $90,711,633 ($96,836,624); the 3 cane sugar refineries with 1,987 employees earning $3,293,-706 had an output valued at $95,684,436 ($104,047,-877); the 72 glass factories with 18,205 employees earning $22,636,627 had an output valued at $78,-670,803; the 68 paper and pulp mills with 8,891 employees earning $12,809,214 had an output valued at $88,429,947; and the 100 factories making motor vehicles and parts with 11,791 employees earning $17,935,238 had an output valued at $88,561,658. The 395 factories making women's clothing with 11,-730 employees earning $11,219,404 had an output valued at $60,359,462 ($52,411,298); and the 145 factories for dyeing and finishing textiles with 8,902 employees earning $11,497,742 had an output valued at $54,491,269.

Pennsylvania was the fifth state in value of its exports of merchandise, in 1928, $292,087,241.

The principal port is Philadelphia, which receives and sends to all world ports. It was the capital of the United States, 1790 to 1800.

Scranton is the greatest hard coal centre of the country, and makes much steel.

Erie on Lake Erie is the lake port.

Railroad mileage, 1927, was 11,338.

Pennsylvania produced, Census of 1920, more than $500,000,000 of crops. The region around Reading, Lancaster and York, with English names, is the seat of the famous German (Pennsylvania Dutch) agricultural development, perhaps not equaled in any other section of the United States.

Production is varied in all parts of the State: the cereals, forage crops, fruits, and all that the temperate zone raises. The crops are spread evenly through the whole list, with large diversification and consequent steadiness of prosperity. Tobacco raised was 43,560,000 pounds from 33,000 acres in 1926. The State has 202,250 farms, with a total acreage of 17,657,513.

In educational facilities the State ranks high. The principal higher educational institutions are the University of Pennsylvania at Philadelphia, the Pennsylvania State College, the University of Pittsburgh, and the Carnegie Institute of Technology at Pittsburgh, Lafayette College, Lehigh University at Bethlehem, Temple University, Bucknell University, Dickinson College, Alleghany College, Duquesne College, Grove City College, Pennsylvania College, and Swarthmore College, there being three colleges for women, at Bryn Mawr, Pittsburgh and Chambersburg.

Public school enrolment exceeds 1,600,000, and the rate of illiteracy is 4.6 per cent.; native white, 8-10ths of 1 per cent.; foreign-born, 18.9; Negro, 6.1. Of the total of 8,720,017 persons, the native white population is 80.8 per cent.; foreign, 18.8. In the industrial districts reside the bulk of the foreigners, the Census of 1920 showing in all 1,387,850, of which 120,194 were German, 90,666 Irish, 122,755 Austrian, 222,764 Italian, 161,124 Russian, 171,380 Hungarian, the Slavic strain being numerous. The urban population is 63.3 per cent.

The Legislature in 1923 enacted a law to establish a system of old-age pensions, the maximum rate to be one dollar a day, the applicant to be over sixty, a citizen and resident of the State for over fifteen years. For a preparatory survey $25,000 was appropriated, and it is estimated the full operation of the law may require an expenditure of $10,000,000 yearly.

In the mountains are many popular summer resorts, with many fine country seats developed by the wealthy from old farm estates.

RHODE ISLAND.

Area, square miles . . . . . 1,248 . . . . . 48th in rank
Population, 1920 . . . . . 604,397 . . . . . 38th in rank
Pop., 1925 (State Census) . . 679,260 . . . . . 544.2 to sq. m.
Population, 1928 (est.) . . . . . 716,000 . . . 573.7 to sq. m.
Wealth, 1923 (Census est.) $1,924,326,000

Rhode Island, smallest of States, of the Original Thirteen, and in New England, is bounded on the north and east by Massachusetts, on the south by the Atlantic Ocean and on the west by Connecticut. Only 1,060 square miles of it is land. With 573.7 per square mile, it is the most densely populated State. It exceeds all others in per capita industrial output; it is 97.5 per cent. urban, and exerts influence out of all proportion to size and population.

The United States census of manufactures, 1927, reported 1,497 establishments (1,595 in 1925) with 120,009 employees (120,346) earning $138,895,884 ($138,125,781) and a product valued at $592,232,647 ($621,919,637). The 71 worsted goodsmills with 21,-114 employees earning $22,338,332 had an output valued at $118,310,113 ($125,503,602); the 66 cotton goods mills with 26,203 employees earning $27,586,-550 had an output valued at $90,053,620 ($107,708,-169); the 24 woolen goods mills with 3,275 employees earning $4,161,577 had an output valued at $19,-256,063 ($21,141,962); the 21 knit goods mills with 1,636 employees earning $1,782,583 had an output valued at $10,724,483 ($10,605,476); and the 62 mills for dyeing and finishing textiles with 9,590 employees earning $11,521,344 had an output valued at $44,-979,389 ($47,163,824). The 188 jewelry factories with 7,826 employees earning $8,696,059 had an output valued at $35,451,319 ($31,616,003); the 31 silk mills with 6,500 employees earning $7,853,236 had an output valued at $32,511,106 ($34,855,263); and the 41 shops making textile machinery and parts with 3,425 employees earning $4,765,669 had an output valued at $15,390,008 ($17,508,719).

The first cotton spinning works of this country were established in Pawtucket in the eighteenth century. Providence, Woonsocket, and Pawtucket are the chief centres of industry.

Rhode Island in the election of 1928 adopted amendments to its constitution abolishing the surviving property qualifications for voters, changing the SenatorialSystem(in practically giving Providence four Senators instead of one), and substituting biennial for annual sessions of the legislature.

Although so small in all ways, yet the agriculture output by the 2.5 per cent. of rural population, Census of 1920, was $5,340,378, and included about everything produced in the temperate zone.

Rhode Island has but 4,083 farms, with 331,600 acres, having lost 25 per cent. in a decade.

A large traffic, coastwise and foreign, passes through Providence, as well as heavy passenger travel, rail and water. Railroad mileage, 1927, was 196.

Newport, on Narragansett Bay, has been for decades the most famous of America's watering places. Palatial summer homes were built by the socially prominent of the past one or two generations, embellished by every art of architect and landscape gardener.

The State enjoys extensive educational facilities, with Brown University and Rhode Island College of Education at Providence as the best known. Public school enrolment is 95,000.

The percentage of illiteracy is 6.5; native white, 7-10ths of 1 per cent.; foreign-born, 16.5. Foreign-born are 28.7 per cent. of the population, numbering 173,499—English, 25,782; Scotch, 22,253; Canadian, 36,400; Italian, 32,241.

SOUTH CAROLINA.

Area, square miles . . . . . 30,989 . . . . . 39th in rank
Population, 1920 . . . . . 1,683,724 . . . . . 26th in rank
Population, 1928 (est.) . . . 1,864,000 . . . . 60.1 to sq. m.
Wealth, 1923 (Census est.) $2,404,845,000

South Carolina, in the South Atlantic group, of the Original Thirteen States, is bounded on the north by North Carolina, on the southeast by the Atlantic Ocean, on the southwest by Georgia. Its topography is, like that of North Carolina, mountainous, 3,500 feet the maximum, in the western part, a plateau in the central strip, and low-lying and sandy toward the 200-mile seafront.

The climate westward is comparatively cool, in the central part medium, and nearer the coast subtropical and humid.

The coast is indented with several harbors, Charleston having the most important one, and

being a prominent coastwise and foreign shipping port, cotton a principal outgo to Europe.

Agriculture easily leads in production, with $437,121,000 as the value of all crops, Census of 1920. Of the 192,693 farms of 12,426,675 acres, Negroes cultivated more than half, and owned very many. In 1928, 726,039 bales of cotton were produced from 2,361,000 acres. The sea island cotton grown is the finest grade produced in the country.

All of the cereals peanuts, tobacco, in which it ranks sixth, with 82,288,000 pounds from 148,000 acres in 1928, sugar cane, and all the vegetables are produced in profusion. Fruits are abundant, of temperate zone and sub-tropical varieties.

Naturally, about half the area was forested, yellow pine predominating, with much hardwood, but the lumbering has been so extensive that the forested area is reduced to about 1,000,000 acres, the cut in 1927 being 817,016 M. board feet. About 14.000,000 M. board feet of pine remains standing.

In cotton mill spindles, 5,472,398, and looms, 128,109, in its 207 mills (1928), the State is second only to Massachusetts and North Carolina. Much labor is supplied by mountain families who were induced to migrate to the lower levels by the higher incomes offered, the industrial development having been peculiar to the Southern cotton-mill States in the building of towns owned entirely by the companies. Much child labor is employed.

The United States census of manufactures, 1927, reported 1,059 establishments (1,134 in 1925) with 108,992 employees (100,144) earning $74,477,866 ($67,061,783) and a product valued at $358,334,205 ($370,283,045). The 163 cotton goods mills with 75,069 employees earning $49,383,478 had an output valued at $231,272,599 ($373,359,810); the 261 lumber and planing mill products plants with 15,508 employees earning $16,082,145 had an output valued at $29,614,204 ($35,662,159).

Railroad mileage, 1928, was 3,790.

About 400,000 are enrolled in the public schools, 200,000 being colored, who form 55.2 per cent. of the population, the State percentage of illiteracy being 18.1 against 25.7 in 1910. That of native whites is 6.5, of foreign-born white, 6.2, and of Negro, 29.3. Expenditure for public schools in 1926 was $16,058,366.

The University of South Carolina at Columbia is the leading higher educational institution, Clemson Agricultural College being next. Clemson in 1898 opened the first textile school in the United States, which has achieved much in training technical mill workers and foremen.

SOUTH DAKOTA.

Area, square miles ..... *77,615* ..... *14th in rank*
Population, 1920 ..... *636,547* ..... *37th in rank*
Pop. 1925 (State Census) ... *681,550* ..... *8.9 to sq. m.*
Population, 1928 (est.) ..... *704,000* ..... *9.0 to sq. m.*
Wealth, 1923 (Census est.) *$2,925,968,000*

South Dakota, West North Central, lower portion of the former Territory of Dakota, is bounded on the north by North Dakota, on the east by Minnesota and Iowa, on the south by Nebraska, and on the west by Wyoming and Montana. Its climate is that of the temperate zone northern latitudes, cold in winter and pleasant in summer. Before cultivation of the soil was extensive, it lacked rainfall; but precipitation swept westward as tillage advanced, until it now has normally abundant watering.

The highest elevations are in the Black Hills (Harney Peak 7,240 feet), and up-thrust of granite rich with minerals coincident geologically with the Rocky Mountains. From the Homestake mine at Lead more than two hundred million dollars in gold has been taken. Harney and Black Hills National Forests cover 1,134,167 acres, nearly surrounding Custer State Park, containing Game Lodge where Pres. Coolidge established the Summer White House in 1927. The remainder of the State is a vast rolling prairie, falling off to lower levels in the northeast, which drains into the Mississippi River and into the Red River of the North. The major part of the State is drained by the Missouri River, which cleaves the State through the centre north and south. There are several minor drainage basins, feeding the larger rivers, with a succession of fertile valleys, highly productive, and a fair area of forests, yellow pine, spruce and others, 1,100,000 acres being under forest cover.

About 120,000 acres are irrigated, with about 200,000 acres normally in the irrigable sections.

It is claimed that more than 90 per cent. of the total area is arable. Of the 50,000,000 total acreage, 34,636,491 is in farmlands, with about 18,199,250 improved, farms numbering, Census of 1920, 74,637, crops being valued at $321,202,000.

Corn leads with 91,200,000 bushels; wheat, 30,175,000; oats, 53,650,000; barley, 19,250,000, and all the other cereals. Only the hardier fruits are grown.

The Census of 1920 shows livestock shipped valued at $154,631,000; dairy, fruit, poultry and other things, $50,000,000; the total revenues from all sources of wealth produced being $400,000,000, or about $600 per capita.

The United States census of manufactures, 1927, reported 472 establishments (502 in 1925) with 5,551 employees (5,107) earning $6,785,893 ($6,171,739) and a product valued at $83,001,163 ($62,701,600). The 81 dairies had an output valued at $15,868,381.

Mineral wealth is practically all in the Black Hills, where gold mined ranks the State second in in 1928, $6,575,000 (in 1927, $6,670,400; in 1926, $5,932,000; in 1925, $5,962,800; in 1924, $6,135,000). Silver, lead and baser minerals also abound. There is coal and lignite in the northwestern parts not yet accessible to transport.

Railroad mileage, 1927, was 4,245.

Of the population, 84 per cent. is rural; 100,628 is foreign-born, of which 16,000 were Norwegian. and 15,000 German.

Illiteracy is 1.7 per cent.; native white, 4-10ths of 1 per cent. About 100,000 attend the schools.

A feature is the large area in Indian reservations—the Rosebud, Cheyenne River, Pine Ridge, and the Lower Brule. The Indians numbered in 1920, 23,010; they engage in agriculture and livestock husbandry, occupy 6,685,734 acres, valued at $63,265,900 and have an income of $4,331,940.

TENNESSEE.

Area, square miles ..... *42,022* ..... *34th in rank*
Population, 1920 ..... *2,337,885* ..... *19th in rank*
Population, 1928 (est.) ... *2,502,000* .... *59.5 to sq. m.*
Wealth, 1923 (Census est.) *$4,228,251,000*

Tennessee, in the East South Central group, is bounded on the north by Kentucky and Virginia, on the east by North Carolina, on the south by Mississippi, Alabama, Georgia and North Carolina, and on the west by Arkansas and Missouri.

The eastern parts are in the Great Smoky Mountains, the surface sloping toward the west, first to an elevated tableland, then to the bottoms of the Mississippi River, which skirts the western border. It has the Tennessee River, which sweeps into Alabama from the northeast and returns to flow north through Tennessee and Kentucky into the Ohio.

The forests cover about 30,000 squate miles, and yield half a billion feet of lumber—oak, yellow pine, gum, yellow poplar, hemlock and chestnut.

The 1920 census showed $318,285,000 as the value of all crops, which include all things grown in the temperate zone, shading off to the almost subtropical in the south.

In 1928, 429,284 bales of cotton were produced from 1,107,000 acres; its tobacco crop that year was 88,549,000 pounds. All cereals and vegetables are grown. There are 252,774 farms with a total of 19,510,856 acres.

Coal production in 1928 was 5,680,000 short tons; coke, 200,000 short tons; iron ore, 130,000 long tons; pig iron, 110,837 long tons; copper, 16,374,261 pounds; petroleum, 47,000 barrels; phosphate rock, 577,095 long tons.

The United States census of manufactures, 1927, reported 2,098 establishments (2,157 in 1925) with 114,968 employees (107,570) earning $101,197,846 ($95,201,301) and an output valued at $614,040,524 ($600,026,232). The 344 mills for lumber and planing products with 15,621 employees earning $12,589,963 had an output valued at $61,140,482 ($61,614,340); the 21 cotton goods mills with 7,211 employees earning $4,777,869 had an output valued at $21,956,617 ($23,706,355); and the 59 knit goods mills with 16,542 employees earning $10,436,628 had an output valued at $44,559,667 ($44,006,467).

Railroad mileage, 1928, was 4,063.

Tennessee is almost wholly American in population—foreign-born whites being 7-10ths of 1 per cent. Negroes are 19.3, and the percentage of illiteracy is 10.3 for the State; native white, 7.3; Negro, 22.4. Expenditure for public schools in 1924 was $16,832,000.

Attending school were 630,000 persons. The main higher educational institutions are the University of Chattanooga, University of Tennessee at Knoxville, Fisk University, Vanderbilt University, and the George Peabody College for Teachers at Nashville, Cumberland University at Lebanon, the University of the South at Sewanee, Union University at Jackson, and the Southwestern Presbyterian University at Memphis.

The Tennessee Mountains, like those of Kentucky, are beautiful, delightful summer resorts. Lookout Mountain, scene of a celebrated battle in the Civil War, is the object of chief interest at Chattanooga.

The suburbs of Chattanooga (except Alton Park) by vote have joined the city. The consolidation going into effect Oct. 1, 1929. The population of Greater Chattanooga was locally estimated at 135,000.

TEXAS.

Area, square miles ..... *265,896* ..... *1st in rank*
Population, 1920 ..... *4,663,228* ..... *5th in rank*
Population, 1928 (est.) ..... *5,487,000* ..... *20.6 to sq. m.*
Wealth, 1923 (Census est.) *$9,850,888,000*

Texas, of the West South Central group, up to 1836 part of Mexico, then an independent republic, becoming one of the United States on Dec. 29, 1845, is bounded on the north by New Mexico and Oklahoma, on the east by Oklahoma, Arkansas, Louisiana and the Gulf of Mexico, on the south by the Gulf and Mexico, and on the west by Mexico and New Mexico. It is the largest State, embracing over 8% of the area of the whole country. Its extreme length is 760 miles and extreme breadth 620.

In the western part it is mountainous, the "Staked Plains" lying in the northwest, a great prairie in the central portion, and a lower lying region nearer to the Gulf. Western Texas is mostly without forestation, but in the east formerly there was a large wooded area, nearly 8,000,000 acres, materially reduced by extensive lumbering, the normal annual cut being more than 1,500,000,000 feet, mostly yellow pine.

Texas is easily the first cotton State; in 1928, 5,109,939 bales were produced from 17,743,000 acres; and in 1927, 4,356,277 bales from 16,176,000 acres. Cotton shipments through Texas ports in 1928 were: Galveston, 2,248,000 bales; Houston, 1,968,000 bales; Corpus Christi, 200,000 bales; Texas City, 50,000 bales, and Beaumont, 7,000 bales.

That census reports Texas the only State in which the total of all crops exceeded a billion dollars—$1,071,542,103,—the total return from crops, fruits, livestock, lumber and oil and other minerals being more than $1,500,000,000.

The farmland area was 114,020,621 acres, in 436,033 separate farms, of which 31,227,503 were improved acres, the value of all farm property being more than $4,400,000,000. There are about 2,000,000 acres irrigable, and 600,000 acres irrigated.

The corn crop in 1928, 99,162,000 bushels from 4,722,000 acres; wheat, 22,176,000 bushels from 2,016,000 acres; and oats, 35,751,000 bushels from 1,402,000 acres; potatoes, white and sweet, 10,775,000 bushels from 148,000 acres; and rice, 7,308,000 bushels from 174,000 acres; and peanuts, 109,200,000 pounds from 168,000 acres.

The fruit production ranges from the varieties which are grown in the temperate zone to the semi-tropical kinds, and the pecan nut is a large crop.

The 13,500,000 domestic animals bring immense sums annually, the wool clip alone being from 15,000,000 to 20,000,000 pounds, with very heavy returns from cattle, horses, pigs and sheep, which range on the vast mid-western prairies, some of the ranches being of several hundred thousand acres. It leads the country in the cattle breeding industry.

Texas was fourth rank in value of mineral products in 1927, $374,503,000; and in 1926 $420,586,730. The petroleum output in 1928 was 256,888,000 barrels; in 1927, 213,768,000 barrels; in 1926, 166,916,000 barrels; and in 1925 144,648,000 barrels. Natural gas output in 1926 was 175,392,000 M. cubic feet valued at $28,165,000 and in 1927, 254,063 M. cubic feet.

Oil is found all the way from the northwest to the southeast on the Gulf, the field there being somewhat concurrent with that of Mexico. In the north and northwest, the formation runs with that of Oklahoma and Kansas, the content being rich.

The Texas gas wells in the Dallas-Fort Worth district are the chief source of the supply of helium gas now used in the giant airship Los Angeles.

Texas produces over 99 per cent. of all the sulphur in the United States—1,409,240 tons valued at $23,000,000 in 1925, 1,890,000 in 1926, 2,111,000 in 1927, and 1,981,873 in 1928.

In 1928, 895,000 tons of coal were mined, and asphalt and pottery clay were important products, as also all the base minerals, silver, lead, quicksilver and copper being naturally present and somewhat developed as to production.

In the northwest the bed of a former inland salt sea contains the salts that appear in all sea waters, and the University of Texas at Austin and the United States Geological Survey have announced the discovery of potash, the work of proving the extent thereof being now in progress.

The United States census of manufactures, 1927, reported 4,065 establishments (3,603 in 1925) with 116,763 employees (106,772) earning $130,408,661 ($116,353,580) and an output valued at $1,206,579,962 ($1,237,674,838). The 62 petroleum refineries with 13,726 employees earning $19,683,149 had an output valued at $429,501,524 ($488,181,732). The 24 slaughtering and meat packing houses (wholesale), had an output valued at $84,585,133 ($79,208,777); the 175 cottonseed oil and meal factories an output valued at $78,324,499 ($86,387,983); the 276 lumber and planing mills an output valued at $55,254,573 ($60,675,779).

Texas took first place in merchandise exports away from New York in 1924, her total amounting to $737,218,927, by a margin of $5,614,625. She lost it however in 1925, for although her shipments reached $758,665,052, New York's increased to $810,416,054. In 1926 the totals were New York, $761,249,789; Texas, $648,991,954; in 1927, New York, $764,766,896; Texas, $647,026,141; and in 1928, New York $861,578,624; Texas, $817,002,082. Her land and water ports in 1928 handled exports valued at $834,100,000, an increase of $153,600,000 over the previous years.

From Galveston, the chief seaport, the value of the exports for the district in 1928 was $682,313,418, (in 1927, $554,892,962). Of this $320,254,826 came from Houston. This city where seventeen railroads converge, has, since 1919, become an important shipping port, though fifty miles from the sea, through the widening and deepening to thirty-foot channel of the Buffalo Bayou and San Jacinto River, completed in August, 1925, at a total cost of $20,000,000, including the Municipal Terminals with fourteen wharves. Through the Beaumont-Port Arthur ship channel are exported huge quantities of petroleum products and the district has developed into a great industrial centre.

Texas now leads in railroad mileage, having 16,909 in 1928.

Public school enrolment is about 1,125,000 for a population of 4,663,228 reported in the 1920 census. The University of Texas at Austin is well known, and has authority in many lines of research, especially in geology. There are a dozen other well established higher institutions. Expenditure for public schools in 1926 was $65,128,019.

The percentage of illiteracy was reported at 8.3; native white, 3; Negro, 17.8; foreign-born white, 33.8. The 249,652 Mexicans are the largest body of foreigners, communication across the international boundary line being in peace time constant and extensive.

UTAH.

Area, square miles ..... *84,990* ..... *10th in rank*
Population, 1920 ..... *449,396* ..... *40th in rank*
Population, 1928 (est.) ..... *531,000* ..... *6.0 to sq. m.*
Wealth, 1923 (Census est.) *$1,535,477,000*

Utah, of the Mountain group of the Far West, is bounded on the north by Idaho and Wyoming, on the east by Wyoming and Colorado, on the south by Arizona, and on the west by Nevada. It has several mountain ranges, which attain up to 12,000 feet elevation (the highest peak, Kings Mountain, 13,498 feet), the greater part of the State being a plateau 6,000 feet above sea level. The rivers are useful only for irrigation, more than 1,300,000 acres being under water. The Great Salt Lake, salt being 20 per cent. of the fluid content, is in the northwest part, altitude 4,218 feet, and has no known outlet. The climate is dry, stimulating and wholesome, warm in summer, rather cold in winter, and the sky so clear that no cloud specks it on 300 days a year.

The value of all crops in the Census of 1920 was $57,890,000, of which hay and forage led, with $24,583,000, mostly alfalfa. All the temperate zone cereals are produced. There are 25,662 farms, with 5,050,410 acres.

The fruit production ranges from temperate to sub-tropical zone varieties, which latter grow in the southern tier of counties.

The wool clip in the 1920 census was 11,690,239 pounds.

Mineral resources are most varied, including gold, silver, lead, manganese, copper, gypsum, petroleum, sulphur, zinc, salt and coal. The total value of mineral output in 1926 was $98,985,218.

More than 13,000 square miles of land contain workable coal, the supply being estimated at 196,458,000,000 tons. The output in 1928 was 4,810,000 tons.

Production of uranium and vanadium, especially valuable, is the second in the Union.

Semi-precious stones are taken in large quantities, and a high grade of marble and onyx for building is quarried.

The State ranked second in production of copper in 1928 and 1927, the output in 1928 being 298,375,465 pounds, and in 1927, 267,705,397 pounds. Utah is the leading producer of silver; the value in 1928 being $10,383,350, in 1927, $10,973,581 and in 1926, $12,440,084. Gold output in 1927 was $4,124,400; and in 1926, $3,758,800.

The United States census of manufactures, 1927, reported 556 establishments (517 in 1925) with 13,585 employees (15,077) earning $16,688,574 ($18,199,536) and an output valued at $163,118,376 ($177,224,538). The three smelters and refineries for lead with 1,573 employees earning $2,231,576 had an output valued at $34,513,685 ($45,482,711). The figures for the copper refineries were not available. The 65 flour mills had an output valued at $10,104,127; the nine slaughtering and meat packing houses, $7,071,743; and the 30 canneries $6,349,806.

Railroad mileage, 1928, was 2,194.

Illiteracy is low, at 1.9 per cent.; native whites three-tenths of 1 per cent., foreign-born 6.3, there being 56,455 of foreign birth, English most numerous. About 100,000 attend the schools, and higher educational institutions are becoming numerous and well established.

The distinguishing feature is the Mormon Church, the Latter Day Saints, as they call themselves, numbering three-fourths of all church membership. The Mormons came originally to Utah from the Midwest, being driven out by persecution, and journeyed to the territory when it was almost completely a wilderness, subduing it and building a social formation based on the domination of the Mormon Apostles and Bishops, with close interrelationship between church and government, the tithing system being adopted.

Salt Lake City, the capital, has several celebrated structures built by the church, among them the great Tabernacle and the Temple.

The "Great American Desert" lies in the northwestern corner of Utah, reaching over into Nevada.

VERMONT.

Area, square miles.....9,564.....*42d in rank*
Population, 1920.....352,428.....*45th in rank*
Wealth, 1923 (Census est.).....*$842,040,000*

Vermont, a New England State, is bounded on the north by Canada, on the east by New Hampshire, on the south by Massachusetts, and on the west by New York. Lake Champlain, more than 100 miles long, marks the western boundary line. The Green and Latonic Mountains run north and south through the State. The climate, like its topography, is rugged and characteristic of the north. Population is 36.8 to the square mile.

The 1920 census gives $47,999,600 as the value of all crops, and $168,159,000 as the value of all manufactures. Vermont has the largest value of dairy products per capita in the Union, the value being returned as $27,152,954, and it leads all States in the production of maple sugar. Agricultural production takes a wide range, including even tobacco, and covers all the cereals suitable to the zone, with considerable fruits, apples predominating. There are 29,075 farms, with 4,235,811 acres.

Known as "The Green Mountain State," its chief mineral wealth is in its quarries, leading all States in output of granite and marble.

The United States census of manufactures, 1927, reported 880 establishments (951 in 1925) with 26,241 employees (27,563) earning $32,305,433 ($32,326,006) and an output valued at $134,029,978 ($138,269,861). The 203 quarries with 5,208 employees earning $8,411,063 had an output valued at $21,317,503. The 70 dairies' output was valued at $6,036,403; the woolen goods mills at $10,939,729 ($14,327,688); and the 18 paper and pulp mills at $9,751,433.

Railroad mileage, 1927, was 1,057.

Vermont is a popular resort in the summertime for persons from all Eastern cities, the mountain scenery being beautiful, and a system of roads being now in process of building up to modern standards. The shores of Lake Champlain for 100 miles afford excellent boating.

Disastrous floods beginning Nov. 3, 1927, caused damage estimated at $30,000,000, railroad beds, highways and bridges suffering greatly.

The illiteracy percentage is 3; native whites 1.5, and foreign-born 11.3. Of the total population of 352,428 reported in the 1920 census, foreign-born numbered 44,526; Canadians, 24,868.

The University of Vermont, Middlebury College and Norwich University are the leading institutions of learning.

VIRGINIA.

Area, square miles.....42,627.....*33d in rank*
Population, 1920.....2,309,187.....*20th in rank*
Population, 1928 (est.).....2,575,000.....*60.4 to sq. m.*
Wealth, 1923 (Census est.).....*$4,891,570,000*

Virginia, one of the South Atlantic and one of the Thirteen Original States, is bounded on the north by West Virginia and Maryland, on the east by Maryland and the Atlantic Ocean, on the south by North Carolina and Tennessee, and on the west by West Virginia and Kentucky. Part of its original territory was taken in 1863, during the Civil War, to form West Virginia. On its eastern side, the great waterway, Chesapeake Bay, cleaves the State, cutting off a small portion between which and the main portion is the entrance past the Capes to the bay, and there are many rivers which flow into the bay, with navigation up the James, the York, the Rappahannock and the Potomac.

The topography is varied, beginning with the low lying lands along the coast, known as Tidewater Virginia, rising to an extensive tableland in the central part, and finding mountain elevations up to 5,700 feet in the west. In the northwestern corner is the rich Shenandoah Valley. The Potomac River bounds the State on the north, making off from the bay. The mountains are the Alleghanies, the Shenandoahs and the Blue Ridge. The climate is as varied as the topography, characteristic in each portion, cool in the higher elevations and rather warm in the lower.

Virginia is an agricultural State, the total value of all crops being reported by the census of 1920 as $292,824,260 with 186,242 farms totalling 18,561,112 acres. The State is third in rank in tobacco production, 111,600,000 pounds from 186,000 acres valued at $19,180,000 in 1928. Culture by the whites began soon after the settlement of Jamestown, 1608. The wheat crop, 1928, was 9,758,000 bushels and the corn crop 45,155,000 bushels. The peanut crop was 141,960,000 pounds valued at $6,672,000.

Cotton production in 1928 was 43,711 bales from 79,000 acres, a yield of 265 pounds per acre.

Live stock husbandry has been in late years emphasized especially, effort being exerted to bring in pure blood strains. Much of the progress in this line is due to the incoming of many Northerners, who have taken over rural estates to obtain the social advantage of the delightful country life of the Old Dominion State, which was of the flower of the old time era of the cavaliers.

The United States census of manufactures, 1927, reported 2,432 establishments (2,552 in 1925), with 114,918 employees (112,126) earning $110,377,945 ($105,880,765), and the product valued at $671,346,808 ($589,235,865). The 15 cigar and cigarette factories with 6,762 employees earning $4,812,071 had an output valued at $126,888,241; and chewing and smoking tobacco and snuff output, $17,978,456. The 27 cotton goods mills with 8,426 employees earning $7,057,919 had an output valued at $27,295,233 ($30,295,320). The 17 paper and pulp mills had an output valued at $30,725,679; the 412 lumber and planing mills an output valued at $29,603,874; and the 25 shipbuilding plants an output valued at $21,513,738.

Virginia ranks as the tenth state in value of exports in 1928, $142,504,115, and in 1927 $136,416,741.

Virginia has national shrines in Mt. Vernon, the home of Washington, in Monticello, the home of Jefferson, and, notably, the Arlington National Cemetery. Famous among watering places today as well as in ante-bellum days are the Hot Springs and the healing baths with the Homestead Hotel as the center of all the year round social activity.

The constitutional amendments adopted by the people June 19, 1928, permitted a complete reorganization of the State Government as planned by Gov. Harry F. Byrd based on a seven-months scientific survey by the National Institute of Public Administration. Of 100 boards, commissions and departments, more than 30 were abolished and the rest were reorganized and concentrated in 14 units of which 11 are responsible to the Governor. Gov. Byrd announced that at the end of the first year or reorganized government Virginia had a cash balance of $12,107,737, and an actual surplus of $2,596,181 in March, 1928, as compared to a deficit of $1,368,004 in March 1926, without any increase in the tax rates.

Cotton goods especially are becoming great in volume, the mills having about 690,000 spindles, Virginia using much more raw cotton than it produces. The lumber cut averages about 800,000,000 feet, and is unusually varied, including yellow pine, oak, gum, hemlock, cypress, chestnut, yellow poplar, cedar, tupelo, basswood, hickory and walnut.

Mineral output includes coal, 12,330,000 tons in 1928; iron ore, 27,970 tons (66,897 tons in 1927); pig iron, 63,175 tons; also copper, lead, zinc and large supplies of building materials.

Railroad mileage, in 1928, was 4,714.

In Hampton Roads the United States maintains a great navy yard, as the principal rendezvous of the navy, utilizing the James River as its chief anchorage.

In Newport News, on the James River, an ex-

tensive shipbuilding plant constructs vessels of many types, including warships of heaviest tonnage.

Fortress Monroe, on the peninsula between the James River and Chesapeake Bay, has strong, modern fortifications, commanding the waterways.

The illiteracy percentage is 11.2, Census of 1920; native whites, 5.9; foreign-born 7.1; and Negro 23.5. The Negro constitutes 29.9 per cent. of the population, having fallen from 32.6 per cent. in 1910. The U. S. Bureau of Education reported on Dec. 25, 1925, that the number of adult illiterates had been reduced one-half within five years.

In higher educational institutions Virginia ranks among the foremost States, having such well-known establishments as the University of Virginia, founded by Thomas Jefferson, at Charlottesville, from which many men famous in history have been graduated; Washington and Lee University at Lexington; William and Mary College, the second oldest in the country, at Williamsburg; Virginia Polytechnic at Blacksburg; Virginia Military Institute at Lexington; Hampden-Sidney College at Hampden-Sidney, and Hampton Normal School at Hampton, the first well developed school for Negroes established in the South. More than 500,000 attend the public schools. Expenditure for public schools in 1926 was $21,755,438; and in 1927 $29,352,822.

The "Old Dominion," first in population of the States until 1820, prides itself on its Revolutionary heroes, its eight Federal Presidents, (including Harrison, Taylor and Wilson, born in Virginia but elected from other states) and its social prestige. It was the theatre of the decisive campaign in which the Civil War ended with the surrender at Appomattox of Gen. Robert E. Lee, head of the Confederate armies.

Old Surrender Field at Yorktown where 7,000 British troops under Lord Cornwallis laid down their arms Oct. 19, 1781, was bought in July 1928, for preservation, by the Corporation backed by John D. Rockefeller, Jr., which is restoring Williamsburg, the Colonial Capital.

WASHINGTON.

Area, square miles ..... *69,127* ..... *19th in rank*
Population, 1920 ..... *1,356,621* ..... *20th in rank*
Population, 1928 (est.) ..... *1,837,000* ..... *22.9 to sq. m.*
Wealth, 1923 (Census est.) *$5,122,405,000*

Washington, of the Pacific (Northwest) group, is bounded on the north by British Columbia, on the east by Idaho, on the south by Oregon, and on the west by the Pacific Ocean. It has the Columbia River as southern boundary line for 300 miles from the west, and many streams of importance, mostly for irrigation uses, with the Snake River in its eastern reaches. In the northwestern third of the State the great Puget Sound, with tortuous shores and innumerable harbors, on which Seattle, Tacoma, Everett, Olympia and other important cities are situated, is a great commercial centre. It is the nearest American gateway to the ports of Asia, handles the bulk of the shipping to and from Alaska and has a heavy trade coastwise via the Panama Canal.

The seaborne trade of Seattle in 1928, was valued at: Foreign, imports, $229,096,631; exports, $150,816,338. It is the principal landing port of the Northern Pacific fisheries, 333,057,742 pounds (83% being salmon and halibut) were landed in 1928. It is the terminus of the cable to Seward, Alaska. The salmon pack of Washington in 1928 was 497,400 cases valued at $5,023,996.

Seattle claims to be the healthiest city in the United States. Its growth has been great, and the Census Bureau estimated its population as of July 1, 1928 as 383,200.

The Cascade Mountains cut the western third from the State's area, with the usual lower mountain range nearer to the ocean shores. A dozen peaks, snowcapped, rise in the west. Mt. Rainier or Mt. Tacoma (according to which city you may be in at the moment) is a beautiful attraction with its 14,408 feet of height, now a national park, and the Olympic range in the northwest is surpassingly beautiful.

Standing timber is about 330,000,000,000 feet; Douglas fir, yellow pine, white pine, spruce, larch, cedar and other trees abound. Normally, the State cuts more than 4,000,000,000 feet, leading all the States, and shipping the product all over the world, much coming to the North Atlantic States, via the Panama Canal, and going by rail to the Central West, while Washington shingles are used throughout the whole northern half of the country.

Agriculture is developing rapidly. All crops reported in the 1920 census were valued at $227,212,000, and included all the cereals, vegetables, forage crops, and the fruit production is famous, the irrigated sections all the way from the south to the very border of Canada being prolific and yielding products demanded in all Eastern fruit markets. Every variety known to the temperate zone is produced; the fruit and nut crop, 1920 census, was worth $51,662,000, apples alone being worth $38,823,000. There are 66,288 farms of 13,244,720 acres.

The geology is the same as that of Oregon—arid and semi-arid lands in the east, interspersed with fertile portions, and west of the Cascades the rainfall ranges from 20 to 80 inches with a resultant profusion of vegetation.

The Great Northern Railway completed Jan. 12, 1929 a 7¾ mile tunnel through the Cascade Mountains, an expenditure of about $14,000,000, and completed the electrification of 75 miles of mainland track through the Cascades between Wenatchee and Skykowish, Wash., at the expense of $11,000,000.

The Spokane country produces one-ninth of the nation's wheat crop, one-fifth of the apple crop; also 35% of the nation's lead and 30% of the nation's magnesite, as well as much silver, gold and zinc. It has also one-fifth of the nation's total water-power resources and on the Spokane River seven plants have an installed capacity of 185,215 h.p.

East of the Cascades most of the wheat is grown, the crop being 41,837,000 bushels, with many sheep, cattle and horses. The livestock interest is mostly in the east, where the great ranges are, with mild winter in the valleys, with winter grazing.

The United States census of manufactures, 1927, reported 3,344 establishments (3,216 in 1925), with 104,468 employees (105,893) earning $145,930,930 ($146,244,608), and a product valued at $677,913,579 ($659,339,836). The 658 factories making lumber and planing mill products with 58,809 employees earning $83,280,771 had an output valued at $257,093,567 ($273,545,537). The 58 flour mills had an output valued at $44,904,285; the 36 meat packing houses an output valued at $32,816,654; and the 100 dairies an output valued at $17,168,070.

All the basic minerals are present, coal output in 1928, being 2,184,000 tons.

Railroad mileage, 1927, was 5,559.

In illiteracy, the State has a percentage of 1.7; native white, 3-10ths of 1 per cent.; foreign-born, 4.7. Foreign-born number 250,055, being 18.4 per cent. of the population, of which Japanese and Chinese are numerous.

About 300,000 attend the public schools, and the University of Washington at Seattle, and the State College at Pullman, for science and agriculture, with several well established colleges, provide ample higher educational facilities.

The shores of Puget Sound are very popular as summer resorts, with many hotels and cottage colonies, while steamer tourist travel to the Orient and to and from Alaska is extensive.

WEST VIRGINIA.

Area, square miles ..... *24,170* ..... *40th in rank*
Population, 1920 ..... *1,463,701* ..... *27th in rank*
Population, 1928 (est.) ..... *1,724,000* ..... *72.0 to sq. m.*
Wealth, 1923 (Census est.) *$4,677,919,000*

West Virginia, of the South Atlantic group, was set off during the Civil War from Virginia. It is bounded on the north by Ohio and Pennsylvania; on the east by Pennsylvania, Maryland and Virginia, on the south by Virginia and Kentucky, and on the west by Kentucky and Ohio.

It is essentially mountainous, the Appalachian range having several spurs therein. Its western parts drain into the Ohio River, and its eastern portions down the Potomac River to the Atlantic Ocean. The mountains are in the east. The climate is moderate, and between the north and south extremes.

Mining is the leading industry, the value of the total product in 1926 being $395,941,940. The State ranks second in the production of coal with an output of 132,600,000 tons in 1928 and 145,122,000 tons in 1927, much of it fine steaming coal from the Pocahontas field. The petroleum output in 1928 was 5,704,000 barrels; natural gas 162,375,000 M. cubic feet (in 1927). The pig iron product, 1928, was 645,028 long tons.

West Virginia produces more hardwood than any other State, excepting Arkansas, and has vast timber wealth, including yellow poplar, birch, ash, oak, spruce, hemlock and walnut.

Its agriculture is not so important, total value of all crops reported in the 1920 census being $96,537,000, the leading crops being corn, hay, tobacco, potatoes, and fruits of all kinds suitable to the zone. Farms number 87,289, with 9,569,790 acres.

The State ranks sixth in the steel works and rolling mill industry and among the first in the production of glass and glassware.

The United States census of manufactures, 1927, reported 1,313 establishments (1,395 in 1925), with 77,330 employees (80,700) earning $103,431,224 ($105,892,102), and a product valued at $455,216,-551 ($470,821,582). The 16 iron and steel works and rolling mills with 11,688 employees earning $20,909,-028 had an output valued at $87,872,862 ($92,565,-227); the 41 steam railroad car construction and repair shops with 11,578 employees earning $16,674,250 had an output valued at $33,604,644; the 149 lumber and planing mills with 8,488 employees earning $10,-424,519 had an output valued at $28,647,484 ($35,-035,041). The five petroleum refineries had an output valued at $14,827,454; the 48 glass factories valued at $44,161,122. The nine meat packing houses, an output valued at $12,357,524. Leather p oducts were valued at $13,290,872; and pottery at $11,433,071.

The State's new Water Power Act, passed in 1929, permits the export sale of hydro-electric power outside the state, provides for development by license for fifty year terms with limited power of continuation and right of recapture, and gives the Public Service Commission power to regulate rates. It is expected to hasten the development of the State's very large potential hydro-electric power.

Its transport by water is abundantly served with the Ohio River on the west. Railroad mileage, 1928, was 4,080.

Its illiteracy percentage is 6.4; native white, 4.6; Negro, 15.3; and foreign-born, 24. Negroes are 5.9 per cent. of the population, and foreign-born 4.2. Public school enrolment was reported at 360,000, and there are many colleges, church denominational schools being numerous; industrial schools also.

Expenditure for public schools in 1926 was $26,-235,479.

In recent years many Northerners have gone to the State to take country homes in the mountains. White Sulphur Springs in the eastern part is one of the most celebrated pleasure resorts, popular socially, and with a famous golf course.

WISCONSIN.

Area, square miles.....56,066.....25th in rank
Population, 1920.....2,632,067.....13th in rank
Population, 1928 (est.)...2,953,000....52.7 to sq. m.
Wealth, 1923 (Census est.).....$7,866,081,000

Wisconsin, of the East North Central group, is bounded on the north by Lake Superior and Michigan, on the east by Michigan and Lake Michigan, on the south by Illinois, Iowa and Minnesota, and on the west by Iowa and Minnesota. The Mississippi River forms the southern half of the western boundary line. It has the characteristic climate of the northern tier of States, cold in winter and pleasant in summer, dry and stimulating.

Everything grown in the north temperate zone is produced, in grains, vegetables and fruits, agriculture being especially well diversified—corn, wheat, rye, barley, hay, flaxseed, potatoes, sugar beets, with considerable quantities of tobacco for cigar wrappers, hops, peas, sorghum and maple syrup. More peas are canned than in any other State, and more hemp raised. The grape production is very large, as is the output also of cranberries, apples, cherries and plums. Wisconsin was, in 1927, the leading State in the combined value of the butter, cheese and condensed milk industries, $213,256,081 from 2,601 establishments employing 5,403 hands to earned $7,385,800. There are 189,295 farms, with a total of 22,148,223 acres.

The value of all crops in 1920 was returned by the census as $445,347,868.

Manufactures include the most lumber cut in the Great Lakes region. The State has the most creameries of any State, refines much beet sugar, makes much woodwork and implement products, considerable pig iron output, ranks fifth in zinc production, fourth in iron ore output, the valuable hematite kind chiefly, and the fisheries on the lakes are highly productive, the whitefish being highly valued.

The United States census of manufactures, 1927, reported 7,473 establishments (7,262 in 1925) with 247,722 employees (247,341) earning $322,697,105 ($314,883,011) and a product valued at $1,973,653,-261 ($1,859,243,930). The 58 factories of making motor vehicles and parts with 19,990 employees earning $31,099,462 had an output valued at $265,-143,993 ($215,347,961); the 84 paper and pulp mills with 13,136 employees earning $16,418,354 had an output valued at $125,050,600 ($97,779,601); the 324 foundries and machine shops with 21,081 employees earning $31,888,882 had an output valued at $127,-357,554 ($125,063,220); the 277 lumber and planing mills with 20,964 employees earning $23,076,376 had an output valued at $75,163,405 ($89,306,150); the 18 factories making engines, turbines and water wheels with 8,982 employees earning $15,240,802 had an output valued at $62,549,223 ($53,174,241); the 116 furniture factories with 11,103 employees earning $14,345,703 had an output valued at $49,150,009 ($53,915,692); and the four factories making rubber tires and inner tubes with 3,699 employees earning $5,288,911 had an output valued at $43,823,143 ($46,271,447).

The 2601 dairy plants produced butter valued at $77,037,218; cheese, $82,515,023; and condensed and evaporated milk, $58,703,840. The meat packing product was valued at $75,793,912. The product of the printing and publishing industry was valued at $41,329,510; that of the knit goods at $55,838,366; and that of boot and shoe factories at $57,315,000.

The story of Wisconsin forests, as of all of the Lake States, is tragic. Naturally, almost the entire State was covered with pine, hemlock, and the invaluable hardwoods. Lumbering proceeded without regard to conservation, until more than 8,000,-000,000 feet were cut annually; production on account of the exhaustion of the supply then falling off, until the 1920 census reported the cut as 1,275,-000,000 feet, with an estimated stand remaining of about 2,500,000,000 feet. There are therefore enormous areas of now useless cut-over forest lands, with comparatively scattered timber tracts left.

Superior, at the head of Lake Superior, opposite Duluth, is the main terminus of the Great Northern Railway, and has great ore, lumber, wheat and coal dockage, with considerable manufacturing of iron products. The iron ore mined in 1928 amounted to 1,394,371 long tons.

Railroad mileage, 1927, was 7,500.

Of the 2,632,067 population shown by the 1920 census, the number of foreign-born was 460,128, or 17.5 per cent., Germans numbering 151,250. Milwaukee, on July 1, 1926, by Census Bureau estimate, had 517,600 population.

The percentage of illiteracy was 2.4, against 3.2 in 1910. The native white illiteracy in 1920 was 7-10ths of 1 per cent.; foreign-born, 8.4; Negro, 4.1.

The University of Wisconsin at Madison is especially far advanced in sociologic research, domestic science and the practical arts. The 1928 matriculation was 8,800. There are many colleges and smaller schools.

Wisconsin has no bonded indebtedness.

WYOMING.

Area, square miles.....97,914.....8th in rank
Population, 1920.....194,402.....48th in rank
Pop. 1925 (State Census)...206,381.....2.1 to sq. m.
Population, 1928 (est.).....247,000 .....2.5 to sq.m.
Wealth, 1923 (Census est.).....$976,239,000

Wyoming, a Mountain Group State, is bounded on the north by Montana, on the east by South Dakota and Nebraska, on the south by Colorado and Utah, and on the west by Utah, Idaho and Montana. It is a lofty region, its mean elevation about 6,000 feet—a broad plateau traversed by the Rocky Mountains, highest point of which is Mt. Gannett, 13,785 feet. Topography is varied.

Its waters flow in all directions, drainage by the Green River to the southwest, by the Yellowstone and Snake Rivers to the northwest, by the Big Horn to the north, and by the North Platte, Sweetwater and Laramie Rivers to the southeast, none of them navigable. The river waters are however valuable for irrigation, more than 1,200,000 acres being actually under irrigation, and an area of nearly 2,700,000 acres being included in irrigation projects which are under construction.

The climate is that of the rarefied air of high elevations, and is salutary, with severe winters and pleasant summers, moisture precipitation being low at about 12 inches mean annually.

With less than 200,000 population reported in the 1920 census more than $50,000,000 was assigned as the value of all crops, hay the leader, mostly alfalfa, and corn, potatoes, oats, wheat, rye and barley also produced.

Stock raising is the most important industry, sheep husbandry being the second in rank in the United States, the wool clip reported at 33,000,000 pounds in 1920. Farms by that census numbered 15,748, with 11,809,351 acres.

Wyoming has extensive mineral resources, though largely undeveloped, the value of the product in 1926 being $78,988,066. The coal production in 1928 was 6,486,000 short tons; petroleum, 1928, 21,415,000 barrels; 1927, 21,146,000 barrels and natural gas (1926), 46,567,000 M. cubic feet.

The census of manufactures, 1927, with 229 establishments (224 in 1925) with 5,577 employees (6,333) earning $9,066,022 ($10,526,253) and the product valued at $85,368,360 ($107,984,752). The 15 petroleum refineries with 1,612 employees earning

$3,249,634 had an output valued at $60,834,758, ($83,911,353).

Railroad mileage, 1927, was 1,992.

The 1920 census reported the percentage of illiteracy as 2.1; native white, 3-10ths of 1 per cent.; foreign-born, 9. There were 25,255 foreign-born, mostly from Europe.

Casper, the centre of the oil industry, is the largest city in the State, with a population, July 1, 1925, of 23,288.

The 1920 school enrolment was 47,553 The University of Wyoming at Laramie has 1,000 students.

The Yellowstone National Park in the northwest corner is one of the world's most famous resorts for the tourist; its giant geysers, waterfalls and high coloration of the rugged gnarled rocks attract heavy travel from all parts of the country and from foreign lands.

The ranch life retains much of the old time flavor of the West, and many Easterners go there to enjoy it. The annual cowboy roundup at Cheyenne attracts many.

ALASKA, TERRITORY OF

AREA, 586,400 square miles (including the Aleutian Islands).

POPULATION, Census of 1920, 55,036 (27,883 whites, 27,153 Indians and Eskimos). Males, 34,539; females, 20,497. 1924 (est.), 60,000.

CAPITAL, Juneau, population, 1920, 3,058.

Governor, George A. Parks, 1925-29, appointed, June, 1925, reappointed, 1929-1933, June, 1929.

Consuls maintained at Juneau and Nome by Norway; at Nome by Russia (Consul General); at Skagway by Great Britain and Sweden.

Alaska occupies the northwestern part of the North American Continent. It is bounded on the north by the Arctic Ocean, on the west by the Arctic and Bering Sea, on the south by the North Pacific Ocean and on the east by Canada. From the southwestern corner the Aleutian Islands stretch out westward 1,200 miles to longitude 172° E. Cape Wrangell, facing Siberia. Bering Strait, 54 miles wide, separates Cape Prince of Wales from Asia. The "Panhandle" runs southeast 600 miles along the Pacific to Dixon Inlet, which is about 700 miles from the northwestern corner of the United States, and includes all the islands, the boundary with Canada along the mountain crests being fixed by arbitration in 1903, international survey completed, 1913. Lower Alaska has a population of 12,000 whites and 5,000 natives.

Alaska is mountainous with high plateaus; the coast range extends through the southern part, the chief peaks being Mt. St. Elias (alt. 18,024 ft.), Mt. Wrangell (14,005 ft.) and further inland Mt. McKinley (20,300 ft.), the highest peak on the North American Continent. There are more than twenty active volcanoes, notably Mt. Katmai, now with the "valley of 10,000 smokes" a national monument. Mt. Katmai, which had been dormant, suddenly blew the top of its head off June 6, 1912—one of the greatest eruptions in history. The mountains and the Sitka district are densely timbered, mainly coniferous, but the islands are treeless. The most notable glaciers are the Muir, Malaspina and Seward. The Yukon is the chief river, 1,765 miles long, navigable for about 1,200 miles. The length of the coast line is about 4,750 miles, including islands 26,364 miles. There are many excellent harbors, one, Dutch Harbor, Unalaska Island, being of great naval importance.

Attu, the last of Aleutians, the volcanic, mountainous, treeless islands that stretch in a 1,200-mile arc to the Asiatic coast, is the westernmost point of the American Continent, in the same longitude as New Zealand, and 2,700 miles from Washington State. In summer the sun is just setting in Attu when it is rising in Maine.

Away from the south coast the country back of the barrier of mountain ranges is a great inland plateau rolling gently north. It is inhabited chiefly by huge herds of reindeer guarded by their native owners. Fairbanks, in the same latitude as Iceland, is, with Tanana, the centre of a growing agricultural region.

There is great diversity in climate. In the interior a temperature of 60° below zero in winter is not unusual, with a temperature of 90° in the summer, but on the coast, owing to the Japanese Current, the thermometer rarely falls below zero in the winter with a maximum of about 80° in the summer. Rain there is abundant. All the hardier vegetables and the cereals, except corn, thrive during the short summer with its long hours of sunlight. Of the 378,165,760 acres, the Census of 1920 reported 90,652 in 364 farms, 5,836 acres only being under cultivation. In the country tributary to the Government railroad it is estimated that 1,296,000 acres are suitable for farming without costly drainage. There are 65,000,000 acres suitable for grazing.

Mt. McKinley National Park contains 2,645 square miles, and is a vast wilderness game preserve of great natural beauty. The mountain rises 17,000 feet above the timber line. A 75-mile road through the park will be finished in 1931.

Alaska has vast forests along the coasts, of which 21,392,000 acres are in forest reservations from which the total cut in 1925 was 57,500,000 board feet. The horse power capacity of surveyed undeveloped water power sites is 475,000.

The country is a paradise for big game, protected under a law approved by the President, Jan. 13, 1925, administered by a Game Commission of five Alaskans, C. T. Gardner of Juneau, Chairman, under the jurisdiction of the Secretary of Agriculture. The legislature appropriated $30,000 in 1929 to start a campaign to exterminate coyotes and wolves. A buffalo range was also established.

Reindeer were introduced from Lapland and from Siberia to insure the support of the Eskimos by the Government, which brought in 1,280 head between 1892 and 1902. These increased under careful handling to 22,107 in 1910, 92,933 in 1920 (valued at $2,238,562) and 322,000 in 1928. About 240,000 are owned by natives. Reindeer meat exported to the United States increased in value from $53,000 in 1924 to $127,898 in 1926-27 (fiscal year), and to $153,723 in 1928-29. The shipment in pounds was 989,904 in 1926-27; 760,624 in 1927-28, and 1,318,453 in 1928-29. In Northern and Western Alaska there are about 400,000 square miles of treeless region, worthless for agriculture but capable of furnishing pasturage for 10,000,000 reindeer.

There are about 275 blue fox ranches stocked with 36,000 foxes. The investment exceeds $6,850,000; there are also about ninety fur farmers raising foxes, mink and marten in pens.

The value of land fur and skins shipped from Alaska during 1924 was $1,657,448; 1925, $2,381,471; 1926, $2,359,639; 1927, $4,266,000; 1928, $4,650,000.

The killing of seals on the Pribilof Islands was brought under control in 1910, and pelagic sealing prohibited by treaty in 1911. The seal herds have increased from 215,000 to 871,513 in 1928. In 1919-20, 30,198 dressed sealskins, valued at $1,509,600, were shipped to the United States. The shipment for 1920-21 was 24,889, valued at $995,660; for 1921-22, 26,293, valued at $1,005,175; for 1922-23, 30,172, valued at $924,340; for 1923-24, 22,540, valued at $581,430; for 1924-25, 25,395, valued at $713,276; for 1926, 22,131 valued at $749,734; in 1927, 25,969 valued at $508,000; and in 1928, 31,829 valued at $631,000.

Fishing is the most important industry, about 800 vessels being engaged in it, and on them and in the canneries 31,100 men were employed in 1928. The total investment in 1926 was $74,557,522, with a product valued at $54,669,882. The investment in the salmon cannery industry alone was $60,535,550. The total number of salmon taken in 1926 was 96,907,627; in 1925, 64,246,391; in 1924, 79,477,600; in 1923, 77,442,311; and in 1922, 72,370,400.

The salmon pack, reduced to cases of forty-eight pounds each, for seven years was:

Year.	Cases.	Pounds.	Value.
1922	4,501,562	216,074,976	$29,787,193
1923	4,843,574	232,491,587	30,514,286
1924	5,294,915	252,151,920	33,007,135
1925	4,459,937	214,076,976	31,989,531
1926	6,652,882	319,338,336	46,080,004
1927	3,572,100	171,461,000	30,016,000
1928	6,083,700	292,027,000	45,383,885

The output of marketable fish products in 1928 was 414,366,000 pounds valued at $54,553,000; in 1927 289,431,000 pounds valued at $40,163,000.

Since the discovery of gold at Juneau in 1880 (the great Klondike rush through Skagway into Canadian territory and the Upper Yukon began in 1896) up to January, 1928. Alaska has produced $366,031,098 of gold, nearly two-thirds of it from placer mines. Copper and silver produced bring the total yield up to $572,368,000. The United States Geological Survey estimates the value of the placer gold reserve to be at least $360,000,000, this in addition to gold in veins that could not be estimated. U. S. Navy tests show the Alaska coal, of which there are large deposits, equal in steaming value to Pocahontas coal. Output was 104,360 tons in 1927 from eight mines.

Oil of high grade is found in the Katalla field on Controller Bay.

The value of the mineral output in 1927 was 14,404,000; in 1926 $17,658,000; in 1925, $18,286,320; 1924, $17,457,333; 1923, $20,330,643; 1922, $19,506,365; 1921, $17,004,124; and in 1920, $23,303,751. The gold, silver and copper output for seven years was:

Year (Calendar).	Gold. *Dollars.*	Silver. *Dollars.*	Copper. *Dollars.*
1922	7,422,367	729,945	12,630,335
1923	5,985,314	668,012	10,526,655
1924	6,285,724	531,671	9,703,721
1925	6,630,281	484,592	10,487452
1926	6,722,000	441,451	9,489,000
1927	5,927,000	356,000	7,250,000
1928	6,834,200	284,812	5,371,000

Congress, in 1914, authorized the building of a railroad not to exceed 1,000 miles in length. The line is in operation from Seward to Fairbanks, 469 miles; with spurs to coal mines that bring the total up to 543 miles. The cost at wartime prices exceeded $56,000,000. The complete system was put in operation in 1923. Total railroad mileage, 1927, was 801. Tourist travel by four steamship lines in 1926 totaled 32,699.

Aviation development has made accessible in a few hours places that could only have been reached by dog sled in six weeks or two months travel of great hardship. In a three-years service, commercial airplanes covered 300,000 miles of flying and transported 1,000 passengers and 30,000 pounds of freight without loss or injury. The Legislature has caused to be laid out 44 landing fields.

The Territory in 1928 had 1,533 miles of wagon roads, 1,086 miles of sled roads, and 6,671 miles of trails. In the fiscal year 1927-28, $1,042,000 was spent on maintenance, and $1,150,000 on new construction, including Federal appropriation.

The Territory on June 30, 1928, had four national banks with a total capital of $275,000; surplus and undivided profits, $206,090, and deposits, $4,515,504; and thirteen territorial banks with a total capital of $640,000; surplus and undivided profits, $544,869, and deposits, $7,587,949.

Alaska, then sparsely colonized by Russian trappers and Indian traders, was bought from Russia by Secretary W. H. Seward, by the treaty of March 30, 1867, for $7,200,000. It was made a Territory by the act of Aug. 24, 1912, which gave it a Legislature elected by direct vote and a Governor, appointed for four years by the President. Congress reserves the right to legislation on certain subjects.

To facilitate the administration of the Territory, on the authority of a bill passed by Congress, February 10, 1927, these ex-officio commissioners were appointed: By the Secretary of the Interior, Gov. George A. Parks; by the Secretary of Commerce, Dennis Winn; by the Secretary of Agriculture, Charles H. Flory; all have wide powers to take decisive action without referring matters to Washington.

The receipts and expenses of the Territory for the last fiscal years, ending June 30, was:

Year.	Receipts.	Expenditures
1921	$563,474	$680,312
1922	625,476	606,465
1923	752,811	822,245
1924	976,753	858,550
1925	1,034,849	1,044,577
1926	1,756,696	1,400,073

The Territory has no funded debt.

Alaska's commerce with the United States for the last nine fiscal years, ending June 30, was:

Fiscal Year.	Exports to U. S.	Imports From U. S.	Gold Shipments
1919-20	$66,498,871	$33,998,462	$8,793,085
1920-21	54,126,718	27,333,972	7,072,114
1921-22	36,775,870	23,625,161	6,881,020
1922-23	52,984,275	29,981,604	7,496,319
1923-24	53,821,239	31,719,251	6,183,241
1924-25	55,440,645	33,692,369	5,602,217
1925-26	55,347,982	31,692,477	5,432,525
1926-27	72,388,691	32,059,812	6,239,772
1927-28	49,864,910	33,395,456	6,024,854
1928-29	69,431,963	31,793,213	.....

There entered the ports of Alaska in 1928, 1,462 vessels in the foreign trade (not counting vessels from Continental United States).

HAWAII, TERRITORY OF

AREA, 6,406 square miles (Hawaii, 4,016 square miles; Oahu, 598; Maui, 728; Kauai, 547; Molokai, 261; Lanai, 140; Niihau, 97; Kahoolawe, 69, Molokini, 2.7).

POPULATION, Census of 1920, 255,912 (estimated for July 1, 1928, 348,767; American Citizens, 228,226; aliens, 120,491).

CAPITAL, Honolulu, population (Census of 1920), 83,327, estimated, July 1, 1928, 113,000, other city, Hilo, 10,431. (Estimated July 1, 1928, 12,850).

Governor, Lawrence M. Judd (1929-1933) assumed office July 5, 1929.

Consuls are maintained at Honolulu by Belgium, Brazil, Chili, China, Cuba, Denmark, France, Great Britain, Haiti, Italy, Japan (Consul General), Latvia, Mexico, The Netherlands, Norway, Panama, Peru, Portugal, *Consul General*; Spain and Sweden.

The Hawaiian Islands—the crossroads of the Pacific—are twenty in number, of which nine are inhabited, lying in the North Pacific Ocean in longitude 154° 40′—160° 30′ west, latitude 22° 16′—18° 55′ north, and more than 2,000 miles from the nearest mainland. The group extends for 390 miles from northwest to southeast. San Francisco is distant from Honolulu 2,418 miles; Panama, 5,395; Seattle, 2,774; Sydney, N. S. W., 4,424; Auckland, N. Z., 3,800; Manila, 5,475; Hongkong, 5,593; Yokohama, 3,915; and New York (via the Panama Canal), 6,723.

The islands are mountainous and volcanic in origin, filled with extinct craters, Haleakala on Maui being the largest in the world. On the Island of Hawaii is Mauna Kea (altitude 13,823 feet), quiescent, and Mauna Loa (altitude 13,765 feet), active. Sixteen miles east of the latter is the largest active volcano in the world, Kilauea (altitude 4,400 feet) with its "pit of eternal fire"; a wonderful feature of the Hawaiian National Park. It was in eruption in February and September, 1923.

The islands are clothed with luxuriant tropical vegetation; with abundant rainfall and cooled by the prevailing northeast trade winds, the climate is perpetual summer without enervating heat. The higher elevations of the mountains are covered with forests, and 820,000 acres are set apart as a forest reserve. The soil is very fertile and all tropical and sub-tropical fruits and vegetables are grown. The farms number (1920) 5,284, valued at $151,129,085, with 2,702,245 acres, of which 435,242 were improved and 599,531 in woodlands. Of the 5,284 farmers 892 were white (627 owners), 679 Hawaiian (546 owners), 3,098 Japanese (188 owners, 11 managers, and 2,899 tenants), and 560 Chinese (56 owners, 7 managers, and 497 tanants). In 1928 29,571,845 pounds of rice were produced and 6,750,000 pounds of coffee; 86 farms reported (1920) 1,407 breadfruit trees that produced a crop of 101,268 breadfruit. Banana cultivation has been pushed, 183,500 bunches being produced in 1928.

There are 135,000 head of cattle valued at $3,500,000; over $10,000,000 is invested in ranching.

The total area of public lands June 30, 1928, was 1,593,097 acres, of which 70,385 are agricultural, 620,696 pasture, and 598,576 forest reserves.

The largest industry of the islands is the growing of sugar cane and the production of raw sugar. The sugar produced in 1928 was about 994,000 short tons. The output in 1927 was 820,509 short tons from 127,417 acres, about 6.377 short tons per acre. About 70,000 acres are irrigated and produce an average of 7.81 tons an acre. The yield per acre is larger than any other country. The employees on the sugar plantations, about 45,000 in number, of many nationalities, receive house, fuel, water and medical attendance free and are paid a basic monthly wage and a bonus, which varies with the price of sugar. In 1920 the minimum basic wage was $20, and the bonus, extraordinarily large, was 276 per cent. of the wage. For 1921 the bonus was $30. For sanitation, housing and welfare for five years 1922-26, the Hawaiian Sugar Planters Association expended $12,217,600.

The 1923 sugar crop was 545,606 short tons; for 1924, 701,443 tons valued at $80,000,000 or an average of $112 a ton; for 1925, 776,072 tons, valued at $85,000,000 and for 1926, 787,246 tons.

Hawaii's sugar exports to the United States for nine years were as follows:

Fiscal Year.	Pounds.	Value.
1920-21	977,738,902	$93,631,635
1921-22	1,191,624,620	45,108,885
1922-23	1,195,078,906	68,585,641
1923-24	1,171,388,032	74,520,948
1924-25	1,353,120,285	71,468,115
1925-26	1,752,775,846	68,770,308
1926-27	1,363,986,946	60,689,730
1927-28	1,647,586,759	70,045,080
1928-29	1,772,277,875	65,814,749

The second largest industry is the growing and canning of pineapples. The product increased 1094 per cent. in the 1909-1919 decade, and in 1920 143,473,536 two-pound cans valued at approximately $31,000,000 were produced. About 49,500 acres are under cultivation. Hawaii's shipments of canned pineapple for nine years are valued at $29,745,818 for 1920-21; $18,737,405 for 1921-22; $22,321,588 for 1922-23; $28,247,410 for 1923-24; $30,218,983 for 1924-25; $34,529,291 in 1925-26 (432,434,855 pounds); $35,403,305 in 1926-27 (410,570,332 pounds); $37,459,781 in 1927-28 (473,138,831 pounds); and $35,048,108 in 1928-29 (433,196,266 pounds). The capital investment exceeds $30,000,000; cannery employees number 5,000, and field employees 6,000.

Hawaii's imports from the United States were chiefly iron and steel manufactures, mineral oil, breadstuffs, meat and dairy products, lumber, textiles, etc., fertilizers, automobiles, rubber goods, leather and paper.

Honolulu, on the Island of Oahu, is the capital and chief commercial city and port of the islands. It has a fine natural harbor, which needs improvement and development. Its needs have been neglected by Congress, which alone can appropriate the money for them. In the twenty-five years that Hawaii has been an organized territory of the United States it has paid $117,095,205 into the Federal Treasury. In 1927-28 it paid $6,244,382 internal revenue taxes of which $6,112,482 were income taxes and exceeded the income taxes paid by 16 of the States. Customs receipts were $1,881,787. The Territory does not receive for local appropriations one cent of the money collected in customs and internal revenue.

In the fiscal year 1927-28, 8,051 commercial vessels with a gross tonnage of 7,052,907 docked at Honolulu. These figures include inter-island shipping.

The wharves of Hawaii have been maintained and improved by direct taxation and public improvement loans paid by citizens of the Territory amounting to millions of dollars. Since 1901 the Territory has expended $25,000,000 in the construction of main highways.

The Legislature of the Territory in 1923 passed an act called the Hawaiian Bill of Rights reviewing historical details of the admission of the Republic of Hawaii by annexation as an integral part of the United States and asserting its rights as such.

Congress after a hearing passed an act (Public Law 35—Sixty-eighth Congress) declaring the Territory of Hawaii, beginning July 1, 1924, entitled to share in appropriations under the Federal Highway Act, the Sheppard-Towner Maternity Act, the Vocational Education Act and the Vocational Rehabilitation Act under the same terms and conditions as any of the several States, and also extending the Federal Farm Loan Act to the Territory.

The Federal Government maintains its largest army post on the islands with quarters for a division of 30,000 men at Schofield Barracks and the subsidiary forts. The Navy Department has a large base at Pearl Harbor with drydock, opened Aug. 31, 1919. There are also a large aviation field and a powerful radio station.

Hawaii has an excellent system of roads, 1,479 miles, and in Honolulu much concrete construction is used. There are 372 miles of steam railroads, besides about 625 miles on the sugar plantations.

The native population of Hawaii at the time of the discovery has been estimated at about 200,000. With civilization it has dwindled and the race seems destined to disappear through intermarriage with other stocks rather than by deaths.

The population of Hawaii by races is:

Race.	1910.	1920.	1925.
Hawaiian	26,041	23,723	21,145
Caucasian-Hawaiian	8,772	11,072	13,837
Asiatic-Hawaiian	3,734	6,955	8,345
Caucasian:Portuguese	22,301	27,002	27,470
Porto Rican	4,890	5,602	6,352
Spanish	1,990	2,430	1,946
Other Caucasian	14,867	19,708	18,786
Chinese	21,674	23,507	24,851
Japanese	79,675	109,274	128,068
Korean	4,533	4,950	5,956
Filipino	2,361	21,031	49,335
Negro	695	348	430
All other	376	310	
Total	191,909	255,912	306,551

The total for 1925 does not include the U. S. Army and Navy forces amounting to about 15,500. But 360 of the other Caucasians were aliens. Of the Chinese 11,776 were aliens and 13,075 citizens. Of the Japanese, 57,208 were aliens and 70,860 were citizens. Of the Koreans, 3,040 were aliens and 2,916 citizens. Of the Portuguese, 3,552 were aliens and 23,918 citizens. Of the Spanish, 799 were aliens and 1,147 citizens. Of the Filipinos, 11,776 were aliens and 13,075 citizens.

The registered voters by race, in 1926, were: Hawaiian and part-Hawaiian, 17,763; American and European, 15,540; Japanese, 3,092; Chinese, 2,906; others, 1,268; total, 40,569. The votes cast in the election for Delegate to Congress in 1928 was Huston (Rep.) 18,160; Jarrett (Dem.) 16,372.

The death rate in 1924-25 was 12.74; in 1925-26, 12.44; in 1926-27, 11.87; and in 1927-28, 11.7. The birth rate in 1924-25 was 41.57; in 1925-26, 38.08; in 1926-27, 37.16; and in 1927-28, 33.84.

Hawaii came under the influence of American missionaries in 1820, and a large proportion of the natives embraced the Christian faith. The impetus given to education was great, and elementary education has always been free. The language in general use in the schools is English. The Japanese have many so-called Buddhist schools, which their children attend in addition to the American schools. Of the 48,730 children in the public schools (1923) 16,548 attended also these alien language schools; of this number 16,178 were American born and potential citizens. The Legislature in 1921 passed a law providing for State supervision of these schools, which was declared unconstitutional by the United States Supreme Court, February 21, 1927.

The school plants, both public and private, are of very high order. School enrolment in 1927-28 was 66,434 in the public schools (of whom 52% were Japanese); 9,497 in private schools and 1,550 in the State supported University of Hawaii. The expenditure on education, 1927-28, was $5,741,788.

The Bishop Museum at Honolulu is a scientific institution of the first order devoted especially to the preservation of the life of the native Hawaiians and to the study of the ethnology of Polynesia.

Pan-Pacific conferences on vital matters have been promoted during the last five years with great success; and the islands are yearly welcoming increasing numbers of tourists (16,762 in 1926), being well favored with steamship communication. Tourist expenditure in the fiscal year 1927-28 was estimated at $10,000,000. Tourists numbered 17,451.

The Hawaiian Islands were discovered by Capt. Cook in 1778, and there he met his death on his second visit in 1779. King Kamehameha brought the islands under one rule in 1791. The rule of his dynasty, which became a constitutional monarchy in 1840, ended when a revolution drove Queen Liliuokalani from the throne in 1893. An attempt to secure annexation to the United States failing, a republic was proclaimed July 4, 1894. On the outbreak of the Spanish-American War a treaty of annexation was negotiated, ratified by the Hawaiian Senate, and consummated by a joint resolution of Congress, July 7, 1898. Hawaii was created a Territory and its government provided for by the organic act of April 30, 1900.

The chief executive officer of the Territory of Hawaii is the Governor, who is appointed by the President with the approval of the Senate for a four-year term, and who must be a resident of the islands in order to be eligible for appointment. The Territorial Secretary is appointed in the same manner, but the heads of the Territorial departments are appointed by the Governor, with the approval of the Territorial Senate.

The Legislature of Hawaii consists of the Senate of 15 members, elected for four-year terms; and the House of Representatives, of 30 members, elected for two-year terms. The Delegate to Congress is elected every two years, and has floor privileges in the House, but no vote.

The judiciary consists of a Supreme Court, four Circuit Courts and numerous District Courts. The Justices of the Supreme Court and Circuit Courts are appointed by the President, with the approval of the United States Senate.

Hawaii's commerce with the United States is as follows:

Fiscal Year.	Exports to U. S.	Imports From U. S.
1919-20	$142,246,003	$59,261,621
1920-21	127,692,879	77,324,114
1921-22	68,335,075	51,581,621
1922-23	96,159,742	60,795,799
1923-24	107,043,812	71,011,469
1924-25	100,512,336	72,987,494
1925-26	108,699,192	71,785,581
1926-27	101,778,769	77,433,301
1927-28	113,547,157	78,592,165
1928-29	106,385,497	82,498,612

Hawaiian trade with foreign countries was:

Fiscal Year.	Exports.	Imports.
1926-27	$2,066,720	$10,255,000
1927-28	2,195,426	9,505,177
1928-29	2,524,459	10,267,503

The total bonded debt on June 30, 1928, was $28,528,000. The assessed value of real and personal property on June 30, 1928 was $390,598,491. Territorial taxes collected totalled $14,884,100.

	Receipts.	Expenditures.
1922-23	$11,220,855	$11,862,820
1923-24	13,077,072	13,107,373
1924-25	14,022,467	13,790,482
1925-26	10,511,000	8,815,000
1926-27	10,454,628	12,293,000
1927-28	11,749,009	12,708,585

Commercial banks deposits, June 30, 1928 amounted to $48,931,630; and savings deposits to $31,278,434.

Dependencies of the United States.

THE PHILIPPINE ISLANDS.

AREA, 114,400 square miles.

POPULATION, Census of 1918, 10,314,310; estimated, Dec. 31, 1927, 12,353,800; 1.08 to square mile.

CAPITAL, Manila (Luzon), pop. 1918, 285,306, estimated by Board of Health for July 1, 1927, 320,394 (summer capital Baguio, pop. 5,462); other cities, Cebu, pop. 65,300; Albay (Legaspi), pop. 53,105; Iloilo (Panay), pop. 47,808; Batangas (Luzon), pop. 41,182; Ormoc (Leyte), pop. 38,247; Laoag (Ilocos Norte), 38,294; Baybay (Leyte), pop. 36,934.

Governor General, Col. Dwight F. Davis, assumed office at Manila July 8, 1929.

Consuls General maintained at Manila by Belgium, China, Great Britain, Japan, The Netherlands, Nicaragua, and Spain. *Consuls* maintained at Manila by Argentina, Chile, Costa Rica, Czechoslovakia, Denmark, France, Germany, Italy, Liberia, Mexico, Norway, Panama, Paraguay, Peru, Portugal, Sweden, Switzerland and Venezuela; at Cebu and at Iloilo by Great Britain, The Netherlands, Norway and Spain; and at Zamboanga by Great Britain.

The Philippine Islands, the largest island group in the Malay Archipelago, were discovered by Magellan in 1521 and conquered by Spain in 1542; they were ceded to the United States by the Treaty of Paris (Dec. 10, 1898) following the Spanish-American War. Admiral Dewey had destroyed the Spanish fleet in Manila Bay, May 1, 1898, and Major Gen. Wesley Merritt had captured the City of Manila on Aug. 13, 1898.

The land area of the islands lies between 21° 10′ and 4° 40′ north latitude and between 116° 40′ and 126° 34′ east longitude. There are 7,083 islands extending 1,152 statute miles from north to south and 682 miles from east to west. Of this number 462 have an area of 1 square mile or over; 2,441 are named and 4,642 unnamed. The largest, Luzon, contains 40,814 square miles, and Mindanao, the next, 36,906. Panay has 4,448; Cebu, 1,695; Palawan, 4,500; Mindoro, 3,794; Bohol, 1,534; Masbate, 1,255. Between and about lie the other groups, including the Sulu or Jolo Islands in the south, the Babuyanes and Batanes in the north, the Catanduanes in the east, Culion in the west. Population by the Census of 1918 was 10,314,310, of which all but about 66,000 were Filipinos. There were 5,776 Americans, 43,802 Chinese, 7,806 Japanese, 3,945 Spanish, 1,148 Britons, 286 Germans, 182 French, 125 Swiss. In Manila in 1918 there were 3,124 Americans. The census returned 879,811 who could read Spanish. About 4,000,000 read or understand English. Spanish is by Filipino law an official language until 1930. Eight distinct languages and 87 dialects are spoken. The death rate in 1923 was 17.5; in 1924, 20.43; in 1925, 18.11; in 1926, 20.38; and in 1927, 20.65 per thousand.

The archipelago has a coast line of 11,444 statute miles, which exceeds that of the entire United States. There are 21 fine harbors and 8 landlocked straits, the principal being Manila, Subic, Batangas, Tayabas and Hondagua, Iligan, Illana, Nasipit, Sibuguey, Sarangani Bays; the Gulfs of Lingayen, Ragay, Lagonoy and Davao, and the San Bernardino, San Juanico, Surigao and Basilan Straits and the Verde Passage. Manila Bay, with an area of 770 square miles and a circumference of 120, is the finest in the entire Far East. It is a roadstead in all parts of which vessels can anchor, but a breakwater has been constructed for vessels to shelter behind in bad weather. Manila, Cebu, Iloilo, Zamboanga Jolo and Davao, Legaspi are the ports of entry.

The extensive mountain system of the Philippines belongs to the succession of volcanic ranges of the Pacific system of the world's surface. There are 20 more or less active volcanoes. Mount Apo (Apo means master), 9,610 feet, in Mindanao; Mayan Volcano, 7,943 feet, in Albay; Taal, 984 feet, in Batangas; Canlaon, 7,995 feet, in Negros; Banajao, or Majayjay, 7,144 feet, are the most famous of these. Other high mountains are Pulog, 9,580 feet; Halcon, 8,481 feet; Malingdang, 8,560 feet; Santo Tomas, 7,400 feet. Between the mountains, stored with minerals, in the center, and the sea lie great, fertile, well watered tropical plains.

Nearly all the principal islands have important river systems. In Luzon are the Rio Grande de Cagayan, 220 miles long, which drains 16,000 square miles of territory; the Rio Grande de Pampanga, emptying into Manila Bay through a dozen mouths; the Agno, the Abra, Bued, and the more familiar Pasig. The Rio Grande de Mindanao, 330 miles long, is the largest in the islands, and the Agusan, also in Mindanao, the third in size. Mindoro has 60 rivers and Samar 26.

November, December, January and February are the temperate months. The mean average temperature at this season is about 77° to 79° Fahrenheit. In April, May and June, the hot months, the mean average is between 83° and 84°. In the other months it is about 80°. The nights are seldom unpleasantly hot even in the hot season, and a temperature of 100° is a rarity in Manila. The mountain regions of the north are cool as September in the temperate zone. There are two seasons, the rainy and the dry. The rains are heaviest in July, August and September; lightest in February and March. The lowest average rainfall for the past twelve years for the whole archipelago was 60.73 inches in the driest region, the highest 125.68 in the wettest. Manila's average was 75.46.

A typhoon devastated the Visayan Island group in November '1928, destroying crops and property valued at $25,000,000 and causing an agricultural loss for the next two years estimated at an equal figure. The dead exceeded 500, and 25,000 houses were totally or partly destroyed. The necessary relief including employment on public works was provided by the Insular Government and the Red Cross.

THE JONES ACT.

The preamble of the Jones act, passed by the United States Congress and approved Aug. 29, 1916, declared that "it has always been the purpose of the people of the United States to withdraw their sovereignty over the Philippine Islands and to recognize their independence as soon as a stable government can be established therein." On assuming office in March, 1921, President Harding sent Major Gen. Leonard Wood and W. Cameron Forbes (Governor General 1909–13) to the Philippines to make a complete survey of conditions. In their report they recommended among other things "that the present general status of the Philippine Islands continue until the people have had time to absorb and thoroughly master the powers already in their hands" and "that under no circumstances should the American Government permit to be established in the Philippine Islands a situation which would leave the United States in a position of responsibility without authority."

The Jones act of 1916 abolished the Philippine Commission under which the islands had been governed under the act of July 1, 1902. It substituted as the Upper House of the Legislature a Senate composed of 24 members, and instead of the Assembly, a House of Representatives of 91 members, elected triennially. The Governor General, who remains as the head of the Islands, is appointed by the President. All the Cabinet heads, except the Secretary of Public Instruction, are Filipinos. Senators are elected for six years. Two Resident Commissioners to the United States are elected by the Legislature.

The Philippine Archipelago is divided into 38 provinces, 11 special provinces and 2 chartered cities. The chief executive of a regular province is the Provincial Governor, who is an elective official. He, together with two other elective members, form the provincial board which constitutes the legislative branch of the provincial government. In the special provinces, with the exception of Palawan and Batanes, the Provincial Governors are appointed officials.

Of the 24 Senators only two—those from the Twelfth District, which is composed of the Mountain Province, the City of Baguio, the Province of Nueva Vizcaya and the Department of Mindanao and Sulu—are appointed by the Governor General; all the others are elected by popular vote; as are also the 91 Representatives, excepting the nine who represent the Mountain Province, the Province of Nueva Vizcaya and the Departments of Mindanao and Sulu.

"Filipinos have the rights and privileges of American citizens without the obligations," to quote Pres. Coolidge's veto message. "They pay no Federal taxes, are exempt from the exclusion provisions of our immigration laws, do not pay for the defence or diplomatic services.

"They are represented in the United States by their own chosen representatives, who are paid by the United States. In the islands the officials of the municipalities are exclusively Filipinos, as are the officials of the fully organized provinces. In the central Government the Legislature is made up entirely of Filipinos, and possesses powers which no Legislature has in this country. The lower judicial officers are all Filipinos.

"The Judges of first instance, with but two exceptions, are Filipinos, and of the Justices of the Supreme Court four of the nine are Filipinos. The Chief Justice is a Filipino. Of the heads of the executive departments, six in number, five are Filipinos. The Attorney General is a Filipino. Prosecuting Attorneys throughout the Island are Filipinos.

"The personnel of the bureaus of civil service, treasury and commerce and industry is entirely Filipino, and of the Bureau of Customs and Bureau of Posts is more than 99½% Filipino. The American officials are but 1½% of total in the Government."

On Dec. 31, 1927, there were 484 Americans and 19,165 Filipinos connected with the Government.

On Aug. 9, 1928, the Insular legislature passed and the Governor General approved a bill providing for technical advisers and civilian assistants to the Governor General. It carried an annual appropriation of 250,000 pesos ($125,000). On Aug. 30, 1928, Governor General Stimson by executive order created an advisory Council of State consisting of the Governor General, the President of the Senate Manuel Querzon, Speaker of the House Manuel Roxas, majority floor leaders of the Senate, Sergio Osmena, and of the House Mr. Broines, and the heads of the six executive departments.

The government of the towns is practically autonomous, the officials being elected by the qualified voters of the municipality and serving for three years. The officials consist of a President, Vice President, Treasurer, Secretary and Councillors, the latter varying in number according to population. Local municipal government has been instituted in about 893 municipalities and 296 municipal districts.

The administration of justice in the Philippines is intrusted to the Supreme Court, the Courts of First Instance, the Municipal Court of the City of Manila and the Courts of the Justices of the Peace.

The strength of the Philippine Constabulary, Dec. 31 1927 was 399 officers and 6,132 enlisted men divided into 133 companies and 1 artillery platoon, occupying 162 stations strategically placed for the preservation of law and order and loyalty and obedience to sovereign authority. The commander is Brig.-Gen. C. E. Nathorst, appointed Jan. 2, 1927. The cost of maintenance for the year 1926 was $2,552,664.

There are 99 school districts in the Islands. Among the special Government institutions are the Normal School, the School of Arts and Trades, the Nautical School, and the Central Luzon Agricultural School. There are provincial trade schools. In 1927 there were 1,099,306 pupils in the 7,348 public schools, with 294 American and 25,206 Filipino teachers. There are 655 private schools with 86,695 pupils and 2,823 teachers. The State supported University of the Philippines in 1926-27 had 7,002 students, and the Dominican University of Santo Tomas (founded 1611) about 800.

The insular expense for education rose from $2,000,000 in 1903 to $12,712,217 in 1925. For 1927 the legislature appropriated $1,754,250 for school construction.

The dominant religion is Roman Catholic.

AGRICULTURE AND COMMERCE.

The acreage (estimated) is: Under cultivation 9,143,000; grass or open land, 13,678,000; forests, 46,518,000. There are 73,000,000 acres of public lands. Approximately 2,568,000 are engaged in agriculture. In 1926 over $25,250,000 worth of food stuffs, of which $15,250,000 represented agricultural products, were imported. The total estimated value of the nine principal food crops in 1927 was $254,439,000, 90% of the total value of all agricultural products that year. This crop production for 1927 (excluding magner, cacao and coffee) was:

Crop production in 1927 was:

Rice	49,946,400 Cav.	1,807,060 hect.
Sugar	10,999,660 Pic	237,350 hect.
Coconuts	1,798,519,000 Nuts	95,434,520 trees
Hamp, Abaca	2,731,630 Pic.	480,150 hect.
Corn	8,384,710 Cav.	561,430 hect.
Tobacco	1,091,660 Quin.	83,970 hect.

(Hectare = 2.471 acres; cavan = 43 kilos; picul = 140 lbs.; quintal = 101.4 lbs.)

Quantity and value of chief exports were:

	1927	1928
Sugar	$50,076,777	$47,542,940
Hemp	29,687,129	26,593,106
Coconut Oil	24,840,683	23,489,173
Copra	19,155,741	22,542,341
Tobacco Products	8,908,666	8,571,437
Embroideries	4,003,476	4,396,237
Desiccated Coconut	2,840,286	3,723,586

Estimate of livestock in 1925 was; Carabaos, 1,769,000; cattle, 914,000; horses and mules, 298,000; hogs, 8,811,000; goats, 1,349,000; sheep, 345,000.

Experts of the United States Department of Agriculture reported in May, 1924, that vast tracts of land are well adapted to the cultivation of rubber with a potential production of 70,000 tons yearly. Estimates of land suitable for cultivation of rubber vary from 1,500,000 to 2,000,000, but adequate labor does not seem available.

Under the act of 1919 any citizen of the Philippine Islands or of the United States over the age of 18 years, or the head of a family who does not own more than 59 acres of land in the Philippines may enter a homestead of not exceeding 59 acres of agricultural land of the public domain. Total homestead fee, $10. Any citizen of lawful age of the Philippine Islands or of the United States, and any corporation or association of which at least 61 per centum of the capital stock or of any interest in said capital stock belongs wholly to citizens of the Philippine Islands or of the United States, may purchase any tract of public agricultural land not exceeding 144 hectares (355 acres) in the case of an individual and 1,024 hectares (approximately 1,530 acres) as a corporation or association.

During 1928, 1,146 vessels with net tonnage of 4,325,243 in the foreign trade entered the ports of the Islands. Of these, 232 were American; 412 British; 144 German; 137 Japanese; 76 Dutch; 66 Norwegian; and 50 Philippine.

There are approximately 792 miles of railroads and 5,800 miles of public roads. The Manila Railroad Company has been taken over from the British owners by the Government. Silver, lead, zinc, copper, iron, coal, petroleum, asbestos and manganese are mined, as well as clay, marble, salt, etc. The islands are rich in mineral resources, but these are as yet undeveloped.

It is estimated that there are 58 square miles of coal fields containing lignite and some high grade

PHILIPPINE COMMERCE SINCE 1914.

Year (U. S. Fiscal).	Imports From United States.	Imports From Oth. Countries	Total Imports.	Exports to United States.	Exports to Oth. Countries	Total Exports.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
1914	28,571,821	27,439,749	56,011,570	22,047,105	29,190,943	51,238,048
1915	22,394,381	22,085,480	44,479,861	23,001,275	27,913,786	50,915,061
1916	23,804,367	22,169,258	45,973,625	28,638,526	32,825,505	61,464,031
1917	27,516,556	24,466,722	51,983,278	43,125,393	28,589,982	71,715,375
1918	49,799,229	33,964,061	83,763,290	77,010,233	39,604,378	116,614,611
1919	64,655,144	43,119,119	107,774,263	79,332,548	43,396,690	122,729,238
1920	80,374,530	42,757,581	123,132,111	84,186,048	68,195,193	152,381,241
1921	100,687,157	60,127,507	160,814,664	75,264,002	33,765,725	109,029,727
1922	50,113,575	32,901,794	83,015,369	59,168,170	35,309,433	94,477,603
1923	49,874,501	34,899,736	84,774,237	79,578,368	32,293,164	111,871,532
1924	56,121,567	39,254,947	95,376,514	92,399,674	37,155,730	129,555,404
1925	64,466,117	52,765,548	117,231,665	101,254,536	38,822,269	140,076,805
1926	69,957,871	47,679,241	117,637,112	102,831,205	38,213,225	141,044,430
1927	70,993,134	46,588,724	117,851,858	112,804,271	39,154,013	151,958,284
1928	77,324,193	47,619,769	124,943,962	117,444,214	39,168,151	156,212,665
1929	87,362,503	58,964,356	146,326,859	122,275,672	46,843,725	169,119,397

bituminous. In 1925, 47,912 metric tons of coal was produced.

The output of gold in the Philippines in 1926 was: $1,993,300 ($1,843,200 in 1925), and from 1907 to 1925, inclusive, $19,144,735.

The assessed value of taxable real property Dec. 31, 1927 was $832,023,816, and of non-taxable property, $160,440,244.

Revenues in 1928 were $42,607,284 ($41,751,504 in 1928); expenditures $39,813,403 ($42,095,149 in 1928); net unappropriated cash surplus, $6,589,634. The net bonded indebtedness (including bonds of provinces and municipalities) on Dec. 31, 1928 was $87,618,500, for which there were accumulated sinking funds amounting to over $21,500,000. The resources of all Manila banks July 27, 1929 totaled 245,000,000 pesos.

American investments in the Islands as of Jan. 1, 1929 were estimated at $15,725,000.

PORTO RICO.

AREA, 3,435 square miles.

POPULATION, Census of 1922, 1,346,623; 392.14 to square mile. Estimated, June 30, 1926, 1,422,000; 411 to square mile.

CAPITAL, San Juan, population, 88,922; other cities, Ponce, 75,416; Mayaguez, 43,147.

Governor, Col. Theodore Roosevelt, Jr., appointed Sept. 9, 1929.

Consuls maintained at San Juan by Argentina, Austria, Belgium, Bolivia, Brazil, Chile, Colombia, Cuba, Denmark, Dominican Republic, France, Germany, Great Britain, Guatemala, Haiti, Hungary, Italy, Japan, Mexico, The Netherlands, Norway, Panama, Paraguay, Portugal, Spain, Sweden, Serbia, Uruguay and Venezuela.

Porto Rico is the fourth largest of the Greater Antilles, with the Atlantic Ocean on the north and the Caribbean Sea on the south. Santo Domingo is about 45 miles to the west, and St. Thomas 40 miles to the east. The Island of Culebra, population 839, and Vieques, population 12,264, to the east, form part of the territory. It is 95 miles long (from east to west) and 35 miles wide, with a coast line of about 345 miles. The best harbors are at San Juan and Ponce. Through the middle of the island, from east to west, runs a range of mountains with an altitude of 1,500 to 3,750 feet, cultivable to the summits. The soil is extremely fertile and largely under cultivation. The lower lands to the north are well watered, but irrigation is needed in the south; an extensive system has been constructed by the Government. Sugar, pineapples, oranges, grapefruit, tobacco and coffee are the chief exports. Sugar production under modern methods increased from 35,000 tons in 1899 to 400,000 tons in 1924, 447,570 tons in 1925; 659,283 tons in 1926 (with 29,073,075 gallons of molasses), 629,000 tons in 1927 and 749,000 tons in 1928.

The hurricane of September 13 and 14, 1928, killed 271 and injured more than 3,000. One-third of the people were left destitute and the American Red Cross helped rebuild 50,000 homes and cared for 50,000 farmers who lost heavily, especially on their tobacco crops and their coffee and fruit crops, which will require five years for replacement. Over a third of the coconut trees were destroyed and it will require seven years for replacement. Congress appropriated in December $6,100,000 for immediate relief of the Island, in addition to the $2,750,000 expended by the Red Cross.

Coffee production for export in 1926-27 was 19,356,904 pounds valued at $5,748,877, and in 1927-28, 7,838,104 pounds valued at $2,596,583. Tobacco production for 1927-28 was 22,000,000 pounds and the amount exported was valued at $20,777,937; and in 1926-27, 50,000,000 pounds with exports valued at $24,860,072.

Fiscal Year.	Sugar, Exports.	Cigars, Exports.	Coffee, Exports.	Fruit, Exports.
	Dollars.	*Dollars.*	*Pounds.*	*Dollars.*
1916.....	45,809,445	5,531,535	32,144,283	3,355,285
1917.....	54,015,903	7,843,010	39,615,146	3,021,005
1918.....	41,362,229	7,134,693	37,618,613	3,055,614
1919.....	43,132,419	6,657,522	27,897,971	2,140,931
1920.....	98,923,750	11,613,997	32,776,754	2,782,725
1921.....	71,440,924	8,103,601	26,731,648	3,145,259
1922.....	40,820,333	6,279,054	23,402,127	2,857,086
1923.....	46,207,276	6,911,510	16,821,939	4,570,359
1924.....	47,838,687	5,460,119	21,859,215	3,807,567
1925.....	53,261,895	7,105,508	23,782,996	4,202,840
1926.....	48,223,263	7,196,493	26,448,670	6,009,090
1927.....	54,756,984	4,227,576	23,138,945	5,823,088
1928.....	54,569,764	3,626,000	7,838,104	6,347,000
1929.....	35,222,144	3,847,797	579,732	2,843,213

Livestock in 1925 numbered 143,777 cattle, including 52,701 work cattle and 91,076 others; 25,050 horses, mules and donkeys; and 1,442 other animals.

Mineral production is underdeveloped. The climate is the most healthful of the Western Hemisphere in the tropics.

The Legislature in April 1929 extended the franchise to women over 21 who can read and write.

Porto Rico was discovered and named by Columbus in 1493. Ponce de Leon conquered it for Spain in 1509-11. It was conquered by Major Gen. Miles in the Spanish-American War and ceded to the United States by the Treaty of Paris, Dec. 10, 1898. It is administered under the Organic Act of Porto Rico, March 2, 1917 (as amended to March 4, 1927) which also granted American citizenship to Porto Ricans, and granted manhood suffrage. The Governor is appointed by the President. The Legislature—a Senate of 19 members and a House of Representatives of 39—is elected for four years by direct vote. There are six executive departments: Justice, Finance, Interior, Education, Agriculture and Labor, and Health. The President appoints, upon confirmation by the Senate, the Attorney General and Commissioner of Education. The Governor, subject to confirmation by the Insular Senate, appoints the four remaining department heads. The Justices of the Supreme Court are appointed by the President by and with the advice and consent of the Senate. The six heads of departments form the Executive Council. The island elects a Resident Commissioner at Washington with a voice but no vote in the House of Representatives, for a term of four years.

The island makes its own tax laws and retains all local revenues including customs, income tax and internal revenue which, in territories, go to the Federal Government.

The distribution of the population in 1925 according to color was: white, 1,074,191, colored 324,605. Education has been compulsory and free since 1899, when the percentage of illiteracy was 83; at present it is probably below 40. In 1899, 8 per cent. of the children between five and seventeen attended school. In 1928, 220,940 students were enrolled. The University of Porto Rico in 1927-28 had 3,404 students. English and Spanish are spoken. The Roman Catholic religion is dominant.

During 1927, 23,543 workers left Porto Rico for the United States of which 14,553 returned.

A great improvement has been made in economic and social conditions during the last decade. The death rate in 1927-28, 24.76.

In 1927 there entered the ports 1,166 vessels with total capacity of 1,124,000 registered tonnage engaged in foreign trade. There were 346 miles of railroads in 1925, and nearly 1,000 hard-surfaced highways.

PORTO RICO COMMERCE SINCE 1914.

Fiscal Year.	Imports From United States.	Imports From Other C'ntries.	Total Imports.	Exports to United States.	Exports to Other C'ntries.	Total Exports.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
1914.....	32,568,368	3,838,419	36,406,787	34,423,180	8,679,582	43,102,762
1915.....	30,929,831	2,954,465	33,884,296	42,311,920	7,044,987	49,356,907
1916.....	35,892,515	3,058,400	38,950,915	60,952,758	5,778,885	66,587,695
1917.....	49,539,249	4,005,975	53,545,224	73,115,224	7,855,693	80,970,917
1918.....	58,945,758	4,443,524	63,389,282	65,514,989	8,779,033	74,294,022
1919.....	57,898,085	4,502,275	62,400,360	71,015,351	8,480,689	79,496,040
1920.....	90,724,259	5,664,275	96,388,534	133,207,508	17,603,941	150,811,449
1921.....	97,074,399	8,405,304	105,479,703	103,388,227	8,890,348	112,278,575
1922.....	57,400,028	6,775,121	64,175,149	66,229,771	5,942,800	72,172,571
1923.....	64,419,462	7,201,043	71,620,505	77,007,257	5,286,068	82,293,325
1924.....	80,500,021	8,779,603	89,369,624	80,754,975	7,525,565	88,280,540
1925.....	79,349,618	11,154,983	90,504,601	84,411,792	10,407,152	94,818,944
1926.....	83,046,553	12,054,034	95,100,587	88,106,570	10,982,684	99,089,254
1927.....	87,046,319	11,629,605	98,675 924	99,222,918	7,492,556	106,715,474
1928.....	79,701,911	12,605,312	92,348,400	96. 662,619	6,872,120	103,534,739
1929.....	85,078,596	.....	.....	76,471,829	.....	.....

The receipts for the fiscal year 1927-28 were $12,446,219, and expenditures $10,350,575, of which $4,016,777 was for education; to which the municipalities added $1,505,576.

The budget for 1923-24 was balanced at $12,459.704; for 1924-25 at $11,735,000; for 1925-26, $10,417,390; for 1926-27, $10,790,000; for 1927-28-$10,440.957; and for 1928-29, $11.000.000.

The total bonded indebtedness, Oct. 4, 1928, was $43,453,900; valuation of real and personal property, as of June 30, 1928, amounted to $341,370,654.

THE CANAL ZONE.

AREA, 549 square miles, including land and water.

POPULATION, (Civil) Census of 1928, 28,002.

Governor, Col. Harry Burgess, U. S. A., assumed office Oct. 16, 1928.

The Canal Zone is a strip of land extending five miles on either side of the axis of the Panama Canal but not including the cities of Panama or Colon, which remain in the Republic of Panama. The port at the Caribbean entrance, formerly a part of Colon, is Cristobal; and that at the Pacific entrance Balboa, while to the east of Panama is the residential town of Ancon, with hotel and hospital.

The strip of land was granted to the United States by Panama by the treaty of Feb. 26, 1904, the compensation being $10,000,000, with annual payments of $250,000 in addition. No private individuals are allowed to acquire land.

The Canal Zone is a military reservation and is administered by the War Department; is fortified and occupied by a garrison in addition to the civilian employees of the Canal and railroad.

The Canal Zone, including its territorial waters within three miles of shore, was declared on Feb. 18, 1929 by President Coolidge in an executive order to be a "military airspace reservation." The field of commercial aviation was thrown open to Americans and foreigners on equal terms while safeguarding all military requirements of the canal. Aircraft other than military must enter by prescribed routes, land at designated airports, submit to customs inspection and carry clearance papers. All fliers must obtain permission from the Secretary of State to enter the Canal Zone. Carrying munitions of war is prohibited and photographing any of the defenses can be done only by express permission of the governor.

Canal traffic for the fiscal year 1927-28 exceeded the previous high record set in 1926-27. Commercial transits totaled 6,456 as against 5,475, and tolls aggregated $26,944,499.77 as against $24,228,830.11. In 1928-29 commercial transits totaled 6,413 but tolls amounted to $27,127,389. The daily average was 17.57 as compared with 17.63 the previous year. American ships numbered 2,700; British, 1,783; German, 402; Norwegian, 340; Japanese, 155; Dutch, 149; and Swedish, 144.

From the opening of the Canal to commerce, Aug. 15, 1914, to Aug. 15, 1929, fifteen years, 54,021 commercial vessels passed through, carrying 249,777,467 long tons of cargo and paying $223,751,682 in tolls. Of the cost of the Canal $113,000,000 was charged to national defense and the balance, $275,000,000, represents the cost of the commercial plant. The excess of total earnings over total operating expenses in fifteen years is approximately $119,000,000. Interest on investment is not taken into consideration, in this surplus but a fixed annual charge of $350,000 for amortization of the fixed property of the canal having an estimated life of 100 years, and one of $635,000 for depreciation at 2 per cent per annum on property having an estimated life of less than 100 years have been made. In addition the expenses include the further charge of $750,000 yearly for depreciation of canal equipment.

Congress in 1928 authorized the building of a great dam on the Chagres river at Alhajuela estimated to cost about $12,000,000 and to require about five years for construction. The dam will be 170 feet high and will create a reservoir covering 22 square miles with a storage capacity of 22,000,000,000 cubic feet of water.

VIRGIN ISLANDS OF THE U. S.

AREA, 133 square miles.

POPULATION, Census 1917, 26,051 (St. Croix 14,901, St. Thomas 10,191, and St. John 959). White, 1,922; black, 19,523; mulatto, 4,563.

An informal enumeration taken in 1927 shows a decrease in population—St. Croix 11,118, St. Thomas 8,826 and St. John 784—total 20,728. This decrease in population is due principally to free entry into continental United States where opportunities are great for more lucrative employment. Nearly 95% of the people are wholly or partly Negro.

CAPITAL, St. Thomas (Island of St. Thomas), population, 7,747.

Governor, Capt. Waldo Evans, U. S. N., retired (1927).

Consuls maintained at St. Thomas by Belgium, Brazil, Chili, Colombia, Cuba, Denmark, Dominican Republic, France, Great Britain, Haiti, Italy, Mexico, Netherlands, Norway, Panama, Peru, Portugal, Spain, Sweden, Uruguay and Venezuela.

The Virgin Islands of the United States, formerly the Danish West Indies, were bought for $25,000,000 by the United States from Denmark, in a treaty proclaimed Jan. 25, 1917. The group consists of three islands, St. Thomas, St. Croix and St. John, with about fifty smaller ones, mostly uninhabited.

Columbus discovered this group on his second voyage, 1494, and, it is said, amazed at the number, feared that he would not have enough saints' names to go around, so he put them under the sacred patronage of the eleven thousand martyred virgins of St. Ursula.

St. Thomas Island has the principal harbor of the Virgin group—St. Thomas Harbor—on which the town of St. Thomas, formerly known as Charlotte Amalie, is situated. It is about forty miles east of Fajardo, the nearest port on the Island of Porto Rico, and seventy miles from San Juan, the principal city and port of Porto Rico. St. Thomas lies south, 20° east and 1,442 miles distant from New York City. Although St. Croix is a considerable distance from other islands of the group, all may be encompassed within a circle whose radius is twenty-five miles. The language is English.

The status of the natives of the island is that of citizens of the United States, citizenship having been conferred on them by the Act of February 25, 1927.

The United States prohibition ruined the St. Croix rum trade, and depressed greatly the bay rum industry. The commerce of the port of St. Thomas has suffered severely since 1914.

Under the Act of Congress of March 3, 1917, all military, civil and judicial powers necessary to govern the islands were vested in a Governor, to be exercised in such manner as the President shall direct. The Governor is appointed by the President of the United States, by and with the advice and consent of the Senate. The Danish Code of Laws, dated April 6, 1906, commonly known as the Colonial Law of 1906, remains in force so far as compatible.

The islands comprise two municipalities, that of St. Thomas and St. John, with a legislative council, called the Colonial Council, of eleven members elected by popular vote and four appointed by the Governor; and that of St. Croix, with a membership of thirteen and five respectively.

St. Thomas has one of the finest harbors in the West Indies and is an important coaling and oil fueling station. The Naval Station, St. Thomas, under the command of the Governor, who is also Commandant of the Naval Station, has a powerful radio equipment. There is also a Naval Radio Station on the Island of St. Croix.

Education is compulsory.

Trade with the United States was:

Fiscal Year.	Imports.	Exports.
1921-22	$1,836,567	$754,729
1922-23	1,564,342	743,463
1923-24	1,762,061	397,031
1924-25	1,616,468	595,375
1925-26	1,901,724	1,177,943
1926-27	1,773,530	616,856
1927-28	2,257,553	1,233,839
1928-29	2,370,487	922,554

AMERICAN SAMOA

AREA, 75 square miles.

POPULATION, (1928), 8,903, including Swain's Island.

CAPITAL, Pago Pago (Isl. of Tutuila), population (1926) 611.

Governor, Captain S. V. Graham, U. S. N.

American Samoa, composed of the Islands of Tutuila, Aunuu, Ofu, Olosega and Tau, and the uninhabited coral atoll of Rose Island, became a possession of the United States by virtue of the tripartite treaty with Great Britain and Germany in November, 1899, accepted by the United States Feb. 13, 1900.

By acts of April 10, 1900, and July 16, 1904 the chiefs of the Islands agreed to cede all sovereignty to the United States, but it was not until Feb. 1929, that Congress passed a resolution accepting the cession and establishing its possession. It has been and is by executive order of President McKinley under control of the Navy Department for a naval station.

Swain's Island was made part of American Samoa by resolution of the 68th Congress. The flag was hoisted and sovereignty proclaimed over the island on May 13, 1925. In 1927 there were 81 people on the island.

Pago Pago is the most valuable harbor in the South Pacific and possibly in the entire Pacific Ocean. It was ceded in 1872 by the native King to the United States for a naval and coaling station. American Samoa is extremely valuable in its relation to the expansion of American trade in the Pacific.

American Samoa is 4,160 miles from San Francisco, 2,263 miles from Hawaii, 1,580 miles from Auckland, 2,354 miles from Sydney and 4,200 miles from Manila. The natives can all read and write and are all Christians of different denominations. They are of the highest type of the Polynesian race and are greatly on the increase due to the laws forbidding foreigners buying their land.

All of the land on the islands is privately owned. Under the American Commandant-Governor there is a native Governor in each of the three political divisions. The native Governors appoint the County Chiefs, who appoint the Village Chiefs.

New laws and changes in existing laws are proclaimed by the Governor but usually on recommendation of the annual fono, or general meeting of delegates. The public health is carefully looked after by the Naval Hospital at Pago Pago and its two branches.

The chief product of the soil is cocoanut (the dried kernel is called copra). The average crop is 1,200 tons. Other fruits are grown, but not exported.

Trade with the United States was:

Fiscal Year	Imports	Exports
1926-27	$222,114	$48,916
1927-28	99,524	98,612
1928-29	111,837	162,800

GUAM.

AREA, 206 square miles.

POPULATION (1926), 16,938, including naval establishment.

CAPITAL, Agana population (est.), 10,000, (1927).

Governor, Comm. Willis W. Bradley, Jr., U. S. N., assumed command June 11, 1929.

The Island of Guam, the largest of the Marianas, was ceded to the United States by Spain by Article 2 of the Treaty of Paris, Dec. 10, 1898. It lies between latitudes 13° 13″ and 13° 39′ north and longitudes 144° 37′ and 144° 58′ east. It is 30 miles long and 4 to 8½ miles wide. Distance from Manila, 1,506 miles; from San Francisco, 5,053 miles. The inhabitants call themselves Chamorros, but the present generation are a mixed race, with the Malay strain predominating. Their language, a Polynesian tongue, is also called Chamorro. About 10 per cent. speak English. Instruction in the English language is compulsory in the public schools. Guam is under the Navy Department, as a naval station. The Governor is a naval officer, commissioned by the President. A marine barracks, naval hospital and station ship are maintained. The Commercial Pacific Cable Company has a cable station in Guam, and cables from Manila, Yokohama, Midway and Yap Islands are landed here. There is a powerful Government radio station here. The port of entry is Apra, which is closed to foreign vessels, except by permit from the United States Government. Apra is commodious, but unimproved.

Trade with the United States was:

Fiscal Year	Imports	Exports
1926-27	$182,750	$110,464
1927-28	280,225	130,153
1928-29	393,983	79,681

WAKE AND THE MIDWAY ISLANDS.

The United States flag was hoisted over Wake Island on July 4, 1898, by Gen. F. V. Greene, commanding Second Detachment Philippine expedition. It is a small island in the direct route from Hawaii to Hongkong, about 2,000 miles from the first and 3,000 miles from the second. Its area is about 1 square mile.

The Midway Islands, owned by the United States, are a group in the North Pacific, 1,200 miles northwest of the Hawaiian Islands. A relay cable station of the Commercial Cable Company is established there. The area of the group is 28 square miles.

The Midway Islands are under the jurisdiction of the Navy Department.

THE LINCOLN MEMORIAL AT WASHINGTON.

The Lincoln Memorial in West Potomac Park, Washington, D. C., erected by authority of Congress, was designed by Henry Bacon, a New York architect, and was dedicated May 30, 1922. The cost was $3,000,000.

The sub-foundations consist of 122 concrete piers formed in steel cylinders driven to bed rock, which lies at a depth of 44 to 65 feet.

The superstructure is 201 feet 10 inches long by 132 feet wide at the outside of the bottom step of the stylobate course; it is 181 feet long by 111 feet 2 inches wide along a line running through the centre of the columns of the colonnade; it is 155 feet 6 inches long by 85 feet 8 inches wide along the outside of the wall of the building; it is 146 feet 6 inches long by 62 feet wide on the interior.

It is 57 feet from the floor of the Memorial Hall to the bronze beams of the ceiling.

There are 38 columns in the colonnade, including the two which stand in the entrance. These columns, 36 of which represent the number of States when Lincoln died, are 44 feet from the bottom joint to the top of the cap and are composed of 11 drums each, excluding the cap. Each column is 7 feet in diameter at the base, and is set with an entasis toward the building.

The interior columns are 5 feet 6 inches in diameter at the base and are 50 feet high from the floor to the top of the cap.

The height of the building from the top of the foundations to the top of the attic is 79 feet 10 inches. The height from bed rock to the top of the structure is therefore 79 feet 10 inches, plus 45 feet (the height of the upper foundation) plus the depth to bed rock (which varies from 44 feet, to 65 feet), making an aggregate height of from 169 to 192 feet.

The building is constructed of marble, granite, limestone, brick and concrete.

The foundations and floor slabs are of concrete, most of which is reinforced.

The exterior of the building is of Colorado Yule Marble from quarries in the Rocky Mountains 300 miles west of Denver. Some of the stones are of unusual size, weighing over 23 tons each. There are about 208,000 cubic feet of this material in the building.

The steps, platforms and check blocks are of Pink Milford Granite from Massachusetts.

The interior walls, columns and ceiling lintels are of Indiana limestone. There are about 43,506 cubic feet of this material in the building.

The interior floor, which is 2 inches thick, and the wall base are of Tennessee marble.

The ceiling consists of bronze beams with rectangular openings in which are placed slabs about 1 inch thick of marble from Alabama. These admit the light from overhead, through the glass skylight which covers the building.

The decorative carving upon the stone work was done by Ernest C. Bairstow of Washington, D. C.

The statue of Lincoln, by Daniel Chester French, sculptor, is executed in white marble. It is a seated figure upon an oblong pedestal about 10 feet high, 17 feet from front to back, by 16 feet wide. The plinth between the pedestal and the bottom of the seat is 1 foot 7 inches thick. The statue is 19 feet high from the top of the plinth to the top of the head. The extreme width of the statue (including the drapery over the chair) is 19 feet.

Behind the statue are these words: "In this temple, as in the hearts of the people for whom he saved the Union, the memory of Abraham Lincoln is enshrined forever."

The decorations, by Jules Guerin, are on canvas, each piece of which weighs 600 pounds and cost $400. About 150 pounds of paint are on each canvas, which is 60 feet long and 12 feet wide. The figures are 8½ feet high.

There are about 48 figures in the two panels. Almost as many models as figures were used. The head of Mr. Bacon, the architect, appears in the decoration on the north wall, the fourth figure in the group at the left of the Angel.

The decorations are weather-proof, the paint being mixed with white wax and kerosene. The wax hardens but does not allow the paint to crack the chemical. Chemically, it is similar to the wax found in the tombs of the Kings of Egypt, which is still pliable. The decorations are affixed to the wall with a mixture of white lead and Venetian varnish.

The decorations are not intended to tell a story, much being left to the spectator's imagination. In general terms the decorations on the south wall represent emancipation of a race; the subordinate groups represent Civilization and Progress. The decoration on the north wall represents Reunion and Progress in the arts and sciences.

On the walls are the Gettysburg speech and Lincoln's second inaugural address.

ORIGIN OF THE NAMES OF THE STATES AND TERRITORIES.

ALABAMA—Alibama was the Indian name of a tribe in Southern Alabama—a Mushhogean tribe of the Creek Confederacy. Alibamu is from the Choctaw words alba aya mule, meaning "I open or clear the thicket."

ALASKA—From "Al-ay-es-ka," a native Eskimo or Innuit word, meaning Great Country.

ARIZONA—From "Arizonac" ("Ari" small and "Zonac" spring) so-called by the Papago and Pima Indians, says State Historian Geo. H. Kelly (1927); and adds: "This state was called Arizona by the Spaniards as early as 1736." A simpler derivation is that given by Prof. John C. Van Dyke in "The Desert", page 208,—clipped from "Arida-Zona" meaning the "dry belt."

ARKANSAS—(Official pronunciation is ar-kan-saw), Algonkin name of the Quapaw Indians.

CALIFORNIA—Bestowed by the Spanish Conquistores, being the name of an imaginary island, very near an earthly paradise, in "Las Serges de Esplandian," a romance of chivalry written in the last decade of the 15th century.

COLORADO—Spanish, meaning red.

COLUMBIA, DISTRICT OF—A poetical adoption of the name of Columbus; applied to the territory in 1791 by the Federal Commissioners who laid it out.

CONNECTICUT—Indian, "Quonecktacut," Long River or River of Pines.

DELAWARE—Named after Lord De La War, of England, Governor of Virginia, who entered the Bay in 1610.

FLORIDA—Spanish words, "Pascua Florida," Feast of Flowers (Easter Sunday), on which day it is said to have been named, in 1513, by Juan Ponce de Leon.

GEORGIA—Named after King George II. of England.

HAWAII—English spelling of Owhyhee, where Capt. Cook was killed by the natives in 1779.

IDAHO—Indian words, "Edah hoe," Light on the Mountains.

ILLINOIS—Indian word, by some translated "The River of Men." A form of the word Iliniwek. "Ilini" meant "man," "iw" meant "is," and "ek" was a plural signification.

INDIANA—Named after Indians, State of Indians.

IOWA—The Ioways, or Alaouez, or Alaouas were a Sioux tribe. The word means "sleepy ones." They called themselves "Pahoja," gray snow.

KANSAS—Name of a tribe of the Sioux; the "People of the South Wind."

KENTUCKY—From Wyandot (Iroquoian) name "Ken-tah-teh," meaning to-morrow, or Land of To-morrow.

LOUISIANA—Named by the Mississippi River navigator Robert de la Salle, in 1682, after King Louis XIV. of France.

MAINE—From Maine, an ancient province of France, south of Normandy, owned by Queen Henrietta Maria of England, wife of King Charles I.

MARYLAND—Named in honor of the foregoing, Queen Henrietta Marie.

MASSACHUSETTS—An Algonkin Indian name from Massachu-es-et, meaning "great-hill-small place," indicating a place at or about the big little hills.

MICHIGAN—The Mishigamaw or Mishawiguma were Indians. The word means "big lake" and was applied to Lake Michigan. "Michi" meant "great," and "gama" meant "water."

MINNESOTA—2 Sioux words—"sky-colored water."

MISSISSIPPI—Indian words "Sipu," Algonquin word for river; "Maesi," fish—Fish-River.

MISSOURI—The Missouri were Sioux of that name.

MONTANA—Spanish for mountainous; used now by Peruvians as a name for their Andean districts.

NEBRASKA—An Omaha Indian name for the "wide river," Platte.

NEVADA—A Spanish word, meaning "snow clad."

NEW HAMPSHIRE—Named, in 1629, after the County of Hampshire, England, by the patentee, Capt. John Mason of the Plymouth Council.

NEW JERSEY—In 1664 the Duke of York, of England, granted to Lord John Berkeley and Sir George Carteret a patent or deed to the present boundaries to be called Nova Caesaria, or New Jersey. Caesarea, or Caesaria, was the ancient name of the Island of Jersey of which Carteret had been administrator.

NEW MEXICO—Mexico is a word derived from the Aztec word "mexitli," title of their national war god.

NEW YORK—So called in honor of the Duke of York (1664), who got the patent from his brother, King Charles II. of England, and sent an expedition and took possession of New Netherlands.

NORTH CAROLINA—The Carolinas were originally named, it is said, in honor of King Charles IX. of France by Jean Ribault, whose expedition (1562) was financed by Admiral Coligny. "Carolus" is the Latin word for Charles. In 1663, King Charles II. granted a patent to the land under the name of Carolina.

NORTH DAKOTA—"Dakota" means "alliance of friends," and is a Sioux Indian word. Koda in Santee dialect and Koia in Teton dialect are the root words.

OHIO—Iroquois name, denoting great.

OKLAHOMA—Choctaw word for "red people."

OREGON—The Oregon State Librarian, Cornelia Marvin, says various origins of the name have been suggested as follows: *Origanum*, a wild sage found on the coast; *Orejon*, or Oregones, a Spanish name for big-eared (Indian) men; Orgon, a river in Chinese Tartary; *Oyer-un-gen*, a Shoshone Indian word for "place of plenty;" *Awa aqua*, Spanish word meaning gently falling waters: *Ouragan*, a French word for hurricanes; *Wau-re-gan*, an Algonkin word for "beautiful water."

PENNSYLVANIA—Was named in honor of Admiral William Penn, the father of William Penn, the founder of the province. William Penn, the Friend, received a charter in 1681 from Charles II of Great Britain for land in America that was given the name of "Pensilvania" (Penn's Woods) by the King. The name "Pensilvania" was used for many years by William Penn and his sons, Thomas and Richard, to designate the province. The grant was made in settlement of a debt of 16,000 pounds which King Charles and the British Government owed Admiral Penn. The charter was granted March 4, 1681, and by an act of the General Assembly of 1927, that day is officially set apart as Pennsylvania Day in the Commonwealth.

PHILIPPINES—Spanish. "Islas Filipinas," discovered in 1521 by Magellan, whom the natives killed in a skirmish; named in honor of King Philip II. of Spain by a colonizing expedition from Mexico.

PORTO RICO—From the Spanish "Puerto Rico," Rich Port.

RHODE ISLAND—"Isles of Rhodes" was the name, chosen by the General Court of the colony, in 1644. The name of one of the islands had been Aquedneck. The name of Providence Plantations then gradually lapsed.

SOUTH CAROLINA—(See North Carolina).

SOUTH DAKOTA—(See North Dakota).

TENNESSEE—Called, from 1784 to 1788, the State of Franklin, or Frankland. "Tennese" was the Indian name for the chief town of the Cherokees, which was on the Little Tennessee River.

TEXAS—According to Elizabeth H. West, State Librarian at Austin, "Texas is an Indian word meaning Friends or Allies. So far as I know, it has not an Aztec origin. It applied, originally, in the Indian usage to the Indian tribes about the early Spanish missions around Eastern."

UTAH—Named after the Utes, an Indian tribe.

VERMONT—From Verd and Mont, two French words meaning Green Mountains. The name is said to have been bestowed by Samuel de Champlain.

VIRGINIA—Named in honor of Elizabeth, daughter of Henry VIII., sometimes called by her courtiers the "Virgin Queen" of England. The name was bestowed by one of the courtiers, Sir Walter Raleigh, who fitted out the expedition of discovery in 1584.

WASHINGTON—Named after George Washington. When the bill creating the Territory of Columbia was introduced in the 32nd Congress, second session, the name was changed in the bill to Washington because of the existence of the District of Columbia.

WEST VIRGINIA—(See Virginia).

WISCONSIN—An Indian name which, according to Reuben Gold Thwaites, was originally spelled "Ouiscousin" by the French missionaries and in old French-American documents; also was spelled "Misconsing," "Ouisconching," "Ouiskonsing." The Yankee settlers spelled it "Wiskonsan," then "Wiskonsin;" but Congress changed it to "Wisconsin."

WYOMING—The word was taken from Wyoming Valley, Pennsylvania, rendered famous from Campbell's poem, "Gertrude of Wyoming." The word means "mountains and valleys alternating."

MOTTOES OF THE STATES OF THE UNION.

The motto of the **United States**, adopted by act of Congress, June 20, 1782, is: E Pluribus Unum (Many in One).

The mottoes of the States of the Union are as follows, the date following the name, where given, being that of the adoption of the seal:

Alabama—Dec. 29, 1868, Here We Rest.
Arizona—1863, Ditat Deus (God Enriches).
Arkansas—May 3, 1864, Regnant Populi (The People Rule).
California—Eureka (I Have Found It).
Colorado—1861, Nil Sine Numine (Nothing Without God).
Connecticut—Oct., 1842, Qui Transtulit Sustinet (He Who Transplanted Still Sustains).
Delaware—Liberty and Independence.
District of Columbia—Justitia Omnibus (Justice to All).
Florida—1846, In God We Trust.
Georgia—Dec. 5, 1799, Wisdom, Justice, Moderation.
Idaho—March 5, 1886, Esto Perpetua (May It Last Forever).
Illinois—Aug. 26, 1818, State Sovereignty—National Union.
Iowa—Feb. 25, 1847, Our Liberties We Prize, and Our Rights We Will Maintain.
Kansas—Jan. 29, 1861, Ad Astra per Aspera (To the Stars Through Difficulties).
Kentucky—Dec. 20, 1792, United We Stand, Divided We Fall.
Louisiana—Union, Justice, and Confidence.
Maine—Jan. 9, 1820, Dirigo (I direct).
Maryland—Aug. 12, 1648, Fatti Maschii Parole Femine (Manly Deeds and Womanly Words). Scuto Bonae Voluntatis Tuae Coronasti nos (With the Shield of Thy Good-Will Thou Hast Covered Us).
Massachusetts—Dec. 13, 1780, Ense Petit Placidam sub Libertate Quietem (With the Sword She Seeks Quiet Peace Under Liberty).
Michigan—1835, Si Quaeris Peninsulam Amoenam Circumspice (If Thou Seekest a Beautiful Peninsula, Behold It Here).
Minnesota—1858, Etoile du Nord (The Star of the North).
Mississippi—Feb. 7, 1894, Virtute et Armis (By Valor and Arms).
Missouri—Jan. 11, 1822, Salus Populi Suprema Lex Esto (Welfare of People Is the Supreme Law).
Montana—May 24, 1864, Oro y Plata (Gold and Silver).
Nebraska—March 1, 1867, Equality Before the Law.
Nevada—Feb. 24, 1866, All for Our Country.
New Jersey—Oct. ?, 1776, Liberty and Prosperity.
New Mexico—Sept. 9, 1850, Crescit Eundo (It Grows as It Goes).
New York—1809, Excelsior (Higher).
North Carolina—1893, Esse Quam Videri (To Be Rather Than to Seem).
North Dakota—Liberty and Union, Now and Forever, One and Inseparable.
Ohio—April 6, 1866, Imperium in Imperio (An Empire Within an Empire).
Oklahoma—Labor Omnia Vincit (Labor Conquers All Things).
Oregon—1857, Alis Volat Propriis (She Flies With Her Own Wings).
Pennsylvania—March 2, 1809, Virtue, Liberty, and Independence.
Rhode Island—1664, Hope.
South Carolina—Animis Opibusque Parati (Prepared in Spirit and Wealth). Dum Spiro, Spero (While I Breathe I Hope).
South Dakota—Under God the People Rule.
Tennessee—1796, Agriculture, Commerce.
Utah—Industry.
Vermont—Sept., 1866, Freedom and Unity.
Virginia—Oct., 1779, Sic Semper Tyrannis (Thus Always to Tyrants).
Washington—1853, Al-ki (By and By).
West Virginia—Sept. 26, 1863, Montani Semper Liberi (Mountaineers Always Freemen).
Wisconsin—Forward.
Wyoming—1868, Cedant Arma Togae (Let Arms Yield to the Gown).
Indiana, New Hampshire, and **Texas** have no motto.

STATE FLOWERS.

Name of State.	Name of Flower.	By Whom Chosen.	Name of State.	Name of Flower.	By Whom Chosen.	Name of State.	Name of Flower.	By Whom Chosen.
Ala.	Goldenrod	Schools.	Me.	Pine Cone & T'sl.	Schools.	Ohio	Scarlet Carnati'n	Legisl.
Ariz.	Sahuaro Cactus	Legisl.	Md.	Blackeyed Susan	Legisl.	Okla.	Mistletoe	Legisl.
Ark.	Apple Blossom	Legisl.	Mass.	Mayflower	Legisl.	Ore.	Oregon Grape	Legisl.
Cal.	Golden Poppy	Legisl.	Mich.	Apple Blossom	Legisl.	Pa.	No choice	
Col.	Columbine	Schools.	Minn.	Moccasin Flower	Legisl.	R. I.	Violet	Schools.
Conn.	Mountain Laurel	Legisl.	Miss.	Magnolia	Schools.	S. C.	Yellow Jessamine	Legisl.
Del.	Peach Blossom	Legisl.	Mo.	Hawthorn	Legisl.	S. Dak.	Pasque Flower	Legisl.
D. of C.	Am. Beauty Rose	Dist. C.	Mont.	Bitter Root	Legisl.	Tenn.	Passion Flower	Hort. S.
Fla.	Orange Blossom	Legisl.	Neb.	Goldenrod	Legisl.	Tex.	Bluebonnet	Legisl.
Ga.	Cherokee Rose	Legisl.	Nev.	Sagebrush	People.	Utah	Sego Lily	Legisl.
Idaho	Syringa	People.	N. H.	Purple Lilac	Legisl.	Vt.	Red Clover	Legisl.
Ill.	Wood Violet	Legisl.	N. J.	Violet	Legisl.	Va.	Amer. Dogwood	Legisl.
Ind.	Tulip Tree Bloss.	Legisl.	N. Mex.	Yucca	Schools.	Wash.	Rhododendron	People.
Iowa	Wild Rose	People.	N. Y.	Rose	Schools.	W. Va.	Rhododendron	Legisl.
Kan.	Sunflower	Legisl.	N. C.	Goldenrod	People.	Wis.	Violet	Schools.
Ky.	Goldenrod	Legisl.	N. Dak.	Wild Prairie Rose	Legisl.	Wyo.	Indian Paintb'sh	Legisl.
La.	Magnolia	Legisl.						

The Massachusetts "Mayflower" (*Epigaea repens*) is also known as Trailing Arbutus, or Ground Laurel. It belongs to the *Heath* family of plants.

From time to time Congress has been asked to adopt a national flower, but has taken no step to that end.

NICKNAMES OF THE STATES.

Ala. "Cotton," "Lizard," "Yallerhammers."
Ariz. "Baby," "Sunset," "Apache."
Ark. "Bear," "Bowie."
Cal. "Golden," "El Dorado."
Col. "Centennial," "Silver."
Conn. "Constitution," "Nutmeg."
Del. "Diamond," "Blue Hen's Chickens."
Fla. "Everglade," "Land of Flowers."
Ga. "Empire State of the South," "Cracker," "Buzzard."
Idaho. "Gem."
Ill. "Sucker," "Prairie."
Ind. "Hoosier."
Iowa. "Hawkeye."
Kan. "Sunflower," "Jayhawk."
Ky. "Blue Grass," "Corn-Cracker," "Dark and Bloody Ground."
La. "Pelican," "Creole."
Me. "Pine Tree," "Old Dirigo."
Md. "Old Line," "Cockade."
Mass. "Bay," "Old Colony."
Mich. "Wolverine," "Auto."
Minn. "Gopher," "North Star."
Miss. "Bayou," "Eagle," "Magnolia."
Mo. "Ozark," "Iron Mountain," "Show Me."
Mont. "Stub Toe," "Bonanza," "Treasure."
Neb. "Antelope," "Black Water," "Cornhusker."
Nev. "Silver," "Sage Brush."
N. H. "Granite."
N. J. "Jersey Blue," "Garden," "Mosquito."
N. M. "Sunshine," "Spanish."
N. Y. "Empire," "Excelsior."
N. C. "Old North," "Turpentine," "Tar Heel."
N. D. "Flickertail," "Sioux."
Ohio. "Buckeye."
Okla. "Sooner."
Ore. "Beaver," "Web-Foot."
Pa. "Keystone," "Steel," "Coal."
R. I. "Little Rhody," "Plantation."
S. C. "Palmetto."
S. D. "Sunshine," "Coyote."
Tenn. "Volunteer," "Hog-and-Hominy."
Tex. "Lone Star," "Beef."
Utah. "Deseret," "Beehive," "Mormon."
Vt. "Green Mountain."
Va. "Old Dominion," "Mother."
Wash. "Evergreen," "Chinook."
W. Va. "Panhandle," "Mountain."
Wis. "Badger," "Copper."
Wyo. "Equality" (Suffrage Pioneer)

DIMENSIONS AND AREA OF THE UNITED STATES (CONTINENTAL).

The gross area of the United States is 3,026,789 square miles. The land area amounts to 2,973,774 square miles, and the water area—exclusive of the area in the Great Lakes, the Atlantic, the Pacific, and the Gulf of Mexico, within the three-mile limit—amounts to 53,015 square miles.

The southernmost point of the mainland is Cape Sable, Fla., which is in latitude 25° 07′ and longitude 81° 05′. The extreme southern point of Texas is in latitude 25° 50′ and longitude 97° 24′.

A small portion of Northern Minnesota at longitude 95° 09′ extends northward to latitude 49° 23′.

The easternmost point of the United States is West Quoddy Head, near Eastport, Me., in longitude 66° 57′ and latitude 44° 49′; the westernmost point is Cape Alava, Wash., in latitude 48° 10′, which extends into the Pacific Ocean to longitude 124° 44′.

From the southernmost point in Texas due north to the forty-ninth parallel, the boundary between the United States and Canada, the distance is 1,598 miles. From West Quoddy Head due west to the Pacific Ocean the distance is 2,807 miles. The shortest distance from the Atlantic to the Pacific across the United States is between points near Brunswick, Ga., and San Diego, Cal., 2,103 miles.

The length of the Canadian boundary line from the Atlantic to the Pacific is 3,986.5 miles. The length of the Mexican boundary from the Gulf to the Pacific is 1,744 miles.

The average elevation of Delaware is only 60 feet above sea level, according to the United States Geological Survey, less than that of any other State in the Union.

POSITION OF THE CENTRE OF POPULATION, 1790 TO 1920

Census Year.	Location. North Latitude	Location. West Longit'd.	Approximate Location by Important Towns.	Movement in Miles During Preceding Decade. From Point to Point in Direct Line.	Westward.	Northward.	Southward.
	° ′ ″	° ′ ″					
1790..	39 16 30	76 11 12	23 miles east of Baltimore, Md.	.....	.....	.....	.....
1800..	39 16 6	76 56 30	18 miles west of Baltimore, Md.	40.6	40.6	.....	0.5
1810..	39 11 30	77 37 12	40 miles northwest by west of Washington, D. C. (in Va.).	36.9	36.5	.....	5.3
1820..	39 5 42	78 33 0	16 miles east of Moorefield, W. Va.	50.5	50.1	.....	6.7
1830..	38 57 54	79 16 54	19 miles west-southwest of Moorefield, W. Va.	40.4	39.4	.....	9.0
1840..	39 2 0	80 18 0	16 miles south of Clarksburg, W. Va.	55.0	54.8	4.7	.....
1850..	38 59 0	81 19 0	23 miles southeast of Parkersburg, W. Va.	54.8	54.7	.....	3.5
1860..	39 0 24	82 48 48	20 miles south by east of Chillicothe, Ohio	80.6	80.6	1.6	.....
1870..	39 12 0	83 35 42	48 miles east by north of Cincinnati, Ohio	44.1	42.1	13.3	.....
1880..	39 4 8	84 39 40	8 miles west by south of Cincinnati, O. (in Ky.)	58.1	57.4	.....	9.1
1890..	39 11 56	85 32 53	20 miles east of Columbus, Ind.	48.6	47.7	9.0	.....
1900..	39 9 36	85 48 54	6 miles southeast of Columbus, Ind.	14.6	14.4	.....	2.8
1910..	39 10 12	86 32 20	In the city of Bloomington, Ind.	39.0	38.9	0.7	.....
1920..	39 10 21	86 43 15	1.9 miles west of Whitehall, Clay township, Owen County, Ind.	9.8	9.8	0.2	.....

COAST LINE OF THE UNITED STATES.

(By the U. S. Coast and Geodetic Survey.)

General Coast Line—The figures under this heading give the length in statute miles of the general outline of the seacoast. The measurements were made with a unit measure of 30 minutes of latitude on charts as near the scale of 1-1,200,000 as possible.

Tidal Shore Line, Unit Measure 3 Statute Miles—The figures under this heading give the length in statute miles of the shore line on tidal waters to points where such waters narrow to a width of 3 statute miles.

The Panama Canal Zone—Islands outside the 3 nautical mile zone were not included.

Locality.	Gen'l Coast Line, Unit M'sure 30 Min. Lat'de	Tidal Shore Line, Unit Measure 3 Statute Miles. Mainland.	Islands.	Total.
Maine	228	339	337	676
New Hampshire	13	14	.....	14
Massachusetts	192	295	158	453
Rhode Island	40	72	84	156
Connecticut	.....	96	.....	96
New York	127	30	440	470
New Jersey	130	242	156	398
Pennsylvania	.....	.....	.....	.....
Delaware	28	79	.....	79
Maryland	31	322	130	452
Virginia	112	342	225	567
North Carolina	301	570	460	1,030
South Carolina	187	230	528	758
Georgia	100	110	493	603
Florida: Atlantic	399	411	207	618
Gulf	798	866	792	1,658
Total	1,197	1,277	999	2,276

Locality.	Gen'l Coast Line, Unit M'sure 30 Min. Lat'de	Tidal Shore Line, Unit Measure 3 Statute Miles. Mainland.	Islands.	Total.
Alabama	53	131	68	199
Mississippi	14	76	79	155
Louisiana	397	725	260	985
Texas	367	624	476	1,100
California	913	949	241	1,190
Oregon	296	312	.....	312
Washington	157	479	429	908
U. S.: Atlantic Coast	1,888	3,152	3,218	6,370
Gulf Coast	1,629	2,422	1,675	4,097
Pacific Coast	1,366	1,740	670	2,410
Total	4,883	7,314	5,563	12,877
Alaska	6,640	6,542	8,590	15,132
Philippine Islands	4,170	.....	.....	10,850
Porto Rico	311	.....	.....	362
Guam	78	.....	.....	84
Hawaiian Islands	775	.....	.....	810
Panama Canal Zone	20	.....	.....	.....
U. S. Samoan Islands	76	.....	.....	91
Virgin Islands	.....	.....	.....	101

UNITED STATES FRIGATE CONSTITUTION.

One of the three first ships of the American Navy. Launched 1797 at Boston, Mass., for services against the Algerian pirates.

In 1798-99 suppressed French privateering in the West Indies.

Bombarded the forts of Tripoli and helped throw off the yoke of the Barbary States, to whom the United States had been paying annual tribute.

Renowned for her victories during the War of 1812 over the Guerriere, Java, Cyane, Levant and Pictou, which had the effect of sustaining the morale of the country.

Earned the nickname of "Old Ironsides" in the historic fight with the Guerriere when the enemy's cannon balls rebounded from her oaken hull.

Her famous commanders were Preble, Hull, Decatur, Bainbridge, Stewart and Dewey.

Her first flag was fashioned by Betsy Ross and the copper in her hull was wrought at the foundry of Paul Revere.

Has maintained American rights on every ocean and sailed 500,000 miles in her 84 years of active service.

New York State Statistics.

The Almanac presents in the following pages tables and other detailed data relating to the State of New York.

POPULATION OF CITIES IN N. Y. STATE—1925, 1920.

(Citizens and aliens in the cities according to the 1925 State Census):

City.	1925.			1920.
	Citizens.	Aliens.	Total.	Total.
Albany	112,001	5,819	117,820	113,344
Amsterdam	30,526	4,734	35,260	33,524
Auburn	32,676	3,001	35,677	36,192
Batavia	14,550	1,078	15,628	13,541
Beacon	10,848	773	11,621	10,996
Binghamton	65,727	6,188	71,915	66,800
Buffalo	494,659	43,357	538,016	506,775
Canandaigua	7,500	186	7,686	7,356
Cohoes	21,301	2,044	23,345	22,987
Corning	15,089	633	15,722	15,820
Cortland	13,265	614	13,879	13,294
Dunkirk	18,866	1,046	19,912	19,336
Elmira	46,951	1,408	48,359	45,393
Fulton	11,721	850	12,571	13,043
Geneva	15,068	840	15,908	14,648
Glen Cove	9,216	1,606	10,822	8,664
Glens Falls	17,319	532	17,851	16,638
Gloversville	20,883	1,227	22,110	22,075
Hornell	15,330	454	15,784	15,025
Hudson	10,988	767	11,755	11,745
Ithaca	18,054	894	18,948	17,004
Jamestown	38,760	4,654	43,414	38,917
Johnstown	10,106	606	10,712	10,908
Kingston	27,319	780	28,099	26,688
Lackawanna	15,504	4,692	20,196	17,918
Little Falls	10,786	1,642	12,428	13,029
Lockport	20,512	1,164	21,676	21,308
Long Beach	2,632	259	2,891	.....
Mech'icville	7,673	841	8,514	8,166
Middletown	19,203	1,209	20,412	18,420
Mt. Vernon	45,407	4,975	50,382	42,726
Newburgh	29,100	1,319	30,419	30,366
N'w Rochelle	39,351	4,871	44,222	36,213

City.	1925.			1920.
	Citizens.	Aliens.	Total.	Total.
N. Y. City	4,750,330	1,123,026	5,873,356	5,620,048
Bronx	726,982	145,186	872,168	732,016
Brooklyn	1,799,128	404,863	2,203,991	2,018,356
Manhattan	1,457,193	487,836	1,945,029	2,284,103
Queens	644,321	69,570	713,891	469,042
Richmond	122,706	15,571	138,277	116,531
Niag. Falls	45,168	11,865	57,033	50,760
No. T'wanda	15,196	2,160	17,356	15,482
Norwich	8,129	216	8,345	8,268
Ogdensburg	15,215	1,832	17,047	14,609
Olean	20,474	858	21,332	20,506
Oneida	10,402	254	10,656	10,541
Oneonta	11,695	362	12,057	11,582
Oswego	21,373	996	22,369	23,626
Plattsburgh	11,273	279	11,552	10,909
Port Jervis	10,132	375	10,507	10,171
Po'keepsie	33,635	2,035	35,670	35,000
Rensselaer	11,035	359	11,394	10,823
Rochester	285,516	31,270	316,786	295,750
Rome	27,300	3,028	30,328	26,341
Salamanca	9,548	330	9,878	9,276
Saratoga Sps	13,446	438	13,884	13,181
Schenectady	84,007	8,779	92,786	88,723
Sherrill	2,025	57	2,082	1,761
Syracuse	167,227	14,776	182,003	171,717
Tonawanda	10,506	786	11,292	10,068
Troy	69,109	3,114	72,223	72,013
Utica	90,352	11,252	101,604	94,156
Watertown	30,203	2,633	32,836	31,285
Watervliet	15,119	1,039	16,158	16,073
White Plains	24,508	2,920	27,428	21,031
Yonkers	100,185	13,462	112,647	100,176
Total	7,161,999	1,343,564	8,505,563	8,098,455

CITIZENSHIP OF FOREIGN-BORN WHITES IN NEW YORK STATE, 1920.

Country of Birth.	Total	21 Yrs. and Over.	
		Total.	Nat'l'z.
All countries	2,786,112	2,528,497	1,153,813
Italy	545,173	474,994	129,330
Russia	529,240	458,239	182,139
Germany	295,650	290,287	203,307
Ireland	284,747	280,508	177,678
Poland	247,519	224,799	66,971
Austria	151,172	138,279	59,129
England	135,305	120,299	74,109
Canada	111,974	99,792	59,656
Canada-French	15,560	14,078	8,177
Hungary	78,374	71,413	28,701
Sweden	53,025	51,114	29,058
Roumania	40,116	36,230	18,226

Country of Birth.	Total	21 Yrs. and Over.	
		Total.	Nat'l'z.
Czechoslovakia	38,247	36,140	14,517
Scotland	37,654	34,157	19,997
France	32,179	29,345	15,370
Norway	27,573	25,445	11,917
Greece	26,117	22,907	3,993
Switzerland	15,053	14,521	8,563
Denmark	14,222	13,328	7,764
Netherlands	13,772	12,196	7,120
Spain	12,548	10,774	1,144
Finland	12,504	11,896	2,901
Lithuania	12,121	11,407	2,105
Jugo-Slavia	8,547	7,604	2,014
Syria	8,127	6,986	1,767

RACIAL POPULATION OF NEW YORK STATE.

Class of Population.	Number.		Males to 100 Females.	
	1920.	1910.	1920.	1910.
The State				
Total pop'l't'n	10,385,227	9,113,614	99.8	101.2
White	10,172,027	8,966,845	99.8	101.3
Negro	198,483	134,191	92.6	91.3
Indian	5,503	6,046	104.8	103.5
Chinese	5,793	5,266	947.6	2,519.9
Japanese	2,686	1,247	441.5	546.7

Class of Population.	Number.		Males to 100 Females.	
	1920.	1910.	1920.	1910.
The State.				
All other	735	19	.....	.....
Native white, tot.	7,385,915	6,237,573	97.1	97.5
Native parent'ge	3,668,266	3,230,325	98.6	98.9
For. parentage	2,844,083	2,241,837	96.3	96.4
Mixed parent'ge	873,566	765,411	93.3	94.5
For.-born white	2,786,112	2,729,272	107.4	110.5

"All other" population (1920) included 496 Filipinos, 204 Hindus, 30 Koreans and 2 Siamese.

POPULATION BY AGE GROUPS, 1920, IN NEW YORK STATE.

Age Periods.	Male.	Female.
Under 5 years	511,029	499,261
Under 1 year	(98,133)	(95,730)
5 to 9 years	489,503	482,648
10 to 14 years	453,990	448,428
15 to 19 years	399,406	418,293
20 to 24 years	434,070	491,029
25 to 29 years	476,806	494,542
30 to 34 years	452,985	438,688
35 to 39 years	433,860	405,918
40 to 44 years	356,411	342,983
45 to 49 years	320,442	297,016
50 to 54 years	270,271	260,444
55 to 59 years	195,523	192,707
60 to 64 years	156,361	157,551
65 to 69 years	101,780	107,255
70 to 74 years	64,620	74,157
75 to 79 years	38,443	46,205
80 to 84 years	16,888	23,362
85 to 89 years	6,236	9,452
90 to 94 years	1,376	2,417
95 to 99 years	264	513
100 yrs. & over	33	96
Age unknown	7,053	4,912
All ages	5,187,350	5,197,877

Population and Area of Indian Reservations, 1925—Allegany, 752 (30,469 acres); Cattaraugus, 1,270 (21,680 acres); Onondaga, 622 (7,300 acres); Shinnecock, 177 (400 acres); St. Regis, 976 (14,030 acres); Tonawanda, 474 (7,548 acres); Tuscarora, 395 (6,249 acres). Total, 4,666 (87,676 acres).

POPULATION OF N. Y. STATE, BY COUNTIES, STATE CENSUS OF 1925.

	Citizens.	Aliens.	Total.		Citizens.	Aliens.	Total.
Albany	186,245	10,893	197,138	Oneida	178,419	18,067	196,486
Allegany	36,506	309	36,815	Onondaga	247,203	19,806	267,009
Bronx	726,982	145,186	872,168	Ontario	53,353	1,887	55,240
Broome	124,640	10,420	135,060	Orange	119,088	6,541	125,629
Cattaraugus	71,658	2,120	73,778	Orleans	29,316	1,376	30,692
Cayuga	61,790	3,554	65,344	Oswego	68,587	2,817	71,404
Chautauqua	120,586	7,514	128,100	Otsego	46,373	1,031	47,404
Chemung	70,424	1,868	72,292	Putnam	11,796	704	12,500
Chenango	35,026	584	35,610	Queens	644,321	69,570	713,891
Clinton	44,129	2,016	46,145	Rensselaer	113,487	4,942	118,429
Columbia	40,694	2,032	42,726	Richmond	122,706	15,571	138,277
Cortland	30,178	873	31,051	Rockland	53,201	3,278	56,479
Delaware	42,517	935	43,452	St. Lawrence	84,654	7,152	91,806
Dutchess	93,248	5,780	9,028	Saratoga	62,230	3,376	65,606
Erie	637,333	56,283	693,616	Schenectady	106,577	10,131	116,708
Essex	31,259	783	32,042	Schoharie	21,102	463	2,565
Franklin	43,778	2,137	45,915	Schuyler	13,191	265	13,456
Fulton	43,741	2,287	46,028	Seneca	24,086	1,277	25,363
Genesee	40,281	3,039	43,420	Steuben	80,641	1,534	82,175
Greene	27,277	930	28,207	Suffolk	128,716	14,492	143,208
Hamilton	4,043	199	4,242	Sullivan	36,455	3,737	40,192
Herkimer	61,443	5,265	66,708	Tioga	25,487	624	26,111
Jefferson	80,536	5,240	85,776	Tompkins	38,026	1,533	39,559
Kings	1,799,128	404,863	2,203,991	Ulster	79,078	3,974	83,052
Lewis	23,740	973	24,713	Warren	33,284	786	34,070
Livingston	37,538	1,726	39,264	Washington	45,253	1,408	46,661
Madison	39,710	1,097	40,807	Wayne	49,850	1,935	51,785
Monroe	357,199	34,975	392,174	Westchester	378,376	47,422	425,798
Montgomery	55,637	5,748	61,385	Wyoming	29,857	970	30,827
Nassau	185,089	22,551	207,640	Yates	17,366	302	17,668
New York	1,457,193	487,836	1,945,029				
Niagara	116,229	17,208	133,437	Total	9,667,956	1,494,195	11,162,151

POPULATION AND AREA, BY COUNTIES, 1870-1920, AND POP. PER SQ. M., 1920.

County.	Estab.	Sq. M.	1920.	P. Sq. M.	1910.	1900.	1890.	1880.	1870.
Albany	1683	527	186,106	353.1	173,666	165,571	164,555	154,890	133,052
Allegany	1806	1,047	36,842	35.2	41,412	41,501	43,240	41,810	40,814
Bronx	1914	41	732,016	17,854.0					
Broome	1806	705	113,610	161.1	78,809	69,149	62,973	49,483	44,103
Cattaraugus	1808	1,343	71,323	53.1	65,919	65,643	60,866	55,806	43,909
Cayuga	1799	703	65,221	92.8	67,106	66,234	65,302	65,081	59,550
Chautauqua	1808	1,069	115,348	107.9	105,126	88,314	75,202	65,342	59,327
Chemung	1836	407	65,872	161.8	54,662	54,063	48,265	43,065	35,281
Chenango	1798	894	34,969	39.1	35,575	36,568	37,776	39,891	40,564
Clinton	1788	1,049	43,898	41.8	48,230	47,430	46,437	50,897	47,947
Columbia	1786	644	38,930	60.5	43,658	43,211	46,172	47,928	47,044
Cortland	1808	503	29,625	58.9	29,249	27,576	28,657	25,825	25,173
Delaware	1797	1,449	42,774	29.5	45,575	46,413	45,496	42,721	42,972
Dutchess	1683	806	91,747	113.8	87,661	81,670	77,879	79,184	74,041
Erie	1821	1,034	634,688	613.8	528,985	433,686	322,981	219,884	178,699
Essex	1799	1,836	31,871	17.4	33,458	30,707	33,052	34,515	29,042
Franklin	1808	1,678	43,541	25.9	45,717	42,853	38,110	32,390	30,271
Fulton	1838	516	44,927	87.1	44,534	42,842	37,650	30,985	27,064
Genesee	1802	496	37,976	76.6	37,615	34,561	33,265	32,806	31,606
Greene	1800	643	25,796	40.1	30,214	31,478	31,598	32,695	31,832
Hamilton	1816	1,750	3,970	2.3	4,373	4,947	4,762	3,923	2,960
Herkimer	1791	1,459	64,962	44.5	56,356	51,049	45,608	42,669	39,929
Jefferson	1805	1,274	82,250	64.6	80,382	76,748	68,806	66,103	65,415
Kings	1683	71	2,018,356	28,427.5	1,634,351	1,166,582	838,547	599,495	419,921
Lewis	1805	1,270	23,704	18.7	24,849	27,427	29,806	31,416	28,699
Livingston	1821	631	36,830	58.4	38,037	37,059	37,801	39,562	38,309
Madison	1806	650	39,535	60.8	39,289	40,545	42,892	42,112	43,522
Monroe	1821	663	352,034	531.0	283,212	217,854	189,586	144,903	117,868
Montgomery	1772	398	57,923	145.5	57,567	47,488	45,699	38,315	34,457
Nassau	1899	274	128,120	468.0	83,930	55,448			
New York	1683	22	2,284,103	103,822.9	2,762,322	2,050,600	1,515,301	1,206,299	942,292
Niagara	1808	522	118,705	227.4	92,036	74,961	62,491	50,173	50,437
Oneida	1798	1,250	182,833	146.3	154,157	132,800	122,922	115,475	110,008
Onondaga	1794	781	241,465	309.2	200,298	168,735	146,247	117,893	104,183
Ontario	1789	649	52,652	81.1	52,286	49,605	48,453	49,541	45,108
Orange	1683	834	119,844	143.7	116,001	103,859	97,859	88,220	80,902
Orleans	1824	396	28,619	72.3	32,000	30,164	30,803	30,128	27,689
Oswego	1816	966	71,045	73.5	71,664	70,881	71,883	77,911	77,941
Otsego	1791	1,009	46,200	45.8	47,216	48,939	50,861	51,397	8,967
Putnam	1812	233	10,802	46.4	14,665	13,787	14,849	15,181	15,420
Queens	1683	108	469,042	4,343.0	284,041	152,999	128,059	90,574	73,803
Rensselaer	1791	663	113,129	170.6	122,276	121,697	124,511	115,328	99,549
Richmond	1683	57	116,531	2,044.4	85,969	67,021	51 693	38,991	33,029
Rockland	1798	183	45,548	248.9	46,873	38,298	35,162	27,690	25,213
St. Lawrence	1802	2,701	88,121	32.6	89,005	89,083	85,048	85,997	84,826
Saratoga	1791	823	60,029	72.9	61,917	61,089	57,663	55,156	51,529
Schenectady	1809	206	109,363	530.9	88,235	46,852	29,797	23,538	21,347
Schoharie	1795	642	21,303	33.2	23,855	26,854	29,164	32,910	33,340
Schuyler	1859	336	13,098	39.0	14,004	15,811	16,711	18,842	18,989
Seneca	1804	336	24,735	73.6	26,972	28,114	28,227	29,278	27,823
Steuben	1796	1,398	80,627	57.7	83,362	82,822	81,473	77,586	67,717
Suffolk	1683	920	110,246	119.8	96,138	77,582	62,491	53,888	46,924
Sullivan	1809	1,002	33,163	33.1	33,808	32,306	31,031	32,491	34,550
Tioga	1791	520	24,212	46.6	25,624	27,951	29,935	32,673	30,572
Tompkins	1817	476	35,285	74.1	33,647	33,830	32,923	34,445	33,178
Ulster	1683	1,137	74,979	65.9	91,769	88,422	87,062	85,838	84,075
Warren	1813	876	31,673	36.2	32,223	29,943	27,866	25,179	22,592
Washington	1772	837	44,888	53.6	47,778	45,624	45,690	47,871	49,568
Wayne	1823	599	48,827	81.5	50,179	48,660	49,729	51,700	47,710
Westchester	1683	448	344,436	768.8	283,055	184,257	146,772	108,988	131,348
Wyoming	1841	601	30,314	50.4	31,880	30,413	31,193	30,907	29,164
Yates	1823	343	16,641	48.5	18,642	20,318	21,001	21,087	19,595
The State		47,654	10,385,227	217.9	9,113,614	7,268,894	6,003,174	5,082,871	4,382,759

POPULATION OF INCORPORATED VILLAGES IN N. Y. STATE, 1925.

There were, then, 505 incorporated villages in the State with a total population of 1,017,966, consisting of 958,441 citizens and 59,525 aliens. The figures are those of the State Census of 1925.

Village.	County.	Pop.	Village.	County.	Pop.	Village.	County.	Pop.
Adams	Jefferson	1,568	Clayville	Oneida	1,049	Goshen	Orange	2,945
Addison	Steuben	1,736	Cleveland	Oswego	526	Gouverneur	St. Lawr'ce	4,111
Afton	Chenango	832	Clifton Springs	Ontario	1,776	Gowanda	Cat'r'gus & Erie	2,751
Akron	Erie	2,123	Clinton	Oneida	1,433			
Albion	Orleans	5,206	Clyde	Wayne	2,652	Grand-View-on Hudson	Rockland	271
Alden	Erie	889	Cobleskill	Schoharie	2,585	Granville	Washingt'n	3,547
Alexander	Genesee	191	Cohocton	Steuben	895	Great Neck	Nassau	3,678
Alexandria Bay	Jefferson	2,130	Cold Brook	Herkimer	278	Gt. Neck Estat	Nassau	839
Alfred	Allegany	603	Cold Spring	Putnam	1,494	Greene	Chenango	1,363
Allegany	Cat'r'gus	1,325	Colonie	Albany	749	Green Island	Albany	4,510
Almond	Allegany	463	Constableville	Lewis	409	Greenport	Suffolk	2,991
Altamont	Albany	915	Cooperstown	Otsego	2,752	Greenwich	Washingt'n	2,398
Altmar	Oswego	342	Copenhagen	Lewis	592	Greenw'd Lake	Orange	422
Ames	M'ntg'm'y	166	Corfu	Genesee	470	Groton	Tompkins	2,072
Amityville	Suffolk	4,245	Corinth	Saratoga	2,547	Hagaman	M'ntg'm'y	909
Andes	Delaware	429	Cornwall	Orange	2,033	Hamburg	Erie	3,932
Andover	Allegany	1,151	Coxsackie	Greene	2,434	Hamilton	Madison	1,668
Angelica	Allegany	962	Croghan	Lewis	796	Hammond	St. Lawr'ce	367
Angola	Erie	1,475	Croton-on-H'ds	Westch't'r	2,193	Hamm'ndsport	Steuben	1,053
Antwerp	Jefferson	927	Cuba	Allegany	1,496	Hancock	Delaware	1,481
Arcade	Wyoming	1,604	Dannemora	Clinton	2,955	Hannibal	Oswego	410
Ardsley	Westch't'r	832	Dansville	Livingston	4,569	Harriman	Orange	698
Argyle	Washingt'n	216	Deferiet	Jefferson	789	Harrisville	Lewis	860
Arkport	Steuben	583	Delanson	Sch'n'tady	460	Hast'gs-on-Hud	Westch't'r	6,311
Athens	Greene	1,747	Delevan	Cat'r'gus	559	Haverstraw	Rockland	5,925
Attica	Wyoming	2,125	Delhi	Delaware	1,775	Hempstead	Nassau	9,952
Aurora	Cayuga	376	Depew	Erie	6,122	Henderson	Jefferson	308
Avoca	Steuben	928	Deposit	Broome & Delaware	2,038	Herkimer	Herkimer	10,910
Avon	Livingston	2,472	Dering Harb or	Suffolk	40	Hermon	St. Lawr'ce	575
Babylon	Suffolk	3,698	DeRuyter	Madison	524	Herrings	Jefferson	177
Bainbridge	Chenango	1,339	Dexter	Jefferson	1,155	Heuvelton	St. Lawr'ce	568
Baldwinsville	Onondaga	3,891	Dobbs Ferry	Westch't'r	5,020	Highland Falls	Orange	3,071
Ballston Spa	Saratoga	4,476	Dolgeville	Herkimer & Fulton	3,239	Hillburn	Rockland	1,139
Barker	Niagara	472	Downsville	Delaware	567	Hilton	Monroe	915
Bath	Steuben	4,048	Dresden	Yates	303	Hobart	Delaware	636
Bayville	Nassau	993	Dryden	Tompkins	687	Holcomb	Ontario	328
Bellerose	Nassau	547	Dundee	Yates	1,163	Holland Patent	Oneida	357
Belleville	Jefferson	303	Earlville	Madison & Chenango	911	Holley	Orleans	1,705
Bellport	Suffolk	737	East Aurora	Erie	4,641	Homer	Cortland	2,553
Belmont	Allegany	1,021	East Bloomf'ld	Ontario	371	Honeoye Falls	Monroe	1,204
Bemus Point	Chaut'qua	286	East Hampton	Suffolk	1,848	Hoosick Falls	Rensselaer	5,050
Bergen	Genesee	654	East Randolph	Cat'r'gus	515	Horseheads	Chemung	2,320
Black River	Jefferson	1,031	East Rochester	Monroe	5,883	Hudson Falls	Washingt'n	6,266
Blasdell	Erie	1,507	East Rockaway	Nassau	3,264	Hunter	Greene	803
Bloom'gburgh	Sullivan	232	East Syracuse	Onondaga	4,492	Huntingt'n Bay	Suffolk	397
Bloomingdale	Essex	422	Eastwood	Onondaga	5,059	Ilion	Herkimer	10,426
Bolivar	Allegany	1,385	Edwards	St. Lawr'ce	559	Interlaken	Seneca	663
Boonville	Oneida	2,096	Elba	Genesee	497	Irvington	Westch't'r	3,296
Brewster	Putnam	1,569	Elbridge	Onondaga	459	Jeffersonville	Sullivan	434
Briar Cliff Man	Westch't'r	1,451	Ellenburg	Clinton	1,163	Johnson City	Broome	11,169
Bridgewater	Oneida	209	Ellicott	Chautauqua	4,796	Jordan	Onondaga	1,128
Brightwaters	Suffolk	542	Ellicottville	Cattaraugus	983	Keeseville	Clinton & Essex	1,716
Broadalbin	Fulton	1,350	Elmira Heigh ts	Chemung	2,219	Kenmore	Erie	6,521
Brockport	Monroe	3,826	Elmsford	Westch't'r	2,219	Kensington	Nassau	597
Brocton	Chaut'qua	1,369	Endicott	Broome	15,627	Kinderhook	Columbia	768
Bronxville	Westch't'r	4,040	Esperance	Schoharie	218	Kings Point	Nassau	1,067
Brownville	Jefferson	969	Evans Mills	Jefferson	614	Lacona	Oswego	549
Brushton	Franklin	499	Fabius	Onondaga	284	Lake George	Warren	860
Burdett	Schuyler	350	Fairport	Monroe	4,441	Lake Placid	Essex	2,473
Burke	Franklin	370	Falconer	Chaut'qua	3,352	Lakewood	Chaut'qua	1,595
Caledonia	Livingston	1,427	Farmingdale	Nassau	3,044	Lancaster	Erie	6,748
Cambridge	Washingt'n	1,626	Farnham	Erie	554	Larchmont	Westch't'r	3,915
Camden	Oneida	2,105	Fair Haven	Cayuga	616	LaSalle	Niagara	6,258
Camillus	Onondaga	1,032	Fairport	Monroe	4,441	Laurens	Otsego	392
Canajoharie	M'ntg'm'y	2,793	Falconer	Chaut'qua	3,352	Lawrence	Nassau	2,519
Canaseraga	Allegany	637	Farmingdale	Nassau	3,044	Leicester	Livingston	588
Canastota	Madison	4,223	Farnham	Erie	554	LeRoy	Genesee	4,348
Candor	Tioga	736	Fayetteville	Onondaga	1,813	Lewiston	Niagara	854
Canisteo	Steuben	2,452	Fillmore	Allegany	491	Liberty	Sullivan	3,075
Canton	St. Lawr'ce	2,704	Fleischmanns	Delaware	711	Lima	Livingston	981
Cape Vincent	Jefferson	946	Fishkill	Dutchess	531	Limestone	Cat'r'gus	466
Carthage	Jefferson	4,535	Floral Park	Nassau	6,749	Lindenhurst	Suffolk	3,432
Cassadaga	Chaut'qua	495	Fonda	M'ntg'm'y	1,232	Lisle	Broome	297
Castile	Wyoming	944	Forestport	Oneida	420	Little Valley	Cat'r'gus	1,340
Castleton	Rensselaer	1,681	Forestville	Chaut'qua	812	Liverpool	Onondaga	1,998
Cato	Cayuga	390	Fort Ann	Washingt'n	382	Livonia	Livingston	823
Catskill	Greene	5,307	Fort Covington	Franklin	865	Lowville	Lewis	3,427
Cattaraugus	Cat'r'gus	1,359	Fort Edward	Washingt'n	3,631	Lynbrook	Nassau	8,344
Cayuga	Cayuga	374	Fort Johnson	M'ntg'm'y	810	Lyndonville	Orleans	763
Cayuga H'ghts	Tompkins	370	Fort Plain	M'ntg'm'y	2,906	Lyons	Wayne	4,275
Cazenovia	Madison	1,776	Frankfort	Herkimer	4,416	Lyons Falls	Lewis	736
Cedarhurst	Nassau	3,612	Franklin	Delaware	502	Macedon	Wayne	543
Celoron	Chaut'qua	1,206	Franklinville	Cat'r'gus	2,117	Madison	Madison	298
Central Square	Oswego	572	Fredonia	Chaut'qua	6,293	Malone	Franklin	8,820
Champlain	Clinton	1,273	Freeport	Nassau	13,903	Malverne	Nassau	573
Chateaugay	Franklin	1,391	Freeville	Tompkins	484	Mamaroneck	Westch't'r	10,153
Chatham	Columbia	2,415	Friendship	Allegany	1,139	Manchester	Ontario	1,327
Chaumont	Jefferson	624	Fultonville	M'ntg'm'y	1,006	Manlius	Onondaga	1,669
Cherry Creek	Chaut'qua	619	Gainesville	Wyoming	328	Mannsville	Jefferson	291
Cherry Valley	Otsego	764	Galway	Saratoga	125	Marathon	Cortland	955
Chester	Orange	1,186	Garden City	Nassau	3,141	Marcellus	Onondaga	1,110
Chittenango	Madison	760	Geneseo	Livingston	2,338			
Churchville	Monroe	622	Gilbertsville	Otsego	374			
Clayton	Jefferson	1,942	Glen Park	Jefferson	597			

POPULATION OF INCORPORATED VILLAGES IN 1925—*Continued.*

Village.	County.	Pop.	Village.	County.	Pop.	Village.	County.	Pop.
Margaretville	Delaware	800	Pelham	Westch't'r.	1,734	Sloan	Erie	2,353
Massena	St. Lawr'ce	5,907	Pelham Manor	Westch't'r.	3,338	Smyrna	Chenango	229
Mayfield	Fulton	660	Penn Yan	Yates	5,326	Sodus	Wayne	1,361
Mayville	Chaut'qua.	1,287	Perry	Wyoming	4,636	Solvay	Onondaga	7,562
Medina	Orleans	6,192	Perrysburg	Cat'r'gus	325	Sound Avenue	Suffolk	499
Menands	Albany	1,449	Phelps	Ontario	1,415	Southampton	Suffolk	3,952
Meridian	Cayuga	238	Philadelphia	Jefferson	815	South Corning	Steuben	677
Mexico	Oswego	1,203	Philmont	Columbia	1,956	South Dayton	Cat'r'gus	615
Middleburg	Schoharie	1,036	Phoenix	Oswego	1,711	So. Glen Falls	Saratoga	2,519
Middleport	Niagara	1,537	Piermont	Rockland	1,539	South Nyack	Rockland	2,103
Middleville	Herkimer	947	Pike	Wyoming	335	Spencer	Tioga	643
Milford	Otsego	570	Pine Hill	Ulster	336	Spencerport	Monroe	1,157
Millbrook	Dutchess	1,174	Pittsford	Monroe	1,454	Spring Valley	Rockland	3,779
Millport	Chemung	349	Plandome	Nassau	549	Springville	Erie	2,340
Millerton	Dutchess	903	Pleasant Valley	Dutchess	440	Stamford	Delaware	1,151
Mineola	Nassau	5,240	Pleasantville	Westch't'r.	3,674	Stillwater	Saratoga	1,337
Minoa	Onondaga	838	Poland	Herkimer	379	Suffern	Rockland	3,349
Mohawk	Herkimer	3,017	Port Byron	Cayuga	1,016	Tannersville	Greene	826
Monroe	Orange	1,653	Port Chester	Westch't'r.	19,283	Tarrytown	Westch't'r.	6,199
Montgomery	Orange	946	Port Dickinson	Broome	1,491	Theresa	Jefferson	868
Monticello	Sullivan	3,529	Port Henry	Essex	2,072	Ticonderoga	Essex	3,858
Montour Falls	Schuyler	1,561	Port Leydon	Lewis	746	Tivoli	Dutchess	910
Mooers	Clinton	505	Portville	Cat'r'gus	937	Trenton	Oneida	310
Moravia	Cayuga	1,434	Potsdam	St. Lawr'ce	4,472	Trumansburg	Tompkins	1,148
Morris	Otsego	494	Prattsburg	Steuben	659	Tuckahoe	Westch't'r.	5,033
Morristown	St. Lawr'ce	528	Prospect	Oneida	282	Tully	Onondaga	633
Morrisville	Madison	577	Pulaski	Oswego	1,962	Tupper Lake	Franklin	3,041
Mt. Kisco	Westch't'r.	4,161	Randolph	Cat'r'gus	1,498	Turin	Lewis	286
Mt. Morris	Livingston.	3,555	Ravena	Albany	1,944	Unadilla	Otsego	1,111
Munnsville	Madison	377	Red Creek	Wayne	584	Union Springs	Cayuga	759
Naples	Ontario	1,144	Red Hook	Dutchess	945	Unionville	Orange	441
Nassau	Rensselaer.	757	Remsen	Oneida	406	Upper Nyack	Rockland	725
Nelliston	M'ntg'm'y.	624	Rensselaer Falls	St. Lawr'ce	313	Valatie	Columbia	1,326
Nelsonville	Putnam	440	Rhinebeck	Dutchess	1,520	Valley Falls	Rensselaer.	672
Newark	Wayne	7,309	Richburg	Allegany	381	Valley Stream	Nassau	7,313
Newark Valley	Tioga	855	Richf'ld Springs	Otsego	1,421	Van Etten	Chemung	414
New Berlin	Chenango	1,035	Richmondville	Schoharie	564	Vernon	Oneida	655
Newfield	Tompkins	362	Richville	St. Lawr'ce	320	Victor	Ontario	1,026
New Hartford	Oneida	1,699	Riverside	Steuben	528	Victory Mills	Saratoga	715
New Paltz	Ulster	1,269	Rockville Cent.	Nassau	10,316	Voorheesville	Albany	696
Newport	Herkimer	856	Rosendale	Ulster	618	Waddington	St. Lawr'ce	688
New York Mills	Oneida	4,610	Rouses Point	Clinton	1,757	Walden	Orange	4,487
Nichols	Tioga	610	Rushville	Ontario &		Walton	Delaware	3,511
North Bangor	Franklin	380		Yates	465	Wampsville	Madison	272
North Collins	Erie	1,120	Rye	Westch't'r.	6,698	Wap'ngers Falls	Dutchess	3,351
North Hornell	Steuben	296	Sacket Harbor	Jefferson	775	Warsaw	Wyoming	3,404
North Pelham	Westch't'r.	4,013	Saddle Rock	Nassau	86	Warwick	Orange	2,471
Northport	Suffolk	2,587	Sag Harbor	Suffolk	3,118	Wash'nt'nville	Orange	615
No. Tarrytown	Westch't'r.	7,013	St. Johnsville	M'ntg'm'y.	2,568	Waterford	Saratoga	3,239
Northville	Fulton	1,124	Salem	Washingt'n	1,041	Waterloo	Seneca	3,921
Norwood	St. Lawr'ce	1,971	Saltaire	Suffolk	65	Waterville	Oneida	1,327
Nunda	Livingston.	1,134	Sands Point	Nassau	474	Watkins	Schuyler	2,919
Nyack	Rockland	4,917	Sandy Creek	Oswego	655	Waverly	Tioga	5,578
Oakfield	Genesee	2,072	Saranac Lake	Essex and		Wayland	Steuben	1,767
Ocean Beach	Suffolk	156		Franklin	6,579	Webster	Monroe	1,453
Odessa	Schuyler	364	Saugerties	Ulster	4,228	Weedsport	Cayuga	1,440
Old Forge	Herkimer	767	Savannah	Wayne	612	Wellsburg	Chemung	530
Old Westbury	Nassau	1,345	Savona	Steuben	581	Wellsville	Allegany	4,853
Oneida Castle	Oneida	463	Scarsdale	Westch't'r.	5,099	West Carthage	Jefferson	1,616
Oramel	Allegany	146	Schaghticoke	Rensselaer.	625	Westfield	Chaut'qua.	3,587
Orchard Park	Erie	991	Schenevus	Otsego	538	West Hav'straw	Rockland	2,715
Oriskany	Oneida	1,177	Schoharie	Schoharie	884	Westport	Essex	731
Oriskany Falls	Oneida	916	Schuylerville	Saratoga	1,620	West Winfield	Herkimer	824
Ossining	Westch't'r.	12 769	Scotia	Sch'n'tady.	5,562	Whitehall	Washingt'n	5,662
Otego	Otsego	614	Scottsville	Monroe	929	Whitesboro	Oneida	3,268
Otisville	Orange	833	Sea Cliff	Nassau	3,101	Whitney Point	Broome	684
Ovid	Seneca	521	Seneca Falls	Seneca	6,477	Williamsville	Erie	2,542
Owego	Tioga	4,743	Sharon Springs	Schoharie	447	Wilson	Niagara	721
Oxford	Chenango	1,695	Sherburne	Chenango	1,151	Windsor	Broome	677
Painted Post	Steuben	2,213	Sherman	Chaut'qua.	875	Wolcott	Wayne	1,281
Palatine Bridge	M'ntg'm'y.	479	Shoreham	Suffolk	29	Woodhull	Steuben	297
Palmyra	Wayne	2,664	Shortsville	Ontario	1,305	Woodridge	Sullivan	979
Panama	Chaut'qua.	312	Sidney	Delaware	2,499	Woodsburgh	Nassau	321
Parish	Oswego	535	Silver Creek	Chaut'qua.	3,278	Wurtsboro	Sullivan	479
Patchogue	Suffolk	5,116	Silver Springs	Wyoming	932	Wyoming	Wyoming	411
Pawling	Dutchess	1,069	Sinclairville	Chaut'qua.	500	Yorkville	Oneida	1,681
Peekskill	Westch't'r	17,993	Skaneateles	Onondaga	1,760	Youngstown	Niagara	636

URBAN AND RURAL POPULATION OF NEW YORK STATE.

Class of Places.	1920.		1910.		1900.		Per Cent. of Total Populati'n.		
	No. of Places.	Population.	No. of Places.	Population.	No. of Places.	Population.	1920.	1910.	1900.
Urban territory	169	8,589,844	148	7,185,494	122	5,298,111	82.7	78.8	72.9
Cities and villages of—									
1,000,000 inhabitants or more.	1	5,620,048	1	4,766,883	1	3,437,202	54.1	52.3	47.3
500,000 to 1,000,000 innabit'ts	1	506,775	......	....	......	....	4.9	.....	.....
100,000 to 500,000 inhabit'ts	4	680,987	4	879,366	3	623,369	6.6	9.6	8.6
50,000 to 100,000 inhabit'ts	5	372,452	4	303,861	3	211,185	3.6	3.3	2.9
25,000 to 50,000 inhabit'ts	11	382,645	12	381,461	5	185,277	3.7	4.2	2.5
10,000 to 25,000 inhabit'ts	36	540,139	30	439,571	28	458,937	5.2	4.8	6.3
5,000 to 10,000 inhabit'ts	30	200,606	25	162,373	26	184,029	1.9	1.8	2.5
2,500 to 5,000 inhabit'ts	81	286,192	72	251,979	56	198,112	2.8	2.8	2.7
Rural territory	......	1,795,383	......	1,928,120	......	1,970,783	17.3	21.2	27.1
Villages less than 2,500 inhabit'ts	365	346,877	351	352,294	337	345,726	3.3	3.9	4.8
Other rural territory	......	1,448,506	......	1,575,826	......	1,625,057	13.9	17.3	22.4
Total population	......	10,385,227	......	9,113,614	......	7,268,894	100.0	100.0	100.0

MANUFACTURES IN NEW YORK STATE 1849-1927.

(Data are revised and are by the United States Census Bureau.)

The State of New York has ranked first since 1904 in value of manufactured products, its nearest competitors being Pennsylvania, Illinois, Ohio, Michigan, New Jersey, Massachusetts, California, and Indiana. Below is given a survey covering the years, 1849-1927.

COMPARATIVE SUMMARY.

Year.	No. Estab.	No. Wage Earners.	Horse Power.	Wages in the Year.	Cost of Materials.	Value of Products.	Capital
				Dollars.	*Dollars.*	*Dollars.*	*Dollars.*
1849....	23,553	199,349		49,131,000	134,655,674	237,597,249	99,904,405
1859....	22,624	230,112		65,446,759	214,813,061	378,870,939	172,895,652
1869....	36,206	351,800	334,363	142,466,758	452,065,452	785,194,651	366,994,320
1879....	42,739	531,533	454,143	198,634,029	679,612,545	1,080,696,596	514,246,575
1889....	65,840	752,066	776,820	370,380,559	871,264,085	1,711,577,671	1,130,161,195
1899....	78,658	849,056	1,181,369	408,855,652	1,143,791,776	2,175,726,900	1,651,210,220

The figures for the above years include data for "hand and neighborhood industries," such as blacksmithing, carpentry, shoe repairing, tailoring, dressmaking, etc. Those were the "sweatshop" days.

The figures for the years in the table below exclude such items, taking in only the larger plants.

Year.	No. Estab.	No. Wage Earners.	Horsepower.	Wages in the Year.	Cost of Materials.	Value of Products.	Capital
1899....	35,957	726,909	1,099,931	337,323,585	1,018,377,186	1,871,830,872	1,523,502,651
1904....	37,194	856,947	1,516,592	430,014,851	1,348,603,286	2,488,345,579	2,031,459,515
1909....	44,935	1,003,981	1,997,662	557,230,839	1,856,904,342	3,369,490,192	2,779,496,814
1914....	48,203	1,057,857	2,356,655	631,042,011	2,108,607,361	3,814,661,114	3,334,277,526
1919....	49,330	1,228,130	2,926,963	1,458,206,804	4,943,213,919	8,867,004,906	6,012,082,567
1921....	38,102	1,000,399		1,303,386,795	3,686,850,668	6,972,679,438	—
1923....	38,183	1,150,889	3,263,325	1,581,321,565	4,764,026,655	8,959,964,363	—
1925....	33,392	1,066,198	3,348,184	1,533,888,975	4,704,750,680	8,968,262,479	—
1927....	36,650	1,072,284	3,671,185	1,605,378,086	4,804,172,874	9,400,061,376	—

NUMBER OF GAINFULLY EMPLOYED IN NEW YORK STATE IN 1920.

	N. Y. State.		Cities of Over 100,000 Population.						
	Number.	Per Cent.	Greater N. Y.	Albany.	Buffalo	Rochester.	Syracuse.	Yonkers.	Total.
All occupations: Men	3,367,909	74.79	1,839,683	37,822	165,362	96,463	58,546	30,187	2,228,063
Women	1,135,295	25.21	691,729	14,495	49,981	37,641	18,758	11,218	823,822
Total	4,503,205	100.00	2,531,412	52,317	215,343	134,104	77,304	41,405	3,051,885
Agriculture, forestry and animal husbandry: Men	305,505	97.06	6,764	353	553	900	391	377	9,338
Women	9,269	2.94	345	7	14	14	7	5	392
Total	314,774	100.00	7,109	360	567	914	398	382	9,730
Extraction of minerals: Men	7,435	98.49	575	15	128	20	34	11	783
Women	114	1.51	25	.....	1	.....	.....	1	27
Total	7,549	100.00	600	15	129	20	34	12	810
Manufacturing and mechanical industries: Men	1,406,004	80.02	748,182	13,924	87,378	56,506	31,464	15,044	952,498
Women	351,104	19.98	204,130	3,505	11,247	15,903	4,881	3,707	243,373
Total	1,757,108	100.00	952,312	17,429	98,625	72,409	36,345	18,751	1,195,871
Transportation: Men	370,154	91.71	218,367	6,878	20,846	7,797	6,281	2,536	262,705
Women	33,420	8.29	23,012	511	1,855	741	578	226	26,923
Total	403,574	100.00	241,379	7,389	22,701	8,538	6,859	2,762	289,628
Trade: Men	505,254	85.44	338,298	6,188	22,424	12,644	8,546	4,362	392,462
Women	86,080	14.56	54,098	1,280	5,593	2,812	2,041	595	67,324
Total	591,334	100.00	392,396	7,468	28,017	15,456	10,587	4,957	459,786
Public service (not elsewhere classified): Men	98,691	98.32	60,030	1,417	5,629	2,506	1,466	1,038	72,086
Women	1,683	1.68	845	36	71	25	30	5	1,012
Total	100,374	100.00	60,875	1,453	5,680	2,531	1,496	1,043	73,098
Professional service: Men	162,195	56.18	100,028	2,197	7,292	4,477	3,051	2,039	119,084
Women	126,569	43.82	68,009	1,776	5,726	3,646	2,150	1,426	82,733
Total	288,764	100.00	168,037	3,973	13,018	8,123	5,201	3,465	201,817
Dom'stic & pers'n'l service: Men	209,493	44.29	149,623	2,496	6,961	3,975	2,760	1,222	167,037
Women	263,468	55.71	156,667	3,592	11,350	5,768	4,457	2,480	184,314
Total	472,961	100.00	306,290	6,088	18,311	9,743	7,217	3,702	351,351
Clerical occupations: Men	303,178	53.49	217,816	4,354	14,151	7,638	4,553	3,558	252,070
Women	263,588	46.51	184,598	3,788	14,124	8,732	4,614	2,773	218,629
Total	566,766	100.00	402,414	8,142	28,275	16,370	9,167	6,331	470,699

The numbers of gainfully employed in the United States, including New York State, in 1920, were—agriculture, 10,953,158; mining, 1,090,223; manufacturing and mechanical, 12,818,524.

Transportation, 3,063,582; trade, 4,242,979; public service, 770,460; professional service, 2,143,889.

Domestic and personal service, 3,404,892; clerical, 3,126,541.

All occupations, total—41,614,248.

CHIEF MANUFACTURES IN 1927 IN U. S. AND IN N. Y. STATE

The following table shows the chief industries in 1927 with the average number of wage earners; and the total value of the production in that year in each of the industries named, in the United States, and also in New York State.

Industry	In U.S. Wage Earners	Value of Products	
		Total U. S.	Total N. Y. St.
	Average No.	*1000 Dollars.*	*1000 Dollars.*
Motor Vehicles, Bodies and Parts	369,399	3,999,869	278,945
Iron and steel	389,270	3,488,744	112,859
Slaughtering, meat pkg.	119,095	3,057,215	244,150
Clothing	341,170	2,573,871	1,616,232
Printing & Publishing	261,671	2,507,425	641,911
Forgings, not mill; fdry. and mach. sh. prod'ts.	413,213	2,363,466	11,063
Petroleum refining	71,234	2,142,648	40,327
Electric mach., apparat., supplies	241,566	1,637,307	245,209
Cotton goods	467,596	1,567,400	29,102
Bread, bakery products	171,995	1,394,700	273,134
Car bldg. and repairing	428,672	1,289,695	99,344
Lumber & timber prod.	418,168	1,214,645	9,934
Grain mill prod.	29,928	1,148,760	118,605
Paper and pulp	123,360	1,138,089	157,146
Smelting and refining	33,286	1,012,132	10,366
Cigars, cigarettes	116,174	965,523	93,267
Boots, shoes, not rubber	203,110	944,714	190,936
Furniture	186,302	879,706	157,446
Rubber tires and tubes	78,256	869,688	.....
Knit goods	190,283	816,620	159,818
Woollen and wstd goods	154,361	817,978	31,044
Silk manufactures	127,643	750,123	100,447
Butter	20,096	739,010	6,519
Canning and preserving	93,574	637,428	61,921
Sugar refining, cane	13,996	597,445	155,217
Planing mill products	96,589	581,633	52,402
Chemicals, misc.	50,510	548,535	138,577
Alloys, non-ferrous(brass etc.)	64,187	519,892	92,424
Paints, varnishes	28,061	519,009	87,648
Gas	48,497	516,705	118,930
Leather	52,924	494,255	59,601
Struct. and ornam. iron and steel work	52,392	440,376	54,129
Dye'g & finish'g textiles	73,851	406,047	38,876
Confectionary	63,163	391,927	62,108
Coffee and spices, roasting and grinding	8,195	384,281	68,039
Coke, not gas-house	21,082	382,012	24,726
Engines, turb., wat. whls.	54,341	367,878	12,861
Clay prod. (not pottery)	100,972	319,907	17,983
Wire, wire work	41,563	319,245	36,748
Boxes, not wooden	56,398	306,555	66,727
Ice cream	21,927	301,644	41,751
Animal feeds	7,632	299,792	48,365
Fur goods	16,640	299,615	244,941
Soap	13,432	287,059	41,611
Cement	36,322	293,565	18,116
Glass	65,825	282,394	16,150
Patent medicines	15,071	278,242	50,132
Cotton s'd oil, cake, meal	18,434	276,338	.....
Tin cans, tinware	29,721	253,478	31,795
Beverages	26,972	242,694	38,400
Rubber goods, misc.	36,893	230,781	28,677
Shirts	57,216	241,649	91,887
Steam fittings, etc.	42,893	225,158	41,164
Ship building	55,014	211,127	41,308
Millinery	33,311	209,494	133,961
Hardware	47,834	208,253	17,228
Agric. implements	33,346	202,732	11,045
Stone, marble, etc.	40,474	201,181	33,789
Tobacco	13,125	198,244	1,377
Copper, tin and sheet-iron work	24,527	191,128	20,471
Fertilizers	18,612	190,384	2,290
Ice, manufactured	22,120	184,794	18,744
Wood preserving	12,259	184,557	8,055
Boot and shoe cut stock and findings	18,561	178,455	8,077
Food preparations, misc.	10,294	166,964	49,976
Carpets and rugs, wool, not rag	32,829	166,888	67,789
Jewelry	24,116	164,865	55,664
Bags, not paper, not made in textile mills	11,164	162,949	28,653
Perfumes, cosmetics	10,463	161,245	83,494
Machine tools	35,269	159,513	8,743
Cereal preparations	6,028	155,563	.....
Refrigerators:			
Mechanical	11,285	96,513	.....
Not mechanical	9,551	58,163	6,439
Total	20,836	154,676	
Plumbers' supplies	29,245	148,878	5,360
Lard substitutes	2,655	148,468	.....
Boxes, wooden	35,374	146,901	10,020
Gent's furnishings	25,188	135,474	71,895
Stamped and enameled ware	28,594	141,793	29,868
Paper goods, misc.	14,837	140,947	27,697
Corn syrup, oil & starch	6,972	134,461	.....
Motion pict., not incl. projection	8,415	134,343	25,006
Pumps	18,671	130,591	8,941
Gas & elec. fixtures	21,030	127,802	34,139
Boots & shoes (rubber)	26,848	124,607	.....
Aluminum manufactures	14,798	123,557	.....
Metal shingles & roofing	7,255	123,210	6,088
Chocolate and cocoa	6,427	122,723	31,325
Cheese	3,520	11,447	13,502
Tools, not edged	25,232	117,430	9,504
Textile machinery	26,165	116,921	1,153
Linseed oil, cake, meal	2,718	111,543	21,543
Pottery, porcelain	36,667	110,597	7,552
Druggists' preparations	10,138	110,309	18,392
Rayon (artif. silk)	26,341	109,888	.....
Flavoring ext. & syrups	5,011	107,219	20,023
Cash registers, adders	14,372	106,844	8,139
Sugar, beet	7,402	104,926	.....
Oils, misc.	3,441	103,388	12,338
Paving materials, not brick or granite	19,250	103,249	14,823
Hats, fur, felt	15,927	99,299	22,315
Signs, advert. novelties	16,967	98,181	15,053
Mattresses, bed springs	13,481	98,834	17,030
Pipe, wrought, etc.	11,083	98,186	.....
Phonographs	14,216	95,296	3,027
Cast-iron pipe	22,892	95,088	1,236
Concrete products	17,808	93,259	11,014
Photo. apparat. & mat.	12,120	90,827	.....
Cordage, twine	15,084	89,172	16,303
House furn. goods, misc.	11,691	87,676	38,788
Bookbinding, blank-book making	21,909	87,327	33,429
Baking powd., yeast, etc.	3,032	85,150	.....
Wall plaster and board	10,014	83,856	25,938
Sausages, etc., not made by meat packers	4,967	81,548	8,402
Corsets	13,778	77,128	27,605
Cutlery, not plated, not edged tools	17,178	76,688	13,881
Locomotives, not made in R. R. repair shops	12,961	76,719	.....
Bolts, nuts, washers	13,614	75,876	.....
Pianos	16,582	75,490	28,431
Washington mach., etc.	7,789	74,951	13,828
Caskets, coffins	11,665	74,890	9,884
Explosives	5,803	72,489	.....
Photo eng.,not in ptg.est.	11,033	69,207	20,023
Typewriters	16,681	69,111	26,018
Doors, shutters, etc.	8,050	65,279	20,273
Cotton, small wares	14,958	64,819	5,679
Trimmings, cloth	9,945	64,422	47,517
Toys, games	14,738	63,955	20,753
Gold, silver, platinum, reducing and refining	801	62,647	4,982
Chewing gums	2,524	62,001	23,202
Trunks, satchels	10,345	59,958	13,925
Bags, paper, not made in paper mills	6,463	57,489	18,482
Surgical appliances	6,718	57,407	8,097
Pocketbooks, etc.	8,570	57,344	42,802
Plated ware	11,752	56,719	20,088
Grease and tallow	5,052	56,279	8,009
Envelopes	9,745	56,006	7,859
Nuts, processed	7,376	55,949	.....
Rice clean'g & polish'g.	1,524	54,129	.....
Carbonic and like gases	3,212	50,547	3,205

Where there are no figures the presumption is that their use would disclose the identity of the one concern engaged in making the goods on articles in question.

WORKMEN'S COMPENSATION IN NEW YORK STATE.

The Workmen's Compensation Law of New York covers any organization, regardless of whether or not it is carried on for pecuniary gain, if there are 4 or more workmen or operatives. This includes religious, charitable, and fraternal bodies.

It expressly excludes farm laborers and domestic servants.

An amendment of 1929 specifically exempts teachers, ministers, and other non-manual workers for a religious, charitable, or educational corporation.

All State employees are entitled to compensation.

Railroad employees injured in interstate commerce are excluded by the Federal Employers' Liability Act.

Masters and crews of vessels on navigable waters are excluded by the Admiralty jurisdiction of the Federal courts. Longshoremen and other maritime workers if injured on docks are protected by the compensation law, but if injured upon navigable waters, including dry docks, compensation is paid under the Federal "Longshoremen's and Harbor Workers' Compensation Act," approved March 4, 1927. Masters and crews, and workers engaged in unloading or repairing, are excluded from compensation if the vessel on which accident occurs is under eighteen tons net.

The injured employee or others must give written notice of the accident to the employer and the Department of Labor within thirty days and must file claim for compensation within a year.

The accident must not be due to the injured employee's wilful intent to injure himself or another or solely to his intoxication.

The employer is entitled to select the physician or hospital or to consent to the employee's selection; otherwise the employee is liable for the fees.

The compensation of a disabled employee is two-thirds of his weekly wages, but not to exceed $25 in cases of total disability, whether temporary or permanent, or $20 in case of partial disability or be less than $8, except that the compensation is the same as the wages when the wages are less than $8.

In death cases awards are made to dependents in accordance with a schedule provided therefor. The total amount of such benefits must not exceed two-thirds of the average weekly wage of the deceased based on maximum earnings of $150 a month.

All awards draw interest in 30 days after the making thereof.

The only situation where the carrier can absolutely debar award by objecting to the failure to file a claim will be when the first hearing is not held until a year or more after the accident.

Compensation (other than death) benefits granted by the law:

Permanent total disability—two-thirds of the average weekly wage for period of disability.

Permanent partial disability—two-thirds of the average weekly wage for periods specified in a schedule arranged by parts of the body, ranging from 15 weeks for loss of little finger to 312 weeks for an arm. In case of protracted temporary total disabilities in connection therewith, the injured is compensated in addition for the length of the temporary total disability in excess of periods stated in a schedule.

Temporary total disability—two-thirds of the average weekly wage for the period of disability, but not to exceed $5,000.

Occupational disease—two-thirds of the average weekly wage during the period of disability.

Waiting period—the first seven days' disability are not compensated unless the disability exceeds forty-nine days.

The first payment of compensation becomes due on the fourteenth day of disability and if the case is not controverted, payment of compensation must begin on or before the eighteenth day after disability or within eight days after the employer first has knowledge of the accident. A notice of controversy must be filed on or before the eighteenth day of disability.

Failure to pay an instalment of compensation within eighteen days after it is due, carries with it an additional 10 per cent. of the compensation which accrues to the injured workman.

Minors under 18 years of age who are employed in violation of the Labor Law are entitled to double compensation.

A total of 521,624 industrial accidents occurred in this State in 1928, as against 484,573 in 1927. Of the accidents, 325,423 were in New York City.

Industrial accidents cost nearly $80,000,000 a year in this State, including $29,000,000 in compensation paid.

What are called *compensatable* industrial accidents in New York State totaled 93,565 in the year ended June 30, 1928, as against 98,984 in 1927, and 99,673 (peak) in 1926.

Of the 93,565 compensatable accidents, 2,152 occurred to employees under 18 years of age, and 7,031 to persons 18 to 20 years of age.

NEW YORK STATE INSURANCE FUND.

The State Insurance Fund was created by the Legislature in 1914 to furnish workmen's compensation insurance to the employers of New York State at net cost. The Fund is self-supporting, using no money raised by taxation. It is subject to examination by the State Insurance Department.

The Fund home office is at 432 Fourth Avenue, New York City. It has district offices in Albany, Syracuse, Rochester and Buffalo.

The Fund is administered by the State Industrial Commissioner, with an Advisory Committee of policyholders appointed by the Governor to assist him.

The Fund has paid dividends of 15% for the last eight years to its general group policyholders. Its total expense is approximately 17% of its written premiums.

There were 22,954 employers, with 300,000 workers insured in the Fund as of Dec. 1, 1928.

Premiums written from 1914 to 1927 inclusive amounted to $48,248,195; premiums written in 1928 were $8,346,122, and more than $3,000,000 was paid to injured employees, or to relatives of those who were killed.

The financial statement of the Fund as of December 31, 1928 follows:

Assets—Bonds—market value, $12,143,157; other and total admitted assets, $16,336,347.

Liabilities, Reserves and Surplus—Reserve for losses, $10,107,925; other and total liabilities and reserves, $14,034,272.

Surplus, $2,302,075. Total liabilities, reserves and surplus, $16,336,347.

AVERAGE WEEKLY EARNINGS IN FACTORIES IN N. Y. STATE.

(Includes All Employees in Both Office and Shop.)

MONTH.	1916.	1917.	1918.	1919.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	1928.
Jan.	$13.53	$15.28	$16.81	$23.03	$26.52	$27.61	$24.48	$26.21	$27.81	$28.30	$29.05	$29.52	$29.21
Feb.	13.77	15.31	17.66	22.07	26.47	26.77	24.17	25.87	27.73	27.96	28.61	29.39	29.16
Mar.	13.96	15.79	18.71	22.20	27.87	26.97	24.57	26.92	28.16	28.45	29.04	29.78	29.64
Apr.	14.15	15.50	19.25	22.11	27.80	26.20	24.15	27.00	27.70	27.67	28.85	29.17	28.79
May.	14.24	16.08	19.91	22.23	28.45	25.86	24.59	27.66	27.56	28.07	28.69	29.18	29.19
June.	14.41	16.20	20.44	22.51	28.77	25.71	24.91	27.87	27.21	27.94	28.99	29.17	29.48
July	14.11	16.17	20.78	23.10	28.49	25.26	24.77	27.54	27.06	27.98	28.80	28.95	29.15
Aug.	14.44	16.44	21.23	23.85	28.71	25.43	25.10	27.12	27.40	28.16	28.86	29.29	29.38
Sept.	14.87	16.97	22.31	24.83	28.73	25.07	25.71	27.41	28.05	28.33	29.31	29.57	29.72
Oct.	14.95	17.33	22.34	24.41	28.93	24.53	25.61	27.72	27.53	28.57	29.34	29.28	29.78
Nov.	15.16	17.69	21.60	25.37	28.70	24.32	26.04	27.64	26.66	28.67	29.15	28.75	29.62
Dec.	15.51	17.71	23.18	26.32	28.35	24.91	26.39	27.98	28.25	29.05	29.47	29.57	30.12
Av. for yr.	$14.43	$16.37	$20.35	$23.50	$28.15	$25.72	$25.04	$27.24	$27.08	$28.26	$29.02	$29.30	$29.44

Directory of the New York State Department of Labor—*Industrial Commissioner*, Frances Perkins, N. Y. City; *Secretary*, Sara McPike, Yonkers; *Industrial Board*, Richard J. Cullen, N. Y. City, Chairman; other members—James S. Whipple, Salamanca; Leonard W. Hatch, Pelham Manor; Edward W. Edwards, Elmhurst; Nelle Swartz, N. Y. City.

Offices—Albany, State Capitol; N. Y. City, 124 E. 28th St., 432 Fourth Ave., 125 E. 27th St., 114 E. 25th St. 449 Lenox Ave. and 500 Courtlandt Ave.; Brooklyn, 310 Jay St.; and at Binghamton, Utica, Syracuse, Rochester, Buffalo, and Elmira.

AGRICULTURE IN NEW YORK STATE.

CENSUS YEARS.	Farms.	Land in Farms.	Improved Land in Farms.	Val. of Farm Land and Buildings.	Value of Farm Live Stock.	Val. of Farm Impl. and Machinery.	Value of all Farm Property.
	Number.	*Acres.*	*Acres.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
1850	170,621	19,119,084	12,408,964	554,546,642	73,570,499	22,084,926	650,202,067
1860	196,990	20,974,958	14,358,403	803,343,593	103,856,296	29,166,695	936,366,584
1870	216,253	22,190,810	15,627,206	1,018,286,213	140,706,169	36,798,170	1,195,790,552
1880	241,058	23,780,754	17,717,862	1,056,176,741	117,858,283	42,592,741	1,216,637,765
1890	226,223	21,961,562	16,389,380	968,127,286	124,523,965	46,659,465	1,139,310,716
1900	226,720	22,648,109	15,599,986	888,134,180	125,583 715	56,006,000	1,069,723,895
1910	215,597	22,030,367	14,844,039	1,184,745,829	183,090,844	83,644,822	1,451,481,495
1920	193,195	20,632,803	13,158,781	1,425,061,740	313,554,695	169,866,766	1,908,483,201
1925	188,754	19,269,926	.....	1,367,125,391	170,419,127	169,385,252	1,706,929,770

Farm buildings alone in 1925—$720,145,188; farm population—767,500.

AGRICULTURAL LAND AND CROPS IN NEW YORK STATE.

County.	All Land.	Land in Farms.	Crops.	County.	All Land.	Land in Farms.	Crops.
		1925.	1924.			1925.	1924.
	Acres.	*Acres.*	*Dollars.*		*Acres.*	*Acres.*	*Dollars.*
Albany	337,280	246,145	2,068,850	Oneida	800,000	569,745	4,315,995
Allegany	670,080	545,479	3,445,936	Onondaga	499,840	408,319	5,595,622
Bronx	26,240	738	13,755	Ontario	415,360	340,265	4,323,672
Broome	451,200	363,919	2,083,630	Orange	533,760	310,780	2,810,717
Cattaraugus	859,520	631,254	3,789,339	Orleans	253,440	222,157	4,987,322
Cayuga	449,920	371,994	5,197,520	Oswego	618,240	446,645	3,032,610
Chautauqua	684,160	581,597	4,174,435	Otsego	645,760	547,428	3,757,043
Chemung	260,480	207,991	1,417,874	Putnam	149,120	53,560	465,561
Chenango	572,160	478,496	2,809,879	Queens	69,120	5,840	101,880
Clinton	671,360	413,560	2,713,752	Rensselaer	424,320	315,992	2,376,432
Columbia	412,160	314,822	3,088,958	Richmond	36,480	3,507	29,044
Cortland	321,920	267,211	2,039,739	Rockland	117,120	39,424	422,871
Delaware	927,360	698,217	4,307,577	St. Lawrence	1,728,640	1,012,449	6,098,202
Dutchess	515,840	325,020	2,962,328	Saratoga	726,720	318,198	1,965,570
Erie	661,760	523,268	5,895,615	Schenectady	131,840	94,455	799,235
Essex	1,175,040	282,744	1,187,314	Schoharie	410,880	332,629	2,697,058
Franklin	1,073,920	351,605	2,510,416	Schuyler	215,040	173,165	1,204,915
Fulton	330,240	175,258	1,056,841	Seneca	215,040	179,722	2,577,426
Genesee	317,440	271,357	3,643,916	Steuben	894,720	725,391	5,417,597
Greene	411,520	263,577	1,933,493	Suffolk	588,800	111,762	4,324,499
Hamilton	1,088,000	33,019	80,313	Sullivan	641,280	298,303	1,463,442
Herkimer	933,760	324,926	2,452,707	Tioga	332,800	267,641	1,848,831
Jefferson	815,360	658,061	5,360,219	Tompkins	304,640	233,938	2,330,579
Kings	45,440	300	10,808	Ulster	727,680	352,596	2,558,045
Lewis	812,800	441,553	2,314,079	Warren	560,640	181,335	624,119
Livingston	403,840	339,487	3,385,444	Washington	535,680	423,320	3,453,352
Madison	416,000	348,162	3,098,162	Wayne	383,360	331,007	5,074,583
Monroe	424,320	343,823	6,457,158	Westchester	286,720	72,703	759,427
Montgomery	254,720	218,148	2,381,958	Wyoming	384,640	350,074	3,978,609
Nassau	175,360	42,991	1,469,619	Yates	219,520	194,674	2,068,815
New York	14,080	72	2,295				
Niagara	334,080	287,108	6,648,519	State	30,498,560	19,269,926	171,544,521

Acres in farms—(1920), 20,632,803; (1910), 22,030,367; crops—(1919), $345,119,170.

MINERALS AND MINING IN NEW YORK STATE.

The mines and quarries of New York State, according to the New York State Museum, yield materials valued at more than $113,000,000 a year in their first marketable forms.

The State has no gold, silver or coal deposits, but is a leading producer of such materials as gypsum, salt, limestone, clay wares, cement and abrasives, and contains important resources of iron ore, petroleum, natural gas, and other ores and minerals.

Iron ore has been mined and smelted since about 1750. The deposits are widely distributed; magnetite is obtained in the Adirondacks and Hudson Highlands, hematite in the Clinton belt of the central and western countries, limonite in Dutchess and Columbia counties. The production of ore is reported as worth $3,103,312. The manufacture of iron and steel is very important.

Zinc ore occurs in St. Lawrence, Orange, Ulster and Sullivan counties, but the first named is the main producer. The output has a value of $756,150.

Petroleum and natural gas represent a value of $11,799,000 and have gained in importance recently although the industries were started more than 50 years ago. Allegany and Cattaraugus counties account for most of the oil output; natural gas occurs in several additional counties.

Gypsum in recent years has come into wide use for building purposes, and in the mining and manufacture of this material New York leads all other States. The principal enterprises are in Erie, Genesee and Monroe counties. The mine output is reported as 1,723,460 short tons, with a value for the materials at points of origin of $16,794,589.

Salt is produced to the amount of 14,297,000 barrels valued at $6,564,829. Both rock salt and evaporated salt are obtained, the former being used extensively by refrigeration plants, chemical works, and for purposes that do not require a refined grade. It is mined from shafts that reach the salt beds at depths between 1,000 and 2,000 feet.

The production of salt by brine evaporation has been in progress in the central part of the State since about 1790 and was practised by traders among the Indians on a limited scale long before that time. The salt resources are the basis of a large chemical manufacture in alkalis and bleaching powders, also chlorine.

The salt beds are inexhaustible, having an areal spread of nearly 10,000 square miles.

Cement manufacture, in which local clays and limestones are utilized, has had a rapid growth, as the State is probably the largest consumer of this material in the entire country. The works are mostly centered in the Hudson valley below Albany, but there are plants also in Warren, Schoharie, Tompkins, Onondaga and Erie counties. The output of 8,535,862 barrels valued at $14,864,066, will show substantial gains in future years.

Clay and clay manufactures inclusive of brick, tile, terra cotta and pottery are valued at nearly $30,000,000. Supplies of clays suitable for common wares are widespread. Building materials represent the main items of manufacture, although pottery, which requires high-grade clays that are obtained from outside of the State, is produced successfully.

The quarry stones include granite and marble in the Adirondacks and Hudson Highlands, and a varied assortment of limestones and sandstones from other regions. Trap for crushed stone is obtained in Rockland county. The total products have a value of about $15,000,000.

The mines of talc in St. Lawrence county are the largest in the country, with an annual product of 83,231 short tons valued at $1,030,075.

Other mineral materials obtained in New York State are garnet, diatomaceous earth, quartz and emery for abrasive purposes, feldspar, pyrite, slate, millstones, molding sand, and building sand and gravel.

ALTITUDES OF PLACES IN NEW YORK STATE.

(Revised in 1924 by the State Geologist; places on tidewater not named.)

Places.	*Feet.*	*Places.*	*Feet.*	*Places.*	*Feet.*	*Places.*	*Feet.*	*Places.*	*Feet.*
Addison	985	Chatham	464	Homer	1,133	Norwich	1,009	Seneca Falls	461
Albion	519	Chester	459	Hoosick Falls	433	Nunda	941	Shandaken	1,069
Alfred	1,730	Clifton Springs	567	Hornell	1,156	Ogdensburg	280	Sharon	1,212
Amsterdam	277	Clinton	582	Hunter	1,603	Olean	1,438	Sharon Springs	1,295
Arkville	1,373	Columbia	1,532	Hurleyville	1,318	Oneida	437	Sidney	993
Attica Centre	1,543	Cooperstown	1,250	Ithaca	389	Oneonta	1,083	Skaneateles	868
Auburn	677	Corning	937	Jamestown	1,317	Orleans	721	Smyrna	1,631
Avon	585	Cortland	1,114	Johnstown	651	Oswego	251	Sodus	928
Bainbridge	998	Dannemora	1,360	Kaaterskill	2,440	Otisville	858	Spring Valley	450
Ballston	294	Dansville	703	Keene	857	Owego	813	Stamford	1,789
Batavia	897	Delhi	1,360	Kinderhook	240	Oxford	540	Suffern	298
Bath	1,101	Deposit	1,000	Lebanon	1,341	Palmyra	435	Summitville	552
Berlin	836	Dunkirk	588	Liberty	1,589	Parksville	1,680	Syracuse	398
Bethel	506	Ellenville	356	Little Falls	375	Paul Smith's	1,632	Tannersville	1,864
Binghamton	865	Elmira	863	Livingston M'r	1,422	Penn Yan	714	Ticonderoga	277
Bloomingburg	755	Fallsburg	1,178	Lockport	614	Phoenicia	804	Tioga	798
Boonville	1,135	Fonda	291	Lowville	865	Pine Island	407	Unadilla	1,024
Boston Corners	728	Fort Plain	311	Mahopac	641	Portage	1,310	Utica	410
Brewsters	406	Franklin	1,223	Malone	700	Port Crane	1,041	Vandalla	1,407
Brookfield	1,350	Fulton	380	Manlius	602	Port Jervis	442	Warsaw	1,028
Buffalo	583	Genesee	1,520	Marcy	583	Port Leyden	898	Warwick	514
Cairo	346	Genesco	596	Medina	543	Potsdam	397	Waterloo	463
Callicoon	782	Geneva	454	Middletown	562	Ramapo	310	Watertown	398
Canaan	869	Glens Falls	343	Millbrook	567	Rochester	510	Watkins	477
Canajoharie	306	Gloversville	707	Mohawk	397	Rome	445	Wells	1,012
Canandaigua	700	Goshen	431	Moravia	741	Rotterdam	260	White Plains	201
Canastota	436	Guilford	1,512	Newark	430	Roxbury	1,495	Wilmington	1,019
Canisteo	1,140	Haines Corners	1,920	New Berlin	1,090	Sacandaga Park	807	Winterton	598
Canton	363	Halcottsville	1,399	New Lisbon	1,236	Salamanca	1,389	Worcester	1,306
Cape Vincent	254	Hamburg	796	Niagara Falls	571	Saranac	1,574	Wurtsboro	551
Carmel	519	Hamilton	1,107	Nile	1,650	Saratoga	277	Wyoming	439
Cayuga	421	Hancock	924	Nineveh	1,003	Schenectady	246	Yorktown	964
Cazenovia	1,196	Herkimer	406	North Creek	1,002	Scio	1,953		

NEW YORK STATE MOUNTAIN PEAKS.

(Revised in 1927 by U. S. Geological Survey. Figures show feet above mean sea level.)

Adirondacks—The principal mountain group in the Empire State, occupying an area of 5,000 square miles. They cover all or large parts of Clinton, Essex, Franklin, and Hamilton counties, with smaller parts of several adjoining counties.

Catskills—They cover an area of 1,000 square miles, principally in Greene, Ulster, Sullivan, and Delaware counties.

CHIEF ADIRONDACK PEAKS.

(Figures ending in 0 usually are derived from contours and may be as much as 20 feet in error.)

Peak,	County,	Elev. ft.	Peak.	County.	Elev. ft.	Peak.	County.	Elev ft.
Adams	Essex	3,584	Esther	Essex	4,270	Nye	Essex	4,160
Algonquin Peak	Essex	5,112	Fishing Brook	Essex	3,550	Panther	Hamilton	3,865
Allen	Essex	4,345	Giant	Essex	4,622	Panther Peak	Essex	4,448
Armstrong	Essex	4,455	Gore	Warren	3,595	Parter	Essex	4,070
Averill Peak	Clinton	3,810	Gothic	Essex	4,738	Redfield	Essex	4,606
Bartlett Ridge,	Essex	3,880	Gray	Essex	4,900	Rocky Pk. Rdg.	Essex	4,375
Basin	Essex	4,825	Green	Essex	3,928	Saddle back	Essex	4,530
Big Range	Hamilton	3,408	Haystack	Essex	4,918	Santanoni	Essex	4,621
Big Slide	Essex	4,255	Henderson	Essex	3,660	Saw Teeth	Essex	4,138
Blue	Hamilton	3,759	Hoffman	Essex	3,715	Sentinel Peak	Essex	3,858
Blue Ridge	Essex	3,715	Hurricane	Essex	3,687	Sentinel Range	Essex	3,902
Blue Ridge	Hamilton	3,865	Jay	Essex	3,601	Seward	Franklin	4,404
Boreas	Essex	3,815	Lewey	Hamilton	3,740	Seymour	Franklin	4,120
Boundary Peak	Essex	4,920	Little Haystack	Essex	4,700	Skylight	Essex	4,920
Calamity	Essex	3,641	Little Moose	Hamilton	3,630	Snowy	Hamilton	3,903
Cascade	Essex	4,092	Lyon	Clinton	3,810	Street	Essex	4,216
Cheney Cobble	Essex	3,673	MacIntyre Mts.	Essex	4,585	Table Top	Essex	4,440
Cliff	Essex	4,000	Marcy	Essex	5,344	Twin Mts	Essex	3,720
Colden	Essex	4,713	McComb	Essex	4,425	Wakely	Hamilton	3,617
Colvin	Essex	4,074	McKenzie	Essex	3,872	Wallface	Essex	3,860
Dial	Essex	4,023	Moose	Essex	3,921	Whiteface	Essex	4,872
Dix	Essex	4,842	Nipple Top	Essex	4,620	Wolf Jaw	Essex	4,225
Donaldson	Franklin	4,215	Noonmark	Essex	3,552	Wright	Essex.	4,585
Drew Brook	Hamilton	3,565	North River	Essex	3,890			

CHIEF CATSKILL MOUNTAIN PEAKS.

Peak.	County.	Elev. ft.	Peak.	County.	Elev. ft.	Peak.	County.	Elev. ft.
Balsam Cap	Ulster	3,700	Hemlock	Ulster	3,264	Rocky	Ulster	3,620
Balsam	Greene	3,565	High Peak	Greene	3,660	Rose	Ulster	3,123
Balsam	Ulster	3,590	Hunter	Greene	4,025	Round Top	Delaware	3,448
Blsm. Rnd. Top	Ulster	3,723	Huntersfield	Greene	3,450	Round Top	Greene	3,470
Bearpen	Del-Greene	3,500	Indian Head	Greene	3,585	Rusk	Greene	3,680
Belle Ayr	Ulster	3,406	Lone	Ulster	3,740	Slide	Ulster	4,204
Big Indian	Ulster	3,723	McGregor	Delaware	3,253	Spruce	Ulster	3,380
Black Dome	Greene	3,990	Mill Br'k. Rdge.	Ulster-Del.	3,380	Spruce Top	Greene	3,620
Blackhead Mts.	Greene	3,990	Mombaccus	Ulster	3,000	Stoppel Point	Greene	3,425
Blackhead Peak	Greene	3,937	Mongaup	Ulster	3,150	Sugarloaf	Greene	3,647
Bloomberg	Delaware	3,448	Mor'sv'le R'ng.	Delaware	3,253	Table	Ulster	3,856
Cornell	Ulster	3,906	North Dome	Greene	3,593	Thos. Cole	Greene	3,935
Denman	Ulster	3,051	North Dome	Greene	3,280	Twin	Greene	3,782
Double Top	Ulster	3,875	Overlook	Ulster	3,150	Utsayanthe	Delaware	3,213
		3,905	Panther	Ulster	3,760	Van Wyck	Ulster	3,260
Dry Brook Rdg.	Del-Ulster	3,510	Peekamoose	Ulster	3,863	Vey	Greene	3,476
Evergreen	Greene	3,531	Pisgah	Delaware	3,365	West Kill	Greene	3,777
Fir	Ulster	3,619	Plateau	Greene	3,855	Wildcat	Ulster	3,268
Giant Ledge	Ulster	3,218	Plattekill	Delaware	3,250	Wndhm.Hgh Pt.	Greene	3,508
Graham	Ulster	3,890	Plattekill	Greene	3,135	Wittenberg	Ulster	3,502
Halcott	Greene	3,537	Richmond	Greene	3,213			

HIGHWAYS IN NEW YORK STATE, JAN. 1, 1928.

	Concrete	Asphalt		Concrete	Asphalt		Concrete	Asphalt
Albany	1,099	437	Jefferson	2,204	1,304	Rockland	386	371
Allegany	1,894	311	Kings			St. Lawrence	3,099	1,910
Bronx			Lewis	1,449	283	Saratoga	1,518	620
Broome	1,437	316	Livingston	1,285	724	Schenectady	426	230
Cattaraugus	1,975	362	Madison	1,422	352	Schoharie	1,259	321
Cayuga	1,490	666	Monroe	1,368	1,114	Schuyler	762	146
Chautauqua	1,961	397	Montgomery	849	291	Seneca	704	172
Chemung	875	170	Nassau	1,491	1,313	Steuben	3,094	588
Chenango	1,746	371	New York			Suffolk	1,953	1,485
Clinton	1,384	390	Niagara	934	732	Sullivan	1,901	309
Columbia	1,379	239	Oneida	2,317	893	Tioga	1,067	177
Cortland	1,037	248	Onondaga	1,622	926	Tompkins	1,091	279
Delaware	2,358	398	Ontario	1,348	638	Ulster	1,848	417
Dutchess	1,617	725	Orange	1,595	1,491	Warren	1,010	177
Erie	2,333	1,855	Orleans	720	216	Washington	1,533	286
Essex	1,291	538	Oswego	1,714	859	Wayne	1,348	382
Franklin	1,377	671	Otsego	2,153	399	Westchester	1,020	618
Fulton	762	159	Putnam	509	350	Wyoming	1,076	292
Genesee	920	771	Queens			Yates	769	164
Greene	1,062	266	Rensselaer	1,315	375			
Herkimer	1,490	505	Richmond			Total	80,107	31,073

AUTO ACCIDENTS IN 1928 IN NEW YORK STATE.

(Data Compiled by Charles A. Harnett, Motor Vehicle Bureau Commissioner.)

The total number of persons killed was 2,582 in 1928 as against 2,420 in 1927.

Of those killed in 1928, children under 5 yrs. numbered 119; 5–14 yrs., 477; 15-54 yrs., 1,663.

Pedestrians killed in 1928 by collision with autos totaled 1,538; wounded, 45,789.

The number of persons injured by autos but not fatally in 1928 was 99,302, as against 85,862 in 1927.

Of the 108,216 autos involved in 1928 in accidents 73,706 were in apparent good condition.

Persons killed in auto accidents in 1928 at Railroad crossings numbered 101.

During 1928 there were 2,115,178 motor vehicles registered in N. Y. State as compared with 1,961,107 in 1927.

In 1928 licenses were issued to 1,836,968 operators and 757,188 chauffeurs.

A tax of 2 cents a gallon on gasoline or other motor fuel, went into effect in New York State on May 1, 1929. Of the revenue thus derived, 75 per cent is used by the State for road building and upkeep; 5 per cent goes to New York City; 20 per cent is distributed among the counties outside greater New York.

MOTOR VEHICLE LAW VIOLATIONS IN MANHATTAN.

Year.	Cases.	Fines.	Year.	Cases.	Fines.	Year.	Cases.	Fines.	Year.	Cases.	Fines.
1916	8,233	$89,034	1920	40,524	$384,625	1923	62,169	$404,732	1926	141,472	1,118,416
1917	13,907	111,839	1921	44,165	337,667	1924	84,475	422,612	1927	203,039	1,224,604
1918	13,710	138,301	1922	54,957	413,972	1925	82,273	337,985	1928	108,558	394,142
1919	25,860	262,495									

In 1928 convictions of taxicab drivers numbered 24,179.

DISTANCES IN NEW YORK STATE BY SHORTEST RAIL ROUTES.

	Albany.	Binghamton.	Buffalo.	Elmira	Jamestown.	Kingston.	New York.	Plattsburg.	Rochester	Syracuse.	Utica.	Watertown.
Albany	0	147	299	206	391	57	143	189	254	145	95	176
Binghamton	147	0	205	59	244	162	194	306	151	78	100	147
Buffalo	299	205	0	164	72	356	399	388	76	154	204	206
Elmira	206	59	164	0	183	221	253	340	114	89	139	158
Geneva	196	102	103	65	218	253	296	302	49	51	101	120
Hornell	270	123	111	64	121	285	317	391	69	140	190	209
Ithaca	200	51	154	34	208	213	245	306	100	55	98	124
Jamestown	391	244	72	183	0	406	438	460	148	226	276	278
Kingston	57	162	356	221	406	0	99	246	302	202	152	233
Malone	250	268	327	279	399	307	370	61	251	190	202	121
New York	143	194	399	253	438	99	0	309	345	265	215	296
Ogdensburg	242	213	272	224	344	299	362	130	196	135	147	166
Plattsburg	189	306	388	340	460	246	399	0	312	251	254	182
Rochester	245	151	76	114	148	302	345	312	0	100	150	130
Saranac Lake	182	299	344	296	416	239	302	60	268	207	247	138
Saratoga Springs	38	155	307	214	379	95	158	151	253	153	103	184
Syracuse	145	78	154	89	226	202	265	251	100	0	50	69
Utica	95	100	204	139	276	152	215	254	150	50	0	81
Watertown	176	147	206	158	278	233	296	182	130	69	81	0

DISTANCES FROM NEW YORK CITY (GOVERNORS ISLAND) TO OTHER POINTS.

(From the U. S. War Department's *Official Table of Distances; Statute Miles.*)

Place.	Miles.	Place.	Miles.	Place.	Miles.	Place.	Miles.	Place.	Miles.
Auburn	319	Delji	204	Jamaica	13	Olean	396	Rouse's Point	336
Batavia	406	Dunkirk	460	Lansingburgh	154	Oneida	267	Sacket Harbor	344
Bath	287	Ellenville	107	Little Falls	219	Ontario, Fort	330	Sag Harbor	104
Brewster	55	Fairfield	238	Lockport	452	Ossining	34	Salamanca	414
Canandaigua	367	Fishkill Landing	62	Machias	421	Oswego	330	Sayville	54
Canastota	272	Florida	66	Manlius	285	Owego	213	Schenectady	162
Cape Vincent	357	Fort Plain	203	Matteawan	62	Oyster Bay	37	Seneca Falls	334
Catskill	116	Garden City	22	Mechanicsville	165	Parish	319	Stanford	166
Chatham	131	Garrison	53	Mexico	308	Peekskill	44	Tarrytown	28
Clayton	349	Goshen	60	Middletown	67	Philadelphia	327	Terry, Fort	139
Clifton Springs	356	Gouverneur	345	Millerton	96	Pine Plains	322	Ticonderoga	245
Clinton	249	Great Neck	21	Mineola	23	Port Chester	29	Troy	151
Cohoes	154	Greenport	97	Montauk Point	120	Porter, Fort	399	Tyler, Fort	143
Cold Spring	55	Hastings	19	Newburgh	63	Port Jervis	88	Watervliet	152
Cooperstown	236	Hempstead	24	New Lebanon	148	Poughkeepsie	76	Weedsport	313
Corning	268	Hoosick Falls	179	New Rochelle	20	Riverhead	76	West Point	54
Cornwall	58	Hudson	117	Niagara Falls	418	Rochester	373	Whitehall	223
Cortland	236	Huntington	38	Norwich	233	Rome	254	White Plains	25
Dansville	320	Islip	47	Nyack	30	Rondout	93	Yonkers	19

BIRTHS, DEATHS, MARRIAGES IN NEW YORK STATE.

Year.	Estimated Population.	Births.	Deaths.	Marriages.	Rates Per 1,000 Pop.			Deaths Under 5 Years.	Pct. of Deaths Und. 5 to Tot. Dths
					Births.	Deaths.	Persons Married.		
1910.....	9,140,263	213,234	147,702	85,490	23.3	16.2	18.7	39,838	27.0
1911.....	9,294,341	221,679	145,912	86,463	23.9	15.7	18.6	36,165	24.8
1912.....	9,448,418	227,194	142,366	97,427	24.0	15.1	20.6	34,781	24.4
1913.....	9,602,495	228,724	145,273	92,343	23.8	15.1	19.2	35,592	24.5
1914.....	9,756,572	240,157	145,476	93,793	24.6	14.9	19.2	33,081	22.7
1915.....	9,910,650	242,852	146,892	91,102	24.5	14.8	18.4	33,585	22.9
1916.....	10,016,078	241,194	151,544	98,304	24.1	15.1	19.6	33,618	22.2
1917.....	10,121,507	246,453	154,127	105,067	24.3	15.2	20.8	31,422	20.4
1918.....	10,226,935	242,704	192,318	91,362	23.7	18.8	17.9	37,429	19.5
1919.....	10,332,364	226,269	143,401	103,880	21.9	13.9	20.1	27,048	18.9
1920.....	10,456,341	235,460	144,466	112,843	22.5	13.8	21.6	29,584	20.5
1921.....	10,598,349	240,210	130,110	103,657	22.7	12.3	19.6	25,021	19.2
1922.....	10,742,897	231,363	138,942	100,986	21.5	12.9	18.8	25,535	18.4
1923.....	10,886,566	230,889	141,107	111,817	21.2	13.0	20.5	22,537	16.0
1924.....	11,029,214	233,839	140,181	106,819	21.2	12.7	19.4	22,459	16.0
1925.....	11,172,913	230,350	142,549	109,579	20.6	12.8	19.6	20,803	14.6
1926.....	11,319,171	223,819	151,350	114,817	19.8	13.4	20.3	22,105	14.6
1927.....	11,466,169	228,134	141,006	112,836	19.9	12.3	19.7	18,108	12.8
1928.....	11,612,597	223,070	151,593	107,336	19.2	13.1	18.5	19,485	12.9

The 1927 figures are also official but are provisional. Still births, of which there were 9,541, not included in the table. Divorces in 1928 numbered 5,293; annulments, 990.

DEATHS, CHIEF CAUSES, NEW YORK STATE.

Year.	Pulm. Tuber.		Pneumonia.		Heart, Vein.		Bright's.		Cancer.		Dipth.		Suicide.	
	Deaths	Rate.	Deaths	Rate.	Deaths	Rate.	Deaths	Rate.	Deaths	Rate.	Deaths	Rate.	Deaths	Rate.
1910	14,241	155.8	17,115	187.2	24,092	263.6	11,217	122.7	7,523	82.3	2,433	26.6	1,558	17.0
1911	14,502	156.0	16,460	177.1	26,184	281.7	10,813	116.3	7,971	85.8	1,960	21.1	1,493	16.1
1912	13,999	148.2	16,537	175.0	26,875	284.4	11,897	125.9	8,249	87.3	1,623	17.2	1,408	14.9
1913	14,024	146.0	16,530	172.1	28,127	292.9	12,351	128.6	8,531	88.8	1,852	19.3	1,542	16.1
1914	14,593	149.6	15,511	159.0	32,213	330.2	11,308	115.9	8,911	91.3	2,014	20.6	1,646	16.9
1915	14,511	146.4	17,210	173.7	32,393	326.9	11,589	116.9	9,296	93.8	1,770	17.9	1,734	17.5
1916	14,074	140.5	17,320	172.9	33,631	335.8	12,812	127.9	9,419	94.0	1,524	15.2	1,524	15.2
1917	14,795	146.2	18,673	184.5	35,224	348.0	13,136	129.8	9,736	96.2	1,755	17.3	1,441	14.2
1918	15,052	147.2	34,513	337.5	36,076	352.8	11,315	110.6	9,875	96.6	1,776	17.4	1,302	12.7
1919	12,814	124.0	17,096	165.5	33,011	319.5	10,540	102.0	10,166	98.4	2,055	19.9	1,294	12.5
1920	11,030	105.5	16,475	157.6	35,524	339.7	10,481	100.2	10,539	100.8	1,904	18.2	1,189	11.4
1921	9,503	89.7	10,645	100.4	36,131	340.9	9,481	89.5	11,163	105.3	1,702	16.1	1,442	13.6
1922	9,394	87.4	14,229	132.5	39,177	364.7	10,018	93.3	11,706	109.0	1,454	13.5	1,440	13.4
1923	9,462	86.9	14,086	129.4	41,073	377.3	10,034	92.2	12,257	112.6	1,008	9.3	1,479	13.6
1924	9,222	83.6	13,930	126.3	42,588	386.1	9,518	86.3	12,791	116.0	1,083	9.8	1,520	13.8
1925	9,162	82.0	13,571	121.5	43,035	385.2	10,171	91.0	13,201	118.2	1,001	9.0	1,664	14.9
1926	9,095	80.4	16,666	147.2	46,395	409.9	11,041	97.5	13,613	120.3	727	6.4	1,635	14.4
1927	8,435	73.6	12,267	107.0	44,784	390.6	9,432	82.3	14,331	125.0	980	8.5	1,856	16.2
1928	8,667	74.6	15,519	133.6	48,258	415.6	9,608	82.7	14,709	126.7	863	7.4	1,932	16.6

Homicide deaths in 1928 were 610, as against 586 in 1927, and 518 in 1926.

DEATHS AND DEATH RATE FROM ALCOHOLISM—NEW YORK STATE.

(Rate per 100,000 population; data, 1900-1906, by United States Census Bureau; since by State Health Dept.)

Year.	Deaths.	Rate.	Year.	Deaths.	Rate.	Year.	Deaths.	Rate.	Year.	Deaths.	Rate.
1900...	490	6.7	1908...	659	7.5	1915...	782	7.9	1922...	375	3.5
1901...	462	6.2	1909...	817	9.1	1916...	1,008	10.1	1923...	591	5.4
1902...	460	6.0	1910...	990	10.8	1917...	835	8.2	1924...	715	6.5
1903...	581	7.4	1911...	994	10.7	1918...	387	3.8	1925...	878	7.9
1904...	447	5.6	1912...	956	10.1	1919...	265	2.6	1926...	999	8.8
1905...	576	7.0	1913...	1,036	10.8	1920...	146	1.4	1927...	1,067	9.3
1906...	626	7.4	1914...	900	9.2	1921...	180	1.7	1928...	1,125	9.7
1907...	1,023	11.9									

In New York State a marriage may be solemnized by a leader of the Ethical Culture Society of Manhattan or Brooklyn.

All persons under 21 years of age who wish to marry must file notice with the license officials 5 days in advance, and they must present certificates or other evidence of date of birth, before receiving the license. They can be married at the City Chapel, New York City, only by a judge of a court of record.

Dissolution of marriage on ground of absence—A party to a marriage may present to the Supreme Court a duly verified petition showing that the husband or wife of such party has absented himself or herself for five successive years then last past without being known to such party to be living.

Marriages under sixteen years of age. Any marriage in which the man is under the age of sixteen years or in which the woman is under the age of fourteen years is hereby prohibited. Any town or city clerk who shall knowingly issue a marriage license to any man actually under the age of sixteen years or to any woman actually under the age of 14 years, shall be guilty of a misemeanor and on conviction thereof shall be fined in the sum of one hundred dollars for each and every offense.

In New York State, also, it is required, under a 1929 law that a woman who is 14 but not 16 years of age, must have the consent of a judge of the Children's Court in her jurisdiction (in addition to consent of parent or guardian) before she can marry.

Another amendment legalizes a **written contract of marriage** signed by both parties and at least two witnesses who shall subscribe the same, stating the place of residence of each of the parties and witnesses and the date and place of marriage, and acknowledged by the parties and witnesses in the manner required for the acknowledgment of a conveyance of real estate to entitle the same to be recorded, provided, however, that all of such contracts of marriage must in order to be valid be acknowledged before a judge of a court of record.

Such contract shall be recorded within thirty days after its execution in the office of the State Department of Health, and a copy thereof shall be filed within thirty days after its execution in the office of the clerk of the county in which the marriage was solemnized.

Another amendment requires town or city clerks, before issuing a license, to get from each of the parties a statement in the following words: "I have not to my knowledge been infected with any venereal disease, or if I have been so infected within five years I have had a laboratory test within that period which shows that I am now free from infection from any such disease."

By another amendment, marriages may be solemnized by "a justice or judge of a court of record, or of a municipal court, a police justice of a village, or a justice of the peace; except that justices of the peace in cities which contain more than 150,000 and less than 1,000,000 inhabitants, shall have no power to solemnize marriages."

By the law of March 26, 1928, **incurable insanity** is ground for annulment of marriage in New York State if it exists for 5 years or longer.

CONVICTIONS FOR CRIME IN NEW YORK STATE.

(Data, for years ending Oct. 31, compiled by the State Dept. of Correction, Albany.)

Year.	Courts of Record.					Courts of Special Sessions.							All C'ts, Total Convict'ns.
	Ag'nst the Person	Ag'nst Prop., Viol.	Ag'nst Prop., No Vi.	Other.	Total.	As'ult, Third Deg.	Intoxication	Misdemean.	Petit Larceny.	Vagrants.	Liquor Tax Law.	Total.	
1915.....	1,830	1,858	2,000	4,470	10,158	3,609	26,248	26,685	6,594	7,966	1,280	72,382	82,540
1916.....	1,514	1,167	1,553	2,984	7,218	3,196	30,203	23,974	5,330	5,314	1,375	69,392	76,619
1917.....	1,617	1,100	1,554	3,659	7,930	2,943	31,254	22,073	6,402	4,304	993	67,969	75,896
1918.....	1,409	961	1,595	3,279	7,244	1,989	19,316	18,592	6,338	2,494	1,343	50,072	57,319
1919.....	1,463	1,127	1,860	3,597	8,047	1,773	15,347	20,114	5,558	2,348	2,172	47,312	55,359
1920.....	1,352	963	1,703	2,838	6,856	1,503	5,287	20,884	4,644	1,398	119	33,835	40,691
1921.....	1,697	1,302	2,071	3,821	8,891	1,681	10,291	26,791	4,166	3,631	65	46,625	55,516
1922.....	1,647	1,167	2,099	3,871	8,784	1,703	10,900	25,180	3,508	2,406	6	43,703	52,478
1923.....	1,481	812	1,485	4,531	8,309	1,906	15,601	37,703	3,446	2,512	1	61,169	69,478
1924.....	1,816	1,183	1,923	3,592	8,514	1,982	17,269	39,648	3,907	3,639	.....	66,445	74,959
1925.....	2,208	1,190	1,941	3,575	8,914	2,062	15,670	43,111	3,820	3,623	2	68,288	77,202
1926.....	2,112	1,263	1,984	4,121	9,480	1,917	15,197	42,395	4,073	2,888	12	66,482	75,962
1927.....	1,785	975	2,000	3,186	7,947	2,021	16,175	45,237	4,293	3,121	0	70,847	78,794
1928.....	1,454	835	1,365	2,532	6,816	1,374	10,592	25,316	3,778	3,271	0	43,331	50,147

CONVICTIONS FOR HOMICIDE AND EXECUTIONS IN NEW YORK STATE.

Year.	Murd. 1st Deg	Murd. 2d Deg	Mansl. 1st Deg	Mansl. 2d Deg	Total Hom.	Electrocu.	Year.	Murd. 1st Deg	Murd. 2d Deg	Mansl. 1st Deg	Mansl. 2d Deg	Total Hom.	Electrocu
1911.	15	25	50	18	108	14	1920..	14	30	52	27	123	16
1912..	22	33	42	22	119	22	1921..	35	38	62	34	169	11
1913..	23	33	60	30	146	13	1922..	20	47	75	20	162	17
1914..	20	28	50	39	137	11	1923..	14	36	40	48	138	16
1915..	22	36	59	25	142	19	1924..	21	26	51	38	136	4
1916..	15	32	57	26	130	14	1925..	14	32	53	48	147	15
1917..	12	30	44	25	111	6	1926..	21	50	60	48	179	10
1918..	19	30	63	40	152	8	1927..	17	24	43	37	121	16
1919..	22	35	70	44	171	2	1928..	15	28	45	30	118	9

WOMEN WHO HAVE BEEN EXECUTED IN N. Y. STATE.

Mrs. Margaret Houghteling was the first woman to hang. That was in Hudson in 1817, six weeks after indictment for killing her child. She swore her innocence, and several years later another woman confessed on her deathbed, that she, not Mrs. Houghteling, had murdered the child.

Mrs. Elizabeth Van Valkenburg poisoned her husband, and was hanged at Johnstown, in 1846.

Mrs. Alice Runkle was hanged at Whitesboro in 1849, for poisoning her husband.

Mrs. Ann Hoag was hanged at Poughkeepsie in 1852, for poisoning her husband.

Mrs. Roxalanna Druse killed her husband and was hanged in February, 1887.

Mrs. Martha Place, a Brooklyn housewife, was accused of murdering her stepdaughter February 8, 1898. She was arrested, confessed, was convicted, was denied a new trial and went to the chair March 20, 1899, the first woman so to die in this state.

Mrs. James D. Farmer, wife of a farmer, for the murder of Mrs. Sarah Brennan in an up-state county, was executed in Auburn prison March 20, 1909.

Mrs. Ruth Brown Snyder, and her lover, Henry Judd Gray, were executed at Sing Sing Prison, Jan. 12, 1928, for the murder of the woman's husband, Albert Snyder, who was found beaten to death in their home, Queens Village, L. I., early on Mar. 20, 1927.

NEW YORK STATE PENAL INSTITUTIONS.

State Prisons—*Auburn*, at Auburn, Cayuga County; *Clinton*, at Dannemora, Clinton County; *Great Meadow*, at Comstock, Washington County; *Sing Sing*, at Ossining, Westchester County.

On March 17, 1928, the inmates of the four State prisons totaled 5,999, distributed as to employment as follows: industries, 2,699; maintenance, 2,023; construction, 294; road work, 41; in hospital or idle on doctor's orders, 670; musicians, 82; schools, 110; discipline, 47; under observation, 14; in death cells, 11; at court or on escape, 8.

State Institutions for Criminal Insane—*Matteawan State Hospital*, at Beacon, Dutchess County; *Dannemora State Hospital*, at Dannemora, Clinton County.

State Institution for Defective Delinquents, at Napanoch, Ulster County.

State Reformatories—*Elmira Reformatory*, at Elmira, Chemung County; *State Reformatory for Women*, at Bedford Hills, Westchester County; *State Training School for Women*, at Albion, Orleans County. The Elmira Reformatory receives, from the courts, sentenced male criminals not under 16 nor over 30 years of age who are convicted of or who plead guilty to a felony for the first time.

The **House of Refuge**, on Randall's Islands, New York City, is a private corporation, but is under State supervision.

THE INSANE IN NEW YORK STATE.

(Data by Horatio M. Pollock, statistician, State Department of Mental Hygiene)

Fiscal Year	Total.		In State Hospitals.		In Private Institutions.		Criminal Insane In State Inst'ns.		Pat'nts to Each 100,000 of Pop.
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	
1910.....	15,654	12,285	10,422	11,666	373	565	1,022	139	358.3
1915.....	17,382	18,825	15,318	18,039	365	658	1,218	133	378.4
1916.....	17,863	19,281	15,796	18,512	368	636	1,266	136	382.4
1917.....	18,422	19,718	16,252	18,961	345	621	1,285	148	388.9
1918.....	18,810	20,342	16,801	19,556	336	638	1,273	147	392.8
1919.....	19,016	20,891	17,219	20,133	318	611	1,288	134	389.9
1920.....	19,515	20,929	17,407	20,200	321	595	1,258	122	392.7
1921.....	20,182	21,265	17,752	20,542	505	601	1,326	123	399.4
1922.....	20,921	21,922	18,543	21,193	313	606	1,345	130	404.2
1923.....	21,323	22,310	19,271	21,620	305	560	1,368	139	404.9
1924.....	21,961	22,618	19,394	21,908	561	571	1,380	146	409.4
1925.....	22,667	23,106	19,845	22,407	736	553	1,411	145	416.8
1926.....	23,385	23,858	20,444	23,157	812	556	1,427	149	419.8
1927.....	24,702	24,966	22,096	24,214	1,123	596	1,483	156	433.4
1928.....	26,180	26,157	23,134	25,398	1,454	599	1,592	160	451.0

The State hospitals for the (non-criminal) insane are located at *Binghamton*, in Broome County; at *Brooklyn*, in Kings County; at *Buffalo*, in Erie County; at *Central Islip*, in Suffolk County, L. I.; at *Gowanda* (homeopathic), in Cattaraugus County; at *Poughkeepsie*, in Dutchess County; at *Kings Park*, in Suffolk County, L. I.; at *Ward's Island*, in N. Y. County; at *Middletown* (homeopathic), in Orange County; at *Rochester*, in Monroe County; at *Ogdensburg*, in St. Lawrence County; at *Utica*, in Oneida County; at *Wingdale*, in Dutchess County, and at *Willard*, in Seneca County.

The State Hospitals for the criminal insane are at *Beacon* (Matteawan), in Dutchess County; and at *Dannemora*, in Clinton County.

THE NEW YORK STATE CANAL SYSTEM.

(Erie Canal opened in 1825; canal system made free in 1882)

The canal system of the State consists of the Erie Canal; the Champlain Canal; the Oswego Canal; the Cayuga-Seneca Canal; Cayuga Lake Inlet, at Ithaca; the Glens Falls Feeder, and the lakes, reservoirs, feeders, harbor basins and terminal docks connected therewith.

What is commonly known as the Barge Canal includes the improved Erie, Champlain, Oswego and Cayuga-Seneca Canals. They took the place of the old canals which had been in existence since 1825.

The Erie Barge Canal is the main waterway and extends across the State from Troy to Buffalo. Officially, the route commences at Congress Street, Troy, and follows the line of the Hudson River to Waterford, where the westward turn is made. From Waterford the line of the Mohawk River, canalized, is generally followed to a point beyond Little Falls. Westerly from this point the new channel follows the route of the old canal in part, but passes the northerly outskirts of the City of Utica on a new line, thence to the south of Rome and then into and across Oneida Lake. Passing out of Oneida Lake the Oneida River is used to its junction with the Seneca River at Three River Point; thence through the Seneca River to and through the Clyde River to a point east of Lyons; thence following the old canal, deepened and enlarged, to a point beyond Pittsford. Here the channel leaves the old route, crossing the Genesee River about a mile south of Rochester on a pool created by the construction of a dam, joining the line of the old canal a few miles westerly, and continuing thence in the former channel, deepened and widened, to and through Tonawanda Creek, where the Niagara River is entered and followed to Lake Erie, at Buffalo.

The Cayuga-Seneca Barge Canal extends in a southerly direction from the Erie Barge Canal at a point near Montezuma. The Cayuga branch follows the valley of the Seneca River to Cayuga Lake; thence through Cayuga Lake to the Cayuga Lake Inlet at Ithaca. The Seneca branch follows the Seneca River in a westerly direction from the Cayuga branch near the foot of Cayuga Lake, and connects with Seneca Lake near Geneva; thence through Seneca Lake to Watkins, to Montour Falls.

The width of the Barge Canal channel varies according to the section traversed. Through canalized rivers and lakes the channel is at least 200 feet wide. Through rock cuts in land lines a minimum bottom width of 94 feet has been provided, and through earth sections the minimum width of the bottom of the channel is 75 feet. The locks of the Barge Canal are uniform in size. The inside dimensions of the lock chambers are 310 feet in length and 45 feet in width and are capable of passing a barge 300 feet long, and 42 feet wide. A depth of water of 12 feet over the mitre sills has been provided. Clearance under fixed bridges spanning the channel is 15½ feet at normal water.

Total mileage in canalized ribers and lakes, 382.

In the City of New York there are eight terminals as follows:

At Piers 5 and 6, East River, and at the foot of West 53d Street, on the Hudson River, in Manhattan; at Mott Haven (138th Street, Harlem River) in the Bronx; on the East River, at the foot of North Jane Street, Long Island City; at Flushing and at the foot of Broadway, Hallett's Cove, Queens; and at the foot of Columbia Street, Gowanus Bay; at Dupont Street, Greenpoint, Brooklyn.

A grain elevator of 2,000,000 bushels capacity, providing every modern facility, has been erected by the State at the Gowanus Bay Terminal.

A similar structure of 1,000,000 bushels capacity has been completed by the State at Oswego, on Lake Ontario.

Total cost of the canals to date is about $175,000,000.

The canals are owned by the State and are under the jurisdiction of the Superintendent of Public Works, under the supervision of the Commissioner of Canals and Waterways. Navigation is free. The main office of the Superintendent of Public Works is at 353 Broadway, Albany. Branch offices are at Pier 6, East River, N. Y. City, and in Utica, Syracuse, Rochester and Buffalo.

COMMERCE BOTH WAYS ON NEW YORK STATE CANALS.

Year.	Forest Products		Agriculture.		Manufactures.		Merchandise.		All Other and Totals	
	Tons.	*Dollars.*	*Tons.*	*Dollars.*	*Tons.*	*Dollars.*	*Tons.*	*Dollars.*	*Tons.*	*Dollars.*
1900...	726,984	9,161,366	511,518	11,051,632	142,784	2,073,468	250,436	42,819,110	3,345,941	84,123,772
1910...	654,094	9,373,099	492,536	15,068,375	145,419	2,161,199	215,446	25,132,370	3,073,412	59,042,178
1920...	248,930	6,397,357	226,291	17,432,665	325,426	30,377,322	18,912	3,782,274	1,421,434	60,523,658
1925...	98,462	.....	952,066	.....	676,591	.....	14,185	.....	2,344,013	.....
1926...	123,697	.....	899,511	.....	687,215	.....	29,303	.....	2,369,367	.....
1927...	131,067	.....	872,632	.....	883,836	.....	44,171	.....	2,581,892	.....
1928..	141,729	.....	1,195,733	.....	1,047,497	.....	51,157	.....	3,089,998	.....

In 1928 a cargo of Oregon wheat that had come through the Panama Canal went through the Barge Canal from New York City to Buffalo.

COUNTY SEATS IN NEW YORK STATE.

Following is a list of the County seats in the State of New York which are the headquarters of the courts and other official institutions:

County.	County Seat.	County.	County Seat.	County.	County Seat.
Albany	Albany.	Herkimer	Herkimer.	Richmond	St. George.
Allegany	Belmont.	Jefferson	Watertown.	Rockland	New City.
Bronx	Bronx Boro NYC	Kings	Brooklyn Boro.	St. Lawrence	Canton.
Broome	Binghamton.	Lewis	Lowville.	Saratoga	Ballston Spa.
Cattaraugus	Little Valley.	Livingston	Geneseo.	Schenectady	Schenectady.
Cayuga	Auburn.	Madison	Wampsville.	Schoharie	Schoharie.
Chautauqua	Mayville.	Monroe	Rochester.	Schuyler	Watkins Glen.
Chemung	Elmira.	Montgomery	Fonda.	Seneca	Waterloo.
Chenango	Norwich.	Nassau	Mineola.	Steuben	Bath.
Clinton	Plattsburg.	New York	Manhattan Boro.	Suffolk	Riverhead.
Columbia	Hudson.	Niagara	Lockport.	Sullivan	Monticello.
Cortland	Cortland.	Oneida	Utica.	Tioga	Owego.
Delaware	Delhi.	Onondaga	Syracuse.	Tompkins	Ithaca.
Dutchess	Poughkeepsie.	Ontario	Canandalgua.	Ulster	Kingston.
Erie	Buffalo.	Orange	Goshen.	Warren	Lake George.
Essex	Elizabethtown.	Orleans	Albion.	Washington	Hudson Falls.
Franklin	Malone.	Oswego	Oswego.	Wayne	Lyons.
Fulton	Johnstown.	Otsego	Cooperstown.	Westchester	White Plains.
Genesee	Batavia.	Putnam	Carmel.	Wyoming	Warsaw.
Greene	Catskill.	Queens	Jamaica.	Yates	Penn Yan.
Hamilton	Lake Pleasant.	Rensselaer	Troy.		

There were in 1920 in New York 932 towns, 59 cities, and 47 incorporated villages. Long Beach became a city in 1922.

Cities of the 1st class in New York State are of over 175,000 inhabitants; 2d class, from 50,000 to 175,000; 3d class, under 50,000.

St. George became the county seat of Richmond County in January, 1920.

WEALTH, DEBT AND TAXATION IN NEW YORK STATE.

Year Ended June 30.	Population.	Asses. Val. Real and Pers. Property.	Direct Tax Rate (Mills).	Direct Taxes Levied.	Funded Debt (Gross.)	Ordinary Receipts.	Ordinary Disbursements.
1910	9,113,614	$10,121,277,458	None.	.....	$57,230,660	$37,905,876	$38,332,015
1911	9,228,440	11,022,985,914	.60	$6,072,766	79,730,660	36,138,376	38,119,377
1912	9,343,266	11,128,498,055	1.00	11,022,985	109,702,660	50,492,863	44,858,059
1913	9,458,092	11,385,137,127	.5805	6,460,093	135,355,660	55,521,777	50,011,422
1914	9,572,918	12,070,420,837	None.	.....	159,260,660	50,907,945	53,828,583
1915	9,687,744	11,790,628,803	1.70	20,519,715	186,400,660	42,141,009	57,342,600
1916	9,327,024	12,091,437,643	None.	.....	211,404,660	61,437,404	52,725,240
1917	9,966,304	12,520,819,811	1.08	13,058,752	236,309,660	61,593,111	60,881,297
1918	10,105,584	12,758,021,954	1.06	13,272,069	236,214,660	76,034,631	73,392,123
1919	10,244,864	12,989,433,733	1.06	13,523,503	236,119,660	80,458,634	78,941,313
1920	10,384,829	14,850,989,607	2.695	35,006,524	236,024,000	115,678,480	94,100,072
1921	10,524,246	15,390,398,973	1.5043	22,340,344	267,729,000	147,427,529	135,870,056
1922	10,663,663	15,390,398,973	1.2915	19,876,700	266,998,000	128,106,772	129,608,264
1923	10,803,080	16,233,729,387	2.00	32,467,459	264,244,500	133,562,754	135,618,071
1924	10,942,497	17,346,635,443	1.50	26,019,953	308,491,000	150,516,166	150,840,295
1925	11,162,151	19,018,981,378	1.50	28,528,472	318,456,000	165,523,470	167,476,861
1926	11,317,536	20,795,221,086	1.00	20,795,221	316,520,000	179,924,705	178,016,047
1927	11,472,921	22,958,837,107	1.00	22,958,837	341,059,000	200,153,177	188,939,655
1928	11,628,306	25,332,627,968	0.50	12,666,324	359,817,000	223,116,417	217,772,625
1929	11,783,691	27,034,695,261	None.	.....	355,233,000	254,309,361	231,182,320

APPROPRIATIONS BY NEW YORK STATE LEGISLATURES.

1910	$42,975,451	1915	$63,997,272	1920	$145,219,907
1911	43,074,192	1916	59,103,450	1921	145,798,092
1912	52,366,582	1917	79,742,834	1922	149,363,753
1913	59,465,691	1918	81,525,271	1923	161,322,867
1914	47,899,528	1919	95,840,984	1924	158,122,187
1925	$173,397,940				
1926	185,896,833				
1927	219,352,309				
1928	236,278,390				
1929	268,463,989				

NEW YORK STATE REVENUES FROM EXCISE AND INHERITANCE TAXES.

Year.	From Excise.	From Inheritance.	Year.	From Excise.	From Inheritance.	Year.	From Excise.	From Inheritance
1900	$12,622,958	$4,334,803	1910	$18,102,822	$8,213,557	1920	$2,039,613	$21,259,641
1901	12,467,674	4,084,607	1911	18,319,880	8,157,344	1921	233,718	18,135,507
1902	12,511,369	3,303,555	1912	18,210,084	12,153,189	1922	21,452	15,385,042
1903	17,741,257	4,665,736	1913	18,142,558	12,724,237	1923	6,016	17,786,389
1904	17,879,636	5,428,052	1914	18,109,271	11,162,478	1924	827	19,369,394
1905	18,197,906	4,627,051	1915	17,766,783	8,263,894	1925	626	23,584,767
1906	18,719,324	4,713,311	1916	21,068,145	5,984,018	1926	2	22,222,748
1907	19,057,236	5,435,395	1917	20,747,509	15,077,631	1927	0	24,479,953
1908	8,044,537	6,605,891	1918	22,616 443	11,433,400	1928	0	35,566,274
1909	18,005,494	6,962,615	1919	5,487,449	13,339,583	1929	0	47,164,594

1908 figures cover only five months, because the excise year was changed so as to begin Oct. 1 instead of May 1. Figures for 1917 and later cover years ended June 30.

The bootleggers now get most of the excise revenues, which they split with the U. S. Internal Revenue when they make—if they do so make—their income tax returns.

NEW YORK STATE BANKING STATISTICS.

(The figures, which are official, and cover only institutions with State Charters, are as of June 29, 1929.)

Resources.	Banks (236).	Trust Cos. (144).	Liabilities.	State Banks.	Trust Cos.
	Dollars.	*Dollars.*		*Dollars.*	*Dollars.*
Stocks and bonds	259,435,291	1,222,056,067	Capital	101,085,000	413,100,000
Loans and discounts	977,518,306	4,433,048,302	Surplus	136,455,850	777,814,457
Bonds and mortgages	88,180,798	307,629,276	Deposits	1,298,545,249	6,075,733,816
Real estate	38,727,056	137,930,927	Bills payable	56,243,997	178,661,166
Other and total	1,673,995,649	7,993,793,484	Other and total	1,673,995,649	7,993,793,484

In this state, on June 29, 1929, there were 48 private banks, whose total resources were $16,744,318; capital, $1,090,500; deposits, $11,139,890.

LIFE INSURANCE IN NEW YORK STATE.

(Data compiled by the N. Y. State Insurance Department).

Dec. 31.	Policies in Force.	Assets.	Liabilities.	Dec. 31.	Policies in Force.	Assets.	Liabilities.
	Number.	*1,000 Dols.*	*1,000 Dols.*		*Number.*	*1,000 Dols.*	*1,000 Dols.*
1860	56,046	163,703	24,116	17,160	1917	9,517,941	18,457,378	5,467,600	5,171,445
1870	747,807	2,023,885	269,520	221,032	1918	10,197,730	20,196,274	5,915,688	5,669,240
1880	608,681	1,475,995	417,951	346,389	1919	11,607,348	24,010,146	6,096,789	5,811,840
1890	1,272,895	3,542,956	753,229	664,489	1920	13,206,526	28,430,027	6,550,254	6,229,340
1900	3,071,253	6,947,097	1,723,738	1,565,460	1921	14,040,339	30,677,702	7,027,019	6,676,383
1910	6,050,617	11,669,700	3,693,248	3,494,714	1922	14,875,540	33,460,718	7,592,695	7,132,261
1911	6,621,386	12,802,989	3,942,144	3,727,340	1923	16,062,976	37,545,222	8,221,961	7,693,851
1912	7,001,913	13,527,321	4,173,954	3,942,178	1924	17,124,763	41,787,216	9,007,770	8,373,896
1913	7,452,154	14,304,639	4,417,298	4,160,362	1925	18,600,092	47,840,589	10,016,629	9,316,011
1914	7,849,680	14,933,151	4,636,745	4,364,317	1926	19,891,592	53,679,967	11,140,624	10,387,398
1915	8,288,228	15,632,739	4,850,697	4,586,950	1927	21,040,080	58,649,023	12,384,739	11,536,087
1916	8,891,679	16,814,540	5,144,624	4,852,949	1928	22,454,695	64,367,443	13,723,654	12,801,094

Policies include only *ordinary*; assets include *admitted*; liabilities do not include capital and surplus.

The table covers the operations inside and outside the state of all companies doing business in the State.

Industrial policies in force, as of Dec. 31, 1928, numbered 71,971,497 covering insurance for $14,206,989,776; group policies, 14,833, for $7,351,548,312 premium income from casualty or miscellaneous insurance in 1928 was over $759,000,000; total premium income, $2,654,396,938; total insurance in force on N. Y. State inhabitants, $17,075,969,985.

THE NEW YORK STATE FOREST PRESERVE.

New York State's Forest Preserve was established in 1885.

The State has an actual investment of nearly $15,000,000 in the Forest Preserve, of which $12,000,000 has been spent for direct payment of lands purchased or appropriated and $3,000,000 for land taken on tax sales.

The area of the Forest Preserve in both the Adirondack and Catskill Mountains on Sep. 30, 1928, aggregated 2,109,097 acres, of which 1,941,404 acres are in the Adirondack Preserve, and 167,693 acres are in the Catskill Preserve.

Jurisdiction over the Forest Preserve is exercised by the Conservation Department, which has charge also of the State Reservation at Saratoga Springs, the State-owned islands in Lake George, the St. Lawrence Reservation, and the John Brown Farm in the town of North Elba, Essex County, and all places formerly under the jurisdiction of the State Council of Parks.

Five forest tree nurseries are maintained with a capacity of 125,000,000 trees; with an annual output put of 40,000,000 trees. More than 20,000 acres were reforested in 1928. Trees are sold to private landowners and given to municipalities and State Institutions.

The total number of plantations in the state up to the beginning of 1929 was 19,198, made up of more than 160,000,000 trees. There were, in Franklin County, 21,164,725 plantation trees; in Essex, 11,826,736; Lewis, 10,258,650; Saratoga 7,498,550; St. Lawrence, 6,077,700; Oneida, 5,669,150; Warren, 5,229,320; Westchester, 4,886,300; Otsego 4,591,735; Orange, 4,551,875; Herkimer, 4,519,150; Hamilton, 4,517,100.

Beaver, which had become extinct, were introduced to the Adirondacks in 1905 and have since spread over other sections of the woods. They have also been introduced in the Catskills.

The compilation of the amount of game taken by licensed hunters in the State in 1926, made up from figures returned upon the stubs of hunting licenses, shows a total weight of game birds and such quadrupeds as are used for food such as rabbits, hares, deer and squirrels, taken in 31 of the 62 counties, was 2,174,748 lbs.

Returns from hunters for the remaining counties increased this to approximately four million pounds. The value of the game, if commercialized, would be, roughly, $3,500,000. There are over 500,000 hunters.

In the 31 counties there were killed 295,687 skunks, minks, muskrats and other fur bearers, the value of whose raw fur is figured at $688,440.53. The total value of game as food, together with the value of the fur collections for the year 1926, gives a total value of wild life taken by licensed hunters at more than $4,600,000.

The State maintains 4 game bird farms. In 1928, a total of 16,459 live birds and 148,920 eggs was distributed to farmers and sportsmen throughout the State and 4,000 young hen pheasants were retained at the farms for breeding purposes.

The number of deer killed in this State in 1928 was 7,029, an increase of 628 over 1927.

The State Conservation Department is made up of the following divisions: (1) Lands and Forests; (2) Fish and Game; (3) Water Power and Control; (4) Saratoga Springs; (5) Parks.

The Division of Parks takes over the State Council of Parks, the State Reservation at Niagara, Palisades Interstate Park, and the Allegany, Finger Lakes, Long Island, Taconic, and Central State Parks; Letchworth Park, so far as it was under control of the American Scenic and Historic Preservation Society; and Washington's Headquarters and other shrines.

STATE PARKS

States	No. Parks	Acreage	States	No. Parks	Acreage	States	No. Parks	Acreage	States	No. Parks	Acreage
Ark....	1	1,128	Ia.....	38	7,336	Neb....	4	808	S. D....	1	'125,000
Cal....	7	14,130	Kansas.	5	3,577	N. H...	24	9,920	Tenn...	1	.....
Conn...	36	7,695	Ky.....	4	2,236	N. J....	5	12,436	Texas..	24	4,568
Fla.....	1	4,000	La.....	1	.....	N. Y...	56	2,269,752	Vt.....	4	11,492
Ga.....	2	170	Mass...	7	21,023	N. C...	3	1,640	Wash..	18	12,816
Idaho..	3	8,890	Mich...	66	41,415	Ohio...	6	30,500	Wis....	9	85,240
Ill.....	9	2,527	Minn...	16	38,291	Ore....	25	963	Wyo...	2	1,080
Ind....	8	6,990	Mo.....	12	36,695	Pa.....	12	10,564			

The area of the Evangeline State Park in Louisiana is unknown. The acreage in New Hampshire does not include Mount Madison. The Redfoot State Park in Tennessee is (June, 1929) in process of acquisition. In Aug., 1929, a 2,000-acre addition in Putnam County, to the Taconic (N. Y.) State Park, was given by Dr. Ernest Fahnestock.

GEOLOGICAL HISTORY OF THE EMPIRE STATE.

(By the late John M. Clarke, State Geologist.)

THE geological history of New York can be traced back to the Precambrian era, the oldest recognizable in the rocks of the earth.

These earliest rocks known are the Grenville metamorphosed sediments (gneisses, marble, etc.).

They are exposed in the Adirondacks and the Hudson Highlands. They prove that in Grenville time Northern, Eastern, and probably Southwestern N. Y. was under the water.

After the deposition of the Grenville sediments igneous activity took place on a large scale and huge masses of molten rock (granite, anorthosite, gabbro, syenite) were pushed into the sediments from below.

Some time after the whole Adirondack region was subjected to enormous pressure and intensely folded, and then the great mass of Grenville sediments was upraised well above the sea.

At the beginning of Cambrian time, when organic life becomes first recognizable in the State, only the eastern margin was submerged, but toward the end (Potsdam time) the sea covered the whole region except the central and northwestern Adirondacks.

In the long Ordovician period, during which the Beekmantown, Chazy, Black River and Trenton limestones and the Utica, Frankfort and Lorraine shales and sandstones were deposited, the State was most of the time submerged under the Ordovician sea, except for the Adirondack island.

Toward the end of that period, however, the Green and Taconic Mountains arose along the eastern border of the State and practically all of Northern, Central, Eastern and Northeastern New York became dry land.

In the following Silurian period were deposited the Medina and Oneida sandstone and conglomerate, the Clinton shale, sandstone, limestone and iron ore, the Rochester shale, the Lockport and Guelph dolomites, the Salina shales, salt and waterlime, etc.

During the early part of this period the sea had spread over only Central and Western New York, while during the late Silurian it had extended over the State west and east of the Adirondack region.

The strata of the next or Devonian era comprise the whole Catskill and southwestern plateau provinces and cover more than a third of the State. These rocks abound in fossils and show that the sea continued to cover at least the southern half.

The sea of the Carboniferous period hardly came over the boundary of the State from Pennsylvania.

At the end of Paleozoic time New York, except for a small area at the mouth of the Hudson, was raised during the Appalachian revolution well above the sea, never to be invaded again until the end of the glacial period.

During the long Mesozoic period New York was dry land; in Triassic time considerable volcanic activity prevailed in Southeastern New York, when sheets of lava (the trap of the Palisades) were forced into nonmarine Triassic beds.

During the next, or Jurassic, period the State was above the sea and actively eroded, but in the following Cretaceous period Staten and Long Islands disappeared under the sea.

At the end of this period the State, which had been eroded nearly to a plain, was uplifted 2,000-3,000 feet.

After this time in the Tertiary period the present drainage and relief of the State were developed in its major features.

Finally came the glacial period, which enriched the State with thousands of lakes and waterfalls.

It ended with the Champlain subsidence, during which the sea came for the last time into New York, into the Champlain Basin and Hudson Valley.

A recent elevation has again drained these regions.

The Hudson River is one of the most ancient rivers of the continent and flows over rocks which have been frequently and heavily faulted.

UNIVERSITY OF THE STATE OF NEW YORK.

Regents of the university, with years when terms expire: 1934—Chester S. Lord, *Chancellor*, Brooklyn; 1939—William L. Thompson, Troy; 1937—Mrs. Flora G. Pratt, Glen Cove; 1940—Walter Guest Kellogg, Ogdensburg; 1932—James Byrne, New York; 1931—Thomas J. Mangan, Binghamton; 1933—William J. Wallin, Yonkers; 1935—William Bondy, New York; 1930—William P. Baker, Syracuse; 1941—Robert W. Higbie, Jamaica; 1938—Roland B. Woodward, Rochester.

President of the University and Commissioner of Education—Frank P. Graves.

Deputy Commissioner and Counsel—Ernest E. Cole.

Assistant Commissioner for Higher and Professional Education—James Sullivan.

Assistant Commissioner for Secondary Education—George M. Wiley.

Assistant Commissioner for Elementary Education—J. Cayce Morrison.

Assistant Commissioner for Vocational and Extension Education—Lewis A. Wilson.

Assistant Commissioner for Finance—A. D. Simpson.

Director of State Library—James I. Wyer.

Director of Science and State Museum—Charles C. Adams.

Directors of Divisions—Administration, Lloyd L. Cheney; Archives and History, Alexander C. Flick; Attendance, Charles L. Mosher; Examinations and Inspections; Avery W. Skinner; Law, Irwin Esmond; Educational Research, Warren W. Coxe; Health and Physical Education, F. R. Rogers; Library Extension, Frank L. Tolman; School Buildings and Grounds, J. H. Hixson; Visual Instruction, Alfred W. Abrams; Motion Picture, James Wingate; teacher training, Herman J. Magee.

PUBLIC SCHOOLS IN THE EMPIRE STATE.

(Data by the New York State Department of Education.)

Year (Calendar).	Of School Age.	Aver. Daily Attend.	Teachers.	Teachers' Wages.	Exp., Sch'ls, Sites, Reprs.	Tot. Exp. Inc. Teach. Wages	Val., School and Sites.
	Number.	*Number.*	*Number.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
1890	1,844,596	642,984	23,835	10,422,171	4,593,264	17,392,472	.....
1895	1,946,245	757,694	26,689	12,908,834	4,859,135	20,305,614	53,400,016
1900	1,569,653	857,488	31,768	19,218,893	8,548,643	33,421,491	81,768,495
1905	1,797,238	960,433	36,115	26,562,987	13,121,898	47,803,672	121,712,667
1910	2,030,193	1,118,073	41,999	34,801,603	5,816,829	50,665,532	183,017,408
1911	2,086,845	1,134,323	43,117	36,169,811	6,686,445	53,238,139	188,799,696
1912	2,143,580	1,164,992	44,193	39,265,464	7,392,130	59,063,976	196,126,042
1913	2,208,675	1,182,656	45,359	42,442,213	7,522,624	63,185,124	198,147,209
1914	2,239,852	1,233,074	47,142	44,359,192	8,111,592	67,433,483	193,627,773
1915	2,306,142	1,288,047	47,881	46,690,195	8,408,021	71,015,703	202,716,947
1916	2,273,279	1,318,605	49,560	47,937,545	5,777,599	70,179,936	225,936,244
1917	2,290,731	1,318,287	51,138	51,333,298	7,873,215	77,985,825	235,613,240
1918	2,319,478	1,297,277	52,555	55,073,197	7,610,054	83,682,747	241,409,628
1919	2,386,836	1,310,826	52,658	59,617,440	10,120,513	92,334,179	247,120,782
1920	2,462,678	1,361,600	54,165	70,709,984	12,080,089	108,596,912	273,981,500
1921	2,336,427	1,443,657	55,732	108,555,910	24,799,419	167,783,766	300,250,650
1922	2,399,752	1,518,781	57,935	115,726,472	35,393,316	188,604,973	325,448,451
1923	2,447,013	1,573,832	60,231	121,762,628	44,554,653	210,563,601	366,259,724
1924	2,491,193	1,610,076	62,401	128,221,782	66,748,959	250,553,766	431,005,799
1925	2,556,780	1,651,126	64,321	134,322,773	88,738,205	283,506,175	524,530,253
1926	2,633,167	1,684,595	66,434	140,930,059	52,352,344	257,672,042	577,395,809
1927	2,587,901	1,726,772	68,716	148,869,651	47,061,704	294,312,333	624,605,094
1928	3,472,435	1,768,364	70,849	162,183,334	57,267,253	324,405,895	671,255,016

Children of school age in 1890-1895 meant 5-21 years; (1896-1927) 5-18 years; (1928) under 18 years.

The total number of children who attended school at anytime in 1925 was 1,951,160.

The figures as to the number of teachers do not include about 5,000 (4,719 in 1925) part-time instructors.

Figures as to wages include all teachers, part-time and full-time.

Figures as to yearly expenditures for new schools, sites, etc., include all capital outlay, 1924 and since, but do not include repairs and replacements.

Total yearly expenses include debt service and capital outlay.

According to the census of 1920 there were, then, 425,022 *illiterate persons* 10 years of age and over in the State of New York, "illiterate" meaning unable to write. Of this number 16,150 were *native whites* of native parentage, 12,256 were of *foreign or mixed parentage*, and 389,603 were of *foreign birth*. The number of illiterate *Negroes* was 5,032. In the total population 10 years of age and over the *percentage of illiteracy* was 5.1, which showed a diminution since 1910, when it was 5.5.

The percentage of illiteracy in the total population of New York City 10 years of age and over is 6.2, which shows a slight decrease since 1910, when it was 6.7. For the native white the percentage is 0.3, for the foreign-born white, 13.3, and for the Negro, 2.1.

NEW YORK STATE MUSEUM.

The State Museum is a part of the Education Department of the University of the State of New York. The collections are arranged on the upper floors of the State Education Building, opposite the Capitol, at Albany. The collections are open free on every weekday, and on Sundays, Oct. 1 to May 1.

Hall of Geology and Mineralogy. Special exhibits in geology illustrate various industries dependent upon the geological resources, such as clays, sands, limestone, salt, gypsum, building stone, oil and graphite.

Hall of Paleontology. This hall includes vertebrates and invertebrates. The exhibits of trilobites and eurypterids are of unusual scientific interest. The wax restorations of very ancient extinct marine life in New York show the general appearance of these animals on the sea bottom. The Gilboa fossil forest shows three layers or horizons of tree trunks representing as many forests that flourished in ancient Devonian time, perhaps 100,000,000 years ago, and were successively buried under the sea after intervening elevations of the country. These trunks belong to the oldest known forests in the world.

Hall of Zoology. The animals of New York are exhibited in this hall, the larger mammals in habitat groups and the smaller mammals, birds, fishes, reptiles and mollusks in extensive series of well-mounted specimens. The mounted series of domestic poultry, including the domestic fowl, turkeys, pigeons, peacock, ducks, geese and pheasants is extensive. The collection of birds' eggs is one of the most complete in America. This section also contains a representative series of insects.

State Herbarium. The State Herbarium contains over 100,000 specimens, mostly of New York plants, and has a large collection of fungi. A special exhibit of wax models illustrates the common edible and poisonous fungi.

Halls of Archaeology and Ethnology. The former illustrates the implements used by the Iroquois Indians, such as flint arrow and spear heads, axes, pipes, pottery and various articles used for adornment. In the latter, besides specimens of clothing, games are illustrated, in addition to the life-sized groups of Indians.

In all these groups there are painted backgrounds which represent a New York scene. The caste used in these six groups were made from living people selected from several Indian reservations.

The State Museum conducts geologic and physiographic surveys of its natural resources and their relation to its industries, also a natural history survey of the plants and animals, including insects, and acts as a general bureau of information.

NEW YORK STATE GOVERNMENT.

(The four elective officers were chosen in November, 1928. Terms expire Dec. 31, 1930.)

Governor—Franklin D. Roosevelt, Dem., Hyde Park. $25,000 and Executive Mansion.
Secretary to the Governor—Guernsey T. Cross, Callicoon. $12,000.
Lieutenant Governor—Herbert H. Lehman, Dem., New York City. $10,000
Comptroller—Morris S. Tremaine, Dem., Buffalo. $12,000.
Attorney General—Hamilton Ward, Rep., Buffalo, N. Y. $12,000.

Commissioner of Taxation and Finance—Thomas M. Lynch, Poughkeepsie, $12,000.
Secretary of State—Edward J. Flynn, New York City. $12,000.
Superintendent of Public Works—Frederick Stuart Greene, Rensselaer. $12,000.
Commissioner of Agriculture and Markets—Berne A. Pyrke, Crown Point. $12,000.
Industrial Commissioner—Frances Perkins, New York City. $12,000.
Commissioner of Education—Frank Pierrepont Graves, Brooklyn. $15,000.
Commissioner of Health—Matthias Nicoll, Jr., Albany. $12,000.
Commissioner of Mental Hygiene—Frederick W. Parsons, Buffalo. $12,000.
Director of State Charities—Charles H. Johnson, Brooklyn. $10,000.
Commissioner of Correction—Raymond F. C. Kieb, Beacon. $12,000.
Public Service Commission—William A. Prendergast, Chairman. $15,000.
Superintendent of Banks—Joseph A. Broderick. $12,000.
Superintendent of Insurance—Albert Conway, New York City. $12,000.
Civil Service Commission—Mrs. Chas. Bennett Smith, President. $9,000.

NEW YORK STATE JUDICIARY.

Terms of Judges end Dec. 31 of year named.

Salaries—Chief Judge of the Court of Appeals, $22,500; Associate Judges, $22,000 each; Justices of the Supreme Court, $22,500 in New York City; $15,000 in rest of state.

COURT OF APPEALS.

Chief Judge—Benjamin N. Cardozo, New York City (1940); *Associate Judges*—Cuthbert W. Pound, Lockport (1930); Frederick E. Crane, Brooklyn (1934); Irving Lehman, New York City (1937); Irving G. Hubbs, Pulaski (1940); Harry T. Kellogg, Valcour (1939); John F. O'Brien, New York City (1941).

JUSTICES OF THE SUPREME COURT.

The full term is 14 years, ending at the close of Dec. 31 of the year after election; but the term also ends automatically at the close of Dec. 31 of the year in which a Justice reaches 70, which is the age of retirement from the bench.

Following are the Supreme Court Justices, by judicial districts; terms end Dec. 31 of year named:

First District (Manhattan and The Bronx; residence in Manhattan unless otherwise indicated)—Edward R. Finch (1943); George V. Mullan (1930); Richard H. Mitchell, Bronx (1930); John V. McAvoy (1931); Nathan Bijur (1932); John Ford (1932); Victor J. Dowling (1932); Richard P. Lydon (1932); Thomas W. Churchill (1932); Edward J. Gavegan (1933); Philip J. McCook (1933); Francis Martin, Bronx (1934); James O'Malley (1934); Isidor Wasservogel (1934); William H. Black (1936); Edward J. McGoldrick (1936); Joseph M. Proskauer (1937); Salvatore A. Cotillo (1937); Peter A. Hatting, Bronx (1937); Phoenix Ingraham (1937); Edward J. Glennon, Bronx (1937); Aaron J. Levy (1937); John L. Walsh (1939); Ernest E. L. Hammer, Bronx (1939); Louis A. Valente (1939); Curtis A. Peters (1940); Joseph M. Callahan, Bronx (1940); Alfred Frankenthaler (1940); Henry L. Sherman (1940); Alfred H. Townley (1941); Peter Schmuck (1942); Albert Cohn, Bronx (1943); John E. McGeehan, Bronx (1943); William T. Collins (1943); Irwin Untermyer (1943).

Second District (Counties of Kings, Nassau, Queens, Richmond and Suffolk; residence, Brooklyn, unless otherwise indicated)—James C. Cropsey (1930); Edward Lazansky (1931); Lewis L. Fawcett (1931); Leander B. Faber, Jamaica (1932); Norman S. Dike (1932); Isaac M. Kapper (1934); Selah B. Strong, Setauket (1934); John MacCrate (1934); Mitchell May (1935); Townsend Scudder, Glen Head (1935); Harry E. Lewis (1935); William F. Hagarty (1936); William B. Carswell (1936); Edward Riegelmann (1938); Charles J. Druhan (1939); James A. Dunne (1939); Burt Jay Humphrey, Long Island City (1939); John B. Johnston (1941); Edward J. Byrne (1942); Charles J. Dodd (1934).

Third District (Counties of Albany, Columbia, Greene, Rensselaer, Schoharie, Sullivan and Ulster)—Charles E. Nichols, Cobleskill (1930); Gilbert D. B. Hasbrouck, Kingston (1930); Harold J. Hinman, Albany (1932); Ellis J. Staley, Albany (1935); Pierce H. Russell, Troy (1939); Sydney F. Foster, Liberty (1942); Daniel V. McNamee, Hudson (1943).

Fourth District (Counties of Clinton, Essex, Franklin, Fulton, Hamilton, Montgomery, St. Lawrence, Saratoga, Schenectady, Warren and Washington)—Edward C. Whitmyer, Schenectady (1931); Charles Van Kirk, Greenwich (1932); John C. Crapser, Massena (1935); Christopher J. Heffernan, Amsterdam (1939); O. Byron Brewster, Elizabethtown (1941); Erskine C. Rogers (1942).

Fifth District (Counties of Herkimer, Jefferson, Lewis, Oneida, Onondaga and Oswego)—Jerome L. Cheney, Syracuse (1933); Edgar S. K. Merrell, Lowville (1935); Ernest I. Edgcomb, Syracuse (1936); Leonard C. Crouch, Syracuse (1936); Edward N. Smith, Watertown (1937); Clayton I. Miller, Pulaski (1938); William F. Dowling, Utica (1940); Edmund H. Lewis, Syracuse (1943).

Sixth District (Counties of Broome, Chemung, Chenango, Cortland, Delaware, Madison, Otsego, Schuyler, Tioga and Tompkins)—Abraham L. Kellogg, Oneonta (1930); Joseph D. Senn, Oneida (1930); James P. Hill, Norwich (1937); Leon C. Rhodes, Binghamton (1937), Rowland L. Davis, Cortland (1942); Ely W. Personius, Elmira (1943).

Seventh District (Counties of Cayuga, Livingston, Monroe, Ontario, Seneca, Steuben, Wayne and Yates)—Robert F. Thompson, Canandaigua (1930); Adolph J. Rodenbeck, Rochester (1930); Adelbert P. Rich, Auburn (1930); Benjamin B. Cunningham, Rochester (1933); Willis K. Gillette, Rochester (1936); Edwin C. Smith, Bath (1940); Marsh N. Taylor, Rochester (1941); Clyde W. Knapp, Lyons (1941).

Eighth District (Counties of Allegany, Cattaraugus, Chautauqua, Erie, Genesee, Niagara, Orleans and Wyoming)—Charles B. Sears, Buffalo (1931); Alonzo G. Hinkley, Buffalo (1933); George E. Pierce, Buffalo (1933); Edward R. O'Malley, Buffalo (1933); Harley N. Crosby, Falconer (1935); Clinton T. Horton, Buffalo (1935); Thomas H. Noonan, Buffalo (1935); James E. Norton, Warsaw (1936); Harry L. Taylor, Buffalo (1936); George A. Larkin, Olean (1937); Samuel J. Harris, Buffalo (1938); Almon W. Lytle, Buffalo (1938); Bernard B. Ackerman, Belmont (1939); Clarence MacGregor, Buffalo (1942).

Ninth District (Counties of Dutchess, Orange, Putnam, Rockland and Westchester)—Frank L. Young, White Plains (1930); Joseph Morschauser, Poughkeepsie (1933); Arthur S. Tompkins, Nyack (1934); George H. Taylor, Jr., White Plains (1936); J. Addison Young, New Rochelle (1936); William F. Bleakley, Yonkers (1941); Graham Witschief, Newburgh (1943).

APPELLATE DIVISION JUSTICES.

The Governor designates the Supreme Court Justices who constitute the Appellate Division for five years, and the presiding justice for the balance of his term, and may also make temporary designations when the need is certified to him. Each justice receives $2,000 and the presiding justice $2,500 per year additionally. These justices by departments are:

First Department, consisting of the First Judicial District:

Victor J. Dowling, Presiding Justice; Edgar S. K. Merrell, Edward R. Finch, John V. McAvoy, Francis Martin, James O'Malley, and Joseph M. Proskauer, Associate Judges.

Second Department, consisting of the Second and Ninth Judicial Districts:

Edward Lazansky, Presiding Justice; Adelbert P. Rich, J. Addison Young, Isaac M. Kapper, William F. Hagarty, William B. Carswell, and Townsend Scudder, Associate Justices.

Third Department, consisting of the Third, Fourth and Sixth Judicial Districts:

Charles C. Van Kirk, Presiding Justice; Harold J. Hinman, Rowland L. Davis, Edward C. Whitmyer, James P. Hill, and Gilbert D. B. Hasbrouck, Associate Justices.

Fourth Department, consisting of the Fifth, Seventh, and Eighth Judicial Districts:

Charles B. Sears, Presiding Justice; Leonard C. Crouch, Harry L. Taylor, Ernest I. Edgcomb, Robert F. Thompson, and Harley N. Crosby, Associate Justices.

NEW YORK STATE LEGISLATURE, 1930.

(Meets each year first Wednesday in January; members receive $2,500 salary.)

SENATE ELECTED IN 1928 TO SERVE IN 1929-30.

1—G. L. Thompson, R., Kings P'k.
2—S. F. Burkard, D., Queens.
3—A. J. Kennedy, D., Whitestone.
4—Philip M. Kleinfeld, D., B'klyn.
5—Daniel F. Farrell, D., B'klyn.
6—M. H. Evans, D., Brooklyn.
7—Jno. A. Hastings, D., B'klyn.
8—Wm. L. Love, D., Brooklyn.
9—..... B'klyn.
10—Jere F. Twomey, D., B'klyn.
11—James J. Crawford, D., B'klyn
12—E. F. Quinn, D., Manhattan.
13—Thos. F. Burchill, D., Man'h'n.
14—Bernard Downing, D., Man'h'n.
15—John L. Buckley, D., Man'h'n.
16—T. I. Sheridan, D., Man'h'n.
17—S. H. Hofstadter, R., Manhattan
18—Martin J. Kennedy, D., Man.
19—D. T. O'Brien, D., Manhat'n.
20—A. S. Feld, D., Manhattan.
21—Hy. G. Schackno, D., Bronx.
22—Benj. Antin, D., Bronx.
23—John J. Dunnigan, D., Bronx.
24—H. J. Palmer, D., R'bank, S. I.
25—W. W. Westall, R., White Pl'ns.
26—S. C. Mastick, R., Pleasantv'le
27—Caleb H. Baumes, R., Newb'g.
28—J. G. Webb, R., Hyde Park.
29—A. H. Wicks, R., Kingston.
30—Wm. T. Byrne, D., Loudonv'le.
31—John F. Williams, R., Troy.
32—Thos. C. Brown, R., Sch'tady.
33—H. E. H. Brereton, R., Bolton.
34—W. T. Thayer, R., Chateaugay.
35—Henry I. Patrie, R., Dolgeville.
36—Henry D. Williams, R., Utica.
37—Perley A. Pitcher, R., Watert'n
38—Geo. R. Fearon, R., Syracuse.
39—J. W. Gates, R., Chittenango.
40—..... Binghamton.
41—F. A. Frost, R., Watkins Glen.
42—Chas. J. Hewitt, R., Locke.
43—L. F. Wheatley, R., Hornell.
44—John Knight, R., Arcade.
45—Cosmo Cilano, R., Rochester
46—Fred'k. J. Slater, R., Gruce.
47—W. W. Campbell, R., Lockp't.
48—Wm. J. Hickey, R., Buffalo.
49—S. J. Wojtkowiak, D., Buffalo.
50—Nelson W. Cheney, R., Eden.
51—L. G. Kirkland, R. Randolph.

Recapitulation—Republicans, 26; Democrats, 24; 1 vacancy; total 51.

ASSEMBLY ELECTED IN 1928 TO SERVE IN 1929.

Albany—J. H. Cahill, D., 30 Mereline Ave., J. P. Hayes, D., 735 Broadway; Rudolph Rouller; D., Cohoes.

Allegany—H. E. Goodrich, R., Richburg.

Bronx—(1) N. J. Eberhard, D., 300 E. 162d St.; (2) W. F. Smith, D., 314 E. 140th St.; (3) Julius S. Berg, D., 327 Manida St.; (4) Herman M. Albert, D., 1064 Cauldwell Ave.; (5) Harry A. Samberg, D., 940 Simpson St.; (6) C. C. McGrath, D., 1436 Parker St.; (7) John F. Reidy, D., 610 E. 182d St.; (8) J. A. Devany, Jr., D., 2308 University Ave.

Broome—(1) Edmund B. Jenks, R., Whitney Point; (2) Forman E. Whitcomb, R., Endicott.

Cattaraugus—James W. Watson, R., New Albion.

Cayuga—C. D. Van Alstine, R., Weedsport.

Chautauqua—(1) H. E. V. Porter, R. Jamestown; (2) Joseph A. McGinnies, R., Ripley.

Chemung—G. A. Turner, R. Horseheads.

Chenango—Bert Lord, R., Afton.

Clinton—C. D. Munsil, R., Ellenburgh.

Columbia—Henry M. James, R., Hudson.

Cortland—Irving F. Rice, R., Cortland.

Delaware—James R. Stevenson, R., Hobart.

Dutchess—(1) Howard N. Allen, R., Pawling; (2) John M. Hackett, R., Poughkeepsie.

Erie (Buffalo, unless otherwise noted)—(1) C. J. Gimbrone, R., 524 Niagara St.; (2) Wm. L. Marcy, Jr., 28 Penhurst Park; (3) Frank X. Bernhardt, R., 76 Goodell St.; (4) A. J. Canney, D., 41 Marvin St.; (5) Ansley B. Borkowski, R., 76 Fisher St.; (6) H. W. Dickey, R., 315 Riley St.; (7) Arthur L. Swartz, R., Kenmore; (8) R. F. Piper, R., Hamburg.

Essex—Fred L. Porter, R., Crown Point.

Franklin—James E. Latour, R., Saranac Lake.

Fulton-Hamilton—E. Hutchinson, R., Green Lake.

Genesee—Charles P. Miller, R., South Byron.

Greene—Ellis W. Bentley, R., Windham.

Herkimer—Wm. J. Thistlethwaite, R., Old Forge.

Jefferson—J. W. Cornaire, R., Cape Vincent.

Kings—(1) C. W. Hawkins, D., 417 Pacific St.; (2) A. D. Schanzer, D., 1669 Kimbell St., M. Beach; (3) M. J. Gillen, D., 806 Hicks St.; (4) Geo. E. Dennen, D., 82 Clermont Ave.; (5) J. J. Cooney, D., 238 Sumpter St.; (6) J. J. Schwartzwald, D., 666 Willoughby Ave.; (7) John J. Howard, D., 453 55th St.; (8) Luke O'Reilly, 244 Carrol St.; (9) D. McNamara, Jr., 152-84th St.; (10) W. C. McCreery, D. 217 Prospect Place; (11) Edward J. Coughlin, D., 241 Adelphi St.; (12) E. S. Moran jr., D., 568 5th St.; (13) William Breitenbach D., 167 Ten Eyck St.; (14) J. P. Nathanson, D., 181 Havemeyer St.; (15) E. P. Doyle, D., 639 Humboldt St.; (16) Maurice Z. Bungard, D., Sea Gate, L. I.; (17) G. W. Stewart, D., 39 McDonough St.; (18) Irwin Steingut, D., 639 Eastern Parkway; (19) Jerome G. Ambro, D., 14 Suydam St.; (20) Frank A. Miller, D., 1227 Hancock St.; (21) J. A. Esquirol, D., 67 St. Pauls Pl.; (22) J. H. Livingston, D., 67 Bullwer Place; (23) A. M. Cohen, D., 550 Saratoga Ave.

Lewis—Edward Sheldon, R., Lowville, R.F.D. 5.

Livingston—A. G. Stockweather, R., Hunt.

Madison—A. A. Hartshorn, R., Hamilton.

Monroe—(1) T. G. Searle, R., 100 Southern Blvd., Brighton; (2) H. J. McKay, R., 220 Culver Road, Rochester; (3) Haskell H. Marks, R., 13 Cumberland St.; (4) Richard L. Saunders, 194 Selye Terrace; (5) W. Ray Austin, R., Spencerport.

Montgomery—Rufus Richtmyer, R., Fultonville.

Nassau—(1) Edwin W. Wallace, R., Rockville Centre; (2) Edwin R. Lynde, R., Massapequa.

New York—(1) Peter J. Hamill, D., 34 Dominick St.; (2) M. E. Theodore, D., 209 Grand St.; (3) Sylvester A. Dineen, D., 429 W. 34th St.; (4) Samuel Mandelbaum, D., 1 Scammel St.; (5) Frank A. Carlin, D., 639 10th Ave.; (6) L. J. Lefkowitz, R., 432 E. Houston St.; (7) S. S) Streit, D., 440 Columbus Ave.; (8) Henry O. Kahan, D., 170 2d Ave.; (9) Ira H. Holley, D., 215 W. 90th St.; (10) Langdon W. Post., D., 290 Park Ave.; (11) P. H. Sullivan, D., 149 Manhattan Ave.; (12) John A. Byrnes, D., 242 E. 19th St.; (13) H. Broderick, D., 414 W. 121st St.; (14) J. T. Higgins, D., 252 E. 61st St.; (15) Abbot L. Moffat, R., 51 E. 90th St.; (16) ———————— D., 305 E., 87th St.; (17) Meyer Alterman, D., 1274 Fifth Ave.; (18) V. H. Auleta, D., 163 E. 116th St.; (19) F. E. Rivers, D., 39 W. 128th St.; (20) Louis A. Cuvillier, D., 40 E. 126th St.; (21) Lamar Perkinds, R., 136 W. 139th St.; (22) B. B. Mittler, D., 640 W. 153d St.; (23) A. A. Falk, D., 261 Seaman Ave.

Niagara — (1) Fayette E. Pease, R., R.F.D., 7 Lockport; (2) Roy Hewitt, Lewiston.

Oneida—(1) C. J. Peters, R., 724 Rutgers St., Utica.; (2) Russell G. Dunmore, R., New Hartford; (3) W. W. Abbot, R., 704 Elm St., Rome.

Onondaga—(1) Horace M. Stone, R., Marcellus;. (2) Willis H. Sargent, R., 311 Summit Ave., Syracuse; (3) Richard B. Smith, R., 411 Elm St., Syracuse.

Ontario—Robert A. Catchpole, R., Geneva.

Orange—(1) DeWitt C. Dominick, R., Walden; (2) Alexander G. Hall, R., Highland Mills.

Orleans—Frank H. Lattin, R., Albion.

Oswego—Victor C. Lewis, R., Fulton.

Otsego—Frank M. Smith, R., Springfield Center.

Putnam—D. Mallory Stephens, R., Brewster.

Queens—(1) John O'Rourke, D., 2122-28th St., Astoria; (2) F. B. Hendel, D., Middle Village; (3) P. T. Farrell, D., 105-17 Lyon Ave., E. Elmhurst; (4) J. D. Nunan, D., 325 Grosvenor St., Douglaston; (5) Maurice Fitzgerald, D., Ozone Park; (6) F. L. Zimmermann, D., 8614-86th St., Woodhaven.

Rensselaer—(1) M. F. Breen, D., Troy; (2) Maurice Whitney, Berlin

Richmond—(1) F. A. Hannigan, D., 70 Bement Ave., West Brighton; (2) William L. Vaughan, D., Tottenville.

Rockland—Fred R. Horne, Jr., D., Nanuet.

St. Lawrence—(1) Mrs. Rhoda F. Graves, R.; Gouverneur; (2) Walter L. Pratt, R., Massena.

Saratoga—Burton D. Esmond, R., Ballston Spa.

Schenectady—(1) Charles W. Merriam, R., Schenectady; (2) W. W. Wemple, Jr., R., 1069 Wendell Ave., Schenectady.

Schoharie—Kenneth H. Fake, R., Cobleskill.

Schuyler—Jacob W. Winters, R., Watkins Glen.

Seneca—J. D. Pollard, R., Seneca Falls.

Steuben—(1) Wilson Messer, R., Corning; (2) James T. Foody, R., Hornell.

Suffolk—(1) John G. Downs, R., Cutchogue; (2) Hamilton F. Potter, R., Smithtown Branch.

Sullivan—J. Maxwell Knapp, R., Hurleyville.

Tioga—Frank G. Miller, R., Apalachin.

Tompkins—James R. Robinson, R., Ithaca.

Ulster—Millard Davis, R., Kerbonkson.

Warren—Paul L. Boyce, R., Glens Falls.

Washington—H. A. Bartholomew, R. Whitehall.

Wayne—Harry A. Tellier, R. North Rose.

Westchester—(1) C. H. Hathaway, R., 6 Leonard Rd., Bronxville; (2) Herbert B. Shonk, R., Scarsdale; (3) Milan E. Goodrich, R., Ossining; (4) Alexander H. Garnjost, R., 84 High St., Yonkers; (5) W. F. Condon, R., 74 Elliot Ave., Yonkers.

Wyoming—J. R. Hanley, R., Perry.

Yates—Edwin C. Nutt, R., Penn Yan., R. D. No. 10.

Recapitulation—Democrats, 64, Republicans, 86; total, 150.

GOVERNORS OF THE STATE OF NEW YORK.

(The Official List, from the Legislative Manual.)

First Dutch Period.

Adriaen Jorisszen Tienpoint, Director	1623
Cornelis Jacobzen Mey, Director	1624
William Verhulst, Director	1625
Peter Minuit, Director Gen.	May 4, 1626
Bastiaen Jansz Krol, Director Gen.	March 1632
Wouter Van Twiller, Director Gen.	April 1633
William Kieft, Director Gen.	March 28, 1638
Petrus Stuyvesant, Director Gen.	May 11, 1647

NOTES ON THE FIRST DUTCH PERIOD.

Under Dutch rule the powers of government, civil and ecclesiastical, were vested in the Director of the West India Company and his Council.

Krol had been Director and Commissary at Fort Orange.

First English Period.

Richard Nicolls, Gov.	Sept.(N.S.) 8, 1664
Francis Lovelace, Gov.	August 17, 1668

Second Dutch Period.

Cornelis Evertse & War Council	Aug.(N.S.) 12, 1673
Anthony Colve, Gov. Gen.	Sept.(N.S.) 19, 1673

Second English Period (Early Colonial).

Edmond Andros, Gov.	Nov.(N.S.) 10, 1674
Anthony Brockholls, Lieut.-Gov.	November 16, 1677
Sir Edmond Andros, Gov.	August 7, 1678
Anthony Brockholls, Gov.	Jan. (N.S.) 13, 1681
Thomas Dongan, Gov.	August 27, 1683
Sir Edmond Andros, Gov.	August 11, 1688
Francis Nicholson, Lieut.-Gov.	October 9, 1688
Jacob Leisler, Lieut.-Gov.	June 3, 1689
Henry Sloughter, Gov.	March 19, 1691
Richard Ingoldesby, Commander-in-Chief	July 26, 1691
Benjamin Fletcher, Gov.	August 30, 1692
Earl of Bellomont, Gov.	April 2, 1698
John Nanfan, Lieut.-Gov.	May 16, 1699
Earl of Bellomont, Gov.	July 24, 1700
Provincial Council	March 5 to May 19, 1701
John Nanfan, Lieut.-Gov.	May 19, 1701
Lord Cornbury, Gov.	May 3, 1702
Lord Lovelace, Gov.	December 18, 1708
Peter Schuyler, Pres. of Council	May 6, 1709
Richard Ingoldesby, Lieut.-Gov.	May 9, 1709
Gerardus Beekman, Pres. of Council	April 10, 1710
Robert Hunter, Gov.	June 14, 1710
Peter Schuyler, Pres. of Council	July 21, 1719
William Burnet, Gov.	September 17, 1720
John Montgomerie, Gov.	April 15, 1728
Rip Van Dam, Pres. of Council	July 1, 1731
William Cosby, Gov.	August 1, 1732
George Clarke, Pres. of Council	March 10, 1736
George Clarke, Lieut.-Gov.	October 30, 1736
George Clinton, Gov.	September 22, 1743

NOTES ON THE SECOND ENGLISH PERIOD.

Andros was Governor of New England, New York and New Jersey.

The Earl of Bellomont died March 5, 1701.

Before 1709 the administration of government, when the offices of Governor and Lieutenant-Governor were vacant, was vested in the Council, the right to preside being lodged in the eldest Councilor.

From 1702 to 1738 New York and New Jersey had a joint executive, and Lord Cornbury was the first joint incumbent.

John West, seventh Lord De La Warr, was appointed Governor in June, 1737, and resigned the title in September, 1737; but he never came to this country or qualified for the office.

Third English Period (Pre-Revolutionary).

Sir Danvers Osborne, Gov.	October 10, 1753
James De Lancey, Lieut.-Gov.	October 12, 1753
Sir Charles Hardy, Gov.	September 3, 1755
James De Lancey, Lieut.-Gov.	June 3, 1757
Cadwallader Colden, Pres. of Council	August 4, 1760
Cadwallader Colden, Lieut.-Gov.	August 8, 1761
Robert Monckton, Gov.	October 26, 1761
Cadwallader Colden, Lieut.-Gov.	November 18, 1761
Robert Monckton, Gov.	June 14, 1762
Cadwallader Colden, Lieut.-Gov.	June 28, 1763
Sir Henry Moore, Gov.	November 13, 1765
Cadwallader Colden, Lieut.-Gov.	September 12, 1769
Earl of Dunmore, Gov.	October 19, 1770
William Tryon, Gov.	July 9, 1771
Cadwallader Colden, Lieut.-Gov.	April 7, 1774
William Tryon, Gov.	June 26, 1775
James Robertson, Gov.	March 23, 1780
Andrew Elliott, Lieut.-Gov.	April 17, 1783

NOTES ON THE THIRD ENGLISH PERIOD.

Sir Danvers Osborne received his appointment as Governor of New York (in England), on August 1, 1753. He then sailed for America, arriving at the port of New York on October 7, 1753. He published his Commission as Governor and took the oath of office on October 10, 1753 (Wednesday).

On Friday, October 12, 1753, at 7 o'clock in the morning he was found in the garden of Mr. Murray, at whose house he was staying, strangled in his handkerchief, having committed suicide in a fit of insanity.

The above information is contained in a letter written by Lieut.-Gov. James De Lancey to the Lords of Trade, dated October 15, 1753.

Robertson and Elliott were Military Governors during the Revolutionary War, but were not recognized by the State of New York.

Government by the Provincial Congress.

Peter Van Brugh Livingston	May 23, 1775
Nathaniel Woodhull, Pres. *pro tem.*	August 28, 1775
Abraham Yates jr., Pres. *pro tem.*	November 2, 1775
Nathaniel Woodhull	December 6, 1775
John Haring, Pres. *pro tem.*	December 16, 1775
Nathaniel Woodhull	February 12, 1776
John Haring, Pres. *pro tem.*	June 19, 1776
Nathaniel Woodhull	July 9, 1776
Abraham Yates jr., Pres. *pro tem.*	August 10, 1776
Abraham Yates jr.	August 28, 1776
Peter R. Livingston	September 26, 1776
Abraham Ten Broeck	March 6, 1777
William Smith, Pres. *pro tem.*	April 9, 1777
Pierre Van Cortlandt, Vice-Pres.	April 11, 1777
Leonard Gansevoort, Pres. *pro tem.*	April 18, 1777
Pierre Van Cortlandt, Vice-Pres.	April 21, 1777
Abraham Ten Broeck	April 28, 1777
Pierre Van Cortlandt, Pres. Council Safety	May 14, 1777

State.

NAME.	Residence.	Elected.
George Clinton	Ulster Co.	July 9, 1777
John Jay	New York City	April, 1795
George Clinton	Ulster Co.	April, 1801
Morgan Lewis	Dutchess Co.	April, 1804
Daniel D. Tompkins	Richmond Co.	April, 1807
John Tayler	Albany	March, 1817
De Witt Clinton	New York City	1817
Joseph C. Yates	Schenectady	Nov. 6, 1822
De Witt Clinton	New York City	Nov. 3, 1824
Nathaniel Pitcher	Sandy Hill	Feb. 11, 1828
Martin Van Buren	Kinderbook	Nov. 5, 1828
Enos T. Throop	Auburn	Mar. 12, 1829
William L. Marcy	Troy	Nov. 7, 1832
William H. Seward	Auburn	Nov. 7, 1838
William C. Bouck	Fultonham	Nov. 8, 1842
Silas Wright	Canton	Nov. 5, 1844
John Young	Geneseo	Nov. 3, 1846
Hamilton Fish	New York City	Nov. 7, 1848
Washington Hunt	Lockport	Nov. 5, 1850
Horatio Seymour	Deerfield	Nov. 2, 1852
Myron H. Clark	Canandaigua	Nov. 7, 1854
John A. King	Queens Co.	Nov. 4, 1856
Edwin D. Morgan	New York City	Nov. 2, 1858
Horatio Seymour	Deerfield	Nov. 4, 1862
Reuben E. Fenton	Frewsburgh	Nov. 8, 1864
John T. Hoffman	New York City	Nov. 3, 1868
John A. Dix	New York City	Nov. 5, 1872
Samuel J. Tilden	New York City	Nov. 3, 1874
Lucius Robinson	Elmira	Nov. 7, 1876
Alonzo B. Cornell	New York City	Nov. 4, 1879
Grover Cleveland	Buffalo	Nov. 7, 1882
David B. Hill	Elmira	Jan. 6, 1885
Roswell P. Flower	New York City	Nov. 3, 1891
Levi P. Morton	Rhinecliff	Nov. 6, 1894
Frank S. Black	Troy	Nov. 3, 1896
Theodore Roosevelt	Oyster Bay	Nov. 8, 1898
Benj. B. Odell jr.	Newburgh	Nov. 6, 1900
Frank W. Higgins	Olean	Nov. 8, 1904
Charles E. Hughes	New York City	Nov. 6, 1906
Horace White	Syracuse	Oct. 6, 1910
John A. Dix	Thomson	Nov. 8, 1910
William Sulzer	New York City	Nov. 5, 1912
Martin H. Glynn	Albany	Oct. 17, 1913
Charles S. Whitman	New York City	Nov. 3, 1914
Alfred E. Smith	New York City	Nov. 5, 1918
Nathan L. Miller	Syracuse	Nov. 2, 1920
Alfred E. Smith	New York City	Nov. 7, 1922
F. D. Roosevelt	Hyde Park	Nov. 6, 1928

NOTES ON THE STATE PERIOD.

The Constitution of 1777 did not specify the time when the Governor should enter on the duties of his office. Gov. Clinton was declared elected July 9, and qualified on July 30. On the thirteenth day of February, 1787, an act was passed for regulating elections, which provided that the Governor and Lieutenant-Governor should enter on the

duties of their respective offices on the 1st of July after their election.

Taylor (1817) was Lieutenant-Governor and became acting Governor.

The Constitution of 1821 provided that the Governor and Lieutenant-Governor should, after the year 1823, take office on Jan. 1.

Pitcher (1828) was Lieutenant-Governor and became acting Governor.

Throop (1829) was Lieutenant-Governor and became Governor upon the resignation of Van Buren. He was elected, November, 1830, for a full term.

Cleveland (1882) resigned Jan. 6, 1885, to become President of the United States, and Hill, the Lieutenant-Governor, succeeded him as Governor, and was elected Nov. 6, 1885, for a full term.

Hughes (1906) resigned as Governor, Oct. 6, 1910, to become a Justice of the Supreme Court of the United States, and was succeeded as Governor by Lieutenant-Governor Horace White.

Glynn (1913) was Lieutenant-Governor and became Governor, Oct. 17, 1913, when Sulzer, who was impeached, was removed from office.

POWERS AND DUTIES OF THE GOVERNOR.

The following is the oath prescribed by law for the Governor of the State of New York on assuming office.

"I do solemnly swear, that I will support the Constitution of the United States and the Constitution of the State of New York, and that I will faithfully discharge the duties of the office of Governor, according to the best of my ability.

"And I do further solemnly swear, that I have not directly or indirectly paid, offered or promised to pay, contributed, or offered or promised to contribute, any money or other valuable thing as a consideration or reward for the giving or withholding a vote at the election at which I was elected to said office, and have not made any promise to influence the giving or withholding any such vote."

The executive power is vested in the Governor in accordance with the provisions of the Constitution and of the statutes.

The Governor is Commander-in-Chief of the military and naval forces of the State.

He acts as ex-officio member of various boards and commissions.

He is required to communicate by message to the Legislature at every session the condition of the State, and to recommend such matters to it as he may judge expedient.

He may convene the Legislature, or the Senate only, on extraordinary occasions.

The Governor shall cause to be kept in the Executive Chamber journals of the daily transactions of his office, files of all official records, together with statements of all applications for pardon, commutation or other executive clemency, and of his action thereon.

He is required to transact all necessary business with the officers of government, civil and military.

He shall expedite all such measures as may be resolved upon by the Legislature, and shall take care that the laws are faithfully executed.

The power to veto any bill passed by the Legislature is vested in the Governor.

The term of office of the Governor is two years, and he receives an annual salary of $25,000, and the use of a furnished executive residence.

He is authorized to appoint a counsel, a secretary, a military secretary, and such clerks and other assistants as may be necessary.

The Privy Seal is the Arms of the State surrounded by the inscription "State of New York—Executive Privy Seal."

UNITED STATES SENATORS FROM NEW YORK STATE, 1789-1926.

The State was not represented in the first session of the first Congress, which began at New York, April 6, 1789, and adjourned Sept. 29, 1789. The second session began at New York Jan. 4, 1790.

Name.	Residence.	Pol.	When Elected
Philip Schuyler	Albany	Fed.	1789, July 16
Rufus King	New York	Fed.	1789, July 16
Aaron Burr	New York	D.	1791, Jan. 19
Rufus King	New York	Fed.	1795, Jan. 27
John Laurance	New York	Fed.	1796, Nov. 9
Philip Schuyler	Albany	Fed.	1797, Jan. 24
John S. Hobart	Huntington	Fed.	1798, Jan. 11
William North	Duan'sb'gh	Fed.	1798, May
James Watson	New York	D.	1798, Aug. 17
Gouverneur Morris	Morrisania	Fed.	1800, April 3
John Armstrong	Rhinebeck	Fed.	1800, Nov. 6
John Armstrong	Rhinebeck	Fed.	1801, Jan. 27
DeWitt Clinton	Newtown	D.	1802, Feb. 9
Theodore Bailey	Po'keepsie	D.	1803, Feb. 1
John Armstrong	Rhinebeck	D.	1803, Dec.
John Smith	Br'khaven	D.	1804, Feb. 4
John Armstrong	Rhinebeck	D.	1804, Feb. 4
Samuel L. Mitchill	New York	D.	1804, Nov. 9
John Smith	Br'khaven	D.	1807, Feb. 3
Obadiah German	Norwich	D.	1809, Feb. 17
Rufus King	Jamaica	Fed.	1813, Feb. 2
Nathan Sanford	New York	D.	1815, Feb. 7
Rufus King	Jamaica	Fed.	1820, Jan. 8
Martin Van Buren	Kinderho'k	D.	1821, Feb. 6
Nathan Sanford	New York	D.	1826, Jan. 14
Martin Van Buren	Kinderho'k	D.	1827, Feb. 6
Charles E. Dudley	Albany	D.	1829, Jan. 15
William L. Marcy	Albany	D.	1831, Feb. 1
Silas Wright, Jr.	Canton	D.	1833, Jan. 4
Nath. P. Tallmadge	Po'keepsie	D.	1833, Feb. 5
Silas Wright, Jr.	Canton	D.	1837, Feb. 7
Nath. P. Tallmadge	Po'keepsie	D.	1840, Jan. 14
Silas Wright, Jr.	Canton	D.	1843, Feb. 7
H'y A. Foster	Rome	D.	1844, Nov. 30
Daniel S. Dickinson	Bing'mton	D.	1844, Nov. 30
Daniel S. Dickinson	Bing'mton	D.	1845, Jan. 18
John A. Dix	Albany	D.	1845, Jan. 18
Daniel S. Dickinson	Bing'mton	D.	1845, Feb. 6
William H. Seward	Auburn	Whig	1849, Feb. 9
Hamilton Fish	New York	Whig	1851, Mch. 16
William H. Seward	Auburn	Whig	1855, Feb. 3
Preston King	Ogd'nsburg	R.	1857, Feb. 5
Ira Harris	Albany	R.	1861, Feb. 3
Edwin D. Morgan	New York	R.	1863, Feb. 2
Roscoe Conkling	Utica	R.	1867, Jan. 16
Reuben E. Fenton	Jamest'wn	R.	1869, Jan. 20
Roscoe Conkling	Utica	R.	1873, Jan. 22
Francis Kernan	Utica	D.	1875, Jan. 21
Roscoe Conkling	Utica	R.	1879, Jan. 22
Thomas C. Platt	Owego	R.	1881, Jan. 20
Warner Miller	Herkimer	R.	1881, July 16
Elbridge G. Lapham	Can'dalgua	R.	1881, July 22
William M. Evarts	New York	R.	1885, Jan. 20
Frank Hiscock	Syracuse	R.	1887, Jan. 20
David B. Hill	Elmira	D.	1891, Jan. 21
Edward Murphy, Jr.	Troy	D.	1893, Jan. 17
Thomas C. Platt	Owego	R.	1897, Jan. 20
Chauncey M. Depew	New York	R.	1899, Jan. 18
Thomas C. Platt	Owego	R.	1903, Jan. 21
Chauncey M. Depew	New York	R.	1905, Jan. 18
Elihu Root	New York	R.	1909, Jan. 19
James A. O'Gorman	New York	D.	1911, Mch. 31
J. W. Wadsworth, Jr.	Geneseo	R.	1914, Nov. 3
William M. Calder	Brooklyn	R.	1916, Nov. 7
J. W. Wadsworth, Jr.	Geneseo	R.	1920, Nov. 2
Royal S. Copeland	New York	D.	1922, Nov. 7
Robert F. Wagner	New York	D.	1926, Nov. 2
Royal S. Copeland	New York	D.	1928, Nov. 6

Names in *Italics* in the above table are those of Senators who were appointed by the Governor in recess of the Legislature and whose successors were chosen at the next session of that body.

Senators were chosen by the Legislature prior to 1914; since then, by popular vote, at a general election.

Senators who resigned before their terms expired were: King, Laurance, Schuyler (2d term), Hobart, North, Watson, Armstrong (2d term), Clinton, Bailey, Armstrong (4th term), King (2d term), King (3d term), Van Buren (2d term), Marcy, Tallmadge (2d term), Wright, (3d term), Conkling (3d term), Platt (1st term).

YIELD OF THE NEW YORK STATE INCOME TAX

(Calendar years; yield shown for each year is on income of preceding year.)

Year.	Returns.		Tax Yield.	Year.	Returns.		Tax Yield.
	No. tax.	*Tot. No.*	*Dollars.*		*No. tax.*	*Tot. No.*	*Dollars.*
1920	618,595	745,355	37,182,974	1925	843,157	1,131,303	34,638,316
1921	917,908	1,135,393	34,964,420	1926	547,919	905,968	41,484,304
1922	812,300	1,085,185	30,026,829	1927	537,483	724,927	54,503,810
1923	823,316	1,081,853	37,809,135	1928	509,788	719,165	63,964,993
1924	830,671	1,228,771	27,507,543				

MAYORS OF THE CITY OF NEW YORK.

	Mayors.	Terms.		Mayors.	Terms.		Mayors.	Terms.
1	Thomas Willett...	1665	34	Johannes Jansen..	1725-1726	67	William V. Brady.	1847-1848
2	Thomas Delavall..	1666	35	Robert Lurting...	1726-1735	68	W. F. Havemeyer.	1848-1849
3	Thomas Willett...	1667	36	Paul Richard.....	1735-1739	69	Caleb S. Woodhull	1849-1851
4	C. Steenwyck.....	1668-1670	37	John Cruger, Sr...	1739-1744	70	A. C. Kingsland...	1851-1853
5	Thomas Delavall..	1671	38	Stephen Bayard...	1744-1747	71	J. A. Westervelt...	1853-1855
6	Matthias Nicolls..	1672	39	Edward Holland..	1747-1757	72	Fernando Wood...	1855-1858
7	John Lawrence....	1673	40	John Cruger, Jr...	1757-1766	73	Daniel F. Tiemann	1858-1860
8	William Dervall...	1675	41	Whitehead Hicks..	1766-1776	74	Fernando Wood...	1860-1862
9	Nicholas de Meyer	1676	42	D. Matthews, Tory	1776-1784	75	George Opdyke...	1862-1864
10	S. van Cortlandt..	1677	43	James Duane.....	1784-1789	76	C. G. Gunther....	1864-1866
11	Thomas Delavall..	1678	44	Richard Varick...	1789-1801	77	John T. Hoffman..	1866-1868
12	Francis Rombouts.	1679	45	Edward Livingston	1801-1803	78	T. Coman (Acting)	1868
13	William Dyre.....	1680-1681	46	De Witt Clinton..	1803-1807	79	A. Oakey Hall....	1869-1872
14	C. Steenwyck.....	1682-1683	47	Marinus Willett...	1807-1808	80	W. F. Havemeyer.	1873-1874
15	Gabriel Minville..	1684	48	De Witt Clinton..	1808-1810	81	S.B.H.Vance(Act.)	1874
16	Nicholas Bayard..	1685	49	Jacob Radcliff....	1810-1811	82	Wm. H. Wickham..	1875-1876
17	S. van Cortlandt..	1686-1687	50	De Witt Clinton..	1811-1815	83	Smith Ely.....	1877-1870
18	Peter Delanoy....	1689-1690	51	John Ferguson....	1815	84	Edward Cooper...	1879-1888
19	John Lawrence....	1691	52	Jacob Radcliff....	1815-1818	85	William R. Grace..	1881-1882
20	A. De Peyster....	1692-1695	53	C. D. Colden.....	1818-1821	86	Franklin Edson...	1883-1884
21	William Merritt..	1695-1698	54	Stephen Allen.....	1821-1824	87	William R. Grace..	1885-1886
22	J. De Peyster.....	1698-1699	55	William Paulding..	1825-1826	88	Abram S. Hewitt..	1887-1888
23	David Provost....	1699-1700	56	Philip Hone.....	1826-1827	89	Hugh J. Grant....	1889-1892
24	Isaac de Reimer...	1700-1701	57	William Paulding..	1827-1829	90	Thomas F. Gilroy.	1893-1894
25	Thomas Noell....	1701-1702	58	Walter Bowne....	1829-1833	91	William L. Strong.	1895-1897
26	Philip French.....	1702-1703	59	Gideon Lee.....	1833-1834	92	R. A. Van Wyck..	1898-1901
27	William Peartree..	1703-1707	60	C. W. Lawrence...	1834-1837	93	Seth Low.....	1902-1903
28	Ebenezer Wilson..	1707-1710	61	Aaron Clark.....	1837-1839	94	G. B. McClellan...	1904-1909
29	J. van Cortlandt..	1710-1711	62	Isaac L. Varlan...	1839-1841	95	William J. Gaynor.	1910-1913
30	Caleb Heathcote..	1711-1714	63	Robert H. Morris..	1841-1844	96	Ardolph L. Kline..	1913
31	John Johnson.....	1714-1719	64	James Harper.....	1844-1845	97	John P. Mitchel...	1914-1917
32	J. van Cortlandt..	1719-1720	65	W. F. Havemeyer.	1845-1846	98	John F. Hylan....	1918-1925
33	Robert Walters...	1720-1725	66	Andrew H. Mickle	1846-1847	99	James J. Walker...	1926-

Robert A. Van Wyck was the first mayor of Greater New York, formed by the consolidation of the several counties into five boroughs of a united municipality, effective Jan. 1, 1898.

New York County became Manhattan Borough, Kings County became Brooklyn Borough; and that part of New York County just north of the Harlem River (the upper slice of which had been taken from Westchester County) became Bronx Borough; Queens County became Queens Borough; and Richmond County (Staten Island) became Richmond Borough.

The several county boards of supervisors were merged into a common Board of Aldermen.

The Board of Aldermen has since become (under the so-called Home Rule Act) the Lower Branch of the Municipal Assembly, whose Upper Branch was then made to consist of the Board of Estimate and Apportionment.

These two bodies constitute the local legislature, coinciding in power with the Select and Common Councils in Philadelphia and some other cities.

MUSEUMS IN NEW YORK CITY.

American Academy of Arts and Letters—Broadway, between 155th and 156th Sts. Art exhibitions, Terrace entrance, weekdays, 10 A.M., to 5 P.M.; Sundays and holidays, 2 P.M., to 5 P.M. Free.

American Museum of Natural History—77th St. between Columbus Ave. and Central Park West. Open, free, every day; weekdays, 9 A. M. to 5 P. M.; Sundays, 1 P. M. to 5 P. M.

American Museum of Safety—120 E. 28th St.

American Numismatic Society—Broadway and 156th St. Open daily (except Mondays) 2 P. M. to 5 P. M.

Aquarium—Battery Park. Open; free, every day; April-Sept., 9 A. M. to 5 P. M.; Oct.-March, 9 A. M. to 4 P. M.

Art, Modern, Museum of—Fifth Ave. and 57th St.

Botanic Garden, Brooklyn—Flatbush Ave. and Malbone St. (Empire Boulevard). Open daily, free.

Botanic Garden, N. Y.—Bronx Park, north of Pelham Parkway. Open daily, free.

Brooklyn Institute of Arts and Sciences, Central Museum—Eastern Parkway and Washington Ave. Open daily, weekdays, 9 A. M. to 5 P. M.; Sundays, 2 P. M. to 6 P. M. Free (except Mondays and Tuesdays, 25c.). Children's Museum, 185 Brooklyn Ave. Free. Open daily, 10 A. M. to 5 P. M.; Sundays, 2 P. M. to 5 P. M.

Dyckman House—Broadway and 204th St. Open daily, 10 A. M. to 5 P. M. (except Sundays and Mondays, 1 P. M. to 5 P. M.).

Fraunces Tavern—Broad and Pearl Sts. Museum of Revolutionary relics and paintings. Open 9 A. M. to 4 P. M. every day except Sunday. Free.

Gracie Mansion—Facing East River, between E. 88th and E. 89th Sts. Opened March 21, 1927, as the Museum of the City of New York. Former home of Archibald Gracie, a merchant, who bought it in 1798 from the family of Jacob Walton. Open daily, 10 A. M. to 4 P. M.; Sundays and holidays, 2 P. M. to 4 P. M.

Grand Central Art Galleries—Sixth floor, Grand Central Terminal. Open daily, 9 A. M. to 6 P. M. Free.

Hispanic Society of America—Museum and library, 156th St., west of Broadway. Open 10 A. M. to 5 P. M. daily; Sunday, 1 P. M. to 5 P. M. Reading Room open 1 P. M. to 4.45 P. M. daily, except Sunday and Monday.

Jumel Mansion (Washington's Headquarters)—Edgecombe Ave. and 160th St. Free. Open daily and Sunday, 9 A. M. to 5 P. M.

Metropolitan Museum of Art—Fifth Ave. and 80th-84th St. Open, 10 A. M. to 5 P. M., the year through, except Saturdays, Sundays and holidays, when the closing hour will be 6 P. M. The opening hour on Sundays is 1 P. M. Free daily (except Mondays and Fridays, 25c.).

Museum of the American Indian, Heye Foundation—Broadway and 155th St. Free. Open daily, 10 A. M. to 5 P. M. (except Sundays and holidays, 1 P. M. to 5 P. M.).

Museum of the Peaceful Arts—24 W. 40th St. Open 10 A. M. to 5 P. M., except Sundays and holidays. Free.

New York Historical Society and Museum—Central Park West and 77th St. Open week days 9 A. M. to 5 P. M., and on holidays, 1 to 5 P. M. Admission free. Closed Christmas, New Years, July 4 and Thanksgiving; open on other holidays, 1 P. M. to 5 P. M.

Poe Cottage—Poe Park, Kingsbridge Road and Grand Boulevard, Bronx. Open daily.

Roerich Museum—310 Riverside Drive. Paintings and other creative arts.

Roosevelt House—28 E. 20th St. Open week days, 10 A. M. to 5 P. M.; open Sundays, 1 P. M. to 5 P. M. Admission 25 cents, Saturdays and Sundays free. Free at all times to school children with teachers.

The Cloisters—698 Fort Washington Ave. 10 A. M. to 5 P. M.; Sundays, 1 P. M. to 6 P. M. Closed at dusk during the Winter. Admission free, except Mondays and Fridays, 25 cents.

Van Cortlandt House—Van Cortlandt Park, Broadway and 242d St., Bronx. Free (except Thursday, 25c.). Open daily, 10 A. M. to 5 P. M. (Sundays, 2 P. M. to 5 P. M.).

Washington Headquarters—West 160th St., near Amsterdam Ave. Open 9 A. M. to 5 P. M. Free.

Zoo, Bronx—Bronx Park. Open daily, 10 A. M. to half hour before sunset. Free (except Mondays and Thursdays, 25c.).

Zoo, Brooklyn—Prospect Park. Free. Open daily.

Zoo, Central Park—Fifth Ave. and 63d St. Free, daily.

Government of the City of New York.

BOARD OF ESTIMATE AND APPORTIONMENT (UPPER BRANCH MUNICIPAL ASSEMBLY).

Official Title.	Name.	Politics.	Salary.	Length of Term.	Term Expires.
Mayor	James J. Walker	Dem.	$25,000	4 years	Dec. 31, 1933
Comptroller	Charles W. Berry	Dem.	25,000	4 years	Dec. 31, 1933
President Board of Aldermen	Joseph V. McKee	Dem.	15,000	4 years	Dec. 31, 1933
Borough President of Manhattan	Julius Miller	Dem.	15,000	4 years	Dec. 31, 1933
Borough President of Bronx	Henry Bruckner	Dem.	15,000	4 years	Dec. 31, 1933
Borough President of Brooklyn	James J. Byrne	Dem.	15,000	4 years	Dec. 31, 1933
Borough President of Queens	George U. Harvey	Rep.	15,000	4 years	Dec. 31, 1933
Borough President of Richmond	John A. Lynch	Dem.	15,000	4 years	Dec. 31, 1933

The Board of Estimate and Apportionment has its headquarters at the Municipal Building. The Mayor has 3 votes; Pres. Bd. Aldermen, 3; Boro. Presidents, Manhattan and Brooklyn, 2 each; Boro. Presidents, Bronx, Queens, and Richmond, 1 each.

The Board of Estimate prepares the yearly city budget for the Board of Aldermen, which can reduce but not increase the budget. The Board of Estimate has power to grant franchises and aslo to issue bonds for public improvements.

BOARD OF ALDERMEN (LOWER BRANCH, MUNICIPAL ASSEMBLY).

District.	Name.	Polit.	District.	Name.	Polit.	District.	Name.	Polit.
Manhat.: 1	M. F. Tanahey	Dem.	23	J. R. Smith	Dem.	45	J. B. Allen	Dem.
2	M. Graubard	Dem.	24	C. J. McGillick	Dem.	46	Howard Fenn	Dem.
3	E. J. Sullivan	Dem.	Bronx: 25	E. W. Curley	Dem.	47	G. Hartung	Dem.
4	M. W. Stand	Dem.	26	T. J. McDonald	Dem.	48	J. Cashmore	Dem.
5	J. J. Mahoney	Dem.	27	J. J. Hanley	Dem.	49	J. Reich	Dem.
6	Saul Fassler	Dem.	28	W. P. Sullivan	Dem.	50	W. R. Hart	Dem.
7	W. F. Hagan	Dem.	29	P. Donovan	Dem.	51	J. J. McCusker	Dem.
8	L. J. Wronker	Dem.	30	J. E. Kinsley	Dem.	52	P.J.McGuinness	Dem.
9	D. J. Mahon	Dem	31	Max Gross	Dem	53	G. Hilkemeier	Dem.
10	J. A. Hatch	Rep.	32	A. J. Williams	Dem.	54	S. A. Rudd	Dem.
11	Morton Moses	Dem.	B'klyn: 33	P. J. McCann	Dem.	55	Geo. H. Ott	Dem.
12	J. J. Barrett jr.	Dem.	34	F. D. McGarey	Dem.	56	J. J. Morris	Dem.
13	P. S. Dowd	Dem.	35	J. S. Dermody	Dem.	Queens: 57	J. J. Lenihan	Dem.
14	John F. Carroll	Dem.	36	F. Cunningham	Dem.	58	T. J. O'Conell	Dem.
15	J. C. Baldwin 3d	Rep.	37	J. J. Molen	Dem.	59	Wm. Buss	Rep.
16	E. Cassidy	Dem.	38	W. O'Reilly	Dem.	60	C. W. Posthauer	Dem.
17	W. Solomon	Dem.	39	T. G. Ryan	Dem.	61	B. Schwab	Dem.
18	T. J. Sullivan	Dem.	40	R. J. Tonry	Dem.	62	C.Deutschmann	Dem.
19	F. R. Moore	Rep.	41	J. F. Kiernan	Dem.	Rich'nd: 63	Denis Corcoran	Dem.
20	E. T. Kelly	Dem.	42	W. L. Weber	Dem.	64	R. Kaltenmeier	Dem.
21	J. C. Hawkins	Rep.	43	J. J. Campbell	Dem.	65	J. R. Dalton	Dem.
22	J. B. Henrich	Dem.	44	V. P. Sahner	Dem.			

The *City Clerk*, Michael J. Cruise ($10,000), term six years, is appointed by the Board of Aldermen.

BOROUGH OFFICERS.

(City Hall, Manhattan; others, Borough Halls.)

Manhattan—*President of the Borough*—Julius Miller; *Commissioner of Public Works*—Joseph Johnson; *Assistant Commissioner of Public Works*—H. Warren Hubbard; *Secretary of the Borough*—Eugene F. McLaughlin; *Assistant to the President*—Samuel Weintraub; *Chief Engineer*—Clifford M. Pinckney; *Supt. Public Buildings and Offices*—John F. Plunkett; *Supt. of Buildings*—Charles Brady; *Secretary, Bur. of Buildings*—Louis Frank.

Bronx—*President of the Borough*—Henry Bruckner; *Commissioner of Public Works*—William J. Flynn; *Secretary of the Borough*—Wm. J. McKeown.

Brooklyn—*President of the Borough*—James J. Byrne; *Commissioner of Public Works*—Henry Hesterberg; *Secretary of the Borough*—Agnes Leonard Ward; *Supt. of Buildings*—Thomas P. Flanagan; *Supt. of Highways*—Jas. J. Heffernan; *Chief Engineer of Highways*—Willis R. Tenney.

Queens—*President of the Borough*—George U. Harvey; *Commissioner of Public Works*—John J. Halleran; *Borough Secretary*—Frederick Sasse.

Richmond—*President of the Borough*—John A. Lynch; *Commissioner of Public Works*—David S. Rendt.

DEPARTMENTS AND BUREAUS OF THE CITY GOVERNMENT.

Accounts—*Commissioner*, James A. Higgins ($10,000). *Deputies* ($7,000 each)—Edward H. Hayes (C. P. A.); Edward F. Bennett; appointed by the Mayor; force consists of several deputies and force of accountants. The duty of the bureau is to investigate the various departments and bureaus.

Art Commission, Municipal.—Headquarters, City Hall; consists of the Mayor, the Presidents of the Metropolitan Museum of Art, New York Public Library, Brooklyn Institute of Arts and Sciences (or trustees appointed as their representatives) and six members appointed by the Mayor at the nomination of the Fine Arts Federation, one of whom must be an architect, one a painter, one a sculptor, and three must be laymen. The Commission passes on all monuments and statues and the like.

Budget—Director of.

Director—Charles L. Kohler ($12,000).

Civil Service Commission.

(Municipal Building, Manhattan.)

President—Abr. Kaplan ($8,500). *Commissioners* ($7,500 each)—John J. Keller and Ferdinand Q. Morton. *Secretary*—Martin A. Healy. *Assistant Secretary*, Joseph F. McDonald. *Director of Examinations*—Thomas C. Murray, *Chief Clerk*—George H. Eberle.

Correction—Department of.

(Municipal Building, Manhattan.)

Commissioner—Richard C. Patterson, Jr. ($10,000) *1st Deputy Commissioner*—Robert L. Tudor ($7,000); *2d Deputy Commissioner*—Isaac Goldberg ($6,500). And a force of aids.

Manhattan—*City Prison* (Tombs) is at Centre and Franklin Sts. The *Penitentiary* and *Workhouse* are on Welfare Island, East River. The *Municipal Farm* is on Riker's Island, Upper East River. The *Reformatory Prison* is on Hart's Island. *District Prisons*—Office, 317 W. 53d St.; (2d) 10th St. and 6th Av.; (3d) 2d St. and 2d Av.; (4th) 153 E. 57th St.; (5th) 121st St. and Sylvan Pl.; (6th) 161st St. and Brook Av.; (7th) 317 W. 53d St.; (8th) 181st St. and Boston Rd.; (12th) 1130 St. Nicholas Av.

Brooklyn—*City Prison* is at No. 149 Ashland St.

Queens—*City Prison* is in rear of the Court House, Long Island City.

New Hampton Farms (N. Y. C. Reformatory) is at New Hampton, Orange County, N. Y.

Women's Farm Colony is at Greycourt, New York.

Docks—Department of.

(Pier A, North River.)

The *Commissioner*, Michael Cosgrove ($10,000), is appointed by the Mayor. *Director of the Port*—John M. Emery.

Education—Department of.

(Manhattan, Park Ave. and 58th St., Volunteer 6600; Brooklyn, 131 Livingston St., Main 5580)

President—Geo. J. Ryan, of Queens. *Vice President*—Vacant. *Other members of the Board*—Mrs. Margaret McAleenan, Manhattan; William J. Weber, Bronx; Christopher C. Mollenhauer, Arthur S. Somers, Brooklyn; Ralph R. McKee, S. I. *Secretary*—Jos. Miller, Jr. ($12,500). *Assistant Secretary*—Chas. Herr ($7,500). *Supt. of School Buildings*—Walter C. Martin ($25,000). *Supt. of School Supplies*—Patrick Jones ($12,000). *Supt. of Schools*—William J. O'Shea ($25,000).

The Board of Education consists of seven members appointed for seven years each by the Mayor, and removable by the Mayor on charges after a hearing. They serve without pay.

There are fifty-four *Local School Boards*, with five members in each, serving five years each (no salary), and appointed by the respective Borough Presidents. They look after the schools in a detailed way, subject to the Board of Education.

The *Board of Superintendents* consists of the Superintendent of Schools and a number of Associate Superintendents.

The Superintendent of Schools is the chief executive officer of the Department of Education.

Elections—Board of.

(General and Manhattan, Municipal Building; Bronx, 442 East 149th St.; Brooklyn, Rm. 600, Municipal Building; Queens, 89-31 161st St., Jamaica; Richmond, Borough Hall, New Brighton.

President—John R. Voorhis. *Other members*—Valentine J. Hahn, *Secretary*; Moses J. Wafer, Jacob A. Livingston. Members' salary, each, $8,000. *Chief Clerk*—S. Howard Cohen. *Dep. Chief Clerk*—George W. Conklin.

The members of the Board of Elections are appointed for two years by the Board of Aldermen, upon the recommendation of the County Committee of the two dominant political parties in the state as constituted and organized in the Counties of New York and Kings. It is, by law, a bi-partisan body.

Estimate and Apportionment—Board of.

Headquarters—Municipal Building. *Secretary*—Peter J. McGowan.

Finance—Department of.

Headquarters—Municipal Building.

City Comptroller—Charles W. Berry ($25,000). *Chief Accountant*—Duncan MacInnis ($10,500); *City Collector*—Wm. Reid, jr. ($7,500).

Bureau of City Collections, Taxes, Assessments, and Arrears, and Water Taxes and Rent—Manhattan, Municipal Building; Bronx, 177th St. and Arthur Ave.; Brooklyn, Municipal Building, Brooklyn; Queens, 5 Court Square, L. I. City; Richmond, Borough Hall, St. George.

The *City Chamberlain*, Edward J. Flynn, Municipal Building ($12,000), is appointed by the Mayor.

Fire Department.

(Manhattan, Munic. Bldg.; Brooklyn, 365 Jay St.)

Commissioner, John J. Dorman, appointed by the Mayor ($10,000).

Deputy Fire Commissioners, Joseph M. Hannon, Manhattan, Bronx and Richmond; Charles W. Jannicky, Brooklyn and Queens. *Chief*—John Kenlon. *Deputy Chief*—Brooklyn and Queens, John Davin. *Chief Fire Marshal*—Thomas P. Brophy.

Health—Department of.

(Manhattan, 505 Pearl St., general headquarters; Bronx, 464 E. Tremont Ave.; Brooklyn, Willoughby and Fleet Sts.; Queens, 165-08 Jamaica Ave., Jamaica; Richmond, Terminal Bldg., St. George, S. I.)

Commissioner, appointed by the Mayor, Dr. Shirley W. Wynne ($10,000). *Deputy Commissioner*—Dr. Herman T Peck ($7,000). *Sanitary Superintendent*—Dr. W. H. Pound ($7,000). *Secretary to the Department*—Bernard F. Plunkett ($7,000).

The *Board of Health* consists of the Commissioner of Health (President), the Commissioner of Hospitals, the Commissioner of Sanitation Dr. William Schroeder, Jr., and two members appointed by the Mayor. It has a *Sanitary Code* of its own making, to which the city is subject, as regards foods, drugs, noises, occupations, etc.

Hospitals, Department of.

Commissioner, appointed by Mayor; and several deputies.

Law Department.

(Manhattan, Municipal Building; Brooklyn, Municipal Building; Queens, Municipal Building). *Corporation Counsel*—Arthur J. W. Hilly ($15,000). *Secretary*—Joseph H. Johnston ($7,500).

Marriage License Bureau.

(Municipal Building in Manhattan and Borough Halls in other Boroughs.)

Parole Commission.

(Municipal Building, Manhattan.)

Chairman—John C. Maher ($8,500). *Members*—Rose M. Reese and Milton Silbermann. The *ex-officio* members are the Commissioner of Correction and the Police Commissioner. *Secretary*—T. R. Minnick. *Chief Parole Officer*—Jas. J. Flynn.

Parks—Department of.

(Manhattan, Arsenal Bldg., Central Park, Brooklyn, Litchfield Mansion, Prospect Park; Bronx, Zbrowski Mansion, Claremont Park; Queens, The Overlook, Forest Park, Richmond Hill; Richmond, Borough Hall, St. George.)

The *President of the Board* and Commissioner for Manhattan, and the commissioners for each borough are appointed by the Mayor. *Secretary to the Board*—Willis Holly.

Plant and Structures—Department of.

(Offices: Manhattan, Municipal Building.) (Formerly the Department of Bridges.)

Commissioner, appointed by the Mayor, Albert Goldman ($10,000). *Deputies*—Martin J. Healy, John Mara, and Peter A. McArdle ($7,000 each). *Executive Officer*—Francis J. Ryan ($6,500). *Chief Engineer*—Edw. A. Byrne ($16,000). *Chief Engineer of Ferries*—Calvin I. Crocker ($9,500); *Secretary to Department*—Robert H. Hibbard ($6,250).

Police Department.

(Manhattan, 240 Centre St.; Brooklyn, 485 Bergen St.; Queens, 91st Ave. and 168th St., Jamaica; Bronx, 1925 Bathgate Ave.; Richmond, 78 Richmond Terrace, St. George.)

The Commissioner of Police ($10,000)—Grover A. Whalen. *Deputies*—Philip D. Hoyt, Felix A. Muldoon, John A. Leach, Nelson Ruttenberg, James P. Sinnott. Commissioner is appointed by the Mayor. *Chief Inspector*—John O'Brien. *Chief Clerk*—Grant Crabtree.

Public Service Commission—(*$15,000* Each).

(120 Broadway, Manhattan.)

This is a part of the State and not of the City Government and is put here for reference.

Chairman—William A. Prendergast ($15,000); William R. Pooley, George R. Lunn, George R. Van Namee, and Neal Brewster. *Secretary*—Francis E. Roberts, Albany ($6,500). *Counsel*—Charles G. Blakeslee ($15,000). *Chief Engineer*—C. R. Vanneman. Albany ($9,000).

Purchase—Department of.

Commissioner—Peter J. Dooling ($12,000); *Deputy Commissioners*—James P. Donohue, Joseph A. Greenfield. *Secretary*—Bedford Allixon.

Public Service—Department of—($15,000 Each)

Metropolitan Division (Transit Commission)

(270 Madison Avenue, Manhattan.)

Chairman—William G. Fullen, Leon G. Godley, Chas. C. Lockwood. *Secretary*—James B. Walker ($6,500). *Chief Engineer*—William C. Lancaster. *Counsel*—George H. Stover.

Public Welfare—Department of.

(Manhattan and Bronx, Municipal Building, Manhattan; Brooklyn and Queens, Municipal Bldg., Brooklyn; Richmond, Borough Hall, St. George.)

Commissioner—Vacant ($10,000) is appointed by the Mayor. *Secretary*—I. James Brody.

Sanitation—Board of (takes place of old Dept. of Street Cleaning.)

Standards and Appeals—Board of.

(Manhattan, Municipal Building.)

Chairman—William E. Walsh ($12,500). *Other Commissioners*—Henry L. Connell, James P. Holland, John Guilfoyle, and Fire Chief John Kenlon *Secretary*—William J. O'Gorman.

Taxes and Assessments—Department of.

Manhattan, Municipal Building; Bronx, Tremont and Arthur Aves.; Brooklyn, 503 Fulton St.; Queens, Court Square, Long Island City; Richmond, Borough Hall.)

The *Board*—James J. Sexton, President ($12,000). *Commissioners*—Richard H. Williams, Thomas Kenny, Earl H. Miller, George Henry Payne, Hyman Turchin and John R. Crews ($9,000 each). *Secretary*—Isidor Greenbaum.

Tenement House Department.

(Manhattan and Richmond, Municipal Building; Bronx, E. Tremont and Arthur Aves.; Brooklyn and Queens, Municipal Building, Court Street, Brooklyn.

Commissioner—William F. Deegan ($10,000), is appointed by the Mayor.

Transportation—Board of.

(49 Lafayette St., Manhattan.)

Chairman—John H. Delaney. *Commissioners*—Daniel L. Ryan; Frank X. Sullivan. *Secretary*—Francis J. Sinnott. Salaries, $15,000 each. *Chief Engineer*—Robert Ridgway.

Water Supply—Board of.

(Municipal Building, Manhattan.)

President—George J. Gillespie ($12,000). *Other members* ($12,000 each)—P. F. Donohue, W. F. Delaney. *Secretary*—Benjamin F. Einbigler. *Chief Engineer*—Thaddeus Merriman. *Consulting Engineer*—J. Waldo Smith.

Water Supply, Gas and Electricity—Dept. of.

(Manhattan, Municipal Building; Bronx, Tremont and Arthur Aves.; Brooklyn, Municipal Bldg., Queens, Anable St., L. I. City; Richmond, Borough Hall.)

Commissioner—John J. Dietz ($10,000), appointed by the Mayor.

COUNTY OFFICES IN THE CITY OF NEW YORK.

County Clerk.

(Manhattan, County Court House, Court House Square; Bronx, 161st Street and Third Avenue; Brooklyn, Hall of Records; Queens, 364 Fulton Street, Jamaica; Richmond, Court House, St. George.)

New York County—Daniel E. Finn, D. ($15,000).
Bronx County—Lester W. Patterson, D. ($10,000). *Chief Clerk*—James Cunnion.
Kings County—Fred G. Lemmermann, D. ($12,000).
Queens County—Edw. W. Cox, D. ($10,000). **Deputy**—John Theofel.
Richmond County—James L. Vail, ($7,000). He is also County Register.

District Attorney.

(Manhattan, 137 Centre St.; Bronx, Arthur and Tremont Avenues; Brooklyn, 66 Court Street; Queens, Court House, Long Island City; Richmond, Borough Hall, St. George.)

New York County—Thomas C. T. Crain, D. ($20,000).
Bronx County—C. B. McLaughlin, D. ($20,000).
Kings County—Vacant ($20,000).
Queens County—James T. Hallinan, D. ($20,000).
Richmond County—Albert C. Fach ($7,500).

Jurors—Commissioner of.

(Manhattan, Hall of Records; Bronx, 1918 Arthur Avenue; Brooklyn, 635 Fulton Street; Queens, Court House, Long Island City; Richmond, New County Court House, St. George.)

New York County—Frederick O'Byrne ($8,000). Bronx County—John A. Pachler (Acting) ($5,000). Kings County—Thos. J. Drennan ($7,000). Queens County—William B. Hazelwood ($6,000). Richmond County—E. I. Miller ($6,000).

Public Administrator.

(Manhattan, Hall of Records; Bronx, 2808 Third Avenue; Brooklyn, 504 Municipal Bldg., Queens, 90–34 161st St., Jamaica; Richmond, Hugot Bldg., St. George.)

Manhattan—James F. Egan, $10,000; Bronx—James W. Brown ($4,500). Kings—Frank V. Kelly ($5,500). Queens—R. White ($3,500). Richmond—J. W. Hennessey (fees).

County Register.

(Manhattan, Hall of Records; Bronx, Tremont and Arthur Avenues; Brooklyn, Hall of Records; Richmond, New County Court House, St. George, S. I.)

New York County—Rebecca F. Hoffman, D. ($12,000).
Bronx County—Louis A. Schoffel, D. ($10,000). *Chief Deputy Register*—Thos. A. Maher ($4,500). *Chief Clerk*—John E. McWilliams.
Kings County—Jas. A. McQuade, D. ($12,000).
Queens County—Peter J. McGarry, D. ($10,000).

Sheriff.

(Manhattan, Hall of Records; Bronx, 1932 Arthur Avenue; Brooklyn, 387 Fulton Street; Queens, Court House, Long Island City; Richmond, Court House, New Brighton.)

New York County—Thomas M. Farley, D. ($15,000).
Bronx County—Robert L. Moran, D. ($10,000).
Kings County—Aaron L. Jacoby, D. ($15,000).
Queens County—Samuel J. Burden, D. ($10,000).
Richmond County—William S. Hart, D. ($6,000).

Surrogate.

(Manhattan, Hall of Records, Centre and Chambers Streets; Bronx, 1918 Arthur Ave.; Brooklyn, Hall of Records, Joralemon Street and Court Square (Boerum Pace); Queens, 364 Fulton Street, Jamaica; Richmond, Court House, St. George.)

New York County ($22,500 each)—J. P. O'Brien and Jas. A. Foley. *Chief Clerk*—Richard Cummins ($15,000). *Clerk of the Court*—Martin G. McCue ($9,000).
Bronx County—Richard S. Newcombe, D. ($22,500).
Kings County—Geo. A. Wingate ($22,500). *Chief Clerk*—J. H. McCooey ($10,500). *Probate Clerk*—J. V. Cain ($7,200). *Accounting Clerk*—John R. McDonald ($7,200).
Queens County—Richard S. Newcombe, D. ($22,500).
Richmond County—Thomas F. Cosgrove, R. ($22,500).

COURTS IN THE CITY OF NEW YORK.

UNITED STATES COURTS.

The Federal courts for the Southern District of New York meet in the old Post Office Building, at Park Row and Broadway.

Clerk of the Court—Alex Gilchrist, Jr. *Deputies*, Charles Weiser, Frank Ferdon, and Geo. J. H. Folmer.

Southern District Court Judges (New York, Bronx, Westchester, Columbia, Dutchess, Greene, Orange, Putnam, Rockland, Sullivan, and Ulster Counties)—John C. Knox, William Bondy, Thomas D. Thacher, John W. Woolsey, Henry W. Goddard, Frank J. Coleman, Francis G. Coffey, and Alfred C. Coxe.

The Federal courts for the Eastern District of New York meet in the Post Office Building, Washington and Johnson Streets, Brooklyn, N. Y.

Clerk of the Court—Percy Gilkes.

Eastern District Court Judges (Kings, Queens, Nassau, Suffolk, and Richmond Counties)—Marcus B. Campbell, Robert A. Inch, Grover M. Moscowitz, Clarence G. Galston, and Mortimer W. Byers.

Circuit Court Judges (New York, Connecticut and Vermont)—Martin T. Manton, Learned Hand, Thos. W. Swan, Augustus N. Hand, and Harris B. Chase. (Circuit Court Judges sit in Manhattan.)

United States District Attorneys—Manhattan, Southern District, Chas. H. Tuttle; Brooklyn, Eastern District, Harold W. Ameli.

SUPREME (STATE) COURTS.

For a list of the Justices of the Supreme Court see page 539.

The Supreme Courts in Manhattan and the Bronx meet in the new monumental structure on Centre Street.

The Supreme Courts in Brooklyn, Long Island and Staten Island meet in the Court House on Joralemon Street, opposite the Borough Hall.

CITY COURT.

Headquarters—**Manhattan**, 32 Chambers St.; **Bronx**, 161st St. and St. Ann's Ave.; **Brooklyn**, Municipal Bldg.; **Queens**, County Court House, Long Island City; **Richmond**, County Court House, St. George.

The Chief Justice receives $18,000 a year; the Associate Justices, $17,500. Their terms expire Dec. 31 of year named.

Chief Clerk, Harry C. Perry; *Deputy*, Charles H. Hussey.

The court is composed as follows:

Manhattan—Edward B. La Ferta (Chief Justice (1931); Bernard L. Shientag (1935); Henry S. Schimmel (1937); Vincent S. Lippe (1937); Louis Wendel (1939); Aron Steuer (1939); Joseph T. Ryan (1936); Joseph W. Keller (1936); Thomas F. Noonan (1938).

Bronx—James A. Donnelly (1936); William S. Evans (1936); Edward R. Koch (1936).

Brooklyn—Joseph Fennelly (1936); Alex. H. Geismar (1936); Joseph V. Gallagher (1939); Louis Goldstein (1939); Charles E. Russell (1939).

Queens—Edward Kelly (1939).

Richmond—Thema F. Cosgrove (1939).

COUNTY COURTS.

Bronx—James M. Barrett and Harry Stackell ($22,500).

Kings—Judges George W. Martin, William Bernard W. Vause, Alonzo G. McLaughlin, Algernon I. Nova and Franklin Taylor ($22,500 each).

Queens—F. F. Adel ($22,500).

Richmond—T. F. Cosgrove (combined salary as Judge and Surrogate, $22,000).

GENERAL SESSIONS.

The court sits in the Criminal Courts Building, Centre and Franklin Sts., Manhattan. *Clerk*, Edward B. Carroll. The judges, who are elected for 14 years, who receive $22,500 each, and whose terms end Dec. 31 of years named, are:

Joseph F. Mulqueen (1935); Otto A. Rosalsky (1934); Charles C. Nott, Jr. (1941); George L. Donnellan (1941); Amadeo A. Bertini (1943); Morris Koenig (1936); Cornelius F. Collins (1936); William Allen (1938); Max S. Levine (1940).

SPECIAL SESSIONS.

JUSTICES.	Salary.	Term Expires.	JUSTICES.	Salary.	Term Expires.
Frederic Kernochan, *Chief Justice*	$18,000	July 1, 1936	Arthur C. Salmon	$17,500	Dec. 31, 1931
Chas. P. Caldwell	17,500	Dec. 31, 1935	Max Salomon	17,500	July 1, 1931
Thos. J. Nolan	17,500	June 30, 1930	Daniel Direnzo	17,500	July 1, 1935
Albert V. B. Voorhees	17,500	Dec. 31, 1929	Henry W. Herbert	17,500	July 9, 1935
James J. McInerney	17,500	June 30, 1938	William A. Walling	17,500	July 1, 1939
Daniel F. Murphy	17,500	Nov. 27, 1937	William T. Fetherston	17,500	Dec. 31, 1933
			Ellsworth J. Healy	17,500	May 1, 1932

Frank W. Smith, *Chief Clerk*; salary $7,500; office 32 Franklin Street.

PART I.—Criminal Courts Building, Borough of Manhattan. PART II.—171 Atlantic Avenue, Brooklyn. PART III.—Town Hall, Jamaica, Queens. This court is held on Tuesdays. PART IV.—Borough Hall, St. George, S. I. This court is held on Wednesdays. PART V.—Bergen Bldg., Tremont and Arthur Aves., Bronx. This court is held on Thursdays. PART VI. (Circuit Court)—Held in such counties and at such times as the stress of business requires and the Chief Justice shall direct.

CHILDREN'S COURT.

JUSTICES.	Salary.	Term Expires.	JUSTICES.	Salary.	Term Expires.
F. C. Hoyt, *Presiding Justice*	$18,000	Sept. 15, 1934	Samuel D. Levy	$17,500	Sept. 15, 1934
Edward F. Boyle	17,500	Sept. 15, 1934	George J. O'Keefe	17,500	Sept. 15, 1934
Thomas C. Brown	17,500	May 15, 1938	William Young	17,500	Oct. 29, 1934
Peter B. Hanson	17,500	Dec. 12, 1937			

*The Justices are appointed by the Mayor for ten years. Adolphus Ragan, Chief Clerk, $7,000; Dennis A. Lambert, Deputy Chief Clerk, $6,500; Bernard J. Fagan, Chief Probation Officer, $6,000; offices 137 East 22d Street.

Parts I. and II. (New York County)—137 E. 22d St., James F. Gillespie, Clerk, $5,500. (Kings County)—111 Schermerhorn St., Brooklyn, William C. McKee, Clerk, $4,000. (Bronx County)—868 Washington Ave., Frank A. Marron, Clerk, $3,540. (Queens County)—15322 Jamaica Ave., Jamaica, L. I., Clerk, Thos. J. O'Brien, $3,540. (Richmond County)—Borough Hall, New Brighton, S. I., Eugene E. Kenny, Clerk, $3,540.

CITY MAGISTRATES.

(Appointed by the Mayor for a term of 10 years, at $12,000 a year.)

MANHATTAN AND BRONX.

Name.	Address.	Term Began.	Term Ends.
Chief, William McAdoo	1192 Park Avenue, Manhattan	July 1, 1910	June 30, 1935
Abraham Rosenbluth	376 Powers Avenue, Bronx	Jan. 1, 1926	July 1, 1933
H. M. R. Goodman	250 West 94th St.	Jan. 1, 1923	June 1, 1929
Richard F. McKinlry	260th Street and Broadway, Manhattan	Jan. 1, 1923	Aug. 15, 1933
William A. Farrell	18 East 57th St., Manhattan	May 5, 1925	May 4, 1935
John V. Flood	447 East 65th Street, Manhattan	Jan. 1, 1926	April 30, 1935
George W. Simpson	337 Convent Avenue, Manhattan	April 3, 1918	June 27, 1929
Alexander Brough	31 West 12th Street, Manhattan	Aug. 2, 1916	April 30, 1937
August Dreyer	162 West 54th Street, Manhattan	July 9, 1925	July 8, 1935
Bernard J. Douras	500 West 161st St., c/o Lyman, Bronx	Dec. 5, 1918	April 30, 1933
Joseph E. Corrigan	32 West 10th St., Manhattan	July 15, 1907	July 14, 1937
August W. Glatzmayer	3309 Bainbridge Avenue, Bronx	June 19, 1925	June 18, 1933
Francis F. McQuade	725 Riverside Drive, Manhattan	July 1, 1921	July 1, 1931
Louis B. Brodsky	27 West 72d St., Manhattan	Aug. 1, 1924	June 30, 1929
Jean H. Norris	29 East 29th Street, Manhattan	Oct. 27, 1919	June 30, 1930
H. Stanley Renaud	135 West 84th Street, Manhattan	May 20, 1921	July 30, 1933
Maurice H. Gotlieb	17 East 48th St., Manhattan	July 2, 1921	June 30, 1932
Jesse Silberman	911 Walton Ave., Bronx	Jan. 2, 1920	June 30, 1932
Earl A. Smith	38 Fort Washington Avenue, Manhattan	May 13, 1922	June 30, 1932
Thomas F. McAndrews	131 West 61st Street, Manhattan	Jan. 1, 1922	Dec. 31, 1931
Edward Weil	224 East 87th Street, Manhattan	June 12, 1922	April 30, 1935
Albert H. Vitale	872 East 180th Street, Bronx	Jan. 1, 1924	July 1, 1931
Adolph Stern	153 Avenue B, Manhattan	May 1, 1927	April 30, 1937
Wm. C. Dodge	612 West 144th St., Manhattan	July 21, 1927	July 18, 1937

BROOKLYN.

George H. Folwell	372 Washington Avenue, Brooklyn	April 25, 1914	Dec. 31, 1931
Hyman Rayfiel	223 Arlington Ave., Brooklyn	Jan. 1, 1923	May 1, 1931
Leo Healy	4302 Cortelyou Road, Brooklyn	Sept. 24, 1917	July 1, 1930
Alfred E. Steers	170 East 17th Street, Brooklyn	July 3, 1913	July 2, 1933
John James Walsh	119 Johnson Street, Brooklyn	Feb. 4, 1913	May 1, 1931
Gasper J. Liota	1194 Greene Avenue, Brooklyn	May 1, 1921	Dec. 31, 1931
Henry H. Dale	296 Hooper Street, Brooklyn	Jan. 6, 1919	Jan. 1, 1930
Jacob Ellperin	Hotel St. George, Brooklyn	Jan. 1, 1922	Dec. 31, 1931
Charles H. Haubert	1335 Jefferson Avenue, Brooklyn	May 21, 1924	May 20, 1934
David Hirshfield	401 7th Avenue, Manhattan	Sept. 24, 1925	Sept. 23, 1935
Mark Rudich	767 Greene Ave., Brooklyn	Jan. 1, 1928	Dec. 31, 1929
Joseph F. Maguire	1060 Sterling Place, Brooklyn	Dec. 2, 1926	Mar. 1, 1931
James A. Blanchfield	853 E. 14th St., Brooklyn	Feb. 1, 1929	May 1, 1931
Frederick Hughes	579-61st St., Brooklyn	Feb. 1, 1928	May 1, 1931
Sylvester F. Sabbatino	1119 E. 23d St., Brooklyn	July 1, 1929	June 30, 1939
Mrs. Jeanette Brill	1542 Union St., Brooklyn	May 27, 1929	May 1, 1931

QUEENS.

Lawrence T. Gresser	8919 187th Street, Hollis, L. I.	May 24, 1924	May 23, 1934
Frank Giorgio	9005 188th Street, Hollis, L. I.	Jan. 1, 1926	Dec. 31, 1935
Benj. Marvin	167 Greenway No., Forest Hills, L. I.	.....	Dec. 31, 1937
Peter M. Daly	491 7th Ave., Astoria	July 7, 1927	Dec. 31, 1937

RICHMOND.

William T. Croak	St. George, S. I., (210 St. Mark's Pl.)	Jan. 1, 1918	Dec 31, 1937
Henry W. Bridges	New Dorp	Sept 18, 1924	Jan. 1, 1936

Chief Clerk—Thomas A. Dempsey, 300 Mulberry Street, Manhattan, and Rm. 510, Municipal Building, Brooklyn. *Deputy Chief Clerk*—Jay Finn. *Assistant Chief Clerk* and in charge of appeals—Jesse Bernhard.

LOCATION OF CITY MAGISTRATES' COURTS.

Manhattan and Bronx—1st—32 Franklin St. 2d—125 Sixth Ave. (Jefferson Market). 3d—Second Ave. and 2d St. 4th—153 East 57th St. 5th—170 East 121st St. 6th—East 162d St., corner Brook Ave. 7th—314 West 54th St. 8th—1014 E. 181st St. 9th—(Day Court for Women)—125 Sixth Ave. (Jefferson Market). (Night Court for Men)—314 West 54th St. (Family Court) Manhattan—153 East 57th St. 12th—1130 St. Nicholas Ave. (Family Court) Bronx—1014 E. 181st St. Municipal Term—Municipal Building. Traffic Court—301 Mott St. Homicide Court—72 Second Ave. Chief Clerk and Chief Probation Officer, 300 Mulberry St.

Brooklyn—Office of the Chief Clerk—Rm. 510, Municipal Bldg., Brooklyn. 1st—(Women's Day Court)—318 Adams St. (Municipal Term)—402 Myrtle Ave. 5th—Williamsburg Bridge Plaza. 6th—495 Gates Ave. 7th—25 Snyder Ave., Flatbush. 8th—West 8th St., Coney Island. 9th—Fifth Ave. and 23d St. 10th—133 New Jersey Ave. *Family Court*—327 Schermerhorn St. *Traffic Court*—Lafayette and Bedford Aves.

Probation Court—510 Municipal Bldg.: *Brooklyn Homicide Court*—31 Snyder Ave.

Queens—1st—115 Fifth St., Long Island City. 2d—Town Hall, Flushing. 3d—Central Ave., Far Rockaway. 4th—Town Hall Jamaica. 5th—Fresh Pond Road and Catalpa Ave., Ridgewood.

Richmond—1st—Castleman and Bemen Aves., West Brighton. 2d—Village Hall, Stapleton.

MUNICIPAL COURTS.

(Justices elected for a term of 10 years; President Justice, $15,000; others, $12,000.)

Board of Justices—Headquarters, 30 West 35th St., Manhattan, T. A. Leary, President. The justices, by districts, are:

1st—146 Grand St., William J. A. Caffrey, John F. O'Neil, David Morris.

2d—264 Madison St., Abraham Harawitz, Morris Eder, Joseph Raimo, Lester Lazarus, Harold L. Kunstler.

3d—314 West 54th St., Thomas E. Murray, Benedict D. Dineen.

4th—207 East 32d St., William S. Katzenstein, William T. Keleher.

5th—96th St. and Broadway, Joseph S. Rosalsky, Benjamin Shalleck, Thomas J. Whalen.

6th—155-157 East 88th St., Myron Sulberger, Timothy A. Leary.

7th—417 West 151st St., David C. Lewis, John J. Sullivan, Lewis A. Abrams.

8th—170 East 121st St., Leopold Prince, William E. Slevin.

9th—624 Madison Ave., Edgar J. Lauer, William Chilvers, George L. Genung, William C. Wilson.

BRONX.

1st—1400 Williamsbridge Road, William A. Keating, Ely Neumann.

2d—East 162d St. and Washington Ave., William E. Morris, James J. Fitzgerald.

BROOKLYN.

1st—State and Court Sts., George J. Joyce, Michael Ditore.

2d—495 Gates Ave., Edward A. Wynne, Wm J. McNulty, Lawrence C. Fish.

3d—6 and 8 Lee Ave., Wm J. Bogenschutz, Charles J. Carroll.

4th—110 Eastern Parkway, Jacob S. Strahl.

5th—5220 Third Ave., John J. Cain, Frank Wasserman.

6th—25-33 Snyder Ave., Edward Cassin, Frank H. Parcells, Nathan Sweedler.

7th—31 Pennsylvania Ave., Frank E. Johnson, John J. Haggerty.

8th—1301 Surf Ave., Coney Island, Murray Hearn.

QUEENS.

1st—115 Fifth St., L. I. City, John H. Hetherington.

2d—Broadway and Court St., Elmhurst, William H. Robinson.

3d—144 Halleck Ave., Ridgewood, Edward J. Smith.

4th—Town Hall, Jamaica, Harry G. Wenzel.

5th—90-18 Rockaway Beach Blvd., Hollands, Rockaway, William P. Weiner.

RICHMOND.

1st—Bement and Castleton Aves., W. New Brighton, John C. Boylan.

2d—Washington Park, Stapleton, Arnold J. B. Wedmeyer.

NEW YORK ZOOLOGICAL PARK (BRONX ZOO).

The New York Zoological Park (bounded on the East by the Boston Post Road, on the west by Southern Boulevard, on the north by Fordham Road, and on the south by E. 182d St.) was founded in 1895 by the New York Zoological Society, a scientific corporation. The park was formally opened Nov. 8, 1899.

The grounds, many of the buildings, and an annual maintenance fund are provided by the city. The remainder of the buildings and the animal collections are furnished by the society, which is also charged with the direct management of the park.

The Zoological Park is free to the public on all days of the week except Mondays and Thursdays. Should Monday or Thursday fall on a legal holiday, admission to the Zoological Park is free. The opening and closing hours are 10 A. M. until one-half hour before sunset. On pay days admission for adults is 25 cents, and for children under twelve years, 15 cents. The park embraces 264 acres, with 35 acres of water.

The principal buildings are the Elephant, Lion Primate, Zebra, Large Bird, Reptile, Antelope, Ostrich and Small Mammal Houses, and the Aquatic Bird House. The principal open-air inclosures are the Bear Dens, Flying Cage, Pheasant Aviary, the Eagle and Vulture Aviary, Wolf and Fox Dens, Burrowing Rodent Quarters, Beaver Pond, Duck Aviary, Wild Fowl Pond and Mountain Sheep Hill.

On May 25, 1922, the National Collection of Leads and Horns was dedicated and opened to the public.

THE ZONING LAW.

The Board of Estimate enacted the zoning resolution in 1916.

The height districts run from one-quarter to two and one-half times the width of the street.

The area allowances run from 100 per cent. in A districts to 25 per cent. in F districts.

The resolution is not retroactive; buildings and uses in existence prior to July 25, 1916, are not affected.

As many exceptional situations exist, the City Charter provides that a board of appeals can, after a hearing and in accordance with prescribed rules, vary the strict letter of the law regarding particular permits. Its decisions are subject to court review.

The Board of Estimate and Apportionment requires that petitioners for local changes must represent at least 50 per cent of the area to be changed. Changes which are more clearly in the interest of the general public can only be initiated by the President of a Borough, or by the Chief Engineer of the Board of Estimate and Apportionment.

By the zoning plan, the city is divided into three classes of districts—1, residence; 2, business; 3 unrestricted.

In a residence district no building shall be erected other than a building, with its usual accessories, arranged, intended or designed exclusively for one or more of the following specified uses: (1) Dwellings, which shall include dwellings for one or more families and boarding houses and also hotels which have thirty or more sleeping rooms. (2) Clubs, excepting clubs the chief activity of which is a service customarily carried on as a business.

(3) Churches; (4) Schools, libraries, public museums, court houses, fire houses and police stations; (5) Philanthropic or eleemosynary uses or institutions, other than correctional institutions.

(6) Hospitals and sanitariums; (7) Railroad passenger stations; (8) Farming, truck gardening, nurseries or green houses.

In a residence district no building or premises shall be used for any use other than a use above specified for which buildings may be erected and for the accessory uses customarily incident thereto. The term accessory use shall not include a business nor shall it include any building or use not located on the same lot with the building or use to which it is accessoy.

A private garage for more than five motor vehicles shall not be deemed an accessory use.

In a business district no building or premises shall be used, and no building shall be erected, which is arranged, intended or designed to be used for any trade, industry or use that is noxious or offensive by reason of the emission of odor, dust, smoke, gas or noise; but car barns or places of amusement shall not be excluded.

PIERS, DOCKS AND WATER-FRONT TERMINALS.

(Data Assembled by Michael Cosgrove, Commissioner of Docks.)

The Department of Docks of the City of New York is charged with the construction, care and maintenance of its waterfront. Created sixty years ago, it has made improvements, having a value of over $250,000,000, and the present administration has plans under way calling for the expenditure of an additional hundred million.

Total length of shore front, 578 miles; number of piers—public and private, 722; piers owned by the City of New York, 277; piers privately owned, 409; piers owned by the United States Government, 27; piers owned by the State of New York, 9.

Piers in Manhattan number 244; in the Bronx, 60; in Brooklyn, 197; in Queens, 80; in Richmond, 141.

Piers on the East River total 196, of which 93 are on the Manhattan front, 3 are on Ward's Island, 3 on Randall's Island, 11 in the Bronx, 62 in Brooklyn, 5 in the Wallabout Basin, and 19 in Queens.

There are 65 piers on the Harlem River, of which 49 are in the Bronx, and 16 are in Manhattan.

In Newtown Creek there are 3 piers in Queens and 1 in Brooklyn.

Recreation Piers—*in Manhattan:* Upper deck of Pier 10, foot of Albany Street, North River; Pier 43, foot of Borrow Street, North River; West 50th Street, North River; West 129th Street, North River; East 3rd Street, East River; Pier 30, East of Market Slip, East River; East 112th Street, Harlem River. *Brooklyn.* North Second Street; State Street.

Barge Canal Piers—*Manhattan,* Pier 93; North River, at West 53rd Street; Piers 5 and 6, East River, at Coenties Slip; East 135th-138th Streets, Harlem River, Bronx. *Brooklyn,* Pier between Columbia and Henry Streets, Brooklyn; Pier between Eage and DuPont Streets, Brooklyn; Pier between Queensboro Bridge and Horsell Street, East River, Queens; Pier between Broadway and Cornelia Street, Queens; Pier between Harper Avenue and Delovale Street, Flushing.

All of the Barge Canal piers are owned by the State of New York.

The principal piers are located on the North River, along the westerly shore front of the lower end of Manhattan Island.

The water alongside the pier is called the slip.

The City has control of all the water inside the pierhead line.

Some idea of its value and the value of New York City waterfront property may be obtained from the fact that the City collects annually over $7,000,000 as rental for the piers and bulkhead it owns. The revenue for 1928 was $7,725,479.96, while the expenditure for maintenance was only $1,600,000.

The highest rental, $300,000 a year, is received for Pier 86, North River; with Pier 84 next at $270,000. Both piers are leased to the United American Lines.

In Jamaica Bay, the entrance to which is a mile or so east of the entrance to the main harbor of New York, the City has a sub-harbor which will provide over fifty per cent. additional dockage for ocean steamships.

Over ten million dollars have already been expended in widening and deepening channels to accommodate large vessels, a minimum depth of 30 feet at low tide being provided in the main channel.

The City-owned land already created by this progress in Jamaica Bay has a value of over fifteen million dollars. Part of this new made land is being converted by the City into an Airport, Floyd Bennett Field, the first City-owned airport here.

The piers at Staten Island, built towards the close of the World War, are about 1,200 feet long, and are of the finest type of modern construction.

FERRIES IN NEW YORK CITY.

MUNICIPAL.

East River—

Astoria—From E. 92d St and Ave. A, Manhattan, to Astoria Ave. and Mill St., Astoria, Queens.

College Point—From foot of Sound View Ave., Clason's Point, Bronx, to 1st Ave., College Point, Queens

Grand St.—From Grand and East Sts., Manhattan, to Broadway and Kent Ave., Brooklyn.

Greenpoint—From E. 23rd St., Manhattan to Greenpoint Ave., Brooklyn.

Atlantic Ave.—From South St., Manhattan, to Atlantic Ave. and Furman St., Brooklyn.

Hamilton Ave.—From South St., South Ferry, Manhattan, to Hamilton Ave. and Sackett St., Brooklyn.

Jamaica Bay—Rockaway—From Flatbush Ave., Brooklyn, to Beach 169th St., Rockaway, Queens.

New York Bay—St. George-Staten Island—From Whitehall St., South Ferry, Manhattan, and from 39th St., South Brooklyn, to St. George, Staten Island. 39th St., Brooklyn—From South St., South Ferry, Manhattan, to foot of 39th St., Brooklyn.

PRIVATELY OWNED.

East River—Atlantic Ave., Brooklyn, to Exchange Place, Jersey City (Penn. R. R.)

A regular ferry between the foot of E. 34th St., Manhattan, and Borden Ave., Long Island City, was opened in 1927. This route was operated for many years by the Long Island Railroad, but had been closed for a long time.

Hudson River—Liberty St. to Communipaw, J. C. (Central R. R. of N. J.); Cortlandt St. to Exchange Pl., J. C. (Penn. R. R.); Cortlandt St. to Weehawken (West Shore R. R.); Barclay St. to Newark St., Hoboken (Lackawanna R. R.); Chambers St. to Pavonia Ave., J. C. (Erie R. R.); Desbrosses St. to Exchange Pl., J. C. (Penn. R. R.); Christopher St. to Newark St., Hoboken (Lackawanna R. R.); W. 23d St. to 14th St., Hoboken (Lackawanna R. R.); W. 23d St. to Newark St.-Hoboken (Lackawanna R. R.); W. 23d St. to Communipaw, J. C. (Central R. R. of N. J.); W. 23d St. to Pavonia Ave., J. C. (Erie R. R.); W. 23d St., to 16th St., West N. Y.; W. 42d St. to Weehawken (West Shore R. R.); W. 42d St. to West New York (West Shore R. R.); W. 130th St. to Edgewater, N. J.; Dyckman St. to Englewood Landing, N. J. (Palisades Park).

Staten Island (non-municipal)—St. George, S. I. to 69th St., Bay Ridge, B'klyn.; Port Richmond, S. I. to Bayonne, N. J.; Holland Hook, S. I., to Elizabethport, N. J.; Linoleumville, S. I., to Carteret, N. J.; Tottenville, S. I., to Perth Amboy, N. J.

Crossing New York Bay—Battery Park to Governor's Island (U. S. Army); Battery Park to Ellis Island (U. S Dept. of Commerce); Battery Park to Liberty Island.

Departmental Ferries—E. 16th St. to Hart's Island (Dept. of Health); E. 26th St. to Blackwell's (Welfare) Isl., Riker's Isl., and Hart's Isl. (Dept. of Correction); E. 26th St. to Blackwell's Isl. and Randall's Isl. (Dept. of Pub. Welfare); E. 86th St. to Blackwell's Isl. (Dept. of Pub. Welfare); E. 116th St. to Ward's Isl. (N. Y. State Hosp. Bd.); E. 125th St. to Randall's Isl. (Children's Hosp.) (Dept. of Pub. Welfare); E. 125th St. to Randall's Isl. (House of Refuge), N. Y. State Reformatory; E. 132d St. to No. Brother Isl. (Dept. of Health); Fordham St., City Island, to Hart's Island (Depts. of Correction and Public Welfare).

THE NEW YORK COMMUNITY TRUST.

The New York Community Trust, 149 Broadway, New York City, was established in 1923 for the administration of trust funds dedicated to public charitable uses. By the adoption of a common Resolution and Declaration of Trust twenty-three banks and trust companies in New York City and Westchester County act as trustees of such funds and disburse the income from them under the authorization of a central distribution committee. This Committee of eleven members is appointed in part by the trustee banking institutions, and in part by such public sources as the Senior Judge of the U. S. Circuit Court of Appeals, the Mayor of New York, and the Presidents of the Academy of Medicine, the Chamber of Commerce, the Association of the Bar and the Brooklyn Institute of Arts and Sciences. This Committee is empowered to amend the purposes for which funds are given, in the event that it becomes impossible to carry out literally a donor's wishes.

During 1929 the capital funds of the Community Trust passed $6,000,000. Distributions totaled $120,534. The Westchester Welfare Foundation, affiliated with the New York Community Trust, has principal funds of $156,000.

Members of the Distribution Committee are: John G. Agar, Mrs. August Belmont, Homer Folks, Ernest Iselin, Clarence H. Kelsey, Morgan J. O'Brien, James H. Post, Dr. George David Stewart, Felix M. Warburg and Thomas Williams, Chairman.

Clarence H. Kelsey is Chairman of the Trustees Committee, V. Everit Macy is Chairman of the Westchester Advisory Committee and Ralph Hayes is Executive Director of the Trust.

CHIEF PARKS IN THE CITY OF NEW YORK.

(Acreage of each park is shown in black face figures.)

MANHATTAN.

Battery, foot of Broadway, **19.**
Bryant, 6th Ave. and W. 42d St., **4.**
Carl Schurz, between Ave. B and East River, E. 84th St. to E. 89th St., **12½.**
Central, W. 59th St. to W. 110th St., and 5th Ave. to 8th Ave., **843.**
Chelsea, 27th St. and 9th Ave., **3.**
City Hall, Broadway, Park Row and Chambers St., **8½.**
Colonial, 145th to 155th St., Bradhurst Ave. to Edgecombe Ave., **12¾.**
Columbus, Mulberry and Bayard Sts., **2¼.**
Corlears Hook, Corlears and South Sts., **8.**
De Witt Clinton, 52d to 54th St., North River, **8.**
Fort Washington, Hudson River, **115.**
Hamilton Fish, Houston and Willett Sts., **3½.**
Highbridge, 155th St. to Washington Bridge, west of Driveway, **76.**
Inwood Hill, Dyckman St., north to Ship Canal, **166.**
Isham, 213th St. and Broadway, **18.**
John Jay, 76th to 78th St., East River, **3.**
Madison Square, Broadway and 23d St., **6.**
Manhattan Square, Central Park W., 77th to 81st St., **17½.**
Morningside, between Columbus and Amsterdam Aves. and W. 110th and W. 123d Sts., **30½.**
Mount Morris, between Madison and Mt. Morris Aves. and 120th and 124th Sts., **20.**
Park Ave., 34th to 42d St.; 56th to 96th St., **9.**
Riverside, between Riverside Drive and 215th St., **216.**
Roger Morris, Jumel Terrace and 160th St., **1.52.**
St. Gabriel's, 1st Ave. and 35th St., **3.**
St. Nicholas, and extension at 130th and 141st Sts., **22½.**
Seward, Canal and Jefferson Sts., **3.**
Stuyvesant, Rutherford Pl. and E. 16th St., **4.**
Thomas Jefferson, 111th St., 1st Ave., 114th St. and Harlem River, **15½.**
Tompkins Square, Avenue A and 7th St., **10.**
Union Square, Broadway and 14th St., **3½.**
Washington Square, 5th Ave. and Waverley Pl., **8½.**

The Harlem River Driveway is 11,562 feet long and 100 to 150 feet wide; Morningside Drive is 3,538 feet long and 90 feet wide; Riverside Drive is 37,000 feet long and 90 to 168 feet wide, from 72d St. to 215th St.

THE BRONX.

(Headquarters, Zbrowski Mansion, Claremont Park.)

Bronx, E. 182d St. and Southern Boulevard, **719.12.**
Bronx and Pelham P'kway, **108.9.**
Bronx River Parkway, **112.0.**
Crotona, 3d and Tremont Aves., **154.60.**
Claremont, Webster Ave. and 171st St., **38.**
Echo, Burnside and Tremont Aves., **4.**
Macomb's Dam, Jerome Ave. and 162d St., **53.72.**
Pelham Bay, N. E. Cor. Borough, **1,813.28.**
Poe, Kingsbridge Road and E. 192d St., **2.33.**
St. James, Jerome Ave. and 191st St., **11.83.**
Sigel (Franz), Walton Ave. and 158th St., **18.19.**
St. Mary's, St. Ann's Ave. and 149th St., **34.20.**
Van Cortlandt, Broadway and Van Cortlandt Ave., **1,132.35.**

BROOKLYN (Headquarters, Litchfield Mansion, Prospect Park.)

Bensonhurst, Cropsey Ave. and 21st St., **13.90.**
Betsy Head Memorial, Douglas St. and Dumont Ave., **10.50.**
Botanic Garden, Washington and Flatbush Aves., **61.39.**
Bushwick, Knickerbocker Ave. and Starr St., **6.86.**
Canarsie, Skidmore Ave. and E. 88th St., **20.**
City, Flushing Ave. and Navy St., **7.50.**
Coney Island Concourse Lands (excl. Seaside P'k.), W. 5th St. and Sea Breeze Ave., **46.70.**
Dreamland, W. 5th St. and Surf Ave., Coney Island, **16.70** (parking space, **10.93**).
Dyker Beach, 7th and Cropsey Aves., **223.60.**
Fort Greene, Myrtle Ave. and St. Edward St., **26.09.**
Highland, Jamaica Ave. and Warwick St., **41.22.**
Leif Erickson Square, 4th Ave. and 66th St., **13.70.**
Lincoln Terrace, E. Parkway and Buffalo Ave., **17.38.**
McCarren, Manhattan Ave. and N. 12th St., **38.42.**
Marine Park, Ave. U, E. 38th St., Gerritsen Creek **1,239.68.**
New Lots, Sackman St. and Newport Ave., **2.29.**
Owls Head, 68th St. and Shore Rd., **27.10.**
Parade Grounds, Parkside and Coney Island Aves' **39.5.**
Prospect, Flatbush Ave. and Union St., **526.**
Seaside, W. 5th St. and Sea Breeze Ave., Coney Island, **10.30.**
Shore Road, 1st Ave. and 66th St., **106.30.**
Sunset, 5th Ave. and 41st St., **24.50.**

Parkways—*Bay*, from Ocean Parkway, between Aves. I and J, to Bensonhurst Beach, **2.56** miles; *Bay Ridge*, from Ft. Hamilton Ave., between 66th and 67th Sts., to 1st Ave., near 66th St., **1.40** miles; *Bushwick*, Myrtle Ave. to Jamaica Ave., **2.24** miles; *Eastern*, from Flatbush Ave. and Union St. (Prospect Park Plaza), to Bushwick Ave., near Stewart St., **3.89** miles; *Ft. Hamilton*, from Ocean Parkway and Prospect Ave., to Ft. Hamilton, **4.27** miles; *Highland Boulevard*, from Bushwick Ave., near Dahlia Pl., to Highland Park, **0.67** mile; *Ocean*, from Coney Island and Parkside Aves., Prospect Park, old Bader's Circle, to Coney Island Concourse, **5.50** miles; *Shore Road*, from 1st Ave., near 66th St., to Ft. Hamilton, **2.65** miles.

Prospect Park Plaza, Union St. and Flatbush Ave., is now Grand Army Plaza.

QUEENS (Headquarters, Forest Park.)

Astoria, Hoyt Ave., Barclay St. and the East River, **56.25.**
Baisley's Pond, Sutphin Road, South Jamaica, **75.**
Bowne, 155th and 159th Sts., 29th and 32d Aves., Flushing, **11.06.**
Crocheron, 215th Pl. and Crocheron Ave., Bayside, **44.0.**
Forest, Myrtle Ave. and Union Turnpike, Cypress Hills, **538.**
Highland, Vermont and Cypress Aves., at Borough line, **49.50.**
Hillside, Union Turnpike, Hollis Court Boulevard, 193rd St., **248**
Jacob Riis, Neponsit, Rockaway, **262.58.**
King, Fulton St. and Shelton Ave., Jamaica, **11.50.**
Kissena, Rose St., Oak Ave. and North Hempstead Turnpike, Flushing, **219.24.**
One Mile Pond, Merrick Road, near Central Ave., Jamaica, **16.**
Rockaway, Atlantic Ocean, Beach 110th to 126th St., Rockaway Beach, **17.87.**

RICHMOND (STATEN ISLAND).

Clove Lake, Forest Ave., **191.**
Conference House, Tottenville, **1.**
New Springville, **163.**
Crooke's Point, **700.**
Richmond Hill, **587.**
Silver Lake, Richmond Turnpike and Forest Ave., **214.**
Willowbrook, **106.**
Wolfe Pond, **227.**

OLD NAMES FOR THE STATES.

If the United States were to adopt the recent European practice of reviving old place names such as Oslo for Christiania, Nidaros for Trondjhem, Helsinki for Helsingfors, Warszawa for Warsaw, and Praha for Prague, the roster of the 48 States would vary in many cases, says a bulletin from the Washington, D. C. headquarters of the National Geographic Society.

Nineteen States have different original Indian names they could go back to: Alibamu, Arizonac, Quonoktacut, E-dah-hoe, Illini, Ayuhba (Iowa), Kanza, Massawadschuasch (Massachusetts), Mishigamaw (Michigan) Missisipi, Missiuri, Ohionhilo, Tanasee, Texia, Ute, Mishkonsing, Mcheuwomink (Wyoming), Arkansea.

Restoration of old names would require Delaware to revert to De La Warr, the name selected in honor of Lord De La Warr. New York was named for the Duke of York, but if origins were to be pushed back as far as possible the Empire State must revive the old English form, becoming New Eurewic.

Revival of an historic name, such as that of Lwow for Lemberg in Poland, would restore Vert Mont in honor of the French, Roode Eylandt in respect to Dutch explorers, and Orejones, as a compliment to Spanish Conquistadores.

Illinois serves as an example of States whose present names are pitfalls to the unwary. Persons not familiar with the French adoption of the original Indian tribe name, pronounce the last syllable noise."

George Washington, it is said, called the Illinois country Black Island because he thought the French spelled it Ile Noir.

PRINCIPAL CLUBS IN NEW YORK CITY.

(The date of organization is in parentheses; other figures, where given, are of membership.)

Advertising (1914), 23 Park Ave.; 2,250; Pres., James W. Brown; Sec. J. R. Bolton.
Aldine (1889), 200 Fifth Ave.; 600; Chairman of House Committee, Joseph E. Kean; Sec., Herbert G. Frankel.
Alpha Delta Phi (1832), 136 W. 44th St.; 15,731; Sec., W. Earl Smith.
Amherst (1923), 273 Lexington Ave.; 1,200; Pres., F. P. Smith; Sec., W. H. Griffin.
Arkwright (1893), 320 Broadway; 850; Pres., Kit S. Warner; Sec., Robert Schmidt.
Army and Navy Club of America (1885), 30-32 W. 44th St.; 2,415; Pres., Col. Franklin Q. Brown; Sec., Capt. William C. Tremaine.
Authors (1882), 48 W. 76th St.; abt. 250; address communications to the secretary.
Automobile Club of America (1899), 12 E. 53rd St.; 7,000; Pres., Dave H. Morris; Sec., Elmer Thompson.
Bankers (1915), Equitable Bldg., 120 Broadway; 3,200; Pres., A. H. Wiggin; Sec., A. C. Andrews.
Barnard (1894), 221 W. 57th St.; 265; Pres., Dr. James Barlet; Sec., Miss Louise Tibbetts.
Block Hall, Inc. (1927), 23 So. William St.; 1,000; Pres., Gresham Ennis; Sec., Reese D. Alsop.
Brook (1903), 111 E. 54th St.; 350; Pres., Percy R. Pyne, 2d; Sec., F. S. Allen.
Brooklyn Engineers (1896), 117 Remsen St., Brooklyn; 500; Sec., George A. Dorfman.
Calumet (1879), 12 W. 56th St.; 500; Pres., Wm. A. Greer; Sec., John B. Kane.
Camera (1884), 121 W. 68th St.; 225; Pres., J. Henry McKinley; Sec., H. S. Grinleese.
Catholic (1871), 120 Central Park South; 800; Pres., Victor F. Ridder; Sec., H. Howard Dausch.
Century Association (1847), 7 W. 43d St.; 1,451; Sec., A. D. Noyes.
Chemists (1898), 52 E. 41st St.; 1,714; Pres., Dr. L. V. Redman; Sec., Robert T. Baldwin.
City (1892), 55 W. 44th St.; 1,600; Civic Dir., H. W. Marsh; Sec., William F. Howes.
City Athletic (1908), 50 W. 54th St.; 1,000; Sec., Carl W. Stern.
Colony (1903), 564 Park Ave.; 2,162; Pres., Mrs. James A. Burden; Sec., Mrs. Hamilton Fish Armstrong.
Columbia (1901), 4 W. 43d St.; 2,564; Pres., Knowlton Durham; Sec., Ward Melville.
Cornell (1889), 245 Madison Ave.; 2,000; Pres., James J. Clarke; Sec., Andrew E. Tuck.
Crescent Athletic (1884), 129 Pierrepont St., Brooklyn; 2,700; Pres., James C. Cropsey; Sec., A. S. Hart.
Dartmouth (1926), 24 E. 38th St.; 1,200; Pres., D. B. O'Connor; Sec., Malcolm G. Rollins.
Delta Kappa Epsilon (1884), 5 E. 51st St.; 14,000; Pres., John S. Wickham; Sec., James Anderson.
Engineers (1888), 32 W. 40th St.; 2,400; Sec., Douglas I. McKay.
Explorers (1905), 544 Cathedral Parkway; 600; Pres., George H. Heye; Sec., George N. Pindar.
Friars, Inc. (1904), 110 W. 48th St.; 1,350; Abbot, George M. Cohan; Sec., William D. Weinberger.
Grolier (1884), 47 E. 60th St.; 528; Pres. Lucius Wilmerding; Sec., Frederick Coykendall.
Hamilton (1882), 146 Remsen St., Brooklyn; 450; Pres., George Hewlett; Sec., Dr. Clarence R. Hyde.
Hardware (1892), 253 Broadway; 600; Pres., Charles H. Krueger; Sec., Harold S. Graham.
Harmonie (1867), 4 E. 60th St.; 850; Pres., George B. Bernheim; Sec., Isaac H. Levy.
Harvard (1865), 27 W. 44th St.; 6,255; Pres., Thomas W. Lamont; Sec., William G. Wendell.
Jockey (1894), 250 Park Ave.; 50; Chmn., F. K. Sturgis; Ass't Sec., Algernon Daingerfield.
Knickerbocker (1871), 807 Fifth Ave.; 700; Pres., W. Butler Duncan; Sec., R. L. Redmond.
Lambs (1874), 130 W. 44th St.; 1,700; Shepherd, Fritz Williams; Sec., Edwin Milton Royle.
Lawyers (1887), 115 Broadway; 1,300; Pres., Alfred W. Kiddle; Sec., Albert E. Hadlock.
Level (1920), 253 W. 73d St.; 3,000; Sublime Leveler, Peter Schmuck; Sec., A. R. Sasserath.
Lotos (1870), 110 W. 57th St.; 1,536; Pres., Dr. Nicholas Murray Butler; Sec., James F. Allen.
Machinery (1907), 50 Church St.; abt. 1,300; address communications to the secretary.
Manhattan (1865), Madison Square; 1,019; Pres., John Godfrey Saxe; Sec., Albert Tilt.
Manhattan Single Tax (1889), 1860 Broadway; 500; Pres., James R. Brown; Sec., Walter Fairchild.
Marquette (1912), Hotel Plaza; 1,000; Pres., Ambrose O'Connell.
Masonic (1896), 71 W. 23d St.; 500; Pres., William Klingenstein; Sec., Henry J. Grupe.
Metropolis (1879), 105 W. 57th St.; 700; Pres., Joseph E. Gilbert; Sec., Milton J. Greenebaum.
Metropolitan (1891), 1 E. 60th St.; 1,445; Pres., George E. Roosevelt; Sec., Oliver G. Jennings.
Montauk (1889), 25 Eighth Ave., Brooklyn; 600; Pres., William H. English; Sec., Arthur E. Beggs.
National Arts (1898), 15 Gramercy Park; 1,500; Pres., John G. Agar; Sec., John Clyde Oswald.
National Democratic (1852), 233 Madison Ave.; 1,700; Pres., George J. Atwell; Sec., Eugene J. Sullivan.
National Republican (1879), 54 W. 40th St.; 2,000; Pres., Richard W. Lawrence; Sec., Loran T. Hostetler.
Navy (1917), 93-95 Park Ave.; Navy, Marine Corps & Coast Guard; Pres., R. A. C. Smith; Ass't Sec., Wm. A. Ross.
Newspaper (1922), 136 W. 42d St.; 700; Pres., Louis W. Fahr; Sec., Charles R. Barth.
New York (1845), 20 W. 40th St.; 600; Pres., Herbert D. Lounsbury; Sec., Alfred H. Appell.
New York Athletic (1868), 180 Central Park South; 8,500; Pres., William Kennelly; Sec., Andrew J. Kerwin.
New York Fraternity Clubs, 22 E. 38th St.; In this building these Greek Letter Clubs have established themselves with club rooms or offices: Alpha Chi Rho, Alpha Tau Omega, Beta Theta Pi, Chi Phi, Chi Psi, Delta Chi, Delta Phi, Delta Tau Delta, Delta Upsilon, Kappa Alpha, Kappa Sigma, Phi Delta Theta, Phi Kappa Psi, Phi Kappa Sigma, Phi Sigma Kappa, Pi Kappa Alpha, Sigma Alpha Epsilon, Sigma Chi, Sigma Nu, Theta Chi, Theta Xi.
New York Yacht (1884), 37 W. 44th St.; Commodore, Vincent Astor; Sec., George A. Cormack.
Nippon (1905), 161 W. 93d St.; 350; Sec., T. Matsuda.
Pen and Brush (1892), 16 E. 10th St.; 300; Pres., Miss Ida M. Tarbell; Sec., Mrs. Stafford.
Pennsylvania (1894), 35 E. 50th St., abt. 1,000; Pres., Wm. McClellan; Sec., John Scott Lansill.
Phi Gamma Delta (1886), 106 W. 56th St.; 1,500; Pres., James B. Cauthers; Sec., Rolf T. Michelsen.
Players (1888), 16 Gramercy Park; 1,000; Pres., Walter Hampden; Sec., Henry W. Lanier.
Press (1872), 21 Spruce St.; Pres., Irving Pinover; Sec., Caleb H. Redfern.
Princeton (1899), 39 E. 39th St.; 4,000; Chmn: House Committee, S. G. Etherington; Sec., L. G. Payson.
Progress (1864), 1 W. 88th St.; 600; Pres., William Hecht; Sec., Edgar H. Bauman.
Psi Upsilon (1887), 273 Lexington Ave.; 600; Pres., Charles H. Dayton; Sec., C. A. Lockard, Jr.
Racquet and Tennis (1875), 370 Park Ave.; 2,214; Pres., Ford Huntington; Sec., Sherman Day.
Railroad (1872), 26 Cortlandt St.; 2,063; Exec. Sec., Douglas I. McKay.
St. Nicholas (1875), 39 E. 51st St.; 325; Pres., George Fred Hurd; Sec., William Henry Walling.
Salmagundi (1871), 47 Fifth Ave.; 930; Pres., Bruce Crane; Corr. Sec., H. L. Sparks.
Soldiers and Sailors (1922), 283 Lexington Ave.; 200 committee members; Pres., Mrs. Francis Rogers; Sec., Miss Martha R. White.
Technology (1893), 22 E. 38th St.; Pres., Richard H. Ranger; Sec., Alfred Glassett.
Theta Delta Chi (1869), 30 W. 52d St.; 8,980; Pres., William F. Love; Sec., Norman Hackett.
Turf and Field (1895), 250 Park Ave.; 900; Pres., Henry W. Bull; Sec., H. A. Buck.
Turn Verein (1850), 1253 Lexington Ave.; 750; Pres., Bernard W. Weiler; Sec., Walter H. Klose.
Union (1836), 1 E. 51st St.; 1,418; Pres., Dallas B. Pratt; Sec., Charles K. Beekman.
Union League (1863), 1 E. 39th St.; 1,800; Pres., Alfred E. Marling; Sec., Liston L. Lewis.
University (1865), 1 W. 54th St.; 4,215; Pres., George W. Wickersham; Sec., A. I. Henderson.
Uptown (1919), 17 E. 42d St.; 800; Pres., John H. Towne; Sec., John G. Livingston.
Vatel (1916), 104 W. 47th St.; 1,500; Man., Auguste Grillon.
West Side (1888), 270 W. 84th St.; 200; Pres., Charles P. Rogers; Sec., Henry S. DeVault; Man., Robert Miller.
Whitehall (1910), 17 Battery Place; 1,000; Pres., Edwin J. Beinecke; Sec., Albert E. Hadlock.
Williams (1913), 24 E. 39th St.; abt. 1,700; address communications to the secretary.
Women's City (1915), 22 Park Ave.; 2,500; Pres., Mrs. H. Edward Dreier; Sec., Miss Susan Brandeis.
Women's Town (1923), 47 E. 51st St.; 255; Pres., Mrs. E. A. Grunsfeld; Sec., Mrs. Byron E. Van Raalte.
Women's University (1889), 106 E. 52d St.; 951; Pres., Miss Caroline F. Lexow; Sec., Mrs. Albert L. Thurston.
Yale (1897), 50 Vanderbilt Ave.; 6,000; Pres., Livingston Platt; Sec., Jesse Spalding.

THEATRES IN NEW YORK CITY.

(Figures in parentheses are those of Fire Department as to seating capacity.)

MANHATTAN AND BRONX.

Academy of Music (3,600), 126 E. 14th St.
Aeolian Hall (150), Fifth Ave. & 54th St.
Alhambra (1,435), 2110 Seventh Ave.
Al Jolson's (1,776), 926 Seventh Ave.
Alvin (1,387), 244 W. 52d St.
Ambassador (1,200), 215 W. 49th St.
America (1,750), 561 Melrose Ave., The Bronx
Apollo (1,168), 225 W. 42d St.
Apollo (1,197), 209 W. 125th St.
Arena (953), Roof (902), 623 Eighth Ave.
Astor (1,131), 1531 Broadway
Audubon (2,571), 3934 Broadway
Belasco (1,000), 111 W. 44th St.
Belmont (515), 121 W. 48th St.
Bijou (605), 209 W. 45th St.
Biltmore (1,000), 265 W. 47th St.
Booth (708), 220 W. 45th St.
Broadhurst (1,118), 235 W. 44th St.
Bronx Opera House (2,571), 436 E. 149th St., Bronx
Capitol (5,486), 1639 Broadway
Carnegie Hall (2,760), 880 Seventh Ave.
Casino (1,477), 1404 Broadway
Central (922), 220 W. 47th St.
Chanin's (1,413), 226 W. 46th St.
Chelsea (979), 312 Eighth Ave.
Civic Repertory (1,100), 105 W. 14th St.
Coliseum (3,095), 181st St. & Broadway
Colony (1,900), 1681 Broadway
Columbia (1,313), 701 Seventh Ave.
Comedy (682), 108 W. 42d St.
Commodore (2,830), 105 Second Ave.
Cort (1,043), 130 W. 48th St.
Cosmopolitan (1,500), 6 Columbus Circle
Craig (1,434), 152 W. 54th St.
Criterion (886), 1520 Broadway
Delancey (Loew's), (1,788), 140 Delancey St.
Edyth Totten (299), 247 W. 48th St.
Eighty-First Street (2,015), 2248 Broadway
Eltinge (892), 236 W. 42d St.
Empire (1,099), 1428 Broadway
Erlanger (1,520), 246 W. 44th St.
Ethel Barrymore (1,200), 243 W. 47th St.
Fairmount (2,504), Tremont and Clinton Aves.
Fordham (Keith) (2,422), 215 Fordham Rd., Bronx
Forrest (1,015), 238 W. 49th St.
Forty-Eighth Street (969), 155 W. 48th St.
Forty-Fourth St. (1,323), Roof (Nora Bayes) (860), 216 W. 44th St.
Forty-Ninth St. (708), 231 W. 49th St.
Forty-Second St. (1,258), 132 W. 42d St.
Franklin (3,041), 161st St. & Prospect Ave., Bronx
Fulton (913), 206 W. 46th St.
Gaiety (808), 1547 Broadway
Gallo (1,400), 254 W. 54th St.
Garrick (537), 63 W. 35th St.
Geo. M. Cohan (1,111), 1480 Broadway
Globe (1,416), 1555 Broadway
Grand (1,611), 255 Grand Street
Grand Opera House (1,906), 261 Eighth Ave.
Guild (914), 243 W. 52d St.
Hamilton (1,892), 3560 Broadway
Hammerstein (1,265), B'way, between 53d & 54th Sts.
Hampden (1,473), 1887 Broadway
Harlem (978), 1314 Fifth Ave.
Harlem Grand (1,485), 119 E. 125th St.
Harlem Opera House (1,734), 209 W. 125th St.
Henry Miller's (946), 124 W. 43d St.
Hippodrome (5,190), 756 Sixth Ave.
Hopkins (299), 153 W. 49th St.
Hudson (1,094), 139 W. 44th St.
Hurtig & Seamon's (1,755), 253 W. 125th St.
Imperial (1,446), 238 W. 45th St.
Intimate (2,840), 2133 Boston Rd., Bronx
Irving Place (1,133), Irving Pl. & 15th St.
Jefferson (1,893), 214 E. 14th St.
John Golden (900), West 58th St. near B'way.
Klaw (800), 251 W. 45th St.
Knickerbocker (1,421), 1396 Broadway
Lafayette (1,245), 2225 Seventh Ave.
Lexington (2,559), 571 Lexington Ave.
Liberty (1,202), 234 W. 42d St.
Lincoln (854), 58 W. 135th St.
Lincoln Square (1,539), 1947 Broadway
Lipzin (1,081), 235 Bowery
Little (600), 238 W. 44th St.
Lowe's Boulevard (1,975), 1030 S. Boulevard, Bronx
Lowe's Eighty-Sixth St. (1,450), 162 E. 86th St.
Lowe's Grand (2,430), Fordham Rd. & Jerome Ave., Bronx
Lowe's Orpheum (2,230), 1538 Third Ave.
Loew's Paradise (3,840), 2403 Grand Concourse, Bronx
Longacre (1,019), 220 W. 48th St.
Lyceum (957), 149 W. 45th St.
Lyric (1,406), 213 W. 42d St.
Madison Square Garden (17,000), 825 Eighth Ave.
Majestic (1,800), 245 W. 44th St.
Manhattan Opera House (3,246), 313 W. 34th St.
Mansfield (1,050), 262 W. 47th St.
Martin Beck (1,189), 302 W. 45th St.
Masque ( ), 252 W. 45th St.
Maxine Elliott (924), 109 W. 39th St.
Mecca (1,947), 241 E. 14th St.
Metropolitan Opera House (3,305), 39th St. & B'way
Morosco (893), 217 W. 45th St.
Mount Morris (1,451), 1421 Fifth Ave.
Music Box (1,000), 239 W. 45th St.
National (1,164), 208 W. 41st St.
National (Loew's) (2,333), 570 Bergen Ave., Bronx
National Winter Garden (983), 111 E. Houston St.
Odeon (831), 58 Clinton St.
Odeon (960), 250 W. 145th St.
One Hundred and Sixteenth St. (1,809), 132 West
One Hundred and Twenty-Fifth St. (1,386), 165 E.
Palace (1,733), 1564 Broadway
Paramount (3,528), 1489 Broadway
Park Plaza (1,962), 1746 University Ave., Bronx
People's (1,612), 199 Broadway
Proctor's Twenty-Third St. (1,190), 141 W. 23d St.
Proctor's Fifty-Eighth St. (1,942), 154 E. 58th St.
Proctor's 86th St. (3,160), Lexington Ave. & 86th St.
Proctor's 125th St. (1,681), 112 E. 125th St.
Public (1,753), 66 Second Ave.
Regent (1,854), 1906 Seventh Ave.
Republic (901), 209 W. 42d St.
Rialto (1,960), 201 W. 42d St.
Ritz (945), 219 W. 48th St.
Ritz (2,126), Anderson & Richmond Aves., S. I.
Riveria (1,735), 2579 Broadway
Riverside (1,864), 2561 Broadway
Rivoli (2,122), 1620 Broadway
Roosevelt (1,428), 145th St. & Seventh Ave.
Roxy (5,920), 133 W. 50th St.
Royale (1,118), 242 W. 42d St.
Sam H. Harris (1,051), 226 W. 42d St.
Second Avenue (1,689), 35 Second Ave.
Selwyn (1,067), 229 W. 42d St.
Shubert (1,395), 221 W. 44th St.
Star (2,296), 1714 Lexington Ave.
State (3,600), 1540 Broadway
Stoddard (1,473), 2431 Broadway
Strand (2,989), 1571 Broadway
Superior (880), 443 Third Ave.
Times Square (1,057), 215 W. 42d St.
Town Hall (1,476), 113 W. 43d St.
Vanderbilt (771), 148 W. 48th St.
Victoria (2,394), 233 W. 125th St.
Waldorf (1,101), 122 W. 50th St.
Wallack (770), 256 W. 42d St.
Winter Garden (1,493), 1632 Broadway
Yiddish Art (2,295), 114 E. 14th St.
Yiddish Folks (1,234), 189 Second Avenue
Ziegfeld (1,622), 955 Sixth Ave.

BROOKLYN.

Academy of Music (2,207), 30 Lafayette Ave.
Albee (3,274), 1-7 DeKalb Ave.
Albermarle (2,700), 973 Flatbush Ave.
Amphion (1,420), 477 Bedford Ave.
Bayridge (1,796), 3d Ave. & 72d St.
Bedford (1,931), 1362 Bedford Ave.
Bijou (1,570), 26 Smith St.
Bushwick (2,208), 1396 Broadway
Coney Island (2,387), 1301 Surf Ave.
Dekalb (2,242), 1155 DeKalb Ave.
Empire (1,661), Ralph Ave. & Quincey St.
Flatbush (1,695), 2213 Church Ave.
Fox (4,089), Flatbush Ave. & Nevins St.
Gayety (1,590), 16-20 Throop Ave.
Kenmore (3,025), Church Ave. & Kenmore Pl.
King (Loew's) (3,690), 1027 Fatbush Ave.
Majestic (1,828), 651 Fulton St.
Melba (2,256), 300 Livingston St.
Metropolitan (3,618), 394 Fulton St.
Orpheum (1,874), 578 Fulton St.
Paramount (4,126), DeKalb Ave. & DeBevose Pl.
Patio (2,609), 574 Flatbush Ave.
Prospect (2,443), 329 Ninth St.
Sanders (1,501), 187 Prospect Park West
Savoy (2,438), 1507 Bedford Ave.
Shuberts (1,766), 850 Monroe St.
Star (1,487), 389 Jay St.
Strand (2,870), 647 Fulton St.
Supreme (929), 966 Fulton St.
Tilyou (2,218), 1607 Surf Ave.
Tivoli (1,910), 365 Fulton St.
Werba Brooklyn (1,529), 413 Flatbush Ave.

The total number of theatres in Greater New York is approximately 500, which includes shows where movies make up some of the bill.

Public dance halls number 275, and cabarets, 160. The total seating capacity of the places of amusement is over 1,200,000.

LEADING CHURCHES IN THE CITY OF NEW YORK.

MANHATTAN.

There are three cathedrals: St. Patrick's (Roman Catholic), Fifth Ave. and 50th St.; the Cathedral of St. John the Divine (Protestant Episcopal), located on W. 111th St., between Amsterdam and Morningside Aves.; and St. Nicholas (Greek Orthodox), located at 1 E. 97th St., near Fifth Ave.

The leading houses of worship, by chief denominations, follow:

Baptist—Central, 92d St., and Amsterdam Ave.; Park Avenue, 5th Ave. and 76th St. (new edifice, known as Riverside Baptist, is going up at 122nd St. and Riverside Drive); the First, W. 79th St., corner Broadway; Judson Memorial, 55 Washington Sq. So.; Madison Ave. Church, cor. E. 31st St.; Metropolitan, W. 128th St. and 7th Ave; Mount Morris, 5th Ave., near W. 127th St.

Christian Science (Church of Christ, Scientist)—First, Central Park West and 96th St.; and the Second, 10 W. 68th St.

Congregational—Tabernacle, Broadway and 56th St.; and Manhattan (building) Broadway and W. 76th St.

Disciples of Christ—Central Church, W. 81st St., near Columbus Ave.

Friends' (Quakers)—Meeting Houses: (Hicksite), E. 15th St. and Rutherford Pl.; and (Orthodox), 144 E. 20th St.

Jewish—Temple Israel, W. 91st St., near B'way; Congregation B'nai Jeshurun, 88th St. and West End Ave.; ShearithIsrael, Central Park West and 70th St.; Rodeph Sholom Temple, W. 83rd St., near Central Park West; Temple Emanu-El, 5th Ave. and 65th St.; Anshe Chisel, West End Ave. and 100th St.; Central, 55th St. and Lexington Ave.; West End, 160 W. 82nd; Free Synagogue, Carnegie Hall.

Lutheran—Advent, Broadway and 93d St.; Grace, 123 W. 71st St.; Holy Trinity, Central Park West and 65th St.; and Immanuel, Lexington Ave. and E. 88th St.

Methodist Episcopal—Calvary, 129th St. and 7th Ave.; Church of All Nations, 9 2d Ave.; Grace, 131 W. 104th St.; John St., 44 John St.; Madison Ave., Park Ave. and 60th St.; Metropolitan Temple, 58 7th Ave.; St. Andrews, 126 W. 76th St.; St. Paul's, West End Ave. and 86th St.; and Union, W. 48th St., near Broadway.

Presbyterian—Brick, 5th Ave. and 37th St.; Broadway, at W. 114th St.; Park Ave. and 64th St., Fifth Ave., at 55th St.; First, 5th Ave. and 11th St.; Fourth, West End Ave. and 91st St.; Madison Ave., at 73d St.; Park Ave., at E. 85th St.; Rutgers, W. 73d St., near Broadway; Scotch, Central (building), Park West and 96th St.

Protestant Episcopal—Ascension, 5th Ave. and 10th St.; Christ Church, 71st St. near Broadway; Epiphany, 259 Lexington Ave.; Grace, Broadway and 10th St.; Heavenly Rest, with new chapel adjoining, 5th Ave. and 90th St.; Holy Trinity, 316 E. 88th St.; Incarnation, 205 Madison Ave.; "Little Church Around the Corner" (Transfiguration), 5 E. 29th St.; St. Andrew's, 127th St. near 5th Ave.; St. Bartholomew's, Park Ave. and 52d St.; St. George's, Stuyvesant Sq.; St. James's, Madison Ave. and 71st St.; St. Luke's, Convent Ave. and 141st St.; St. Mark's-in-the-Bouwerie, 2d Ave. and 10th St.; St. Paul's Chapel, Broadway and Vesey St.; St. Thomas's, 5th Ave. and 53d St.; Trinity Church, Broadway and Wall St.

Reformed Church in America—Marble (Collegiate), 5th Ave. and 29th St.; St. Nicholas (Collegiate), 5th Ave. and 48th St.; West End (Collegiate), West End Ave. and 77th St.

Roman Catholic—Ascension, 107th St., near Broadway; Holy Trinity, 205 W. 82d St.; Notre Dame, Morningside Drive and 114th St.; St. Agnes's, 143 W. 43d St.; St. Andrew's, Duane St. and City Hall Place; St. Brigid's, 123 Ave. B; St. Cyril, St. Mark's Pl.; St. Francis Xavier, 42 W. 16th St.; St. Ignatius Loyola's, Park Ave. and E. 84th St.; St. Leo's, 11 E. 28th St.; St. Patrick's, Mott and Prince Sts.; St. Paul the Apostle's, Columbus Ave. and W. 60th St.; St. Peter's, 20 Barclay St.

Seventh Day Adventist—First, 122 W. 76th St.

Unitarian—All Souls, Lexington Ave. and 80th St.; Community Church, 61 E. 34th St.

Universalist—(Fourth), Church of the Divine Paternity, Central Park West and 76th St.

Hellenic Eastern Christian—Orthodox Church of the Holy Trinity on E. 72d St., near 3d Ave.

Among other places of worship in Manhattan are: All Night Mission, 8 Bowery; Bowery Mission, 227 Bowery; Broome St. Tabernacle, 395 Broome St.; Church of the Strangers (Deems Memorial), 307 W. 57th St.; De Witt Memorial, 280 Rivington St.; Divine Inspiration (Spiritualist), 20 W. 91st St.; Doyers St. Midnight Mission, 5 Doyers St.; Eighth Ave. Mission, 290 8th Ave.; Gospel Tabernacle, 44th St. and 8th Ave.; Labor Temple, 2nd Ave. and 14th St.; McAuley Cremorne Mission, 434 W. 42nd St.; McAuley's Water St. Mission, 316 Water St.; New Church (Swedenborgian), 35th St., near Park Ave.; Pentecostal Nazarene, 210 W. 14th St.; Progressive Spiritualists' Church, 325 W. 59th St.; Salvation Army (see Index); Seamen's Christian Association, 399 West St.; Seventh Day Christian, 151 W. 125th St.; Society of Ethical Culture, 2 W. 64th St.; Temple of International Bible Students' Ass'n, Inc., 22 W. 63d St.; Theosophical Society, 25 W. 45th St.; Vedanta Society, 34 W. 71st St.; Volunteers of America.

BROOKLYN.

Baptist—Temple, 3d Ave. and Schermerhorn St.; Emmanuel, Lafayette Ave. and St. James Pl.; Hanson Place, at So. Portland Ave.; Sixth Ave., at Lincoln Pl.; Washington Ave., at Gates Ave.; First, New York Ave. and Dean St.

Christian Scientist—First, New York Ave. and Dean St.

Congregational—Central, Hancock St., near Franklin Ave.; Clinton Ave., at Lafayette Ave.; Flatbush, Dorchester Rd. and E. 18th St.; Pilgrims, Henry and Remsen Sts.; Plymouth, Orange St., near Hicks St.; South, President and Court Sts.; St. Paul's, New York Ave. and Sterling Pl.; Tompkins Ave., at McDonough St.

Disciples of Christ—Flatbush, Dorchester and Marlborough Roads.

Friends—(Hicksite), 110 Schermerhorn St.; (Orthodox), Lafayette and Washington Aves.

Jewish—Beth-El, 12th Ave. and 41st St.; Beth Judah, 904 Bedford Ave.; Beth Sholaum, 399 9th St.; Eighth Ave., at Garfield Pl.; Mt. Sinai, State and Hoyt Sts.; People's Temple, Bay P'kway and 85th St.; Temple Israel, Bedford and Lafayette Aves.

Lutheran—Emmanuel, 421 7th St.; Evangelical, Schermerhorn St., near Court St.; Good Shepherd, 4th Ave. and 75th St.; Redeemer, Lenox Rd. and Flatbush Ave.; St. Luke's, Washington Ave., near DeKalb Ave.; St. Peter's, Bedford Ave., near DeKalb Ave.; Zion, Henry St., near Clark St.

Methodist Episcopal—First, Henry and Clark Sts.; Grace, 7th Ave. and St. John's Pl.; Hanson Pl., at St. Felix St.; New York Ave., at Dean St.; Simpson, Clermont and Willoughby Aves.; Summerfield, Washington and Greene Aves.

Methodist—(Primitive), Park Pl., near Nostrand Ave.

Moravian—Jay St., near Myrtle Ave.

Presbyterian—Bedford, Dean St. and Nostrand Ave.; Central, Marcy and Jefferson Aves.; First, Henry St., near Clark St.; Lafayette Ave., at So. Oxford St., Memorial, 7th Ave. and St. John's Pl.; Spencer Memorial, Clinton and Remsen Sts.; Throop Ave., at Macon St.; Westminster, Clinton St. and 1st Pl.

Protestant Episcopal—Christ, Clinton and Harrison Sts.; Grace, Hicks St. and Grace Court; Holy Trinity, Clinton and Montague Sts.; Messiah, Greene and Clermont Aves.; Redeemer, Pacific St. and 4th Ave.; St. Ann's, Clinton and Livingston Sts.; St. Bartholomew's, Pacific St., near Bedford Ave.; St. James's, Lafayette Ave. and St. James Pl.; St. John's, 7th Ave. and St. John's Pl.; St. Luke's Clinton Ave., near Fulton St.; St. Paul's, Clinton and Carroll Sts.

Reformed Church in America—Bethany, Clermont Ave., near Willoughby Ave.; First, of Williamsburgh, Bedford Ave. and Clymer St.; First, Flatbush and Church Aves.; Heights, Pierrepont St., near Henry St.; Old First, 7th Ave. and Carroll St.

Roman Catholic—Holy Name of Jesus, Prospect Ave. and Prospect Park West; Our Lady of Lourdes, De Sales Pl., near Broadway; Our Lady of Mercy, Schermerhorn St., near Bond St.; Queen of All Saints, Lafayette and Vanderbilt Aves., St. Agnes's, Hoyt and Sackett Sts.; St. Augustine's; 6th Ave. and Sterling Pl.; St. Charles Borromeo, Sidney Pl. and Livingston St.; St. Francis Xavier's, 6th Ave. and Carroll St.; St. James Pro-Cathedral, Jay and Chapel Sts.; St. John the Baptist's, Willoughby Ave., near Lewis Ave.; Sts. Peter and Paul, Wythe Ave., near So. 2d St.; St. Saviour's, 6th St. and 8th Ave.

Swedenborgian—Church of the New Jerusalem, Monroe Pl. and Clark St.

Unitarian—Saviour, Pierrepont St. and Monroe Pl.; Second, Clinton and Congress Sts.

Universalist—All Souls', Ditmas and Ocean Aves.

Miscellaneous—Brooklyn Spiritualist Soc., 28 Irving Pl.; Brooklyn Tabernacle, 17 Hicks St.; Christian and Missionary Alliance, 1560 Nostrand Ave.; Ethical Culture Soc., Academy of Music; Reformed Presbyterian, 452 Monroe St.; St. Nicholas Greek Orthodox, 301 Pacific St.

HOSPITALS IN MANHATTAN, BRONX AND RICHMOND BOROUGHS.

Army, U. S. Institution for care of insane and disabled soldiers, Kingsbridge Road and Sedgwick Ave.
Beekman St., Beekman and Water Sts.
Bellevue, First Ave. and E. 26th St.
Beth David, 1824 Lexington Ave.
Beth Israel, Livingston Pl., bet. 16th and 17th Sts.
Broad Street, 129 Broad St.
Bronx, 1385 Fulton Ave.
Bronx Maternity, 166th St. and Grand Concourse.
Cancer Institute, Welfare Island.
Central and Neurological, Welfare Island.
Children's, N. Y. City, Randall's Island.
City, Welfare Island.
Columbus, 226 E. 20th St.; extension at Edgecombe Ave. and 163d St.
Community, St. Nicholas Pl. and 150th St.
Doctors', East End Ave., bet. 87th and 88th Sts.
Eye (Knapp Memorial), 500 W. 57th St.
Eye and Ear Infirmary, Bronx, 459 East 141st St.
Eye and Ear Infirmary, New York, Second Ave. and 13th St.
Eye, Ear and Throat Infirmary, Harlem, 2099 Lexington Ave.
Eye, Ear and Throat, Manhattan, 210 E. 64th St.
Fifth Ave., at 105th St.
Flower, Eastern Boulevard and E. 63d St.
Fordham, Crotona Ave. and Southern Boulevard.
French, 324 W. 30th St.
Gouverneur, Gouverneur Slip and Front St.
Harlem, Lenox Ave. and 136th St.
Herman Knapp Memorial Eye, Tenth Ave. and 57th St.
Holy Comforter, 196th St. and the Grand Concourse.
House of Rest for Consumptives, Inwood. (Has been combined with the Sprain Ridge Hospital at Yonkers.)
Hospital for Deformities and Joint Diseases, 1919 Madison Ave.
Hospital for Incurables, City Home for Aged and Infirm, Welfare Island.
House of Calvary (cancer), Featherbed Lane and Macomb's Road.
Hudson Street, 67 Hudson St., (U. S. Public Health Service Hospital, No. 70).
Incurables, Third Ave. and 182d St.
Italian, 83d St. and East River.
Jewish Maternity, 270 East Broadway.
Jewish Memorial, Dyckman St. and River Road.
Knickerbocker, 70 Convent Ave.
Lebanon, Westchester and Cauldwell Aves.
Lenox Hill, Lexington and Park Aves., E. 76th and 77th Sts.
Lincoln, East 141st St. and Concord Ave.
Lutheran, Convent Ave. and 144th St.
Lying-in, Second Ave., 17th and 18th Sts. This institution, it is announced, is to merge with the New York Hospital in the new Medical Center which is to include Cornell Medical School and Hospital, overlooking the East River, between 68th and 70th Sts., Ave. A and Exterior St.
Manhattan Maternity, 323 E. 60th St. This institution in 1929 transferred its real and persona property to New York Hospital, which will include a maternity hospital and children's clinic in the new Medical Center, on the south side of 70th St. between York Ave. and Exterior St.
Unification of the Post Graduate and Reconstruction hospitals was planned late in 1929.
Manhattan State (Insane), Ward's Island; office, 175 Fifth Ave.
Medical Center—Extends between Riverside Drive and Broadway, from 165th St. to 168th St. The site covers 22 acres. The twelve units composing the Centre which formally opened in 1928 are: the Presbyterian Hospital; the College of Physicians and Surgeons of Columbia University; the Sloans Hospital for Women; the New York State Psychiatric Institute and Hospital; the Babies Hospital; the Squire Urological Clinic; Presbyterian Hospital School of Nursing; the Neurological Institute and Hospital; the Stephen V. Harkness Patient Pavilion; the School of Dental and Oral Surgery; the Vanderbilt Clinic; and the De Lamar Institute of Public Health. These combined institutions have 1,674 beds. The Neurological Institute, 168th St. and Haven Ave., opened in 1929.
Memorial (cancer), Central Park West and 106th St.
Metropolitan, Blackwell's (Welfare) Island.
Midtown, 229 E. 57th St.
Minturn, foot E. 16th St.
Misericordia, 531 E. 86th St.
Montefiore Home and Hospital for Chronic Diseases, Gun Hill Road near Jerome Ave.
Morrisania City, East 168th St. and Gerad Ave.
Mount Sinai, Fifth Ave. and 100th St.
New York Foundling, 175 E. 68th St.
New York, 8 W. 16th St.
N. Y. Infirmary, Women and Children, 321 E. 15th St.
New York Nursery and Child's, Amsterdam Ave. and 61st St.
New York Ophthalmic, 201 E. 23d St.
New York Orthopaedic, 429 E. 59th St.
New York Polyclinic, 345 W. 50th St.
New York Post-Graduate, Second Ave. and 20th St.
New York Skin and Cancer, Second Ave. and 19th St.
Pan-American, 163 E. 90th St.
People's, 203 Second Ave.
Presbyterian (see Medical Center).
Reception, N. Y. City, Welfare Island.
Reconstruction, 100th St. and Central Park West.
Richmond Memorial, Staten Island.
Riverside, North Brother Island.
Rockefeller Institute for Medical Research Hospital, 66th St. and York Ave.
Roosevelt, Ninth Ave. and 59th St.
Ruptured and Crippled, 321 E. 42d St.
St. Ann's Maternity, 130 E. 69th St.
St. Elizabeth of Hungary, 689 Fort Washington Ave.
St. Francis's, Brook Ave., corner E. 143d St.
St. Luke's, Amsterdam Ave. and 113th St.
St. Mark's, 175 Second Ave.
St. Mary's Free, for Children, 405 W. 34th St.
St. Vincent's, Seventh Ave. and 12th St., also on Staten Island.
Salvation Army (Booth Memorial), 316 E. 15th St.
Sea View, Castleton Corners, Staten Island.
Seton, Spuyten Duyvil Parkway.
Sloane, for Women (see Medical Center).
Staten Island, Castleton Ave., Tompkinsville, S. I.
Sydenham, 123d St. and Manhattan Ave.
Tonsil, 153 E. 62d St.
Union, of the Bronx, Valentine Ave. and 188th St.
Vanderbilt Clinic (see Medical Center).
Willard Parker and Reception, foot of E. 16th St.
Woman's, 141 W. 109th St.

HOSPITALS IN BROOKLYN AND QUEENS BOROUGHS.

Bethany Deaconesses, 237 St. Nicholas Ave.
Beth Moses, Hart St. and Stuyvesant Ave.
Bradford Street, 113 Bradford St.
Brooklyn, Raymond St. and De Kalb Ave.
Brownsville and E. N. Y., Rockaway Parkw. and Ave. A.
Bushwick, Howard and Putnam Aves.
Caledonian, Parkside Ave.
Cancer, Brooklyn, 109 Cumberland St.
Coney Island, Ocean P'kw'y, near Ave. Z.
Cumberland, Auburn Pl. and No. Portland Ave.
Eye and Ear, 94 Livingston St.
Flushing, Parsons and Forest Aves., Flushing.
Greenpoint, Kingsland Ave. and Bullion St.
Harbor, Cropsey and 23d Aves.
Hebrew Maternity, 1395 Eastern Parkway.
Holy Family, 155 Dean St.
House of St. Giles the Cripple, Brooklyn Ave. and President St.
Insane, State Hospital for, Clarkson Ave.
Israel Zion, 4810 Tenth Ave.
Jamaica, Van Wyck Ave., Richmond Hill.
Jewish, Classon and St. Mark's Aves.
Kingston Ave. (contagious diseases), Fenmore St.
Kings County, Clarkson Ave., near Albany Ave.
Long Island College, Henry and Amity Sts.
Long Isl. State (insane) Clarkson St. and Albany Av.
Lutheran, East New York Ave. and Junius St.
Mary Immaculate, 85 Bay St., Jamaica.
Methodist Episcopal, Seventh Ave. and 7th St.
Naval, Flushing Ave., foot Ryerson St.
Neponsit Beach, Rockaway Beach.
Norwegian, Fourth Ave. and 46th St.
Nursery and Infants, 396 Herkimer St.
Peck, Carson C., Memorial, Crown St. & Albany Ave.
Prospect Heights, 775 Washington Ave.
Queensboro, Flushing Ave. and Union Turnpike, Jamaica.
Rockaway Beach, with dispensary, Queens.
St. Anthony's, Woodhaven.
St. Catherine's, Bushwick Ave. near Ten Eyck St.
St. Cecilia Maternity, Humboldt and Richardson Sts.
St. John's, 480 Herkimer St.
St. John's, L. I. City, 12th St. and Jackson Ave.
St. Joseph's, 427 Beach 19th St., Far Rockaway
St. Mary's, St. Mark's Ave., near Rochester Ave.
St. Peter's, Henry, Congress and Warren Sts.
Samaritan, Fourth Ave. and 17th St., and (Skene) 759 President St.
Sea View, Castleton Corners, Staten Island.
Swedish, Rogers Ave. and Sterling Place.
Trinity, 1835 East New York Ave.
United Israel-Zion, 10th Ave. and 48th St.
Unity, 1545 St. John's Place.
Wyckoff Hgts., St. Nicholas Ave., Stanhope St.

ASYLUMS AND HOMES IN NEW YORK CITY.

Actors' Fund Home (Englewood, N. J.), office, 701 Seventh Ave.
American Female Guardian Society and Home for the Friendless, 936 Woodycrest Ave.
Arthur Home for Blind Babies, Summit, N. J. Office, 96 Fifth Ave., N. Y.
Association for the Relief of Respectable, Aged and Indigent Females, Amsterdam Ave. and 104th St.
Baptist Home for the Aged, 116 E. 68th St.
Beth Abraham Home for Incurables, 612 Allerton Ave.
Braker Home for Old People, Third Ave. and 182nd St.
Catholic Guardian Soc., 130 W. 37th St.
Catholic Home Bureau for Dependent Children, 477 Madison Ave.
Catholic Centre for Blind, 221 E. 79th St.
Catholic Institute for the Blind, 221st St. and Eastchester Road.
Catholic Protectory, Westchester, N. Y. City office and reception house, 415 Broome St.
Children's Aid Society, Headquarters, 105 E. 22d St.
City Home for the Aged and Infirm, Welfare Island.
Clara de Hirsch Home for Working Girls, 225 E. 63d St.
Colored Orphan Asylum, Palisade Ave. and W. 259th St.
Daughters of Jacob, 167th St., and Taller Ave.
Dominican Home for Working Girls, 207 E. 71st St.
East View Farms, Staten Island (city almshouse).
Edgewater Creche (Englewood, N. J.), office 38 Bleecker St.
Edwin Gould Foundation for Children, 598 Madison Ave.
Elizabeth Home for Girls, 307 E. 12th St.
Five Points House of Industry, office 454 W. 23d St.
Florence Crittenden Home, 427 W. 21st St.
Freedman (Andrew) Home, 1126 Walton Ave.
Free Home for Young Girls, 318 Mosholu Parkway.
Half-Orphan Asylum, Manhattan Ave. and 104th St.
Daughters of Israel, 1255 5th Ave.
Greek American Institute, 908 Eagle Ave.
Grace Chapel Home for Aged, 414 E. 14th St.
Hebrew Children's Home, 205th St. and Grand Concourse.
Hebrew Home for Infants, University Ave. and Kingsbridge Road.
Hebrew Orphan Asylum, Amsterdam Ave. and 138th St.; Friendly Home, 545 W. 159th St.
Hebrew Sheltering and Immigrant Aid Society, 425 Lafayette St.
Hebrew Sheltering Guardian Society Orphan Asylum, Pleasantville, N. Y. City office, 470 W. 145th St.
Heckscher Foundation for Children, 1 E. 104th St.
Home for Aged and Infirm Hebrews, 121 W. 105th St.
Home for Incurables, Third Ave. and 182d St.
Home for Old Men and Aged Couples, Amsterdam Ave., and 112th St.
Home for the Sons and Daughters of Israel, 232 E. 10th St.
Home of Old Israel (aged) 204 Henry St.
Hope Farm, Verbank, office, 209 E. 42d St., N. Y.
Hopper, Isaac T., Home, 110 Second Ave.
House of the Good Shepherd, 90th St. and East River.
House of the Holy Comforter, 196th St. and Grand Concourse.
House of the Holy Family, Schurz Ave.
Howard Mission and Home for Little Wanderers, 225 E. 11th St.
Institution for the Improved Instruction of Deaf Mutes, Lexington Ave., and 67th St.
Institution of Mercy, Madison Ave. and 81st St.
Isabella Home, Amsterdam Ave. and 190th St.
Israel Orphan Asylum, 274 Second St.
Jeanne d'Arc Home for French Girls, 251 W. 24th St.
Letchworth Village, Thiells, N. Y., office, 7 Wall St.
Little Sisters of the Poor, 145 W. 106th St.; 213 E. 70th St.; 183d St. and Belmont Ave.
Manhattan State Hospital (Insane), Ward's Island.
M. E. Ch. Home, Amsterdam Ave. and 92d St.
Millbank Memorial Home, 11 W. 10th St.
Municipal Lodging House, 432 E. 25th St.
Newsboys' Lodging House (Brace Memorial), 224 William St.
New York Institute for the Education of the Blind, Pelham P'kway and Williamsbridge Rd.
New York Institute for the Instruction of the Deaf and Dumb, Ft. Washington Ave. and W. 163d St.
Old Ladies' Home, Amsterdam Ave. and 104th St.
Old Peoples Home of Eastern Missionary Assoc., 2860 Lafayette Ave.
Orphans' Home and Asylum of the P. E. Church, Convent Ave. and 235th St.
Peabody Home for Aged and Indigent Women, 2064 Boston Road.
Powell (A. Clayton) Home for Aged (Colored), St. Nicholas Ave.
Presbyterian Home for Aged Women, 49 E. 73d St.
Protestant Unity League Waiting Home (Aged) 1074 Washington Ave.
Sacred Heart Orphan Asylum, Ft. Washington Ave. and 190th St.
Sailors Snug Harbor, New Brighton, Staten Island.
St. Barnabas House, 304 Mulberry St.
St. Benedicts Home for Destitute Colored Children, Rye. Office, 381 Lafayette St., N. Y.
St. Francis's Home for the Aged, 609 5th St.
St. Joseph's Home for the Aged, 209 W. 15th St.
St. Joseph's Home for Destitute Children (Peekskill, N. Y.), House of Reception, 12 W. 129th St.
St. Joseph's Institute for Deaf Mutes, Throgg's Neck.
St. Luke's Home for Aged Women, 2419 Broadway.
St. Philip's Home for Industrious Working Boys, 417 Broome St.
St. Philips Parish Home (Aged Women) 211 W. 133rd St.
Salvation Army, National Headquarters, 120 W. 14th St.; Industrial Homes for Men, 533 W. 48th St. and 229 E. 120th St.; Rescue Home for Fallen Women, 318 E. 15th St.; Hotel for Men (Memorial Hotel), 225 Bowery; Shelter for Homeless Women, 243 Bowery.
Samaritan Home for Aged, 440 E. 88th St.
Sea View Farms, Castleton Corners, Staten Island.
Sevilla Home for Children, Lafayette Ave. and Manida St., Hunts Point.
Sheltering Arms, Amsterdam Ave. and 129th St.
Society for Prevention Cruelty to Children, 5th Ave. and 105th St.
Travelers' Aid Society, 144 E. 44th St.; guest house, 149 E. 43rd St.
Trinity Chapel Home (Aged Women) 1666 Bussing Ave.
Tuberculosis Preventorium for Children, Farmingdale, N. J.; (office), 116 W. 39th St.
United Odd Fellows Home and Orphanage, 1072 Havemeyer Ave.
Washington Square Home for Friendless Girls, 9 W. 8th St.
Webb's Institute and Home for Shipbuilders, Sedgwick Ave. and 188th St.

HOMES FOR THE AGED—BROOKLYN AND QUEENS.

Baptist Home of Brooklyn, Greene and Throop Aves.
Bethany Home, 604 E. 40th St.
Bethel Swedish M. E. Ch. Home (Ossining). Offices 1236 N. Y. Ave.
Brooklyn Hebrew Home and Hospital, Howard and Dumont Aves.
Brooklyn Home for Colored People, 1095 St. John's Place.
Brooklyn Home for Men and Couples, 745 Classon Ave.
Brooklyn M. E. Church Home, Park Place and N. Y. Ave.
Brooklyn Presbyterian Home, Office 32 Court St.
Chapin Home for Aged and Infirm, Jamaica.
Church Charity Foundation Home, 452 Herkimer St.
Congregational Home, 123 Linden Ave.
Danish Home, 1055 41st St.
German Evangelical Aid Soc. Home, Bushwick Ave. and Chauncey St.
Graham Home (Women), 320 Washington Ave.
Greenpoint Home, Oak and Guernsey Sts.
Little Sisters of the Poor, 8th Ave., and 16th St. and at Bushwick and DeKalb Aves.
Long Island Odd Fellows Home, Jamaica. Office, 60 Clinton St.
Marien-Heim of Brooklyn, 870 Ocean Parkway.
Menorah Home, 871 Bushwick Ave.
Norwegian Christian Home, 1250 67th St.
Ozanam Home for Friendless Women, 46 Concord St.
Swedish Augustana Home, 1680 60th St.
Wartburg Lutheran Home, 2598 Fulton St.

HOMES FOR THE AGED, OUT OF TOWN.

Eventide, Salvation Army (Tappan). Office, 122 W. 14th St.
German Masonic (Tappan, N. Y.). Office, 220 E. 15th St.
Independent Order, B'Nai B'rith (Yonkers), office, 1819 Broadway, Max Levy.
Little House of Divine Providence (White Plains), office, 303 Elizabeth St.
Margaret A. Howard Home (Tarrytown), Office, 477 Madison Ave., Miss Mabel McClure.
Mary L. Heins Memorial (Mt. Vernon), Office at the Home.
Miriam Osborn Memorial Home (Rye), office, 55 Wall St., Miss H. C. Adams.
Seabury Memorial (Mt. Vernon), office at the Home.
Society of St. Johnland (Kings Park), office, 49 W. 20th St.
Swiss Home (Mt. Kisco), office, 35 W. 67th St.
United Home for Aged Hebrews (New Rochelle) office, 299 Broadway, Julius Kuschner.

BUILDING CONSTRUCTION IN NEW YORK CITY (BY BOROUGHS).

Year.	Manhattan.		Bronx.		Brooklyn.		Queens.		Richmond.	
	No. of Bldgs.	Cost.	No. of Bldgs.	Cost.	No. of Bldgs.	Cost.	No. of Bldgs.	Cost.	No. of Bldgs.	Cost.
		Dollars.		*Dollars.*		*Dollars.*		*Dollars.*		*Dollars.*
1900..	1,009	49,622,400	1,023	8,500,863	3,019	16,499,582	944	2,796,521	283	872,178
1910..	838	96,703,029	2,028	44,034,405	5,770	34,813,720	4,133	15,144,377	841	3,363,868
1911..	840	98,537,275	1,357	32,837,060	5,288	32,598,240	5,374	22,212,355	911	2,513,324
1912..	757	116,325,135	1,310	34,644,400	5,105	36,472,377	4,821	19,651,222	1,007	3,412,103
1913..	577	73,970,685	846	20,072,489	3,616	30,719,101	4,653	17,504,955	1,013	3,377,109
1914..	411	45,471,165	735	16,347,382	4,379	38,269,185	4,596	18,098,290	1,166	2,272,898
1915..	489	64,652,869	962	28,119,100	5,121	40,300,600	5,756	20,316,392	1,381	2,630,192
1916..	564	114,690,145	650	16,725,582	4,946	35,397,480	5,333	20,009,683	1,378	4,563,716
1917..	321	29,068,525	640	8,545,475	2,696	27,613,290	3,619	11,651,078	1,171	3,715,570
1918..	182	8,507,000	206	3,991,900	2,815	17,858,425	2,228	6,768,138	891	2,085,293
1919..	379	72,283,061	1,089	21,006,865	12,889	68,137,966	8,910	46,022,687	2,135	4,295,399
1920..	783	96,199,860	1,115	18,585,600	8,598	63,548,948	6,914	38,092,548	2,026	4,838,841
1921..	936	121,032,441	3,529	72,150,739	15,208	146,812,715	13,991	81,663,823	3,441	10,170,910
1922..	1,075	140,941,677	4,748	107,081,184	21,105	194,301,755	21,583	134,283,277	3,239	11,083,059
1923..	1,569	178,981,460	5,472	122,731,203	35,891	284,215,480	25,021	157,711,745	3,041	12,177,938
1924..	926	258,761,585	6,512	127,979,621	24,834	218,167,790	24,688	156,556,224	3,519	16,132,879
1925..	940	370,776,504	4,557	150,674,402	32,630	258,914,583	29,300	158,867,400	5,672	13,961,068
1926..	817	310,625,970	3,300	202,125,000	26,577	288,868,987	21,895	167,800,000	5,459	14,394,941
1927..	714	259,100,515	5,110	163,171,001	15,811	208,102,935	22,641	179,624,011	2,795	11,679,904
1928..	910	323,913,420	4,433	182,905,549	11,752	182,767,850	18,712	146,509,524	2,998	15,638,515

TOTAL—WHOLE CITY.

Year.	No. of Bldgs.	Cost.	Year.	No. of Bldgs.	Cost.	Year.	No. of Bldgs.	Cost.	Year.	No. of Bldgs.	Cost.
		Dollars.			*Dollars.*			*Dollars.*			*Dollars.*
1901..	7,657	146,551,697	1908..	13,967	62,912,548	1915..	13,709	156,019,153	1922..	51,750	587,690,952
1902..	6,496	111,735,299	1909..	19,190	254,061,035	1916..	12,871	191,386,606	1923..	70,994	755,817,826
1903..	7,502	112,326,826	1910..	13,610	194,059,399	1917..	8,447	80,593,938	1924..	60,479	777,598,099
1904..	11,365	150,148,816	1911..	13,770	178,698,154	1918..	6,322	39,210,756	1925..	61,501	946,916,566
1905..	17,369	244,648,206	1912..	13,000	210,505,237	1919..	25,402	221,745,978	1926..	58,047	987,446,757
1906..	17,345	221,886,427	1913..	10,705	145,644,339	1920..	19,436	221,265,897	1927..	47,071	821,678,366
1907..	16,162	179,050,247	1914..	11,287	120,458,920	1921..	37,105	431,830,628	1928..	38,805	851,734,858

TAX RATES ON REAL PROPERTY IN NEW YORK CITY, BY BOROUGHS, SINCE 1908

Year.	Manhattan, Bronx.	Brooklyn.	Queens.	Richmond.	Year.	Manhattan, Bronx.	Brooklyn.	Queens.	Richmond.
	Cents.	*Cents.*	*Cents.*	*Cents.*		*Cents.*	*Cents.*	*Cents.*	*Cents.*
1908....	1.61407	1.67021	1.66031	1.71115	1919....	2.32–2.37	2.36	2.37	2.41
1909....	1.67804	1.73780	1.72536	1.77522	1920....	2.48–2.53	2.54	2.54	2.53
1910....	1.75790	1.81490	1.81079	1.87501	1921....	2.77–2.84	2.80	2.85	2.83
1911....	1.72248	1.75502	1.73645	1.81657	1922....	2.75–2.75	2.76	2.79	2.78
1912....	1.83	1.87	1.84	1.92	1923....	2.74–2.74	2.74	2.74	2.76
1913....	1.81	1.85	1.85	1.92	1924....	2.74–2.74	2.76	2.74	2.76
1914....	1.78–1.77	1.84	1.80	1.90	1925....	2.69–2.69	2.71	2.69	2.71
1915....	1.87–1.94	1.92	1.95	2.24	1926....	2.71–2.71	2.74	2.73	2.74
1916....	2.04–2.09	2.08	2.06	2.13	1927....	2.70–2.70	2.73	2.70	2.69
1917....	2.02–2.08	2.07	2.09	2.12	1928....	2.73–2.71	2.74	2.76	2.73
1918....	2.36–2.40	2.40	2.41	2.46	1929....	2.68–2.62	2.66	2.66	2.66

Note—In 1914, and thereafter, first rate in second column is Manhattan, second is Bronx.

NEW YORKERS WHOSE PERSONAL ASSESSMENT IS $100,000 OR MORE.

(The figures represent the official tentative valuation of personalty.)

$1,100,000—John D. Rockefeller, Sr.
$500,000—Archer M. Huntington, John D. Rockefeller, Jr., Cornelius Vanderbilt, Gertrude V. Whitney, Helen Hay Whitney.
$470,000—Edward S. Harkness.
$400,000—Sarah A. Duke.
$350,000—Florence V. A. Twombly.
$349,000—Mary D. Biddle.
$300,000—Louise W. Carnegie, Nettie G. Naumburg.
$274,000—Jessie W. Donahue.
$250,000—George F. Baker, Mary S. Harkness, Adolph Lewisohn, Harry Payne Whitney.
$200,000—Tecla J. Eagle, Francis W. Hine, Helena W. McCann.
$155,000—Alice G. Vanderbilt.
$150,000—Emma B. Auchincloss, Harry F. Sinclair.
$100,000—Blanche Ames, Paul S. Ames, Stephen M. Ames, Ethel R. Asiel, Edith B. Baker, George F. Baker, Jr., Bernard M. Baruch, Jeanette D. Beaumont, Madeline R. Berolzheimer, Cortlandt F. Bishop, Harry S. Black, Anna E. L. Clark, William M. Cromwell, Anna M. Eidletz, Marione C. Fiske, Michael Friedsam, Rye T. Guggenheim, Carl W. Hamilton, Lilliam Babbitt Hyde, De Lancey Kountze, Eugenie Kress, Oscar Kress, Florence B. Loew, Anna Miller, Ada W. S. Moore, Fernanda W. Munn, Alta R. Prentice, Ralph Pulitzer, Mabel Pynchon, Abby Rockefeller, Selma Rosenthal, Victoria Ross, Clendenin J. Ryan, Juliette Schinasi, Albert H. Schroeder, Jr., Mrs. Robt. H. Schuette, Arthur J. Slade, Nathan J. Stern, J. Ernest Stern, Helen L. B. Stokes, Otto Timme, Robert E. Tod, Marjorie S. Turner, R. Vanderbilt Twombly, Fred W. Vanderbilt, Anna M. Von Zedlitz, Bertha M. G. Voss, Jane H. Walker, Felix M. Warburg, Mary E. Yott.

GRANT'S TOMB.

The monumental tomb of Gen. Ulysses S. Grant, which overlooks the Hudson River, at Riverside Drive and 123d St., Manhattan, was built by popular subscription at a cost of $600,000. The architect was John H. Duncan, who died in Oct., 1929.

The tomb, 150 feet high and 90 feet square, is surmounted by a circular cupola and pyramidal top. The exterior is of granite from Maine and New Hampshire quarries.

Ground was broken April 27 (Grant's birthday), 1891; the cornerstone was laid April 27, 1892; the body was removed from the temporary tomb April 17, 1897, and placed in the Mausoleum; the dedication ceremonies were held April 27, 1897.

The Tomb is open from 9.00 A. M. to 5.00 P. M., or sundown. Admission free at all times.

There are two sarcophagi, one containing the body of Gen. U. S. Grant, the other that of his wife, Julia Dent Grant. These are of Montello Wisconsin granite, a form of red porphyry.

The body was encased in three coffins, one being copper; the exterior one of oak. The sarcophagi was made of such size that it received all the coffins intact.

There are two reliquaries opening from the main hall, in which there are battle flags, portraits and other articles of historical interest appertaining to Gen. Grant.

Gen. Grant was born April 27, 1822; and he died July 23, 1885, at Mt. McGregor, Saratoga, N. Y.

VALUABLE MANHATTAN BUILDINGS.

(1930 Tax Department tentative assessed valuations, subject to revision.)

Name.	1930.	Name.	1930.	Name.	1930.
	Dollars.		*Dollars.*		*Dollars.*
N. Y. Prod. Exchange..	7,000,000	30 Church Street.....	8,775,000	Carbon & Carbide.....	6,300,000
Cunard Bldg.....	13,400,000	50 Church Street.....	5,100,000	Strauss.....	6,200,000
Bowling Green.....	6,000,000	165 Broadway.....	10,400,000	Canadian Pacific.....	8,900,000
Whitehall Bldg.....	8 200,000	Singer Bldg.....	8,500,000	Heckscher Bldg.	
Adams Express.....	11,300,000	Federal Reserve Bank.	14,500,000	(57th St. & 5th Ave.).	7,800,000
American Express.....	5,550,000	Westinghouse Bldg.....	5,000,000	Garment Centre.....	6,325,000
Empire Bldg.....	5,400,000	Amer. Tel. & Tel.....	18,200,000	500 Seventh Ave.....	5,050,000
26 Broadway.....	13,400,000	Nat'l Park Bank.....	4,000,000	524-528 Fifth Ave.	
42 Broadway.....	6,000,000	Woolworth Bldg.....	11,250,000	(Guaranty Trust)....	5,050,000
Exchange Court.....	5,200,000	N. Y. Telephone Co....	11,850,000	New York Times.....	6,750,000
Stock Exchange.....	23,500,000	Bank of America.....	7,500,000	Equitable Life Ins. Co.	
Broad Exchange.....	6,800,000	Transportation Bldg....	6,750,000	(31st St. & 7th Ave.).	14,000,000
Equitable Trust Bldg..	17,250,000	50 Broadway.....	6,000,000	General Motors.....	8,900,000
J. P. Morgan.....	7,000,000	Central Tel. Exchange.	11,685,000	Paramount.....	15,000,000
National City Bank....	8,800,000	Marbridge Bldg.....	5,700,000	Farmers Loan & Trust	
Chase National Bank...	10,900,000	Consolidated Gas.....	15,000,000	Co. Bldg.....	5,900,000
Mutual Life Ins. Co....	10,500,000	Met. Life Ins. Co.....	13,750,000	Liggett Bldg.....	8,550,000
American Surety Co....	8,100,000	Harriman Bldg.....	6,900,000	2 Park Ave.....	8,350,000
Hanover National Bank	5,000,000	Int'l T. & T. Co. Bldg..	5,800,000	51 Madison Ave.	
Bankers Trust.....	7,400,000	National City Co.....	5,400,000	(N. Y. Life Inc.)....	20,000,000
Equitable Office Bldg...	31,750,000	Bank of N. Y. & T. Co.	7,500,000	Murray Hill Bldg.....	6,800,000
Guarantee Trust Co....	4,100.000	Textile.....	6,500,000	Postum Bldg.....	6,400,000
Nat'l Bank of Com....	6,150,000	Knickerbocker.....	6,250,000	1 Pershing Square Bldg.	8,800,000
111 Broadway.....	7,700,000	Loew.....	5,150,000	N. Y. Central Bldg.....	17,500,000
115 Broadway.....	6,700,000	Fiske.....	5,900,000	10 E. 40th St.....	6,000,000
2 Rector Street.....	4,700,000				

HIGH BUILDINGS IN MANHATTAN.

(*Buildings under construction, November, 1929.)

Structure.	Stories.	Height.	Structure.	Stories.	Height.
	No.	*Feet.*		*No.*	*Feet.*
*Bank of the Manhattan.....	65	838	Lincoln Hotel, 8th Ave. & 44th St..	30	.....
Chrysler, Lexington Ave. & 42d St.	68	808	528 7th Ave.....	30	359
Woolworth, 233 Broadway.....	60	792	1046 6th Ave. (at 59th St.).....	29	332
*25 Pine and 34 Wall Sts.....	60	715	Bush Terminal, 130 West 42d St....	29	419
701-19 First Ave., at 40th St....	58	553	Candler, 218-26 West 42d St.....	29	341
Chanin Tower, Lex. Ave. & 42d St.	56	680	Park Row, 13-21 Park Row.....	29	309
*Lincoln, 60 East 42d St.....	53	638	Amer Bk. Note Co., 78 Trinity Pl...	28	374
Metropolitan Life, 1 Madison Ave..	50	700	*270 Broadway.....	28	332
*Am. Ex.-Irving Trust, 1 Wall St...	46	645	Times, Broadway & 42d St.....	28	410
Transportation, 225 Broadway.....	44	542	270 Broadway.....	28	332
10-14 East 40th St.....	44	617	Amer. Tel. & Tel., 195 Broadway...	27	362
Sherry-Netherland Hotel, 5th Ave.			701 First Ave. (40th St.).....	27	258
& 59th St.....	43	620	St. Paul, Broadway & Ann St.....	26	308
200-12 West 38th St.....	43	513	103-19 John St.....	26	230
Mercantile, 10 East 40th St.....	44	617	Consolid. Gas, 14th St. & Irving Pl..	26	514
29 Madison Ave.....	43	495	401 Broadway.....	26	306
Equitable Trust, 15 Broad St.....	42	550	General Motors, 1775 Broadway..	26	315
Ritz Tower, Park Ave. & 57th St....	41	540	859 7th Ave.....	26	249
Singer, 149 Broadway.....	41	612	Biltmore Hotel, Mad. Av. & 43d St..	26	305
Int'l. Telephone, 67 Broad St.....	40	.....	Commodore Hotel, Lex. Av. & 42d..	26	294
Lefcourt-Nat'l, 5th Ave. & 43d St...	40	.....	259-63 Fifth Ave., at 29th St.....	26	297
*New Lefcourt, 295 Madison			McAlpin Hotel, Broadway & 34th..	25	307
Ave., (at 41st St.).....	40	454	Fisk Rubber Co., Broadway &58th.	25	293
*21-29 Union Square West.....	40	474	501-7 Eighth Ave.....	25	285
Bankers Trust, Wall & William Sts.	39	539	499 Lexington Ave.....	25	316
*New Yorker Hotel, 8th A. &34th St.	39	442	134-6 East 48th St., (Hotel).....	25	314
397 Madison Ave.....	39	438	150 Broadway.....	24	371
Chase Nat'l Bk., Nassau & Pine Sts.	38	.....	Municipal, Park Row & Center St...	24	580
Equitable, 120 Broadway.....	37	496	Standard Oil Co., 26 Broadway,...	24	233
585-89 Lexington Ave., (Hotel)....	36	352	1332-60 Broadway.....	24	288
N. Y. C. Offices, Park Ave. & 45th St.	35	560	343-53 Seventh Ave.....	24	300
Empire Tr., 580 Fifth Ave., at 47th St.	35	420	303 East 45th St.....	24	306
F. French 551 Fifth Ave., at 45th St.	35	429	Riverside Dr. at 103rd St.....	24	282
Paramount, Broadway & 43d St....	35	420	104 Maiden Lane.....	23	260
*Daily News, 216 East 42d St....	36	476	Amer. Surety Co., 100 Broadway..	23	306
18 West St.....	35	487	Amer. Tract Soc., Nassau & Spruce	23	306
101 West 58th St.....	34	341	Columbia Trust Co., 60 Broadway..	23	306
N. Y. Central, 76 East 46th St....	34	.....	Cotton Exchange, Hanover Square.	23	291
59-65 Wall Street.....	34	404	2166 B'way, at 76th St., (Hot. Ch.)	23	243
N. Y. Life Ins., Mad. Ave. & 25th St	34	610	Hudson Term. Bldgs., 30-50 Church	22	375
Benenson, 165 Broadway.....	33	487	Flatiron (Fuller) B'way at 23d..	20	286
Savoy-Plaza Hotel, 5th Ave. & 59th St.	33	420	366 Lexington Ave.....	22	249
Bk. of the U.S., 535 5th Ave.....	33	450	214 West 42d St.....	22	220
1441 Broadway.....	33	367	152 Madison Ave.....	22	250
60-8 South St.....	33	399	145 West 51st St.....	22	222
312-24 East 42d St. (Apt. Hotel)...	32	298	261 West End Ave.....	22	235
Salmon Tower, 11 West 42d St.....	32	.....	793 Second Ave.....	21	238
Adams Exp. Co., 61 Broadway.....	32	424	Madison Ave. and 53d St.....	21	236
Amer. Exp. Co., 65 Broadway.....	32	415	485 Riverside Dr.....	21	362
Liberty Tower, Nassau & Liberty Sts.	32	385	322 East 57th St.....	21	213
Whitehall, 17 Battery Pl.....	32	424	Nat'l Bk. of Commerce, 31 Nassau	20	270
Bank of New York & Trust Co.,			Pennsylvania Hotel, 7th Ave. & 33d	20	260
Wall & William Sts.....	32	.....	Yale Club, Vanderbilt Ave. & 44th..	20	263
Hotel Delmonico, Park Av. &59th St.	32	.....	1-9 University Pl.....	20	200
745 5th Ave. (at 58th St.).....	32	288	436 7th Ave.....	20	198
312 East 42nd St.....	32	297	80 Eighth Ave.....	20	246
Graybar, Lexington Ave. & 43d St.	31	350	400-10 Madison Ave.....	20	241
Governor Clinton Hotel.....	31	.....	BROOKLYN.		
371 7th Ave. (at 31st St.).....	31	342	Williamsburg Bank.....	33	512
Wall and Williams Sts.....	30	418	Court and Montague Sts.....	35	409
366-72 Lexington Ave.....	30	331	Court and Livingston Sts.....	30	360
528-36 Seventh Ave.....	30	360	St. George Hotel.....	30	325
Pershing Sq. Bldg., Park Ave & 42d.	30	363	Court and Remsen Sts. (N.W. cor.)	27	347
World's Tower, 110-12 West 42d St.	30	335	Court and Remsen Sts. (S.W. cor.)	20	220

ALTITUDES IN NEW YORK CITY.

The highest natural elevation of land in the City of New York—430 feet—is on top of Todt (Toad or Iron) Hill, Staten Island. This hill rises from the Richmond Road at Garretson's station on the rapid transit railway, and overlooks New Dorp and the Moravian Cemetery, where the Vanderbilts lie buried. This is the highest point on the Atlantic Coast south of Maine.

The highest natural altitude in Manhattan—267 feet 9 inches—is near the site of old Fort Washington, a little west of Fort Washington Avenue, approximately 900 feet north of W. 181st St. The hill at Inwood rises to a height of 232 feet 9 inches. Other elevations in Manhattan above sea level, expressed in feet and decimals thereof, are: Custom House, 17.06; Bowling Green, 21.75; Pine St. and Broadway, 40.78; Municipal Building, 41.61; City Hall, 44.74; Astor Place, 43.01; Union Square, 45.73; Columbus Circle, 86.64; Central Park, near W. 93d St., 114.14; Amsterdam Ave., at Trinity Cemetery, 148.73; Audubon Ave., at W. 174th St., 185.92; Wadsworth Ave., near W. 182d St., 188.33; High Bridge water tower, at the street level, 203.25.

The highest natural elevation in the Bronx—284 feet 6 inches—is on the hill bounded by Iselin Ave., Highland Ave., and W. 250th St., Riverdale Hill. Other Bronx altitudes are: Jerome Ave., near E. 233d St., 210.73; Jerome and Mosholu Aves., Van Cortlandt Park, 193.39; Riverdale Ave. and Spuyten Duyvil Parkway, 178.49; Grand Boulevard and Concourse, and E. 199th St., 148.64; Hall of Fame Terrace, at University Ave., 170.32; Poe Park, E. 192d St., 140.22; east approach to Washington Bridge, at University and Aqueduct Aves., 141.63.

The highest natural elevation in Brooklyn—210 feet—is in Greenwood Cemetery, near the 9th Ave. entrance. Other Brooklyn altitudes are: Base of the Museum on Eastern Parkway, at Washington Ave., 163.44; 9th Ave. (Prospect Park West), 32 feet south of 14th St., 155.34; Prospect Park West and 5th St., 162.16; Union St., Plaza, at Flatbush Ave., 146.29; 59th St. and 5th Ave., 116.96.

The highest elevation in Queens Borough—266.48 feet—is on Little Neck Hill, 800 feet east of Little Neck Road and 435 feet south of 61st Ave.

SUBURBAN ALTITUDES.

Westchester County (feet above mean sea level)—Buttermilk Hill, 743; Chappaqua Hill, 739; Dickerson Hill, 810; Gallows Hill, 443; Indian Hill, 677; Jacobs Hill, 600; Kisco, Mt., 620; Prospect Hill, 460; Salt Hill, 745; Sarles Hill, 725; Spitzenberg Hill, 545.

Nassau County—Harbor Hill, 391; Manhasset Hill, 120.

Suffolk County—Dix Hills, 340; Half Hallow Hills, 240; High Hill, 320; Jacobs Hill, 160; Mannetto Hills, 320; Mattituck Hills, 178; Oregon Hills, 100; Shinnecock Hills, 75; Sinai, Mt., 100; Whale Hill, 100.

Rockland County—Dunderberg, 865; High Tor, 832; Hook Mt., 790; Letterrock Mt., 1,220; Ramapo Mts., 1,260; Rider Hill, 620; Table Rock, 940; the Timp, 1,100; Torne, 1,140; Union Hill, 620.

SUBWAY TRACK ELEVATIONS.

The highest track elevation (altitude above Mean High Water at base of rail) on the New York Subways under operation is 133.5 feet at the Brooklyn Museum Station of the I.R.T. Eastern Parkway Line at Eastern Parkway and Washington Avenue.

On the new city subways under construction, there is a point still higher, 161.2 feet, on the Washington Heights Line at Washington Avenue and 175th Street.

The lowest track elevation (depth below Mean High Water at base of rail) is 113.12 feet under the East Channel of the East River on the 60th Street River Tunnels of the B.M.T. Broadway—7th Ave.—60th St.—Queens Line.

In the following list of subway track elevations, in feet, a minus (−) sign indicates below mean high water.

I.R.T. West Side Line—Cortlandt St., — 9.6; Chambers St., — 10.0; 14th St., — 3.4; Pennsylvania Station, 17.5; Times Square, 22.4; Columbus Circle, 58.7; 72nd St., 55.4; 96th St., 54.3; 190th St. & St. Nicholas Ave., 44.0.

I.R.T.—East Side Line—South Ferry, — 13.0; Wall St. & Broadway, 13.0; Fulton St. & Broadway, 10.7; Brooklyn Bridge, 11.6; 14th St., 16.6; Grand Central, 13.9; 59th St., 20.0; 86th St., 49.0—lower level; 86th St., 65.2—upper level.

B.M.T.—Broadway-7th Ave.-60th St. Line—Whitehall St., — 47.0; Union Square, 17.5; 23rd St., 14.6; 34th St., 15.5; Times Square, 17.5; 57th St., 47.5.

B.M.T.—Centre Street Loop & Canal Street Lines—Chambers St. (Municipal Bldg.), — 2.6; Canal St., — 8.4.

I.R.T. Line—149th St. & Mott Ave., — 7.3; 149th St. & 3rd Ave., 8.6.

Brooklyn—I.R.T.—Clark St.-Fulton St.-Flatbush Ave.-Eastern Parkway Line—Clark St., — 5.0; Borough Hall, 34.0; Nevins St., 14.6; Atlantic Ave., 25.1; Prospect Park Plaza, 86.0; Brooklyn Museum, 133.5; Franklin Ave., 100.5; Nostrand Ave., 85.2—upper level; Nostrand Ave., 69.—lower level; Utica Ave., 81.6—upper level; Utica Ave., 65.4—lower level.

B.M.T.—Flatbush Ave. Extension-4th Ave. Line—DeKalb Ave., 0.0; Pacific St., 5.0; 36th St., — 4.0; 59th St., 61.0.

DISTANCES IN THE CITY OF NEW YORK (FROM THE BATTERY).

From the Battery.	To—	From the Battery.	To—	From the Battery.	To—	From the Battery.	To—
¼ miles	Rector St.	2½ miles	E. 14th St.	4¾ miles	E. 58th St.	6¾ miles	E. 97th St.
½ "	Dey St.	2¾ "	E. 19th St.	5 "	E. 63d St.	7 "	E. 102d St.
¾ "	City Hall	3 "	E. 24th St.	5¼ "	E. 68th St.	7¼ "	E. 107th St.
1 "	Leonard St.	3¼ "	E. 29th St.	5½ "	E. 73d St.	7½ "	E. 112th St.
1¼ "	Canal St.	3½ "	E. 34th St.	5¾ "	E. 78th St.	7¾ "	E. 117th St.
1½ "	Spring St.	3¾ "	E. 38th St.	6 "	E. 83d St.	8 "	E. 121st St.
1¾ "	E. Houston	4 "	E. 44th St.	6¼ "	E. 88th St.	8¼ "	E. 126th St.
2 "	E. 4th St.	4¼ "	E. 49th St.	6½ "	E. 93d St.	10½ "	W. 166th St.
2¼ "	E. 9th St.	4½ "	E. 54th St.				

Every twenty blocks above Houston Street measure one mile.

The distance across the city: At Battery Place is ½ mile; Fulton Street is ¾ mile; Chambers Street is 1 mile; Grand Street is 2½ miles; Houston Street is 2⅝ miles; Fourteenth Street is 2⅝ miles; Twenty-third Street is 2⅝ miles; Inwood is ¾ mile.

From Twenty-third Street northward to One Hundred and Twenty-fifth Street the width of the island averages from 2 to 2¼ miles.

The so-called short blocks in the city are mostly 200 feet long. Under this rule the average depth of a building lot is 100 feet.

The old-time standard width of a lot was 25 feet in Manhattan; the standard width in the other boroughs was, and is, 20 feet.

HIGH BUILDINGS IN OTHER AMERICAN CITIES.

Chicago—The Pittsfield (45) 557 ft.; First M. E. Ch., (25 and tower) 556 ft.; Steuben Club (46) 548 ft.; No. 1 La Salle St. (46) 540 ft.; Forman Nat'l Bank (45) 535 ft.; Northern Tower (42) 540 ft.; Medinah Club (42) 530 ft.

Philadelphia—Manufacturers Club (42) 640 ft.; Fidelity—Philadelphia Trust Co. (30) 377 ft.; Drake Apartments (30) 329 ft.; Philadelphia Inquirer (newspaper) (20), 320 ft.; Chancellor Apartments (21) 290 ft.

Boston—U.S. Custom House Tower (32) 496 ft.; United Shoe Machinery Co. (24) 290 ft.; "Tower" (21) 245 ft.; Ames (13) 188 ft.; Norway Hotel (15) 155 ft.; First Nat'l Bank (15) 155 ft.; Ritz-Carlton Hotel (16) 155 ft.; Metropolitan (14) 155 ft.; Edison (14) 155 ft.; Chamber of Commerce (14) 155 ft.; Statler Hotel (14) 155 ft.; Hudson (14) 154 ft.; Y. W. C. A. (13) 155 ft.

Detroit—Penobscot (47) 557.2 ft.; Union Trust Co. (40) 482 ft.; Book Tower (35) 472.6 ft., David Statt (38) 436.6 ft.; Fisher (28) 420 ft.; Barlum Tower (40) 416 ft.; Eaton Tower (34) 358 ft.; Buhl (26) 350 ft.; Mich. Bell Telephone (19) 340.25 ft.; Book-Cadillac Hotel (28) 330 ft.; First Nat'l Bank (25) 319 ft.; Penobscot (23) 285 ft.; Dime Savings B'k. (23) 285 ft.; Water Board (23) 275 ft.; Hudson Co. (21) 270 ft.; Whitney (19) 250 ft.; Ford (19) 250 ft.; Cadillac Square (20) 250 ft.

Los Angeles—New City Hall (28) 452 ft.; United Artists Theatre (13) 242 ft.; New Hall of Justice (14) 200 ft.; new County Hospital (12) over 150 ft.; Hollywood Storage (13) 150 ft.; Title Insurance Co. (10) 191 ft.; bank building at Hollywood B'l'v'd and Highland Ave. (12) 191 ft.

THE WATER SUPPLY OF NEW YORK CITY.

(Prepared for the Almanac by William W. Brush, Chief Engineer.)

THE CITY'S WATER SUPPLY RESERVOIRS.

Reservoirs.	Area. Acres.	Area. Square Miles.	Elevation Feet.	Capacity Million Gallons
Catskill System.				
Ashokan—E. Basin	5,131.2	8.01	587.0	82,188
" W. Basin	3,184.0	4.82	590.0	48,240
Byram	168.8	0.26	450.6	925
Kensico	2,218.3	3.47	355.0	30,573
Schoharie	1,145.0	1.78	1,130.0	19,583
Wampus	45.6	0.07	409.1	87
Croton System.				
Amawalk	606.1	0.95	399.1	7,086
Barrett's Pond	69.1	0.11	778.1	170
Bog Brook	399.0	0.64	416.1	4,400
Boyd's Corners	296.9	0.46	592.1	2,727
Carmel—Middle Br.	428.2	0.67	371.1	4,145
" West "	1,082.8	1.69	502.1	10,669
Cross River	769.2	1.20	329.1	10,923
Croton Falls	1,062.4	1.66	309.1	14,865
" " Diverting	153.6	0.24	309.1	888
Gilead Lake	122.2	0.19	496.	380
Gleneida Lake	168.9	0.26	504.1	165
Kirk Lake	101.1	0.16	582.1	565
Mahopac Lake	560.0	0.87	659.1	575
Muscoot	1,166.1	1.82	199.1	5,705
New Croton	3,425.3	5.35	201.1	28,110
Sodom E. Branch	556.8	0.90	416.1	5,243
Titicus	669.4	1.05	324.1	7,617
White Pond	115.2	0.18	829.6	200
Ridgewood System.				
Hempstead	237.6	0.37	32.1	880
Distribution Reservoirs.				
Central Park (new)	96.0	0.15	119.4	985
Clove	0.7	.....	254.0	3
High Bridge	2.4	.....	218.0	11
Hill View	90.0	0.14	295.0	929
Jerome Park	91.0	0.14	134.0	773
Mt. Prospect	3.3	.....	200.2	19
Ridgewood (3)	50.1	0.08	172.0	300
Silver Lake	54.0	0.08	228.0	438
Williamsbridge	12.0	0.02	193.3	147

Manhattan and Bronx—Croton water was introduced in 1842. Water from the Bronx River was introduced in 1854, and from the Byram in 1896. The Croton watershed furnishes about one-third of the present supply for Manhattan and Bronx, the rest being supplied from the Catskill system.

The Catskill supply, introduced in 1917, is obtained from the Schoharie and Esopus watersheds in the Catskills.

The Schoharie watershed lies north of the Esopus, in the heart and higher section of the Catskill Mountains. The flow of Schoharie Creek is intercepted by the completed new Gilboa dam which forms the Schoharie reservoir with a capacity of 20,000,000,000 gallons.

The Ashokan reservoir lies 14 miles west of the Hudson at Kingston, N. Y., and 92 miles from the northern city boundary. It has an available storage capacity of 130,400,000,000 gallons.

It is conservatively estimated that even during a series of extraordinarily dry years, at least 585 million gallons of water daily can be drawn from the combined Schoharie and Esopus watersheds, and from the Bronx and Byram watersheds 15 million gallons daily, making the safe yield of the Catskill system at least 600 million gallons daily.

The Croton watershed, 22 miles north of the city line, has an area of 375 square miles and a safe yield of 336,000,000 gallons daily.

Brooklyn—The Esopus watershed together with the old Brooklyn system furnish the entire supply for the Borough of Brooklyn, with the exception of the Twenty-ninth Ward, which is supplied by the Flatbush Water Works Company.

Queens—The city supplies only the First, Second and Third Wards in the Borough of Queens. The Esopus watershed furnishes about 70 per cent of the supply to these wards.

Richmond—The Borough of Richmond is supplied from the Esopus watershed, supplemented by a small amount from local wells at one or more of the pumping stations, which yield about 8,000,000 gallons daily. Silver Lake reservoir, the terminal reservoir for the Catskill system, is located in this borough.

The total cost of the completed Catskill system will be about $187,500,000, of which $27,000,000 is for the Schoharie works.

Kensico reservoir, east of the Hudson and 30 miles from the City Hall, contains enough Catskill water to supply New York several months, if husbanded.

Hill View reservoir is located in the City of Yonkers, just north of the New York City line and 15 miles south of Kensico reservoir. Its function is to equalize the difference between the use of water in the city as it varies from hour to hour and the steady flow in the aqueduct.

The Hudson River is crossed by a tunnel wholly in granite rock, at a depth of 1,114 feet below sea level, between a shaft at Storm King Mountain on the west bank and another shaft on the east side of the river at Breakneck Mountain.

At the Ashokan reservoir, and also at Kensico reservoir, aerators have been built. The aerators are substantially alike and are great fountain basins, approximately 500 feet long by 250 feet wide, each containing about 1,600 nozzles, through which jets of water are thrown vertically into the air, permitting thorough admixture of oxygen from the atmosphere and removal of undesirable gases and other matters causing tastes and odors.

Within the screen chambers downstream from Ashokan and Kensico reservoirs and in the Hill View downtake chamber chlorine is introduced into the water flowing in the aqueduct for the destruction of germ life. The gas is delivered at the chambers compressed to a liquid state in steel containers. Chlorine is used to insure the practical sterilization of the water before it goes to the city and is wholly neutralized or dissipated before the water reaches the distribution pipes.

From Hill View reservoir Catskill water is delivered into the five boroughs by a circular tunnel in solid rock reducing in diameter from 15 to 14, 13, 12, and 11 feet. The total length of the tunnel is eighteen miles. From two terminal shafts in Brooklyn steel and cast iron pipe lines extend into Queens and Richmond. One 36-inch and one 42-inch flexible-jointed cast iron pipe, buried in trenches in the harbor bottom, have been laid across the Narrows to the Staten Island shore,

WATER CONSUMPTION IN NEW YORK CITY—GALLONS (AVERAGE) PER DAY.

Year.	Manhattan and Bronx.	Brooklyn.	Queens.	Richmond.	Private Cos., All Boroughs.	Total, incl. Private Cos.
1910	331,000,000	143,100,000	12,600,000	8,900,000	32,900,000	528,500,000
1911	298,000,000	140,300,000	13,400,000	9,500,000	32,200,000	494,400,000
1912	303,000,000	142,000,000	14,200,000	10,200,000	35,600,000	505,000,000
1913	314,000,000	124,300,000	13,600,000	11,600,000	35,500,000	499,000,000
1914	347,000,000	134,300,000	14,800,000	11,700,000	36,900,000	544,700,000
1915	341,000,000	128,800,000	13,000,000	11,500,000	34,600,000	528,900,000
1916	365,000,000	136,500,000	12,700,000	12,500,000	39,300,000	566,000,000
1917	373,800,000	140,300,000	18,500,000	12,400,000	39,600,000	584,600,000
1918	413,300,000	170,000,000	16,200,000	15,500,000	43,400,000	658,400,000
1919	417,400,000	168,600,000	15,900,000	17,000,000	41,300,000	660,200,000
1920	466,200,000	187,200,000	18,100,000	18,400,000	45,000,000	734,900,000
1921	462,300,000	186,600,000	18,000,000	17,800,000	46,600,000	731,300,000
1922	453,100,000	205,600,000	26,400,000	18,200,000*	39,200,000	742,500,000
1923	465,600,000	205,600,000	32,100,000	20,000,000	38,300,000	761,600,000
1924	468,200,000	207,900,000	40,300,000	21,900,000	41,900,000	780,200,000
1925	492,900,000	233,900,000	45,900,000	21,700,000	45,200,000	839,600,000
1926	511,400,000	229,100,000	50,700,000	23,300,000	48,800,000	863,300,000
1927	515,400,000	226,100,000	53,100,000	22,000,000	51,500,000	868,100,000
1928	509,300,000	228,300,000	67,200,000	21,500,000	52,000,000	873,300,000

whence a 48-inch cast iron pipe and a 66-inch steel pipe extend to the Silver Lake reservoir, holding 435,000,000 gallons. The total length of the delivery system is about 56 miles. The tunnel is at depths of 200 to 750 feet below the street surface, thus avoiding interference with streets, buildings, subways, sewers and pipes.

The cost of the portions of the Catskill aqueduct within the city limits, including the tunnel, pipe lines, appurtenances and Silver Lake reservoir, is about $37,000,000.

The terminal Silver Lake reservoir for the Catskill water system, located on Staten Island, is about 2,400 feet long and 1,500 feet wide. It holds 435,000,000 gallons, and is 228 feet above tidewater.

In order to improve and safeguard the delivery of the present Catskill supply within the city, a new city tunnel is in course of construction under four contracts which were awarded on Oct. 5, 1928. The estimated cost will be about $42,692,567.

It will extend from Hill View reservoir through the borough of The Bronx, under the East river near Riker's Island and into the borough of Queens and thence into the borough of Brooklyn, where a connection with the present city tunnel will be effected.

FIRE PROTECTION.

High Pressure Fire Service System—The high pressure fire service system in Manhattan is bounded by Thirty-fourth Street, Madison Avenue, Twenty-fourth Street, Lexington Avenue, Fourteenth Street, Third Avenue, Bowery, Houston Street, East River, Battery, North River. There are two pumping stations—Gansevoort and West Streets, and Oliver and South Streets. Each station has six electrically driven centrifugal pumps. Either fresh or salt water may be used. Each pump can deliver 3,000 gallons a minute. The combined capacity of the two stations is equal to about fifty fire engines.

In Brooklyn there are two high pressure fire service systems. The one for the business and manufacturing districts is bounded by the Navy Yard, St. Edward's Street, St. Felix Street, Fort Greene Place, Fifth Avenue, Twenty-fourth Street, Fourth Avenue, Thirty-ninth Street and the water front, covering an area of 4.8 miles. The supply is furnished by two stations, one located at the foot of Joralemon Street, and the reserve at Willoughby and St. Edward's Streets. Both draw their supply from the Ridgewood mains. The main station is connected to the East River.

The Coney Island high pressure system protects an area of 470 acres. The pumping station is located at West 12th Street and Coney Creek.

STEPS IN BROOKLYN'S GROWTH.

(From the Brooklyn Daily Eagle Almanac of 1911)

1623—Brooklyn settled by Europeans in neighborhood of 19th Ward (Wallabout).
1645—Gravesent received a Dutch charter.
1646—Brooklyn organized as a village, June 12.
1652—A colony established in Flatbush.
1653—Flatbush, including New Lots, and Brooklyn received a Dutch charter.
1654—New Utrecht received a Dutch charter.
1660—Bushwick received patent.
1661—Bushwick organized as a town.
1665—Brooklyn received an English charter.
1665—Flatbush, including New Lots, received an English charter.
1665—Flatlands received an English charter.
1788—Brooklyn, Flatbush, including New Lots, New Utrecht, Gravesend, Flatlands and Bushwick organized as towns by the State, March 7.
1801—Brooklyn organized as a village, April 2. The records show that Brooklyn was referred to as a town as early as 1642.
1801—Brooklyn incorporated as a fire district, April 2. There was a fire district in Brooklyn in 1785.
1816—Brooklyn village incorporated.
1826—Village of Brooklyn divided into five districts (not wards).
1827—Williamsburgh incorporated as a village, April 14.
1834—April 8, Brooklyn incorporated as a city.
1834—Second Ward organized (original ward).
1834—Fourth and Ninth wards organized. They were original wards.
1840—Williamsburgh organized as a town from Bushwick.
1850—Tenth Ward organized from old Sixth, March 23. The Eleventh Ward, created at same time, being taken from old Seventh.
1851—Williamsburgh incorporated as a city, April 7.
1852—New Lots organized from Flatbush, February 12.
1855—Brooklyn, Williamsburgh and Bushwick consolidated by Act of April 17, 1854, which went into effect January 1, 1855.
1856—The 19th Ward was created and taken from the old 7th Ward.
1863—The 20th Ward was created and taken from the 11th Ward.
1868—The 21st Ward was created and taken from the old 9th Ward. The 22d Ward was created and taken from the 8th Ward.
1873—The 1st Ward of Brooklyn was reorganized under the charter of this year by adding to it the old 3d Ward. Both these were original wards formed in 1834. The new 3d Ward was taken from the 10th Ward. The 23d, 24th and 25th Wards were created by the charter of 1873 and taken from the old 9th Ward.
1886—The town of New Lots, the present 26th Ward, was added to Brooklyn.
1892—The present 27th and 28th Wards were created and taken from the old 18th Ward.
1896—Jan. 1. Towns of Flatbush, New Utrecht, Gravesend and Flatlands consolidated with Brooklyn and became respectively the 29th, 30th, 31st and 32d Wards, making Kings County and Brooklyn coterminous.
1898—Jan. 1. Brooklyn consolidated with New York, Richmond and Queens Counties, to make the "Greater New York."

HOTELS IN MANHATTAN BOROUGH IN 1899.

Adams House, 10th Ave. and 12th St.
Albemarle, Broadway and 24th St.
Albert, 79 University Place
American, 640 8th Ave.
Ashland, 4th Ave. and 24th St.
Astor House, Broadway, opposite Post Office.
Balmoral, Lenox Ave. and 113th St.
Bancroft House, Broadway and 21st St.
Bartholdi, Broadway and 23d St.
Belvedere, 4th Ave. and 18th St.
Beresford, 1 W. 81st St.
Brevoort House, 11 5th Ave.
Bristol, 5th Ave. and 42d St.
Broadway Central, 671 Broadway.
Buckingham, 5th Ave. and 50th St.
Cadillac, Broadway and 43d St.
Cambridge, 5th Ave. and 33d St.
Colonial, 125th St. and 8th Ave.
Colonnade, 726 Broadway
Continental, Broadway and 20th St.
Cosmopolitan, Chambers St. and W. Broadway.
Endicott, Columbus Ave. and 81st St.
Everett House, 4th Ave. and 17th St.
Fifth Avenue, 5th Ave. and 28d St.
Gilsey House, Broadway and 29th St.
Grand, Broadway and 31st St.
Grand Union, 4th Ave. and 42d St.
Grenoble, 7th Ave. and 56th St.
Herald Square, 34th St. near Broadway.
Hoffman House, 1111 Broadway.
Holland House, 5th Ave. and 30th St.
Imperial, Broadway and 32d St.
Madison Avenue, Madison Ave. and 58th St.
Majestic, 4 West 72d St.
Manhattan, 42d St. and Madison Ave.
Metropole, Broadway, 41st and 42d Sts.
Metropolitan, Broadway and 27th St.
Mills (No. 1), Bleecker and Thompson Sts.
Mills (No. 2), Rivingston and Chrystie Sts.
Morton House, Broadway and 14th St.
Murray Hill, Park Ave. and 40th St.
Netherland, 5th Ave. and 59th St.
New York, 30 East 42d St.
Normandie, Broadway and 38th St.
Park Avenue, Park Ave. and 32d St.
Plaza, 5th Ave. and 59th St.
St. Cloud, Broadway and 42d St.
St. Denis, Broadway and 11th St.
St. George, Broadway and 12th St.
San Remo, 8th Ave. and 75th St.
Savoy, 5th Ave. and 59th St.
Sherman Square, Boulevard and West 71st St.
Sinclair House, 754 Broadway.
Smith & McNell's, 197 Washington St.
Stevens House, 21 Broadway.
Sturtevant, 1186 Broadway.
Union Square, 16 Union Square.
United States, Fulton and Water Sts.
Vendome, Broadway and 41st St.
Waldorf-Astoria, 5th Ave. 33d to 34th Sts.
Westminster, Irving Pl. and 16th St.

PUBLIC SCHOOLS IN NEW YORK CITY.

(Board of Education Headquarters, Park Ave. and 59th St.)

There are 680 public schools in the City of New York, excluding night schools. They are classified as follows: Elementary and Junior High schools, 619, high schools, 38; training schools for teachers, 3, industrial high schools, 5, compulsory continuation schools, 15.

Of the elementary schools, 142 are in Manhattan, 86 are in the Bronx, 214 in Brooklyn, 132 in Queens, 45 in Richmond. (July 1929.)

All high schools offering a four years' general course prepare for college.

A candidate for college admission should be careful to select as elective the subjects required by the particular college which he expects to enter.

Graduates of this course may earn the academic and State college entrance diplomas.

They may also compete for the State scholarships and for the various scholarships offered by many of the leading colleges.

HIGH AND TRAINING SCHOOLS.

MANHATTAN.

New York Training School for Teachers, Hugo Newman, Principal. W. 135th St. and Convent Ave.

High School of Commerce (boys), 155 W. 65th St. Edward J. McNamara, Principal.

George Washington High School (girls and boys), 192d St. and Audubon Ave., Arthur A. Boylan, Principal.

Haaren High School (girls and boys), 10th Ave., 58th and 59th Sts.

Julia Richman High School (girls), Second Ave., E. 67th and 68th Sts., Michael H. Lucey, Principal.

Wadleigh High School (girls), 215 W. 114th St., Stuart H. Rowe, Principal.

Washington Irving High School (girls), 40 Irving Place, Edward C. Zabriskie, Principal.

Stuyvesant High School (boys), 345 E. 15th St. Ernest R. von Nardroff, Principal.

Textile High School (girls and boys), 60 W. 13th St., William H. Dooley, Principal.

Seward Park Junior and Senior High School (girls and boys), 39 Hester St., Robert B. Brodie, Principal.

BRONX.

Morris High School (girls and boys), 166th St. near Third Ave., Elmer E. Bogart, Principal.

Evander Childs High School (girls and boys), 120 E. 184th St., Henry I. Norr, Principal.

Theodore Roosevelt High School (girls and boys), E. Fordham Rd. and Washington Ave., William R. Hayward, Principal.

James Monroe High School (girls and boys), 172d St. and Boynton Ave., Henry E. Hein, Principal.

DeWitt Clinton High School, Mosholu Parkway between Gaynor and Sedgwick Avenues, A. Mortimer Clark, Principal.

Walton Junior and Senior High School (girls), 141st St. and Brook Ave., Mary A. Conlon, Principal.

BROOKLYN.

Maxwell Training School for Teachers, Park Place, west of Nostrand Ave., Fred'k L. Holtz, Principal.

Girls' High School, Nostrand Ave., Halsey and Macon Sts., William L. Felter, Principal.

Girls' Commercial High School, Classon Ave. and Union St., Mrs. Evelyn W. Allan, Principal.

Boys' High School, Marcy and Putnam Aves., Eugene A. Colligan, Principal.

Manual Training High School (girls and boys), Seventh Ave. and Fourth St., Horace M. Snyder, Principal.

Erasmus Hall High School (girls and boys), Flatbush Ave. between Church and Snyder Aves., J. Herbert Low, Principal.

Alexander Hamilton High School of Commerce (boys), Bergen St. and Albany Ave., Gilbert J. Raynor, Principal.

Eastern District High School (girls and boys), Marcy Ave. and Rodney St., William T. Vlymen, Principal.

Bushwick High School (girls and boys), Irving Ave. and Madison St., Milo F. McDonald, Principal.

Bay Ridge High School (girls), Fourth Ave. and 67th St., Kate E. Turner, Principal.

New Utrecht High School (girls and boys), 79th St. and 16th Ave., Harry A. Potter, Principal.

Thomas Jefferson High School (girls and boys), Dumont and Pennsylvania Aves., Elias Lieberman, Principal.

Brooklyn Technical High School (boys), Flatbush Ave. Extension and Concord St., Albert L. Colston, Principal.

James Madison High School (girls and boys), Quentin Rd. and East 25th Street.

Franklin K. Lane Junior Senior High School (girls and boys), Evergreen Ave. and Eldert St., Charles E. Springmeyer, Principal.

QUEENS.

Jamaica Training School for Teachers, Parsons and Gilman Aves., Maurice Rogalin, Principal.

Bryant High School (girls and boys), Wilbur Ave. and Academy St., Long Island City, James P. Warren, Principal.

Jamaica High School (girls and boys), 168th Street and Gothic Drive, Charles H. Vosburgh, Principal.

Newtown High School (girls and boys), Chicago Ave. and Gerry St., Elmhurst, James D. Dillingham, Principal.

Far Rockaway High School (girls and boys), Beach 25th St., Sanford J. Ellsworth, Principal.

Richmond Hill High School (girls and boys), 114th St. and 89th Ave., Matthew L. Dann, Principal.

Flushing High School (girls and boys), Northern Blvd. and Union St., Arthur L. Janes, Principal.

RICHMOND.

Curtis High School (girls and boys), Hamilton Ave. and St. Marks Place, New Brighton, John M. Avent, Principal.

Tottenville High School (girls and boys), Summit Avenue, Nathan J. Lowe, Principal.

Port Richmond High School, Innis St. and St. Joseph Ave., Port Richmond, William Halloran, Principal.

CONTINUATION SCHOOLS.

MANHATTAN.

East Side, Hester and Chrystie Sts. (P. S. 7).

West Side, 208 West 13th St., between 7th and 8th Aves. Has employment bureau.

Central Commercial, 725 Broadway (at Waverly Place).

Central Building Trades, 215 E. 21st St., between 2d and 3d Aves.

Central Printing Trades, 240 West 40th St. Has employment bureau.

Central Needle Trades, 128 W. 31st St.

East Side, Oliver, Oak and James Sts. Has employment bureau.

Harlem, Girls' (P. S. 66), 415 E. 88th St. Has employment bureau.

THE BRONX.

Bronx, 157th St. and 3d Ave.

BROOKLYN.

Brooklyn Girls', Third Ave., State and Schermerhorn Sts. Has employment bureau.

Brooklyn Boys', 11 Bond St. Has employment bureau.

East New York, 2416 Atlantic Ave. Has employment bureau.

Williamsburg, South 4th St., near Havemeyer St. Has employment bureau.

QUEENS.

Queens 47th Ave. and 37th St., Long Island City. Has employment bureau.

Jamaica, 170th St. and Jamaica Ave., Jamaica (P. S. 49.) Has employment bureau.

RICHMOND.

Staten Island, Housman Ave., and La Salle St., Elm Park. Has employment bureau.

INDUSTRIAL HIGH SCHOOLS.

Manhattan—(Boys), 138 Street, west of 5th Avenue, Charles J. Pickett, Principal.

Murray Hill, (Boys), 237 East 37th Street. Charles Harper, Principal.

Manhattan Trade School, (Girls), 127 East 22nd Street, Florence M. Marshall, Principal.

Bronx—(Girls), College Avenue and 145th Street; Margaret Burke, teacher in charge.

Brooklyn—(Boys), Jay and Nassau Streets; James H. Allen, Principal.

EDUCATION STATISTICS, NEW YORK CITY.

(Compiled by the local school authorities. Figures relate to day schools only.)

School Year.	Avg. Attendance.	Schools.	Teachers' Salaries.	Cost of Supplies.	Bond Expenditures.	Teachers, Ex. Sub.	Pension Payments.
			Dollars.	*Dollars.*	*Dollars.*		*Dollars.*
1898-1899	358,897	425	8,059,958.89	924,727.75	3,162,924.45	10,008	124,296.18
1899-1900	378,211	448	10,583,133.64	891,199.63	5,277,596.33	10,555	214,563.54
1900-1901	397,928	517	12,587,011.56	1,012,433.48	5,324,872.08	11,388	263,805.27
1901-1902	420,480	513	13,395,882.38	900,417.24	4,646,974.62	12,069	343,017.18
1902-1903	439,928	506	14,351,802.94	1,073,413.63	6,037,425.07	12,696	420,026.93
1903-1904	466,571	501	14,885,891.42	1,254,901.40	6,541,189.16	13,327	477,418.76
1904-1905	487,005	506	15,574,005.00	1,147,722.63	10,546,333.26	14,906	526,502.36
1905-1906	505,827	510	16,870,891.47	1,291,400.90	12,898,256.51	15,878	616,984.54
1906-1907	523,084	511	17,582,067.32	1,355,985.55	11,931,318.01	15,613	689,390.64
1907-1908	545,098	515	18,596,874.70	1,498,666.42	11,520,694.26	16,489	724,129.78
1908-1909	574,664	528	19,713,148.01	1,254,241.27	7,745,660.58	17,073	777,800.83
1909-1910	586,673	525	20,604,324.38	1,333,322.69	2,739,075.80	17,724	833,863.55
1910-1911	603,455	527	21,375,522.95	1,310,888.82	3,676,448.05	18,195	880,389.89
1911-1912	627,150	527	24,247,184.49	1,427,069.42	4,576,453.75	18,892	983,554.90
1912-1913	634,515	530	26,829,003.19	1,518,030.22	4,543,051.90	19,496	1,108,874.33
1913-1914	666,345	537	28,070,965.01	1,654,506.95	5,011,756.89	20,448	1,183,397.09
1914-1915	702,856	549	29,833,323.11	1,854,368.11	5,084,261.78	21,105	1,163,800.40
1915-1916	726,844	552	30,534,644.95	1,651,051.53	2,952,485.64	20,719	1,127,492.68
1916-1917	721,136	551	31,570,413.36	1,596,033.75	2,529,843.72	21,823	1,143,646.02
1917-1918	699,695	548	33,558,852.27	1,564,344.25	2,094,980.47	22,627	1,273,591.79
1918-1919	712,245	551	35,414,517.51	1,645,931.80	2,694,929.62	23,034	1,379,150.65
1919-1920	735,654	552	40,812,256.72	1,610,974.32	2,806,229.47	23,600	1,458,433.10
1920-1921	779,031	556	60,209,528.82	1,949,666.65	9,559,011.22	24,235	1,550,933.05
1921-1922	813,560	570	62,984,567.53	3,093,107.70	13,857,988.57	25,198	1,607,653.71
1922-1923	853,490	582	78,091,492.34	3,674,735.09	22,030,852.79	26,442	1,921,772.38
1923-1924	870,315	611	80,259,885.32	3,683,368.08	40,682,605.76	27,637	1,545,605.98
1924-1925	890,939	632	83,007,435.36	3,485,783.42	60,273,389.23	30,167	1,638,257.76
1925-1926	909,529	662	86,253,032.63	3,512,639.02	24,485,378.74	31,125	1,660,017.12
1926-1927	925,643	666	89,730,689.97	3,682,865.04	18,134,732.61	31,825	2,037,567.08
1927-1928	939,591	676	99,403,047.09	3,828,315.00	19,695,870.00	32,655	2,370,227.59
1928-1929	947,987	680	109,301,648.90	4,062,013.95	26,807,752.89	33,504	2,613,303.99

Public school graduates (June, 1929), numbered 30,765 boys and 33,612 girls.

Of these, 20,186 boys and 21,609 girls were elementary school graduates; 10,502 finished at the junior high schools; 10,770, at the secondary schools; 165 completed the 3-yr. high school course; 31 closed their 2-yr. industrial course, and 1,114 graduated at training schools.

The total register of all day schools on September 30, 1929 was 1,056,465, of which 789,228 were in the elementary schools, 93,391 in the junior high schools, 163,799 in the high schools, 4,024 in the training schools for teachers, 368 in the parental school, 5,236 in the industrial high schools and 419 in the Stater Island Continuation and Vocational School.

The number of pupils on short time in September, 1929, was 38,546 in the elementary schools, 1,229 in the junior high schools, 31,298 in the high schools—a total of 71,073.

Women teachers cannot be dismissed from the public schools of New York City because they marry.

The first free public school in Brooklyn was opened July 4, 1661, with Carl Debevoise as teacher. It was on the south side of Fulton St., near Hoyt St.

Of 414,544 New York City public school children examined in 1928, by the Education officials, 33,918 had defective vision; 101,562 had defective teeth 127,572 suffered from tonsil-adenoid troubles; 56,433 showed malnutrition; 5,116 had bad hearts; 371 had pulmonary defects; and 2,610 walked with web feet.

NEW YORK CITY PENSION LAW.

The New York City Pension Law provides that all employees, except those in exempt and non-competitive classes, entering the city service after Oct. 1, 1920, shall become members of the retirement system, and all present city employees may become members by filing with the Board of Estimate and Apportionment a statement waiving all present or prospective benefits in other city retirement systems. The Board of Estimate and Apportionment has charge of all funds and of the entire system; the Comptroller is the custodian of the several funds, which are (1) Annuity savings funds, (2) Annuity reserve fund, (3) Contingent reserve fund, (4) Pension reserve fund, (5) Pension fund.

Teachers, policemen, firemen and street-cleaners do not enter into this system, as they have their own.

Among the provisions of this law are life insurance protection equal to the last twelve months' pay of the employee, disability insurance protection of from one-quarter to one-half of the salary any time after completing ten years of service and paying, as long as the disability continues, a three-quarter pay pension if the employee is disabled in the performance of duty, a half-pay pension to the dependents with return in cash of all contributions at 4 per cent per annum if the employee is killed in the performance of duty, retirement on demand after the ages of fifty-eight, fifty-nine and sixty, on a benefit proportioned to length of service and amount of compensation.

The city pays for all of these benefits except one-half of the cost of service or superannuation retirement benefit on account of service during membership in the fund. The city also pays the entire cost of the benefits allowed by reason of service rendered prior to Oct. 1, 1920. The amount of the salary paid into the pension fund is from 3.85 to 8.30 per cent.

100,000 ON CITY PAY ROLL.

There are approximately 131,000 regular or occasional officials and employees in the service of the City of New York. Salaries and wages in a year exceed $190,000,000.

Under Chapter 788 of the Laws of 1928—Provision is made for retirement of the member at age 55 or therefore if said member has elected to contribute at a rate necessary to allow retirement at said age. Any present employee member had to make the decision of electing to contribute at a new higher rate prior to Oct. 1, 1928; any future member may so elect at the time he becomes a member.

ASSETS IN THE RETIREMENT FUNDS, (DECEMBER 31, 1928.)

(Figures in parentheses show number of pensioners on the rolls on Dec. 31, 1928.)

Actuarial Funds—New York City Employees' Retirement System (1,192), $47,330,895.88; Teacher's Retirement System (2,546), $51,798,480.94; Board of Education Retirement System (145), $3,783,673.90; Hunter College Retirement System (24), $515,578.50.

Departmental Funds—Police Pension Fund (6233), $412,419.73; Fire Department Relief Fund (3,591), $852,447.85; Department of Street Cleaning Relief and Pension Fund (2,208), $469,800.71; Health Department Pension Fund (357), $118,152.94.

Miscellaneous Funds—Grady Law (171); Civil War Veterans' Act, (Pensions Paid by appropriation only) (54); Supreme Court (38), None; General Sessions (15), $82,837.61; County Court of Kings County (o) $40,989.29.

NEW YORK CITY ASSESSED VALUES AND TAX LEVIES.

Year.	Realty Other Than Corp't'n.	Realty of Corporat'n.	Special Franchises.	Total of 3 Preced. Col'ns.	Personal Property.	Grand Totals.	Tax Levy.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
1910..	6,491,335,999	87,447,075	465,409,600	7,044,192,674	372,644,825	7,416,837,499	131,474,976
1911..	7,211,325,769	166,496,295	481,018,100	7,858,840,164	357,923,123	8,216,763,287	142,237,757
1912..	7,279,579,651	169,170,440	413,147,799	7,861,898,890	342,963,540	8,204,862,430	150,956,702
1913..	7,387,347,104	180,549,176	438,861,581	8,006,647,861	325,418,440	8,332,066,301	151,786,264
1914..	7,458,784,625	186,654,976	404,420,311	8,049,859,912	340,295,560	8,390,155,472	150,503,894
1915..	7,527,890,627	200,897,090	379,973,070	8,108,760,787	352,051,755	8,460,812,542	160,295,797
1916..	7,568,649,179	213,820,520	425,352,662	8,207,822,361	376,530,150	8,584,352,511	176,381,879
1917..	7,570,367,350	222,614,005	461,567,645	8,254,549,000	419,156,315	8,673,705,315	177,067,174
1918..	7,672,715,813	227,448,940	439,474,098	8,339,638,851	251,414,875	8,591,053,726	198,232,811
1919..	7,775,808,999	242,832,150	409,681,604	8,428,322,753	362,412,780	8,790,735,533	204,756,495
1920..	7,961,898,798	246,511,175	417,712,584	8,626,121,707	296,506,185	8,922,627,892	223,021,070
1921..	9,268,281,195	276,447,330	428,256,579	9,972,895,104	213,222,175	10,186,207,279	284,146,634
1922..	9,541,002,025	282,488,900	426,500,910	10,249,991,835	210,608,045	10,460,599,880	286,077,228
1923..	9,880,587,528	285,848,050	429,630,770	10,596,066,348	216,585,350	10,812,651,698	295,803,052
1924..	10,441,106,794	279,144,950	428,559,749	11,148,811,493	231,174,150	11,379,985,643	312,664,521
1925..	11,155,299,900	292,090,500	453,958,153	11,901,348,553	239,509,540	12,140,856,093	327,951,701
1926..	12,210,009,592	312,067,300	495,503,943	12,997,580,835	258,987,975	13,256,568,810	361,441,677
1927..	13,711,408,215	324,558,350	503,871,638	14,539,838,203	297,983,750	14,837,821,953	402,023,814
1928..	14,999,088,045	345,962,100	500,662,304	15,845,712,449	308,440,050	16,154,088,949	441,357,774
1929..	16,222,345,970	375,576,000	535,895,340	17,133,817,310	311,914,125	17,445,731,435	

In October, 1929, the Tax Board put a tentative 1930 assessed valuation of $17,851,721,827 on taxable realty in the whole city.

NEW YORK CITY ASSESSED VALUATIONS BY BOROUGHS.

(Realty in these two tables by boroughs includes real estate of corporations and special franchises.)

Year.	Manhattan Realty.	Manhattan Personalty.	Manhattan Total.	Bronx Realty.	Bronx Personalty.	Bronx Total.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
1910.....	4,743,916,785	298,030,483	5,041,947,268	493,757,919	7,716,550	501,474,469
1911.....	5,037,872,685	289,797,952	5,327,670,637	605,222,933	4,986,895	610,209,828
1912.....	5,035,485,413	281,467,122	5,316,952,535	616,521,378	4,595,198	621,116,576
1913.....	5,126,942,595	265,509,435	5,392,452,030	640,340,593	5,094,060	645,434,653
1914.....	5,149,250,760	287,768,270	5,437,019,030	658,632,013	5,761,200	664,393,213
1915.....	5,145,802,495	292,349,590	5,438,152,590	677,126,664	6,804,800	683,931,464
1916.....	5,129,830,629	317,187,300	5,447,017,929	698,869,196	6,265,500	705,134,696
1917.....	5,088,344,403	339,106,700	5,427,451,103	714,226,994	9,524,400	723,751,394
1918.....	5,094,604,208	194,775,200	5,289,376,438	726,129,198	7,357,100	733,486,298
1919	5,115,811,621	291,286,700	5,407,098,321	731,808,972	12,674,400	744,483,237
1920.....	5,186,771,887	227,063,350	5,413,835,237	753,308,264	17,211,200	770,519,464
1921.....	5,878,847,633	152,742,600	6,031,590,233	852,447,403	13,899,700	866,347,103
1922.....	6,058,643,144	145,473,800	6,204,116,944	864,008,890	17,175,650	881,184,540
1923.....	6,177,890,668	149,893,000	6,327,783,668	926,682,418	16,974,900	943,657,318
1924.....	6,402,525,800	158,388,750	6,560,914,550	988,158,851	19,644,600	1,007,823,451
1925.....	6,721,085,292	155,572,000	6,876,657,292	1,074,284,721	21,051,300	1,095,336,021
1926.....	7,154,543,958	168,585,500	7,323,129,458	1,189,244,183	24,722,050	1,213,966,233
1927.....	7,785,110,325	189,331,650	7,974,441,975	1,407,539,417	8,327,0700	1,434,617,717
1928.....	8,360,160,166	204,623,850	8,564,784,016	1,646,787,282	26,372,950	1,673,160,232
1929.....	8,965,665,836	207,234,350	9,172,900,186	1,879,200,689	25,885,450	1,905,086,139

Year.	Brooklyn Realty.	Brooklyn Personalty.	Brooklyn Total.	Queens Realty.	Queens Pers'nalty	Queens Total.	Richmond Realty.	Richm'd Pers'alty.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
1910 .	1,404,036,521	59,331,825	1,463,368,346	334,563,960	5,358,480	339,922,440	67,917,489	2,207,487
1911 .	1,689,171,283	55,855,616	1,645,026,899	446,569,352	5,339,875	451,909,227	80,003,911	1,942,785
1912 .	1,674,742,409	48,753,985	1,723,496,394	456,750,539	6,396,750	463,147,389	78,399,151	1,750,485
1913 .	1,680,013,591	46,296,870	1,726,310,461	477,792,836	6,740,850	484,533,686	81,558,246	1,777,225
1914 .	1,671,175,930	39,296,065	1,710,471,995	488,686,756	5,915,150	494,601,906	82,114,453	1,554,875
1915 .	1,691,912,426	43,606,010	1,735,518,436	509,515,978	7,635,650	517,151,628	84,403,224	1,655,705
1916 .	1,752,360,970	43,789,090	1,796,150,060	539,394,614	6,711,060	546,105,674	87,366,952	2,577,200
1917 .	1,790,901,437	57,502,715	1,848,404,152	569,865,007	10,266,200	580,131,207	91,211,159	2,756,300
1918 .	1,826,813,885	39,683,575	1,866,497,460	591,599,075	7,969,400	599,508,475	100,495,455	1,689,600
1919 .	1,865,123,952	44,907,205	1,910,031,157	604,827,476	10,934,300	615,761,776	110,750,732	2,610,175
1920 .	1,937,811,265	41,192,900	1,979,004,105	636,409,159	8,792,100	645,201,259	111,821,192	2,246,635
1921 .	2,395,486,473	37,741,850	2,433,228,323	718,818,129	7,409,350	726,229,489	127,685,456	1,428,675
1922 .	2,447,036,937	38,908,850	2,485,945,787	748,609,486	7,658,000	756,367,486	131,693,378	1,291,745
1923 .	2,536,590,061	41,039,150	2,577,629,211	804,005,214	7,242,550	811,247,764	150,897,987	1,435,750
1924 .	2,689,678,202	43,626,050	2,733,304,070	904,605,924	7,542,950	912,148,874	163,842,898	1,951,800
1925 .	2,918,566,535	52,097,050	2,970,663,585	1,013,547,506	8,408,950	1,021,956,456	173,864,499	2,378,240
1926 .	3,230,856,767	53,870,600	3,284,727,367	1,227,676,363	8,666,950	1,236,343,313	195,259,564	3,142,875
1927 .	3,606,595,553	69,419,250	3,676,014,803	1,483,512,362	9,542,050	1,493,054,412	257,080,546	2,612,500
1928 .	3,873,301,455	65,390,100	3,938,691,555	1,691,322,691	9,192,300	1,700,514,991	274,077,305	2,860,850
1929 .	4,103,221,506	64,843,700	4,168,065,206	1,891,164,203	11,269,400	1,902,433,603	294,565,076	2,681,225

HALL OF REMEMBRANCE OF AMERICAN ARTISTS.

Distinct from the Hall of Fame but under the aegis of the University is the Hall of Remembrance of American Artists, a collection of busts of American painters and sculptors which decorate the rotunda of the Gould Memorial Library.

The Hall is the idea of a New York artist, W. Francklyn Paris.

Ten of the sixteen busts are in place: Carroll Beckwith, by George T. Brewster; George Inness, by Scott Hartley; Clinton Ogilvie, by Paul Bartlett; Frank Duveneck, by Charles Grafly; Walter Shirlaw, by Paul Bartlett; Augustus St. Gaudens, by John Flanagan; J. Q. A. Ward, by J. Q. A. Ward; William M. Chase, by Albin Polasek; Henry K. Brown, by Henry K. Bush-Brown.

Busts of James McNeill Whistler, by Edmond Quinn, and of S. F. B. Morse (a bronze copy of the original by Horatio Greenough) were installed in May, 1928.

The memorials to architects and workers in the decorative arts will occupy spaces in the alcoves.

A beginning has been made in the bronze doors at the entrance of the library building which are a memorial to Stanford White, architect, whose firm designed the Hall of Fame and the buildings of the university.

These doors contain medallions contributed by nine noted sculptors.

CITY OF NEW YORK BONDED DEBT.

As of Jan. 1.	Funded Debt (Corp. Stock, Notes, and Assess. B'ds).	Sinking Fund Holdings (Bonds).	Net Funded Debt (Column 1, Less Column 2).	Other Debt (General Fund Bonds).	Other Debt (Special Revenue Bonds).	Other Debt (Revenue Bonds and Bills).	Interest on City Debt.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
1910	794,930,288	146,868,059	648,062,228	85,500,000	5,208,150	60,367,290	32,178,760
1911	843,503,798	154,140,289	689,363,508	102,500,000	7,364,625	58,874,533	34,214,137
1912	917,811,718	157,970,000	759,841,718	120,000,000	5,970,164	46,671,621	35,473,685
1913	985,190,042	161,679,241	823,510,800	137,500,000	7,038,065	34,712,775	38,453,876
1914	1,064,418,429	169,955,027	894,463,401	159,500,000	6,319,225	33,694,415	37,745,836
1915	1,124,020,221	180,217,873	943,802,347	183,000,000	11,925,425	48,536,947	42,428,903
1916	1,154,483,821	176,078,406	978,405,414	206,000,000	9,367,075	43,000,000	42,020,934
1917	1,191,317,251	176,111,545	1,015,205,706	229,500,000	9,999,948	26,004,500	43,284,252
1918	1,214,948,477	193,749,437	1,025,799,039	254,500,000	15,600,000	39,074,400	47,663,019
1919	1,225,055,569	183,013,219	1,042,042,350	281,500,000	15,325,000	33,996,500	48,949,997
1920	1,238,260,597	204,382,238	1,033,878,359	310,000,000	9,989,900	32,360,500	49,751,993
1921	1,246,858,861	215,236,727	1,031,622,134	342,500,000	40,354,583	62,767,000	53,501,482
1922	1,292,973,059	225,890,922	1,067,082,137	376,500,000	35,602,650	78,068,500	55,144,736
1923	1,316,160,385	222,817,753	1,093,342,632	414,000,000	18,350,000	40,600,000	55,302,516
1924	1,373,350,838	232,797,501	1,140,553,337	452,500,000	20,225,000	25,000,000	57,143,780
1925	1,459,589,250	243,471,989	1,216,117,251	492,000,000	21,257,000	38,000,000	59,623,779
1926	1,565,853,726	271,144,605	1,294,709,121	533,000,000	25,276,000	25,000,000	63,882,059
1927	1,660,993,787	289,695,141	1,371,298,645	576,250,000	28,125,000	20,000,000	70,960,397
1928	1,761,889,999	310,295,568	1,451,604,431	623,250,000	18,500,000	27,277,000	76,124,109
1929	1,858,547,949	341,790,325	1,516,757,624	671,750,000	11,500,000	16,057,000	81,156,830

The 1929 total of $16,057,000 covers—$10,500,000 tax notes and $5,557 in revenue bills.

CITY DEBT LIMIT SUMMARY, JAN. 1, 1914-1929.

Yr.	Constitutional Debt Limit.	Debt Limit After Deducting Outstanding Debt.	Reserves for Projects Authorized.	Unencumbered Debt Margin.	Yr.	Constitutional Debt Limit.	Debt Limit After Deducting Outstanding Debt.	Reserves for Projects Authorized.	Unencumbered Debt Margin.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*		*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
'14.	800,664,786	51,373,749	34,794,116	16,579,634	'22.	997,298,510	175,266,897	41,624,292	133,642,604
'15.	804,985,991	56,792,917	37,635,604	19,157,312	'23.	1,024,999,183	173,180,950	44,666,079	128,514,871
'16.	810,876,423	54,326,698	32,094,237	22,232,461	'24.	1,059,606,557	148,323,274	81,207,267	67,116,006
'17.	820,782,236	51,501,752	39,518,861	11,982,891	'25.	1,114,881,149	123,423,546	76,412,965	47,010,581
'18.	825,454,900	50,270,155	31,851,077	18,419,078	'26.	1,190,134,855	101,747,552	59,572,882	42,174,670
'19.	833,964,285	73,892,163	22,287,395	51,604,768	'27.	1,299,758,083	127,143,667	25,622 307	101,521,365
'20.	842,832,275	70,478,319	49,038,949	21,439,370	'28.	1,453,983,820	200,919,916	38,510,202	162,409,714
'21.	862,612,170	63,513,845	28,280,677	35,233,168	'29.	1,584,550,590	314,581,793	48,077,498	266,504,295

NEW YORK CITY BUDGETS.

Year.	For City.	For County.	Total Budget.	Defic. in Taxes	Grand Totals.
1900	$79,201,763	$11,577,209	$90,778,972	$1,618,473	$92,397,446
1901	87,479,844	10,620,568	98,100,413	1,726,169	99,826,582
1902	94,932,872	3,686,728	98,619,600	1,730,018	100,349,619
1903	93,395,966	3,723,064	97,119,031	1,522,209	98,641,240
1904	102,963,260	3,711,694	106,674,955	1,687,667	108,362,622
1905	105,775,245	4,042,348	109,817,593	1,744,816	111,562,409
1906	112,654,129	4,151,360	116,805,490	1,845,061	118,650,552
1907	122,756,666	4,664,839	127,421,505	3,000,000	130,421,505
1908	135,474,403	5,097,862	140,572,266	3,000,000	143,572,266
1909	148,454,504	5,175,796	153,630,301	2,922,447	156,552,748
1910	153,773,145	5,355,124	159,128,270	4,000,000	163,128,270
1911	158,514,029	5,453,805	163,967,835	10,000,000	173,967,835
1912	167,585,735	10,217,154	177,802,889	3,287,366	181,090,256
1913	176,229,747	14,181,693	190,411,441	2,300,000	192,711,441
1914	179,289,082	11,206,469	190,495,551	2,500,000	192,995,551
1915	185,843,927	7,033,716	192,877,694	6,112,092	198,989,786
1916	187,879,589	21,076,587	208,956,177	4,000,000	212,956,177
1917	198,799,819	7,314,317	206,114,136	5,000,000	211,114,136
1918	219,159,468	15,864,290	235,023,759	3,100,000	238,123,759
1919	240,487,558	7,537,876	246,190,435	1,835,000	248,025,435
1920	263,305,596	8,708,888	272,014,485	1,675,000	273,689,485
1921	333,820,817	10,029,223	343,850,040	1,680,000	345,530,040
1922	339,686,087	9,988,183	349,674,270	927,300	350,516,525
1923	337,228,141	10,582,834	347,810,975	5,540,000	353,350,975
1924	360,570,564	10,907,436	371,478,000	4,490,000	375,968,000
1925	385,012,788	11,616,098	396,628,885	2,990,000	399,618,885
1926	422,166,226	11,953,774	434,120,000	2,880,000	437,000,000
1927	449,121,092	13,149,511	471,255,326	3,250,000	474,893,300
1928	484,827,295	13,574,689	508,150,858	3,990,000	512,528,295
1929	520,183,498	14,245,199	534,428,697	4,500 000	538,928,697

The Board of Estimate, late in Oct. 1929, stated the 1930 budget at $564,773,252.

WHEN TO PAY CITY TAXES.

Jan. 1—City water rates due. Pay before April and avoid 5% penalty.

Mar. 31—Last day to pay city water rates. 5% penalty added April 1. City tax bills can be obtained on application by mail. Send stamped envelope to Receiver of Taxes.

May 1—First half of real estate tax and all personal property taxes due. Second half real estate tax may be paid (provided first half is paid) and a discount will be allowed thereon from date of payment to November 1 at the rate of 4% a year.

May 31—Last day to pay personal property tax in full and first half real estate tax without penalty. 7% per annum added from May 1 on and after June 1.

June 30—10% additional penalty if City water rates are not paid by today. Proceedings to review determination of Tax Commissioners to reduce valuations must be begun before July 1.

Aug. 15—Last day to pay personal property tax before it is placed in the hands of the Marshal for collection.

Oct. 1—Tax books showing real and personal property assessments for next year open for inspection.

Nov. 1—Second half of real estate tax due.

Nov. 15—Last day to file application for reduction of real estate valuation.

Nov. 30—Last day to pay second half of real estate tax without penalty. 7% per annum added from November 1 on and after December 1. Appeals to reduce personal property assessments must be filed before December 1.

NEW YORK GENERAL POST OFFICE.

The New York General Post Office, with jurisdiction over Manhattan and the Bronx, covers the two city blocks, 31st Street to 33rd Street, Eighth Avenue to Ninth Avenue. The main entrance is on Eighth Avenue. *Postmaster*—John J. Kiely. *Assistants*—Thomas B. Randles and Charles Lubin. In this building are located the Postal Inspectors, Railway Mail Service, and all the general offices.

There are nearly 23 miles of pneumatic tubes in operation, performing almost continuous service throughout the entire day. About 5,000,000 letters are transported daily in this way.

Has 59 classified stations and 255 contract stations; employs 19,000 people.

Receives, delivers and despatches 17,000,000 pieces of ordinary mail, and 160,000 pieces of registered mail, and receives and despatches 75,000 insured and C. O. D. parcel-post packages daily.

Weighs and despatches 600,000 pounds of newspapers and periodicals daily at pound rates.

Collects $260,000 in postage daily.

Issues money orders for $81,000,000 annually; and pays money orders for $168,000,000 annually; has on deposit in postal savings $22,000,000; and has 85,000 postal-savings depositors.

Postal receipts for year ended June 30, 1929, $78,715,196.65.

Mail deliveries—Manhattan Borough, 4 to 6 Bronx Borough, 2 to 4; Suburban, 2.

Mail collections—Manhattan Borough, 8 to 27; Bronx Borough, 5 to 12; Suburban, 3 to 5.

The old General Post Office, now called the City Hall Station, covers the triangular block bounded by Broadway, Park Row and Mail Street.

The Hudson Terminal Station, No. 30 Church Street, was re-established February 12, 1923.

The Grand Central Station, Lexington Avenue and 45th Street, handles the mail over the N. Y. Central and New Haven Railroads, in addition to local business in that district.

The Foreign Section is located in the Varick Street Station, between Beach and Laight Streets.

BROOKLYN GENERAL POST OFFICE.

The Brooklyn General Post Office is bounded by Washington, Tillary, Adams, and Johnson Streets. Part of the building is in process of demolition, (Nov. 1929), and a new building will be erected.

Meantime, for a year or so, temporary quarters will be maintained on Jay Street between Sands and High Streets.

The financial sections, and provision for the acceptance of parcel-post in retail quantities, will be maintained at the old building.

The carriers' section serving the business area downtown Brooklyn also will be continued in the old building.

The executive offices and the handling of the mails will be maintained in the temporary quarters.

Postmaster—Albert Firmin ($8,000); *Assistant Postmaster* (Finance)—Peter J. Cleary; *Assistant Postmaster* (Mails)—John A. T. Carrougher; *Superintendent of Mails*—John A. Brennan; *Assistant Superintendent of Mails* (Outgoing)—John F. McKnight; *Assistant Superintendent of Mails* (Incoming)— Andrew J. Tarpey.

Stations of the Brooklyn Office, 31; Contract Stations, 293.

Receipts for last fiscal year, $9,026,255.53.

Number of Employees, approximately 4,000; average daily cancellations, 852,844; value of money orders issued and paid, year ending June 30, 1929, $64,458,965.

GOVERNMENT OF HUDSON COUNTY, N. J.

MAYORS (COMMISSION GOVERNMENT)

MAYOR.

Jersey City, Frank Hague.
Hoboken, Gustav Bach.
Bayonne, Dr. Bert Daly.
Union City, Wm. Rannenberg.
West New York, Frank Effert.
Weehawken, Emil Grauert.
Secaucus, John J. Kane.
Guttenberg, Paul Schnyder.
North Bergen, Charles Morris.
Harrison, Matthew O'Brien.
Kearney, Arthur H. Jones.
East Newark, John A. Reynolds.

Bach's term as mayor of Hoboken, expires in April, 1930, when he becomes County Clerk, to which office he was elected in Nov., 1929.

JERSEY CITY.

Officials—Frank Hague, Mayor, and Director of Public Affairs; William B. Quinn, Director of Revenue and Finance; Michael I. Fagen, Director of Streets and Public Improvements; John Beggans, Director of Public Safety; Arthur Potterton, Director of Parks and Public Property.

HOBOKEN.

Officials—Gustave Bach, Mayor, and Director, Public Affairs; Joseph A. Clark, Director, Streets and Public Improvements; M. F. Kearins, Director, Parks and Public Property; William H. Gilfert Director, Revenue and Finance; Bernard N. McFeely Director of Public Safety.

BAYONNE.

Officials—Dr. Bert Daly, Mayor, and Director, Public Safety; George E. Keenan, Director, Revenue and Finance; Lucius F. Donohue, Director, Parks and Public Property; Joseph Minton, Director of Public Works; W. Homer Axford, Director, Public Affairs.

JUDGES AND OTHER COUNTY OFFICIALS

Judges, Supreme Court, Emmanuel Kalisch; Circuit Court, Frank L Cleary, and Henry E. Ackerson, Jr.; Common Pleas, Charles M. Egan, Robert V Kinkead and Daniel O'Regan; Juvenile Court, Thomas F. Meaney, Sheriff, William V. O'Driscoll; Surrogate, James F. Norton; Register, Charles F. X. O'Brien; County Clerk, Gustav Bach—McGovern's term expires in April, 1930, Bach was elected to take his place. Prosecutor, John J. Drewen.

Supervisor, John F. O'Neill.

BOARD OF CHOSEN FREEHOLDERS.

Director, Hugh A. Parle. Other members: Katherine Brown; Michael Gill, John J. O'Hare, Conrad Keim, Edward Murane, William McGraw, and William Sullivan.

County Treasurer, Thomas A. Lally; County Counsel, Emil Walscheid; Chief Probation Officer, Percy A. Sharpley.

HUDSON COUNTY, N J., 1929 ASSESSED VALUES.

Place.	Assd. Val. of Land Alone.	Total Real. Assd Val. Inc. R. R. & Personalty.	Value of Exempt Property.
	Dollars.	*Dollars.*	*Dollars.*
Jersey City...	209,169,746	644,371,551	75,306,112
Bayonne.....	65,145,720	160,922,594	11,386,119
Hoboken (old)	25,443,400	.....	.....
W'h'ken. ad.	11,998,900	.....	.....
Tot. Hob.	37,442,300	102,552,023	14,657,600
North Bergen.	40,013,365	60,376,757	7,312,600
Secaucus.....	2,863,025	6,932,984	3,211,875
West Hoboken	14,183,300	.....	.....
Town of Union	11,716,900	.....	.....
Un. City, tot.	25,900,200	69,885,662	5,060,200
West N. York.	12,755,600	48,505,823	4,243,300
Weehawken...	9,966,320	34,529,332	1,659,700
Guttenberg...	2,232,000	5,726,100	522,600
Kearny.....	14,373,300	82,370,137	4,487,700
Harrison.....	5,221,200	30,026,841	1,956,300
East Newark..	690,600	3,930,050	93,100
Tot. Hud. Co..	425,773,376	1,250,129,854	129,897,206

CIVIL SERVICE RULES IN THE CITY OF NEW YORK.

(The total number of city employees in 1929, including the Civil Service, exceeded 131,000, as against 116,000 in 1926.)

Under the White Civil Service Law, Chapter 370, Laws of 1899, April 19, the rules apply to all positions in the service of the City of New York except officers elected by the people, all legislative officers and employees, heads of any department, or superintendents, principals, or teachers in a public school, academy, or college.

The Unclassified Service includes elective officers; the officers and employees of the Board of Aldermen; members of the Board of Elections; the head, or heads, of any department of the City Government; or any person appointed by name in any statute.

The Classified Service is divided into four classes; namely:

Exempt Class—The Exempt Class includes the deputies of principal executive officers authorized by law to act generally for and in place of their principals: one secretary of each officer, board, and commission authorized by law to appoint a secretary; one clerk and one deputy clerk, if authorized by law, of each court, and one clerk of each elective judicial officer. In addition thereto there may be included in the Exempt Class all other subordinate offices for the filling of which competitive or non-competitive examination may be found to be not practicable.

Non-Competitive Class—Includes all those positions of a minor nature, in the city institutions or elsewhere, that it is not practicable to fill through competitive examination.

Labor Class—Includes all unskilled laborers and such skilled laborers as are not included in the competitive or non-competitive classes.

Competitive Class—Includes all positions in the Classified Service (excepting those in the Exempt, Non-Competitive or the Labor Class) for which it is practicable to determine the merit and fitness of the applicant by competitive examination.

Vacancies in the Exempt Class may be filled without examination, appointments being made by the Mayor or other official having jurisdiction over the department where the vacancy exists.

Positions in the Non-Competitive Class are filled as a result of the examinations held by the department where the person is to be employed.

Filing Applications for Positions in Competitive Class—Applications for positions in the Competitive Class will be issued and received only for the position or positions advertised, and only during the period specified by the commission in such advertisement. Advertisements for the various examinations appear in the prominent daily papers and in the *City Record*. The *City Record* is on file in the reading room of any of the city libraries.

All applications for an examination must be on a prescribed form addressed to the "Secretary of the Municipal Civil Service Commission."

Application blanks will be mailed upon request provided a self-addressed stamped envelope or sufficient postage is inclosed to cover the mailing.

Applicants must be citizens of the United States and residents of the State of New York. The requirement as to residence may be waived by the commission, but only with the proviso that applicants become residents of the State of New York prior to the date of their appointment.

Applicants for patrolmen must have resided within the State of New York at least one (1) year prior to the date of appointment.

The prescribed application form filled out in the applicant's handwriting sets forth the following:

The applicant's name, age, residence, statement regarding citizenship or naturalization, statement regarding arrests or previous service in a City Department, if any, and also the certificate for citizens whose residences or places of business are within the City of New York.

In examinations for positions requiring previous experience, applicants must fill in and file with their application an experience paper.

Applications for positions in the Labor Class are issued daily, and are received only for the positions advertised.

Applicants for all positions in the Competitive and the Labor Classes are required to take a medical and physical examination.

Applicants for Labor Class positions that require previous training or experience must take an oral, or practical test; no written examination is given to applicants.

In general, no examination shall extend beyond five hours without intermission, and no questions given out at any session, to any candidate, shall be allowed to be answered at another session.

The headquarters of the Commission are in the Municipal Building.

The following municipal departments and offices come under jurisdiction of Civil Service rules:

Accounts, Com. of
Armory, Board of.
Art Commission.
Assessors, Board of.
Bellevue and Allied Hospitals.
Board of Ambulance Service.
Board of Inebriety.
Board of Water Supply.
Borough President in each Borough, Office of the.
Buildings, Bureau of.
Child Welfare, Board of.
City Chamberlain.
City Record, Supervisor of the.
Civil Service Commission.
College of the City of New York.
Correction, Dept of.
Court, City.
Court, City Magistrate.
Court, Municipal.
Court of Special Sessions.
Docks and Ferries, Dept. of.
Education, Dept. of.
Elections, Board of.
Estimate and Apportionment, Board of.
Finance Dept.
Fire Dept.
Health Dept.
Hospitals.
Hunter College.
Law Dept.
Licenses, Dept. of.
Mayor's Office.
Medical Examiners
Normal College.
Parks, Dept. of.
Parole Commission.
Plant and Structures.
Plumbers, Examining Board of.
Police Dept.
Public Welfare, Dept. of.
Public Works Bureau.
Purchase, Dept. of.
Revision of Assessments, Board of.
Sinking Fund Commission.
Standards and Appeals, Board of.
Street Cleaning, Dept. of.
Taxes and Assessm'ts, Dept. of.
Tenement House Dept.
Transportation Commission.
Water Supply, Gas, and Electricity, Dept. of.
Weights and Measures.

Inspectors of Elections and Poll Clerks are not subject to competitive examination.
The minimum height of firemen has been reduced one inch, from 5 ft. 7 in. to 5 ft. 6 in.

THE FLAG OF THE CITY OF NEW YORK.

In the year 1915 the Mayor appointed a committee to commemorate the two hundred and fiftieth anniversary of the installation of the first Mayor and Board of Aldermen of the City of New York on June 24, 1665.

At that time the official city flag was adopted.

This flag really tells the story of the origin and early history of the city—founded by the Dutch in 1626 as "New Amsterdam." It was renamed New York in 1664 and a year later, on June 24, 1665, the municipal government was formally transferred to the Mayor and Board of Aldermen of the City of New York, as successors in office of the Burgomasters and Schepens of the City of New Amsterdam.

The colors in the flag are Dutch—blue, white and orange—the same which floated over the Island of Manhattan more than 300 years ago. The colors are exact, a pure indigo blue in use in 1626, and the distinctive color of the Prince of Orange.

The Arms are English, representing the reign of the Duke of York, and the crest is a spread eagle, distinctly American.

The Mayor has an official flag, the same in design as the flag of the City, except that upon the middle or white bar there are above the design of the seal, in a semi-circle, five blue five-pointed stars, typifying the five boroughs of the City; the dimensions of the flag are 33 inches by 44 inches.

The borough flag of Queens (2 blue, 1 white, stripe with wampum belt) was unfurled on Oct. 14, 1929

THE POLICE AND FIRE DEPARTMENTS.

(Officially revised as of Sept. 23, 1929. Headquarters, Grand, Broome and Centre Sts.)

Some advice to New Yorkers in Emergencies—Call or dial the teleohone operator and say: "I want a Policeman"—"I want to report a fire"—"I want an ambulance."

If you have to leave the telephone before the desired station answers tell the operator where help is required.

Emergency phone calls are free.

The police force of the City of New York consists of 1 Chief Inspector ($8,000); 8 Deputy Chief Inspectors ($5,800); Commanding Officer, Detective Bureau ($5,400); 22 Deputy Inspectors ($5,000); 24 other Inspectors ($5,400); 1 Chief Surgeon ($6,800); 1 Deputy Chief Surgeon ($4,790); 22 other Surgeons ($4,790); 1 Superintendent of Telegraph ($5,300); 1 Assistant Superintendent of Telegraph ($3,800); 100 Captains ($4,500); 570 Lieutenants ($3,500); 1,027 Sergeants ($3,000); 15,853 Patrolmen ($1,769 to $2,500); 95 Policewomen ($1,769 to $2,500); 30 Patrolwomen ($1,769 to $2,500); 7 Chaplains ($1,830).

In Nov., 1929, the people voted to pay first-grade patrolmen and firemen not less than $3,000 a year.

Members of the police force may be retired on one-half rate of compensation after service of twenty-five years, or after twenty years' service upon certificate of police surgeons of permanent disability.

POLICE AND CRIME STATISTICS IN THE CITY OF NEW YORK.

(Official figures, furnished by the Police Commissioner to the Almanac.)

Year.	Arrests.						Total Police Force.	Total Police Dept. Expend.
	Murder or Manslaughter.	Felonious Assault.	Assault and Robbery.	Burglary.	Grand Larceny.	Intoxicat'n.	Tot. All Crime.		
	No.	*No.*	*No.*	*No.*	*No.*	*No.*	*No.*	*No.*	*Dollars*
1900	424	1,338	512	1,706	3,470	42,012	132,805	7,426	11,494,393
1901	403	1,233	612	1,764	3,441	42,836	133,749	7,510	11,319,105
1902	486	1,511	540	1,566	3,847	46,572	145,936	7,673	11,367,630
1903	561	1,906	534	1,758	4,236	53,396	175,871	8,175	11,636,881
1904	602	2,261	530	1,904	4,611	50,933	175,880	8,271	12,291,520
1905	711	2,810	596	2,279	5,031	52,316	198,356	8,859	12,505,657
1906	869	3,375	511	2,319	5,481	47,749	189,202	8,873	12,826,153
1907	860	3,276	590	2,988	5,986	44,787	204,119	9,330	13,144,841
1908	.....	.....	.....	.....	.....	.....	244,822	10,012	14,049,077
1909	647	3,811	332	1,655	2,685	36,668	220,334	10,131	14,162,060
1910	443	3,528	312	1,081	2,322	35,258	170,681	9,963	15,316,478
1911	366	4,309	515	2,196	5,150	26,767	153,768	10,208	15,520,729
1912	417	4,099	502	2,135	4,520	25,605	170,375	10,371	16,114,782
1913	351	4,444	556	2,364	4,022	26,207	182,011	10,847	16,738,071
1914	433	4,605	669	3,151	4,556	23,122	190,184	10,858	17,996,039
1915	452 (222)	5,341 (3,203)	637 (849)	3,415 (11,611)	4,651 (9,483)	22,635	212,452	10,858	17,364,594
1916	263 (186)	5,210 (3,466)	1,220 (886)	2,476 (9,893)	4,522 (10,166)	19,453	200,901	10,849	17,617,287
1917	280 (236)	4,283 (2,591)	1,279 (864)	2,950 (9 450)	5 681 (14.511)	16,311	187,913	10 916	18,200,192
1918	256 (223)	3,485 (2,354)	1 143 (849)	2,244 (7,412)	4,904 (16,942)	8,795	170,159	10,896	19,394 614
1919	309 (224)	3,771 (2,537)	1,744 (1,133)	3,100 (7,398)	5,197 (20,006)	7,028	220,149	10,907	20,662,219
1920	254 (215)	3,769 (2,786)	1,586 (1,145)	3,040 (7,451)	4,924 (21,698)	7,804	266,749	10,905	24,595,187
1921	261 (237)	3,899 (2,444)	1,428 (1,197)	2,660 (6,558)	4,377 (21,862)	8,169	272,751	11,507	29,901,379
1922	290 (266)	4,057 (2,405)	1,445 (1,086)	1,970 (5,390)	4,974 (18,121)	11,402	303,451	11,940	30,705,185
1923	295 (262)	3,958 (2,496)	1,448 (1,077)	2,061 (4,933)	5,274 (18,768)	14,018	301,206	12,720	32,042,223
1924	297 (310)	3,783 (2,300)	1,946 (1,555)	2,346 (4,383)	5,663 (20,754)	13,980	346,270	13,154	33,187,918
1925	338 (308)	3,911 (2,243)	2,045 (1,483)	2,509 (4,103)	5,448 (21,292)	12,017	333,083	14,150	38,115,479
1926	306 (289)	3,901 (2,276)	1,766 (1,173)	2,136 (3,371)	5,270 (20,035)	12,330	348,402	15,950	41,403,223
1927	282 (278)	3,579 (2,174)	1,205 (951)	1,981 (3,380)	5,067 (18,235)	11,997	416,717	16,973	45,018,725
1928	373 (339)	3,642 (2,599)	1,548 (1,232)	2,285 (3,708)	5,134 (20,558)	13,353	454,339	17,769	47,042,346

Note—The figures in parentheses show number of cases reported to the police. Figures for murder or manslaughter, 1900-1915, include all classes of homicide, but those for 1920 do not include persons killed in the Wall Street explosion. Detailed data for 1908 are not available.

(FIRE DEPARTMENT HEADQUARTERS, MUNICIPAL BUILDING.)

The New York City uniformed Fire Department, headquarters in the Municipal Building, consists of 6,544 men: A chief ($12,500); 29 deputy chiefs ($5,500 to $7,500,) 86 battalion chiefs ($4,490); 9 medical officers ($4,490), 4 chaplains ($1,830); 336 captains ($3,700); 529 lieutenants ($3,200); 24 pilots ($3,000); 129 engineers of steamers ($2,920); 14 marine engineers ($2,700); and 5,388 firemen.

First-grade men are to get not less than $3,000 a year.

Twenty years' service retirement on half-pay upon application.

There are 232 engine companies in the City, and 122 hook and ladder companies.

FIRES AND FIRE LOSSES IN NEW YORK CITY.

Yr.	No.	Loss.	Yr.	No.	Loss.	Yr.	No.	Loss.	Yr.	No.	Loss.
		Dollars.			*Dollars.*			*Dollars.*			*Dollars.*
1877	1,450	3,210,695	1890	3,479	4,168,165	1903	10,046	7,082,439	1916	13,677	8,746,404
1878	1,654	1,884,505	1891	3,938	6,959,650	1904	11,148	7,667,523	1917	14,053	14,278,523
1879	1,551	5,671,580	1892	4,011	5,060,973	1905	11,524	7,279,514	1918	13,971	9,538,725
1880	1,783	3,183,440	1893	4,151	5,992,583	1906	12,181	7,218,488	1919	13,429	12,488,258
1881	1,785	5,820,259	1894	3,983	4,208,553	1907	12,547	9,413,042	1920	14,268	18,806,908
1882	2,001	4,195,960	1895	3,963	3,519,801	1908	13,039	9,261,078	1921	16,350	20,200,808
1883	2,169	3,512,848	1896	3,890	3,418,591	1909	12,437	7,431,635	1922	18,757	22,743,195
1884	2,406	3,474,547	1897	4,046	3,396,892	1910	14,405	8,591,831	1923	20,043	19,637,915
1885	2,479	3,789,283	1898	6,442	5,186,890	1911	14,574	12,470,806	1924	22,631	18,684,835
1886	2,415	3,340,810	1899	8,053	11,277,311	1912	15,633	9,069,580	1925	22,849	18,869,085
1887	2,929	5,585,425	1900	8,405	8,573,347	1913	12,958	7,467,997	1926	25,185	21,571,725
1888	3,217	5,485,922	1901	8,424	8,816,365	1914	14,425	8,217,811	1927	24,341	19,267,215
1889	2,836	4,142,777	1902	8,700	6,998,563	1915	13,416	5,757,018	1928	25,949	16,624,381

LOSSES BY BOROUGHS.

Manhattan—(1926) $9,917,105; (1927) $9,684,015; (1928) $6,993,970.

Bronx—(1926) $1,700,670; (1927) $1,371,125; (1928) $1,709,030.

Brooklyn—(1926) $7,135,790: (1927) $5,366,250; (1928) $5,794,410.

Queens—(1926) $2,500,710; (1927) $1,959,435; (1928) $1,845,205.

Richmond—(1926) $307,450; (1927) $1,304,390; (1928) $1,022,624.

In 1928 the loss in N. Y. City by fires was $2.76 per capita; the fires averaged 4.31 per 100 buildings and also 4.31 per 1,000 of population; 86,011,490 gallons of water were used to extinguish; 24 persons were convicted of arson.

CRIME INDICTMENTS AND CONVICTIONS IN NEW YORK CITY.

(Figures, supplied by District Attorneys, are official. They cover cases handled in years named and do not indicate cases originating in year named.)

MANHATTAN BOROUGH.

Year.	Homicide.		Fel. Assault.		Burglary.		Robbery.		Gr. Larceny.		Forgery.		Arson.		Rape.	
	I.	C.	I.	C.	I.	C.	I.	C.	I.	C.	I.	C.	I.	C.	I.	C.
1900...	68	27	465	165	563	374	183	65	1,144	546	82	47	8	2	28	11
1901...	57	25	365	208	691	414	227	82	1,248	569	98	68	6	1	63	32
1902...	94	31	543	224	548	340	180	70	1,216	539	101	59	21	6	65	30
1903...	84	42	488	202	558	384	199	61	1,227	632	96	60	7	4	50	22
1904...	70	37	548	262	549	361	196	53	1,222	676	135	89	12	2	65	24
1905...	57	32	506	234	657	68	166	54	1,281	757	124	75	7	3	84	37
1906...	99	53	599	297	657	436	175	47	1,309	681	129	83	5	3	67	19
1907...	62	39	628	273	819	542	205	54	1,538	863	110	62	4	1	73	18
1908...	79	35	948	441	1,113	740	276	63	1,803	992	195	96	17	4	121	37
1909...	66	43	808	391	840	572	176	38	1,417	781	186	107	6	3	89	39
1910...	83	45	721	367	674	427	199	49	1,371	755	188	101	12	2	79	28
1911...	92	42	924	443	807	551	239	64	1,413	817	133	102	5	1	80	34
1912...	75	42	614	284	762	499	200	72	1,253	753	141	101	19	7	83	37
1913...	67	47	720	357	783	494	309	113	1,196	688	165	118	22	12	67	28
1914...	86	62	750	492	704	484	327	113	1,154	675	166	113	7	2	69	27
1915...	125	70	828	559	698	515	310	78	1,169	682	154	103	12	2	69	28
1916...	115	68	685	474	405	278	180	78	966	607	120	79	21	14	68	34
1917...	83	44	606	423	425	270	198	75	874	508	103	70	5	3	144	23
1918...	108	44	480	261	350	209	210	87	1,230	581	117	64	11	2	76	24
1919...	132	73	584	288	527	300	382	169	1,423	753	125	85	7	1	72	23
1920...	82	36	457	235	546	287	317	135	1,231	563	148	86	4	2	74	24
1921...	82	34	472	284	565	349	359	166	1,222	668	125	93	11	2	100	23
1922...	125	63	702	337	519	270	439	201	1,894	767	214	112	6	0	76	18
1923...	112	50	560	330	382	196	348	143	1,101	480	172	88	5	1	98	9
1924...	112	35	653	382	467	255	541	232	1,233	551	175	97	29	8	54	11
1925...	111	37	467	358	832	220	714	278	1,649	510	294	80	10	1	137	7
1926...	135	35	523	427	667	197	807	282	1,541	571	231	75	16	1	220	17
1927...	117	43	492	429	666	152	474	175	1,351	510	228	114	9	3	138	14
1928...	122	40	450	424	671	91	530	185	1,308	358	273	73	20	5	204	7

HOMICIDE CONVICTIONS, NEW YORK COUNTY, BY CLASSES.

Yr.	Murd. 1 Deg.	Murd. 2 Deg.	Mansl. 1 Deg.	Mansl. 2 Deg.	Yr.	Murd. 1 Deg.	Murd. 2 Deg.	Mansl. 1 Deg.	Mansl. 2 Deg.	Yr.	Murd. 1 Deg.	Murd. 2 Deg.	Mansl. 1 Deg.	Mansl. 2 Deg.
1900	2	7	15	3	1910	4	11	26	4	1920	1	7	19	9
1901	3	8	8	6	1911	1	12	20	7	1921	3	8	17	6
1902	3	8	16	4	1912	13	10	9	9	1922	4	10	40	9
1903	5	5	21	11	1913	6	9	25	6	1923	1	11	18	20
1904	4	6	15	12	1914	6	14	27	12	1924	2	4	17	12
1905	2	8	16	6	1915	9	10	41	9	1925	2	6	18	11
1906	3	8	25	17	1916	6	11	34	12	1926	5	6	15	9
1907	3	13	13	10	1917	6	10	23	5	1927	8	6	9	20
1908	1	8	17	9	1918	2	3	25	10	1928	0	5	22	13
1909	6	6	20	11	1919	6	17	27	20					

CRIME STATISTICS—BROOKLYN BOROUGH.

Year.	Homicide.		Fel. Assault.		Burglary.		Robbery.		Gr. Larceny.		Forgery.		Arson.		Rape.	
	I.	C.	I.	C.	I.	C.	I.	C.	I.	C.	I.	C.	I.	C.	I.	C.
1912...	43	15	375	187	544	370	149	75	396	271	46	22	18	13	101	56
1913...	55	22	343	226	529	501	122	67	360	238	25	18	21	9	92	64
1914...	82	26	242	146	784	564	168	98	439	288	54	28	24	18	88	52
1915...	53	16	191	107	631	527	141	91	349	254	64	39	15	9	136	102
1916...	48	15	189	98	449	347	77	41	440	327	57	40	8	6	124	77
1917...	66	24	196	111	591	461	166	95	406	357	49	28	21	13	201	168
1918...	89	36	163	86	405	312	177	93	587	399	29	23	10	5	165	129
1919...	53	33	165	81	611	405	248	126	622	440	49	35	7	3	122	83
1920...	68	29	160	77	563	381	225	105	622	416	35	34	4	2	127	53
1921...	64	26	230	99	514	392	189	132	646	431	72	42	5	6	120	87
1922...	77	19	121	69	294	223	187	94	393	271	42	32	12	5	107	65
1923...	63	12	155	59	338	255	203	115	449	298	47	39	12	3	97	71
1924...	44	23	161	94	391	320	370	176	518	346	36	29	9	2	97	64
1925...	45	28	159	73	356	281	216	125	483	311	57	32	10	2	132	99
1926...	34	26	193	121	335	288	239	142	539	356	56	23	5	5	126	101
1927...	55	19	176	91	315	260	156	94	452	306	43	27	8	4	143	104
1928...	63	31	142	69	438	339	218	111	492	260	71	24	8	0	155	113

I.—Indicted; C.—Convicted. Convictions for murder, first degree, included in homicide convictions above—1912, 2; 1913, 0; 1914, 5; 1915, 3; 1916, 1; 1917, 4; 1918, 4; 1919, 1; 1920, 5; 1921, 3; 1922, 6; 1923, 1; 1924, 5; 1925, 2; 1926, 8; 1927, 5; 1928, 7.

HOMICIDES IN THE CITY OF NEW YORK.

(Compiled by Charles Norris, M. D., Chief Medical Examiner.)

	1922.	1923.	1924.	1925.	1926.	1927.	1928.		1922.	1923.	1924.	1925.	1926.	1927.	1928.
Manhattan	201	187	237	231	218	220	257	Shooting...	237	195	265	248	213	180	214
Brooklyn..	108	65	95	81	82	87	92	Assault....	45	43	41	32	53	58	65
Bronx.....	21	25	33	22	19	33	23	Stabbing...	34	43	47	57	54	79	80
Queens....	13	20	18	15	22	28	22	Gas.....	6	6	5	3	7	15	3
Richmond..	7	6	7	7	3	4	5	Infanticide.	13	8	17	12	7	29	16
Whole City	350	303	390	356	344	372	399	Poison.....	7	1	0	0	0	2	0
By Negroes	34	29	45	48	41	58	75	Accidental.	11	9	0	4	10	7	2
By husb'ds	14	11	14	8	4	18	12	By Police..	21	15	33	15	19	26	23
By wives...	6	2	5	3	4	7	7	Suicide....	15	9	0	8	10	23	16

NEW YORK CITY PENAL AND CORRECTIONARY INSTITUTIONS.

New York County Penitentiary, Welfare Island. It receives male prisoners from the five boroughs; normal capacity, 1,370 prisoners. One wing is set apart for those sentenced to the Workhouse.

Self-committed drug addicts and court cases are also received in the institution.

Correction Hospital (formerly the Workhouse), Welfare Island. This houses women sentenced to the Penitentiary and Workhouse in the north wing.

Women's Farm Colony, Greycourt, Orange County. Inmates committed to the Penitentiary, and the Workhouse, on Welfare (Blackwell's) Island, who are found physically fit, are transferred to this institution.

The Municipal Farm. Riker's Island. Only men physically fit are sent to this institution, from the Penitentiary, and the Workhouse, on Welfare Island, for construction work.

The Reformatory Prison, Hart's Island. Here are the aged and crippled and those unable to work; boys unfit for assignment to the New York City Reformatory at New Hampton; active cases of tuberculosis, and men assigned to work in the industries.

New York City Reformatory for Male Misdemeanants, New Hampton, Orange County. This is a model institution, where misdemeanants between the ages of sixteen and thirty are confined.

There are three city prisons for the detention of court cases—the City Prison, Manhattan (known as the *Tombs*), the City Prison, Brooklyn (referred to at times as the *Raymond Street Jail*), and the City Prison, Queens, at Long Island City.

Harlem Prison is now known as the *Women's Detention Prison.* No women are imprisoned at the *Tombs.*

Under a new law in this State, effective July 1, 1929, the Code of Criminal Procedure is amended to provide that a prosecution for a felony, other than murder must be commenced within five years, and for a misdemeanor, within two years after its commission. The time a defendant is absent from the State under a false name shall not be a part of the time limited.

Prosecution is commenced when an information is laid before a magistrate charging the commission of a crime, or when an indictment is presented by the grand jury.

The filing of an information or finding of an indictment stops the running of the statute of limitation until the case has been settled on its merits. When an indictment is set aside or dismissed, the time during which prosecution was pending shall not be computed as part of limitation.

ARRAIGNMENTS IN MAGISTRATES' COURTS IN NEW YORK CITY.

(Data compiled by Charles W. Strong, Director, Bureau of Statistics.)

Year.	Homicide.		Burglary.		Robbery.		Larceny.		Intoxication.		Other Charges.		Total.	
	Ar'd.	Hld.	Ar'd.	Hld.	Ar'd.	Hld.	Ar'd.	Hld.	Ar'd.	C'v'd.	Ar'd	Held or C'v'd.	Ar'd.	Held or C'v'd.
1900.....	464	288	2,105	1,402	616	303	11,573	5,895	17,642	10,781	102,006	65,884	134,406	84,553
1901.....	425	293	2,015	1,249	696	355	11,145	5,557	18,801	10,937	101,039	63,904	134,121	82,295
1902.....	544	356	2,042	1,364	569	341	10,995	5,628	19,927	12,170	110,494	68,513	144,571	88,372
1903.....	530	344	1,902	1,206	720	339	5,992	2,996	.....	.....	159,898	88,389	169,042	93,274
1904.....	520	292	1,710	1,073	742	340	11,483	5,538	27,343	13,457	133,943	77,874	175,741	98,574
1905.....	743	507	1,918	1,241	754	294	6,334	3,073	.....	.....	187,699	100,333	197,348	105,448
1906.....	835	601	2,037	1,220	807	352	11,912	5,294	23,748	9,376	151,251	84,676	190,590	101,519
1907.....	870	617	2,389	1,597	1,047	491	12,550	5,925	23,016	9,364	162,419	97,055	202,291	115,049
1908.....	776	513	2,955	1,989	1,273	670	8,488	4,272	20,292	8,403	217,231	121,222	251,015	137,069
1909.....	703	484	2,574	1,746	893	389	11,744	5,511	33,367	22,372	171,594	96,607	220,875	127,109
1910.....	508	317	2,199	1,583	851	430	9,657	5,456	27,310	19,106	135,553	73,949	176,078	100,841
1911.....	308	192	2,331	1,650	1,024	581	9,133	5,357	20,599	14,796	117,967	78,821	151,362	101,397
1912.....	296	234	2,136	1,646	909	472	8,589	4,687	19,123	14,232	145,771	102,563	176,324	123,834
1913.....	255	187	2,496	1,851	1,185	654	8,418	5,223	20,848	16,600	163,670	119,534	196,872	144,058
1914.....	176	100	3,218	2,381	1,514	842	10,093	6,289	19,936	16,728	185,369	129,383	220,306	155,723
1915.....	452	222	3,215	2,287	1,292	653	9,730	5,782	19,587	17,773	202,315	160,166	236,591	186,883
1916.....	185	91	2,398	1,646	1,053	502	8,607	5,407	17,078	15,684	224,038	185,297	253,359	208,627
1917.....	280	236	2,796	1,990	1,195	628	10,963	7,347	14,182	12,913	211,854	177,769	241,270	200,883
1918.....	256	223	2,167	1,444	1,107	536	10,330	6,934	7,284	6,878	180,557	152,593	201,701	168,608
1919.....	622	186	2,997	1,948	1,740	888	11,010	6,918	5,657	5,372	260,413	223,451	282,439	238,763
1920.....	644	173	3,001	1,832	1,579	722	10,405	6,275	6,340	6,061	333,468	228,411	355,437	243,474
1921.....	712	168	2,498	1,622	1,478	747	9,133	5,404	6,726	6,485	346,002	232,230	366,549	246,656
1922.....	872	162	1,942	1,215	1,445	570	7,846	4,464	9,309	8,887	412,761	340,265	434,175	355,563
1923.....	1,163	216	2,000	1,158	1,486	611	8,374	4,629	11,192	10,605	396,165	323,658	420,380	340,877
1924.....	1,118	295	2,284	1,412	1,919	863	9,104	5,362	11,256	10,744	429,575	364,739	455,256	383,415
1925.....	1,293	316	2,444	1,502	2,109	960	8,637	5,133	9,391	8,970	415,885	357,114	439,759	373,995
1926.....	1,366	237	2,093	1,303	1,793	781	8,705	5,283	9,533	9,120	413,655	344,415	437,145	361,139
1927.....	1,216	275	2,039	1,408	1,286	602	8,305	4,983	8,692	8,341	505,338	433,485	526,926	449,094
1928.....	1,246	224	2,466	1,537	1,575	742	9,369	5,489	9,972	9,676	574,627	391,583	599,255	409,256

Larceny arraignments 1903, 1905 cover only Manhattan and Bronx; same as to intoxication arraignments, 1903-1908.

JURY DUTY IN THE CITY OF NEW YORK.

To be qualified to serve, a person must not be less than 21 nor more than 70 years of age, and he must be a male citizen of the United States, and a resident of the County of New York; and he is a resident within the meaning of the jury law if he dwells or lodges here the greater part of the time between the first day of October and the last day of June. He must be the owner, in his own right, of real or personal property of the value of $250; or the husband of a woman who is the owner, in her own right, of real or personal property of that value. He must also be in the possession of his natural faculties, and not be infirm or decrepit; intelligent, of good character, and able to read and write the English language understandingly.

THE FOLLOWING ARE EXEMPT.

A clergyman, minister of any religion officiating as such and not following any other calling. A practicing physician, surgeon, surgeon-dentist, or veterinary surgeon not following any other calling, and a licensed pharmaceutist or pharmacist, or a duly licensed embalmer, while actually engaged in his profession as a means of livelihood. A duly registered optometrist actually engaged in his profession as a means of livelihood. An attorney or counsellor-at-law regularly engaged in the practice of law as a means of livelihood. A professor or teacher in a college, academy, or public school, not following any other calling. Editor, editorial writer, or reporter of a daily newspaper or press association regularly employed as such and not following any other vocation. The holder of an office under the United States, or the State, or City or County of New York, whose official duties, at the time, prevent his attendance as a juror. A consul of a foreign nation. A captain, engineer, or other officer actually employed upon a vessel making regular trips; a licensed pilot, actually following that calling. A superintendent, conductor, or engineer employed by a railroad company other than a street railroad company, or a telegraph operator employed by a press association or telegraph company who is actually doing duty in an office or along the railroad or telegraph line of the company or association by which he is employed. Honorably discharged volunteer firemen. Active and honorably discharged militiamen and active members of the Old Guard. A duly licensed engineer of steam boilers actually employed as such. Inspectors, poll clerks, and ballot clerks, or a person who is physically incapable. Grand, Sheriff's, Special, and Municipal Court Jurors.

ROUTES, MILEAGE AND COST OF NEW SUBWAYS.

The mileage of the routes and tracks and the estimated cost of the second step of the city's new rapid transit system, including new routes, extensions to existing lines and parts of existing lines to be recaptured are, as announced in October, 1929:

	Route Miles.	Track Miles.	Estimated Cost.
MANHATTAN.			
Water St., New Bowery and Chrystie St. Line—From Pine to Houston St.; 2 tracks to Chambers, 4 tracks to Houston	1.34	4.68	$11,300,000
Second Ave. Line—Houston St. to Harlem River; 4 tracks to 61st St., 6 tracks to 125th St., 4 tracks to Harlem River	6.55	32.84	87,600,000
Sixth Ave.-61st St Line—52d St. and 6th Ave. to 61st St. and 2d Ave.; 2 tracks	1.1	2.2	6,700,000
Worth St., East Broadway, Grand St. Line—Church St. to East River; 2 tracks	1.95	3.9	13,300,000
Houston St. Line—Essex Street to East River; 2 tracks	.93	1.86	7,900,000
Total for Manhattan	11.87	45.48	$126,800,000
BRONX.			
Alexander Ave., Melrose Ave., Boston Road Line—Harlem River to West Farms; 4 tracks	3.97	15.88	$40,400,000
Morris Park Ave.-Wilson Ave. Line—Garfield St. to Boston Road; 2 tracks	3.5	7.9	13,700,000
163d St., Hunts Point, Lafayette Ave., 177th St. Line—3d Ave. to East Tremont Ave.; 2 tracks	5.02	10.04	12,900,000
Burke Ave. and Boston Road Line—Webster Ave. to Baychester Ave., 2 tracks	2.15	4.3	8,900,000
Total	14.64	38.12	$75,900,000
White Plains Road Line—To be recaptured from 180th St.	4.40	13.2	2,100,000
Grand total for the Bronx	19.04	51.32	$78,000,000
BROOKLYN.			
Grand St., South 4th St. and Beaver St. Line—East River to Stuyvesant Ave.; 2 tracks to DriggsAve., 4 tracks to Union Ave., 8 tracks to Bushwick Ave., 4 tracks to Stuyvesant Ave., which includes a **Broadway Branch Line**, East River to Havemeyer St., of 2 tracks	3.16	13.5	$34,800,000
Stuyvesant Ave.-Utica Ave. Line—Broadway to Flatbush Ave.; 4 tracks	5.85	23.4	39,300,000
Avenue S Line—Utica Ave. to Nostrand Ave.; 2 tracks	1.1	2.2	2,000,000
Nostrand Ave. Line—Avenue S to Voorhies Ave.; 4 tracks	1.3	5.2	3,200,000
Liberty Ave. Line—East New York to Grant Ave.; 4 tracks	1.84	7.36	13,500,000
Myrtle and Central Ave. Line—Bushwick Ave. to Palmetto Ave.; 4 tracks	1.34	5.36	14,300,000
Total	14.59	57.02	$107,100,000
Nostrand Ave. Extension—Flatbush Ave. to Avenue S; 2 tracks	2.25	4.5	7,400,000
Grand total for Brooklyn	16.84	61.52	$114,500,000
QUEENS.			
Myrtle Ave.-Central Ave. Line—Palmetto Ave. to 78th St. Glendale; 4 tracks	2.1	8.4	17,300,000
98th, 99th, Hawtree St. Line—78th St. to Hammels Station; 4 tracks to Howard Beach, 2 tracks to Hammels	9.2	26.2	20,200,000
Rockaway Beach Boulevard Line—Beach 116th St. to Mott Ave.; 2 tracks	5.0	10.0	7,400,000
Newport Ave. Line—Beach 116th to Beach 149th St.; 2 tracks	1.6	3.2	2,400,000
Garfield Ave.-65th Place-Fresh Pond Road Line—Broadway to Central Ave.; 2 tracks	3.34	6.68	10,100,000
Liberty Ave.-105th Ave.-Brinckerhoff and Hollis Ave. Line—Lefferts Blvd. to Springfield Blvd., including branch connection to Jamaica Ave. "L"; 2 tracks	6.2	15.3	10,700,000
137th St.-VanWyckBlvd.Line—87th Ave to Rockaway Blvd.; 2 tracks	2.3	4.6	6,600,000
120th Ave.-Springfield Blvd. Line—Hawtree St. to Foch Blvd.; 4 tracks to Van Wyck Blvd.; 2 tracks to Foch Blvd.	5.23	13.92	9,500,000
Total	34.97	88.30	$84,200,000
EXTENSIONS TO EXISTING LINES IN QUEENS.			
Roosevelt Ave.-First St.-Station Road and 39th Ave. Line—Main St. to 221st St.; 3 tracks to 147th St., 2 tracks to 221st St.	3.6	7.78	$9,600,000
College Point and Whitestone Line—Roosevelt Ave and 149th St. to 11th Ave. and 122d St.; 2 tracks	3.4	6.8	6,000,000
Ditmars Ave.-Astoria Blvd.-120th St.-Nassau Blvd. Line—2d Ave. to Cross Island Blvd.; 2 tracks to Astoria Blvd.; 4 tracks to Parsons Blvd.; 2 tracks to Cross Island Blvd.	8.1	26.71	17,700,000
Total	15.1	41.29	$33,300,000
RECAPTURABLE LINE.			
Liberty Ave. Line—Grant Ave. to Lefferts Blvd.; 3 tracks	2.3	6.9	1,600,000
Grand total for Queens	52.37	136.49	$119,100,000
SUMMARY.			
Manhattan	11.87	45.48	$126,800,000
Bronx	19.04	51.32	78,000,000
Brooklyn	16.84	61.52	114,500,000
Queens	52.37	136.49	119,100,000
Totals, all boroughs	100.12	294.81	$438,400,000

SUBWAY TICKETS SOLD AT GRAND CENTRAL AND TIMES SQ. (I. R. T.) STATIONS.

Year.	Gr. Central	Times Sq.	Year.	Gr. Central	Times Sq.	Year.	Gr. Central	Times Sq.
1912	14,995,523	12,709,311	1918	28,100,213	16,436,775	1924	35,864,163	37,594,661
1913	16,939,238	13,211,957	1919	23,581,945	20,579,059	1925	37,234,126	39,493,384
1914	19,551,405	13,664,628	1920	28,030,334	26,631,199	1926	39,254,119	43,730,556
1915	20,494,333	14,307,694	1921	29,397,748	29,568,260	1927	40,206,328	48,123,566
1916	23,168,634	15,174,578	1922	29,938,128	31,966,237	1928	44,371,196	55,093,646
1917	26,539,221	17,272,086	1923	33,137,199	34,678,063	1929	46,350,969	55,944,891

NEW YORK CITY'S RAPID TRANSIT SYSTEM.

HORSE, CABLE AND ELECTRIC STREET CARS

Horse cars were first used in New York City by the Harlem Railroad on Nov. 14, 1832, to run on tracks in Fourth Ave. between Prince St. and Fourteenth St.; changed to steam a few years later. About 1852 the horse cars were improved and these lines were increased until, in 1864, there were twelve in operation.

The first cable cars were installed on the 125th St. and the Amsterdam Ave. lines of the Third Ave. Rail Road Co. in August, 1885.

In March, 1893, the Metropolitan St. Railway Co. constructed its first underground-current street railway on 116th St.

The Third Ave. Co. changed to underground current in 1900.

Brooklyn ran its first trolley on the Second Avenue line over the Brooklyn City Railway, in 1891, May 22.

INTERBOROUGH SUBWAY'S CHRONOLOGY.

The first subway contract was awarded on Jan. 15. 1900, and work was begun on March 24, by breaking ground at the City Hall. The municipality agreed to pay $35,000,000 for construction, and $2,750,000 for terminals, station sites, and other purposes. This was the initial Interborough tube.

This original subway, built by John B. McDonald and financed by August Belmont and associates, was opened and operated in 1904—from the Brooklyn Bridge to 145th St., and Broadway (via Park Row, Elm and Centre Sts., 4th Ave., 42nd St., and Broadway), on Oct. 27; to 157th St. and Broadway, on Nov. 12; to 145th St. and Lenox Ave., on Nov. 23; and over the Westchester Ave. branch, from 3rd Ave. to West Farms, on Nov. 26; through the Harlem River tunnel, to 180th St., on July 10, 1905.

The extension south on Park Row to Fulton St. was opened and operated in 1905, on Jan. 16; to Wall St. on June 12; to Bowling Green, on July 10; to South Ferry, on July 10.

The extension on Broadway to 221st St. was operated on March 12, 1906; to 230th St. and Broadway, on Jan. 27, 1907; to 242nd St. and Broadway, on Aug. 1, 1908.

The trains south on Broadway were opened and operated from Bowling Green, through the original East River tunnel, to Borough Hall, Brooklyn, on Jan. 9, 1908; to Atlantic Ave., Brooklyn, on May 1, 1908; to Utica Ave., via Eastern Parkway, Brooklyn, on Aug. 23, 1920; to Flatbush and Nostrand Aves., Brooklyn, on Aug. 23, 1920; from Utica Ave. to Junius St., Brooklyn, on Nov. 22, 1920; from Junius St. to Pennsylvania Ave., Brooklyn, on Dec. 24, 1920; from Pennsylvania Ave. to New Lots Ave., Brooklyn (shuttle service), on Oct. 16, 1922; through service to New Lots Ave., on Oct. 31, 1924. Express service on Eastern Parkway began on Nov. 4, 1925.

The so-called Lexington Ave. branch of the Interborough was opened and operated from 149th St. and Mott Ave., to Kingsbridge Road and Jerome Ave., on June 2, 1917; shuttle service between Kingsbridge Road and Woodlawn began on April 15, 1918; from 167th St. and Jerome Ave., and the Grand Central Station, via Lexington Ave., on July 17, 1918; on Pelham Bay Park branch, to Hunts Point Ave., on Jan. 7, 1919; and to Pelham Bay Park, on Dec. 20, 1920.

The Seventh Ave. branch was opened from 42nd St. (Times Sq.) to the Pennsylvania Station, at 33rd St., on June 3, 1917; extended south to South Ferry, with branch to Wall and William Sts., on July 1, 1918; through the Clark St. tube under the East River and to Borough Hall, Brooklyn, and Atlantic Ave., Brooklyn, on April 15, 1919.

The Corona branch, via Queensboro Bridge, was opened from Queensborough Plaza to Alburtis Ave., on April 21, 1917; to 111th St., on Oct. 13, 1925; to Willetts Point Boulevard, on May 7, 1927; to Main St., Flushing, on Jan. 2, 1928.

The Astoria branch, via Queensboro Bridge, was opened from Queensborough Plaza to Ditmas Ave., on Feb. 1, 1917.

The Queensborough was opened from 42nd St. and Lexington Ave. through the Belmont tube under the East River to Jackson Ave., Long Island City., on June 22, 1915; to Hunters Point Ave., on Feb. 15, 1916; to Queensborough Plaza, on Nov. 5, 1916; extended from Grand Central Station to 5th Ave., on Mch. 22, 1926; to 41st St. and 7th Ave., on Mch. 14, 1927.

The White Plains branch was operated from 177th St. to E. 219th St., on Mch. 3, 1917; to E. 238th St., on Mch. 31, 1917; to E. 241st St., on Dec. 13, 1920.

INDEPENDENT, INTERBOROUGH AND B.M.T. SUBWAYS.

There are now two subway systems in operation throughout the city, those of the Interborough Rapid Transit Co., and of the Brooklyn-Manhattan Transit Corp. (the old Brooklyn Rapid Transit Co.).

An independent subway system is being constructed under the auspices of the Board of Transportation, which was created by the Legislature in 1924.

INDEPENDENT SUBWAY SYSTEM.

Manhattan Trunk Lines—From 215th Street and Harlem River where power house, repair shops and storage yards are located, down Broadway to the vicinity of Dyckman Street, southwesterly to 193d Street and Overlook Terrace; down Ft. Washington Avenue to 174th Street.

Thence southeasterly to Broadway and 173rd Street, down Broadway to St. Nicholas Avenue, down St. Nicholas Avenue to Eighth Avenue and 122nd Street, down Eighth Avenue and into Central Park West, along the Park wall, skirting Columbus Circle, down Eighth Avenue again to 53rd Street, where it joins the Long Island City-Queens Boulevard Line.

From 53d Street the trunk lines go down Sixth and Eighth Avenues to a junction at Sixth Avenue, Carmine Street and Houston Street, where the lower East Side link extends through Houston Street toward the Bowery and on eastward to Essex Street, to Rutgers Street and the East River.

From the junction of Sixth Avenue and Carmine Street the line continues down the Sixth Avenue extension, which will be one of the approaches to the Holland Tunnel.

Crossing over to Lispenard and Church Streets it continues southerly to Fulton Street, turning eastward to the East River to Cranberry Street, Brooklyn.

Brooklyn Lines—The first Brooklyn line is being constructed under the river from Fulton Street, Manhattan, into Cranberry Street, proceeding through High Street, to Jay Street, to Smith Street, Ninth Street to Prospect Park West, where tracks branch.

The south tube was "holed through," under the river, on May 15, 1929, and the north tube several weeks afterward. These tunnels are 9,000 feet long, from a point under St. Paul's (P. E.) Chapel, Broadway and Fulton St., Manhattan, to a point under Jay and Nassau Sts., Brooklyn. The tubes cost about $22,000,000.

The express tracks pass under the westerly corner of Prospect Park and private right of way, and the local tracks turn southwest along Prospect Park West to Prospect Avenue, thence southeasterly along Prospect Avenue to a junction with the express tracks at Terrace Place and Prospect Avenue, thence southerly along Prospect Avenue to Greenwood Avenue, thence southwest through private right of way to Gravesend Avenue at about Albemarle Road, thence southerly along Gravesend Avenue to join with the existing Culver Line to Coney Island.

Another line will enter Brooklyn through Jay Street by way of a tunnel from the foot of Rutgers Street in Manhattan. Ultimately the Smith Street-South Brooklyn line will go into Manhattan by the Rutgers Street tunnel under the East River, but the Fulton Street Tunnel is being constructed first, and temporarily both the South Brooklyn trains and the Central Brooklyn trains will run over that route into Jay Street, where both lines will have two joint stations and transfer facilities.

At the intersection of Schermerhorn and Smith Streets one line will turn easterly into Schermerhorn Street and out across the Central District of Brooklyn through Lafayette Avenue to Marcy Avenue, then across private right of way to Union Ave., thence across Union Avenue, through McCarren Park, Manhattan Avenue, Vernon Avenue, to a connection at Jackson Avenue with the Queens-Jamaica line.

Fulton Street-Brooklyn Line—Another new route in Brooklyn is under construction in Fulton Street, running from the junction of Lafayette Avenue and Ft. Greene Place, along Fulton Street to Alabama Avenue, a distance of four miles. The first two contracts for the construction of this line were executed in April, 1929.

When the projected lines are in operation, Brooklyn will be divided into transit zones each about a mile in width. On the westerly side is the Fourth

Avenue Line, then easterly is the West End Line, the Sea Beach Line, the Culver Line, the Brighton Beach Line, the Nostrand Avenue Line, the Utica Avenue Line and the Canarsie Line. East and west will be the Eastern Parkway Line and the Lafayette Avenue or Atlantic Avenue Lines.

Bronx-Concourse Line—From a connection with the Washington Heights Line at St. Nicholas Avenue and 148th Street, under St. Nicholas Place to the Harlem River at 157th Street, under the river to Jerome Avenue and 161st Street, under 161st Street to the Concourse and under the Concourse to Mosholu Parkway. Thence the line turns easterly through Van Cortlandt Avenue to 205th Street, to Webster Avenue. It is planned to extend it under Bronx Park, via Burke Ave. to the Boston Post Road thence toward the Eastchester section of the Bronx.

The **Queens-Jamaica Line** is under construction as far as Union Turnpike and Queens Blvd. from Long Island City junction with the 53rd Street tunnel to Manhattan and the Brooklyn crosstown line. The Queens-Jamaica line extends from Long Island City via Jackson Avenue, Steinway Avenue, Broadway, Queens Boulevard, 137th Street, Hillside Avenue to 178th Street.

The **14th Street-Eastern District** subway constructed by the Board of Transportation from Montrose Avenue in Williamsburg to the elevated railroad connection at Broadway, East New York, was opened for service in 1928. The Board of Transportation is now (Sept. 1929) finishing the construction of an extension in 14th Street, Manhattan, from 6th Avenue to 8th Avenue, where passengers can transfer to the City's new 8th Avenue trunk line.

The Fourteenth Street-Eastern Line was put in operation on June 24, 1924, between 14th Street and Sixth Avenue, Manhattan, and Bushwick and Montrose Avenues, Brooklyn, via a tube under the East River.

INTERBOROUGH SUBWAYS.

There are two of these systems, the east side and the west side, with cross connections in Manhattan, Brooklyn and Queens.

The west side system starts on an elevated structure at Livonia and New Lots Avenues, East New York (Brooklyn), goes on Livonia Avenue to Saratoga Avenue, then turns into the Eastern Parkway, where it becomes a subway. It runs through the Eastern Parkway to Flatbush Avenue, at Eighth Avenue, thence down Flatbush Avenue to Fulton Street, through Fulton Street to Clark Street, through Clark Street and under the East River to William Street, Manhattan; through William Street to Fulton Street; thence west to West Broadway; to Hudson Street; to Seventh Avenue; to Broadway; to St. Nicholas Avenue; to Amsterdam Avenue; to Broadway, to 242d Street, at Van Cortlandt Park.

Another branch of the west side system starts at Flatbush and Nostrand Avenues, Brooklyn, and runs in a subway through Nostrand Avenue to the Eastern Parkway, where it joins the other branch. Through trains run in both branches over the entire west side system.

At 96th Street and Broadway, the west side system has a branch (part of the original Interborough subway) that extends under Central Park to Lenox Avenue, to 145th Street, thence under the Harlem River to 149th Street, where it joins the east side trunk line on Westchester Avenue and the Southern Boulevard. Just south of Bronx Park, an extension, on an elevated structure, branches off and goes along White Plains Road to 241st Street, Mount Vernon. This extension also is used by Third Avenue "L" trains, north of Gun Hill Road.

The west side-east side systems have an elevated extension on Jerome Avenue extending north from Mott Avenue and 149th Street, up through Fordham and Bedford Park to a point between Van Cortlandt Park and Woodlawn Cemetery, ending at about 242d Street. This extension is also used by Sixth Avenue and Ninth Avenue "L" trains north of 162d Street.

The east side system starts at Flatbush and Atlantic Avenues (Long Island R. R. Terminal), Brooklyn, goes under Flatbush Avenue to Fulton Street; to Joralemon Street; thence under the East River to Battery Park, Manhattan; thence under Broadway, to Park Row; to the Brooklyn Bridge; to Lafayette Street, to Fourth Avenue; to 42d Street (Grand Central Station); to Lexington Avenue; to 130th Street; thence under the Harlem River to Mott Avenue to 149th Street, where it emerges onto an elevated structure; to Westchester Avenue; to the Southern Boulevard; to the southern part of Bronx Park (Bronx Zoo).

An extension of the east side system starts at Mott Avenue and 138th Street and goes through 138th Street to the Southern Boulevard; to Whitlock Avenue to Westchester Avenue, and through Old Westchester Village to the Eastern Boulevard, at the west side of Pelham Bay Park.

The Queensboro Branch of the Interborough subway system starts at 42d Street and Eighth Ave. (Times Square), and uses the Belmont tubes under the East River at 42d Street to Long Island City, there emerging onto an elevated structure and going to the Queensboro Bridge Plaza.

There it splits into two elevated branches, one going through Ravenswood, on Second Avenue, to Ditmars Avenue, Astoria; the other going on Queens Boulevard (Greenpoint Avenue), to Roosevelt Avenue, to Willets Point Boulevard and thence over Flushing Creek Bridge to Main Street, Flushing, to which service was extended on January 21, 1928.

The Second Avenue, Manhattan "L" trains operate over the Astoria Branch and over the Flushing Branch to Willets Point Boulevard.

Both Queensboro line branches from Queensboro Plaza station eastward are also used for B.-M. T. train service.

BROOKLYN-MANHATTAN TRANSIT CORPORATION CHRONOLOGY.

The Centre St. Loop subway was operated between the Manhattan Bridge and the Chambers St. Station under the Municipal Building, on Aug. 4, 1913.

The Fourth Ave. subway (using the Loop) was opened from Chambers St., via Manhattan Bridge, to 4th Ave. and 65th St., Brooklyn, and thence over the Sea Beach route to Coney Island, on June 22, 1915; opened on 4th Ave., Brooklyn, from 65th St. to 86th St., on Jan. 15, 1916; to 95th St., Ft. Hamilton, on Oct. 31, 1925.

The Broadway subway was opened and operated from the Chambers St. Station in the Municipal Building to 14th St., on Sep. 4, 1917; north to Times Square and south to Rector St., on Jan. 5, 1918; from Times Square north to 57th St. and 7th Ave., on July 10, 1919; from 57th St. and 7th Ave. to 60th St. and Lexington Ave., on Aug. 31, 1919.

Trains operated on Aug. 1, 1920, from 4th Ave. and Willoughby St., Brooklyn, through the East River tubes, from Montague St., Brooklyn, to Rector St., Manhattan; and from 60th St. and Lexington Ave., Manhattan, to Queensboro Plaza, Long Island City.

The B. M. T. subway extension from 4th Ave., Brooklyn, at Atlantic Ave., to Malbone St., at Prospect Park, via Flatbush Ave., was opened and operated on Aug. 1, 1920.

The 14th St.-Eastern District subway, via a tube under the East River, was operated on June 30, 1924, from Montrose Ave. and Grand St., Williamsburgh (Brooklyn) to 14th St. and 6th Ave., Manhattan, extended, on July 14, 1928, from Montrose Ave., Brooklyn, to Broadway Junction, Brooklyn.

The Jamaica Ave., Brooklyn "L" line of the B. M T. was extended from Cypress Hills (East N. Y.) to Richmond Hill (111th St.-Greenwood Ave.) on May 28, 1917; and thence to Jamaica, on July 3, 1918.

The Liberty Ave., Brooklyn, extension of the Fulton St. "L" was operated on Sept. 25, 1915.

The New Utrecht Ave., Brooklyn, "L" extension of the 4th Ave. subway, was operated on June 24, 1916; extended to Coney Island, on July 20, 1917.

There are three B.-M. T. subways: The Fourth Avenue line with its branches, the Broadway line in Manhattan, and the Queensboro line from Manhattan into the Borough of Queens.

The Fourth Avenue route starts at Fourth Avenue and 95th Street, Bay Ridge, and runs along Fourth Avenue to Flatbush Avenue, to the Manhattan Bridge; re-entering a subway in Canal Street, Manhattan; continuing west to Broadway, where it joins the Broadway tubes of the same system.

The Broadway line starts at Flatbush Avenue and Malbone Street (Empire Boulevard), where it is operated as a part of the B.-M. T. Brighton line; goes along Flatbush Avenue to Fourth and Atlantic Avenues, where connections exist with the Fourth Avenue line; thence via Flatbush Avenue and Willoughby Street to Borough Hall, to Fulton Street, to Montague Street; thence under the East River to Whitehall Street, Manhattan; under Trinity Place, Church Street, Broadway and Seventh Avenue to 59th Street.

A branch extends under 59th and 60th Streets and by tunnel under the East River to connect with the Queens lines at Queensboro Bridge Plaza.

CHRONOLOGY OF THE "L" LINES IN MANHATTAN AND BRONX.

The first elevated or "L" road in Manhattan was on Greenwich St., between Battery Place and Cortlandt St., where a trial train was run on Friday, July 3, 1868. John Stevens, of Hoboken, had proposed an elevated structure as far back as 1832.

The Greenwich St. line, thereafter known as the 9th Ave. "L," was operated from Battery Place to 29th St., on Feb. 14, 1870; via 9th Ave. to 34th St., on July 30, 1873; to 42nd St., on Nov. 1, 1875; to 61st St., on Jan. 18, 1876. The line was extended south, from Battery Place to South Ferry, on April 15, 1877. At first, the road ran on the east side of Greenwich St., and on the west side of 9th Ave. The double tracking was operated in May, 1880. The route was operated, electrified, on June 25, 1903. Third-track express service was inaugurated on Jan. 17 1916, and the 6th Ave. "L" was linked up with the 9th Ave. for a through service from Battery Park to Sedgwick Ave , on March 1, 1918; to 167th St. and Jerome Ave., on July 1, 1918; to Kingsbridge Road and Jerome Ave., on July 17, 1918· to Woodlawn Road, on Jan. 2, 1919.

The 6th Ave. "L" was operated from Rector St. to 58th St., on June 5, 1879; to 53rd St. and 8th Ave., on Feb. 25, 1879; to 81st St. and Columbus Ave., on June 9, 1879; to 104th St. and Columbus Ave., on June 21, 1879; to 125th St. and 8th Ave., on Sept. 17, 1879; north to 135th St., on Sept. 27, 1879; to 155th St., on Dec. 1, 1879. The line was opened between Rector St. and South Ferry, on Nov. 1, 1881. The line was electrified on April 15, 1903. Third-track service was inaugurated on Jan. 17, 1916. The through service to Woodlawn began on May 16, 1917.

The Third Ave. "L" was opened from South Ferry to 42nd St. (Grand Central Station), on Aug. 26, 1878; north to 67th St., on Sept. 16, 1878; to 89th St., on Dec. 9, 1878; to 129th St. (Harlem River), on Jan. 1, 1879; through service from South Ferry to Bronx Park, and from City Hall to 177th St., on Sept. 24, 1896. The route was operated, electrified, on Aug. 18, 1902. The third-track service began on Jan. 17, 1916. The City Hall branch, between there and Chatham Square, was opened on Mch. 17, 1879.

The 34th St. branch "L" was opened on July 1, 1880, and was closed permanently in 1929 and ordered removed by the city authorities.

The Bronx division of the 3rd Ave.-2nd Ave. "L" Lines was operated from 129th St. to 133rd St., on May 17, 1886; to 143rd St., on May 23, 1886; to Mott Haven, on Nov. 25, 1886; to 138th St., on Jan. 23, 1887; to 149th St., on June 16, 1887· to 156th St., on July 1, 1887; to 161st St., on Aug. 17, 1887; to 169th St., on Sept. 2, 1888· to 177th St., on July 20, 1891; to Bronx Park, on May 21, 1902.

The 42nd St. branch "L" was opened on Aug. 26, 1878, and was closed on Dec. 6, 1923.

The 2nd Ave. "L" was opened, South Ferry to 65th St., on March 1, 1880; to 127th St., on Aug. 16, 1880; to 129th St., on May 17, 1886. The line was operated, electrified, on Sept. 10, 1902; and it was operated, third-tracked, on Jan. 17, 1916.

There are four elevated roads in these two boroughs, all operated by the Interborough.

Second Avenue "L" starts at South Ferry, Battery Park, runs north to Pearl Street and New Bowery to the Bowery; to Division Street; to Allen Street; First Avenue to 23d Street; to Second Avenue; to 129th Street, where it merges with the Third Avenue "L." Some trains operate to Freeman Street on the Westchester Branch of the subway via Third Avenue and the Bergen Street cut-off. Some trains operate over the Queensboro Bridge to Astoria and Corona.

Third Avenue "L" starts at Park Row (old Chatham Street) and the Brooklyn Bridge, and runs on Park Row to the Bowery, at Chatham Square, where it bends into the Bowery; to Third Avenue; to 129th Street, where it crosses the Harlem River, and continues north through Willis and Melrose Avenues, to Third Avenue, the Bronx; thence past Crotona and Bronx Parks to Williamsbridge, at White Plains and Gun Hill Roads, and Mt. Vernon via the White Plains Road Elevated extension of the subway.

At 149th Street, the "L" connects with the Interborough subway elevated line that runs on Westchester Avenue, the Southern Boulevard, and White Plains Road to Mt. Vernon.

Ninth Avenue "L" starts at South Ferry, Battery Park, and runs north through the park to Greenwich Street; to West 14th Street and Ninth Avenue; on Ninth Avenue to 53d Street, where it merges with the Sixth Avenue "L," and the two roads jointly continue on Ninth (Columbus) Avenue to 110th Street; to Eighth Avenue; to 155th Street, where the road crosses the Harlem River, bearing east, connecting with the Yonkers branch of the N. Y. Central R. R. at Sedgwick Avenue, and continuing east to Jerome Avenue.

Sixth Avenue "L" starts at South Ferry, Battery Park, and runs north through the park to Church Street; to Park Place; to West Broadway; to West Third Street; to Sixth Avenue; to West 53d Street; to Ninth Avenue, where it merges with the Ninth Avenue "L."

"L" LINES IN BROOKLYN AND QUEENS.

The Culver line to Coney Island operates from Park Row via Brooklyn Bridge, Adams Street, Myrtle Avenue, Hudson Avenue, Flatbush Avenue, Fifth Avenue, 38th Street cut, and thence via a new structure, principally on Gravesend Avenue, to Coney Island.

The Myrtle Avenue "L" runs from Park Row and Brooklyn Bridge, to Metropolitan Avenue, via the bridge, Adams Street, Myrtle Avenue, and private right of way, to Metropolitan Avenue, Ridgewood.

The Fulton Street "L" runs from Park Row via the Brooklyn Bridge along Fulton Street to East New York, and thence via Pitkin and Liberty Avenues to Lefferts Avenue, Richmond Hill.

The Lexington Avenue "L" runs from Park Row via the Brooklyn Bridge to Jamaica, via Myrtle and Lexington Avenues, Broadway, and Jamaica Avenue.

The Broadway "L" runs from Chambers Street, Manhattan, via Center Street loop, Williamsburg Bridge, Broadway to East New York and Canarsie.

The Fifth Avenue "L" runs from Park Row, Brooklyn Bridge to Bay Ridge at 65th St., via Fulton Street, Flatbush Avenue, Fifth Avenue, Thirty-Sixth Street, where it connects with the Culver route.

HUDSON RIVER TUBES.

The **Pennsylvania Railroad** by means of twin tubes extending under Manhattan at 33d Street, connects the Pennsylvania Terminal at Seventh Avenue with Long Island City, enabling through all-rail passenger and freight traffic between New England and the South and West.

Westward, two tracks in brick and concrete tunnel structure for a length of 1,000 feet continued under Hudson River to Weehawken, N. J., in two tubes of cast iron, lined with reinforced concrete, 23 feet external diameter, 21 feet 2 inches internal diameter for a length of 6,100 feet; thence in two tunnels through rock of Hudson River Palisades for a length of 6,300 feet to portal in New Jersey. Trains westwards run to Manhattan Transfer, Newark, N. J., without a stop.

Eastward—from above-mentioned station four tracks, Manhattan crosstown lines, under 32nd and 33rd Streets to First Avenue, in a twin tunnel structure under each of these streets at a depth of about 60 feet, to crown of same, and for a length of 5,700 feet. These four tracks are continued under the East River and Long Island City in four separate tubes, of same character and dimensions as above-mentioned westwards, for a length to their portals of 7,800 feet.

The total length tunnel route (including station) Long Island portals to New Jersey portals is 5.60 miles; the total length of route-track in tunnels only is 15.30 miles. Engineering work started 1902, construction started 1904 and was completed 1910. Operation, electrically, low tension, third rail, began November, 1910.

There are two sets of **Hudson and Manhattan** Railroad Co. tubes under the Hudson River, one connecting Montgomery Street, Jersey City, with the Hudson Terminal Station at Fulton-Cortlandt-Church Streets, Manhattan; the other connecting the Hudson tubes in Jersey City-Hoboken with Christopher Street, Manhattan.

The main trunk-line tubes of the system run from Montgomery Street, Jersey City, to Park Place, Newark, emerging to the surface on Jersey City Heights, and connecting on the meadows with the Pennsylvania Railroad, at a surface station called Manhattan Transfer.

In New Jersey, one set of tubes parallels the Hudson River, linking up the Pennsylvania, Erie, and Lackawanna railroad passenger stations, so that travelers may go to or from their stations to downtown or uptown Manhattan.

In Manhattan, the Hudson tubes connect Christopher Street with Broadway and 33d Street by way of Sixth Avenue.

SUBURBAN TRAVEL.

Operation of the Holland vehicular tunnel and the Staten Island-New Jersey bridges, according to the Transit Commission, caused a reduction of 2,072,046 persons in the total passenger traffic to and from New York City over railroad and ferry lines in 1928.

In 1927 this two-way traffic count disclosed that 364,376,293 persons were thus transported. In 1928, the total dropped to 362,304,247.

Tabulations by Holland showed that 8,744,674 vehicles passed through in 1928. Of these 6,836,822 were passenger automobiles, 232,092 were buses and 21,102 motorcycles.

Of the 362,304,247 passengers entering and leaving the city in 1928, the Transit Commission report declared, 273,512,925 were classified as commuters using ferry and railroad routes. The figures are for two-way traffic.

Taken on a daily basis, computing 340 full traffic days to the year, the figures show that 535,848 passengers a day used the railroads and ferries to and from the city, 402,225 being commuters and 133,623 daily visitors. In 1927 the commuter tota was estimated at 537,231 and the daily visitor count as 134,582.

Railroad passenger travel to and from the city showed an increase in 1928 over 1927, but the ferry total dropped 3,246,881. In 1928 the total ferry two-way traffic was 101,561,476 persons, while in 1927 the total was 104,808,357.

The figures exclude municipal and other ferries operating entirely within the city limits. In 1928 the municipal ferries carried 35,273,675 passengers and 3,330,150 vehicles.

The 1928 traffic figures for three terminals were: Grand Central Station, 47,549,408; Pennsylvania Station, 60,906,252; Hudson & Manhattan, 108,942,647.

The Long Island Railroad's traffic in and out of Pennsylvania Station was more than the Pennsylvania Railroad's own traffic in and out of the same station, the totals being 48,540,920 as against 11,218,287.

There are many daily railway commuters who come and go to and from New York City from and to fairly distant places—Philadelphia, 200, for example. Hartford, Conn.; New Haven, Conn.; Poughkeepsie, N. Y.; Dover, N. J.; Greenport, and the Huntingtons, L. I.; Trenton, N. J.; Asbury Park, N. J., are other instances.

The New York, Westchester & Boston Lines, in 1928, carried 14,053,188 passengers, of which number, 3,291,300 fares represented commuters.

INCOME AND EXPENDITURES OF STREET RAILWAY COMPANIES.

(Excludes Hudson and Manhattan Railroad Company, italics show *deficit.*)

Fiscal Year.	Operating Revenue.	Operating Income.	Net Corporate Income.	Fiscal Years	Operating Revenue.	Operating Income.	Net Corp. Income.
1910	$77,356,451.65	$29,586,849.01	$9,412,265.16	1920	$121,632,966.36	$21,405,508.10	*$12,625,593.76*
1911	80,948,587.75	30,271,186.97	9,714,804.02	1921	129,237,751.00	18,160,034.22	*18,118,998.66*
1912	84,862,972.08	32,836,268.53	12,030,886.87	1922	133,452,686.24	32,449,446.03	*3,986,262.10*
1913	88,448,787.47	35,184,785.58	11,505,875.00	1923	138,455,485.07	33,450,508.41	151,648.46
1914	90,379,409.49	35,667,374.69	11,484,869.20	1924	143,617,612.91	36,086,007.87	701,603.22
1915	89,965,345.50	35,499,706.84	11,630,683.18	1925	145,830,553.50	37,603,151.39	1,222,374.93
1916	94,717,678.13	38,236,175.43	12,533,288.87	1926	149,774,100.90	41,507,450.98	4,758,413.77
1917	95,943,518.79	34,792,106.84	9,433,273.26	1927	153,176,827.74	41,274,068.16	4,109,309.86
1918	98,820,095.94	31,649,198.51	4,303,859.78	1928	157,065,698.26	42,602,218.18	5,770,610.30
1919	104,565,317.91	21,577,509.39	*11,162,855.31*	1929	159,253,434.91	43,503,502.15	6,330,960.91

The 1929 net corp. income total excludes $2,782,405 dividend rental to the Manhattan Railway.

Figures for income (operating and net) are adjusted to include total expenditures for maintenance for those companies reporting a credit to operating expenses for excess maintenance.

STREET SURFACE RAILWAY TRAFFIC.

YR. (Fisc.)	Manhattan.	Bronx.	Brooklyn.	Queens.	Richmond.	Total.
1860.....	38,455,242	.....	12,374,931	.....	.....	50,860,173
1870.....	114,101,539	1,038,014	37,203,281	.....	121,086	152 433,920
1880.....	148,615,107	1,775 485	77,928,395	1,052,380	213,905	229,585,272
1890.....	215,296 648	3,394,726	109,288,647	2,976,185	287,325	331,243,531
1900.....	360,002,672	21,364,690	204,106,397	11,441,751	6,872,856	603,788,366
1910.....	371,165,696	56,524,261	289,308,085	34,430,074	11,712,623	763,140,739
1911.....	382 046,845	62,777,966	305,977,350	42,515,629	12.301,757	805,619,547
1912.....	395,238,026	67,837 245	322,321 981	45,182,732	12,959,799	843,539,783
1913.....	419,722,253	74,702,309	345,987,401	47,463,382	13,568,066	901,443,411
1914.....	420,662,533	79,652,133	351,905,284	49,973,696	14,011,414	916,205,060
1915.....	415,551,116	81,502,803	354,700.113	52,686,108	14,312.009	918,752,149
1916.....	427,373,847	84,535,737	363,630,177	54,167.403	14.884.584	944.591,698
1917.....	349,788 114	71,153.030	373,079,651	50,906.681	15.238.157	860.165 633
1918.....	371,136,389	79,917.071	360,207,555	43,448,206	15,287,922	869,997.143
1919.....	370,084,711	80,806 261	362,105,288	46,723,575	15,958,198	875,678,033
1920.....	349,772,761	94,141.991	432,936,227	49 562,574	15,007,235	941,420,788
1921.....	384,128,024	107,675,507	418,106,603	51,944,034	15,797.894	977,652,062
1922.....	388,357,767	114,679,520	472,538,028	58,826,451	18,567,125	1,052.968,891
1923.....	383,209,500	119,140,813	490,128,692	59,849,701	19,408,170	1,071.736,876
1924.....	378.667,933	124,374,810	499,768,634	58,976,131	19,740,392	1,091,527,900
1925.....	354,396,834	128,178,112	500,639,756	58,149,148	19,290,165	1,060,654,015
1926.....	335,663,087	133,353,069	495,078,144	56,868,143	16,939,627	1,037,902,071
1927.....	324,297,970	144,610,327	496,306,822	50,949,549	17,133,068	1,033,297,736
1928.....	308,590,199	153,143,745	496,637,959	51,691,870	10,335,834	1,020,399,607
1929.....	292,785,268	155,542,239	490,422,154	52,686,161	99,136,035	1,000,571,857

Queens figures exclude B.-M. T. Table covers paying passengers only.

"L," SUBWAY, STATEN ISLAND AND BUS TRAFFIC.

YEAR (Fiscal).	Interborough "L" Lines.	Interborough Subway Lines.	B.M.T., "L" and Subway Lines.	Hudson Tubes.	Staten Island Steam Roads.	Fifth Avenue Coach Co.
1910.....	293,826,280	268,962,115	162,493,801	42,839,979	6,014,928	6,305,175
1911.....	301,449,292	276,704.796	167.371,328	52,756,434	6,218.316	5,997,372
1912.....	304,270,841	302,973,856	172,195,229	57,934,226	6,461,635	6,339,072
1913.....	306,845,006	327.471,510	175,246,512	58,870,069	6,636,336	8,884,534
1914.....	311,473,568	340,413.103	185,060,735	60,051,890	6,979.126	11,276,430
1915.....	301.792,517	345,585,749	182,535,897	58,966,414	6,943,302	14,050,471
1916.....	312,246,796	371,505,318	207,098,269	63,293,534	7,563,066	16,223,042
1917.....	349 380,093	414,193,992	226,515,512	68,556,999	8,378,779	22,080,764
1918.....	352,660,669	418.337,666	258,167 313	76,348,998	9,269 902	26,113,576
1919.....	348.188,600	461,147,058	308,879,791	86,050.815	9,918,850	36 488,447
1920.....	369 034,477	586,098,633	376,782,635	92,250,836	10,204.511	42,552.709
1921.....	374,293,051	639.385,780	404,970,640	95,607,644	11,181,785	51,091,365
1922.....	348,517,216	644,975,474	444,747,228	99,104,889	10,686,439	52,840,135
1923.....	348,524,700	676,650,431	480,900,869	103,390,911	11,130,753	55,974,110
1924.....	359,410,056	714,933.187	537,194,829	107,213,936	11,828.314	57,136,492
1925.....	352,723,553	736,820,672	591,256,029	107,918,242	12,443,909	67,700,517
1926.....	346,204,574	784,280,073	621,251,881	108,826,762	13,000,311	69,425,753
1927.....	359,019,660	814,626,596	656,543,693	112,318,329	13,384,913	70,405,169
1928.....	351,258,534	897,693,467	669,552,744	112,487,043	13,569,054	67,283,025
1929.....	348,569,124	932,446,803	690,829,232	111,834,120	.....	61,672,950

Staten Island figures are for calendar years.

TUNNELS IN OPERATION IN AND ABOUT NEW YORK CITY.

Holland Vehicular—Twin tubes under the Hudson (North) River, 9,250 feet in length, from Canal Street, Manhattan, to Twelfth Street, Jersey City. Opened to commercial traffic at 12.01 a.m., Nov. 13, 1927. Each tube is of 29 ft. 6 in. external diameter, with interior roadway width of 20 feet and clearance height of 13 ft. 6 in. The tunnel was built to accommodate 46,000 vehicles a day. On the first day it handled over 52,000. There are narrow sidewalks for the tube police. The total traffic for 1928 was 8,744,674 vehicles, and the maximum day in that year totaled 48,004 vehicles. On May 12, 1929, the tunnel was used by 52,178 vehicles. Work started Oct. 12, 1920.

Pennsylvania Railroad System—Tunnels under Hudson River extend from Pennsylvania Railroad Station, New York, to Weehawken, N. J. There is no station at Weehawken; the electric trains from the Pennsylvania Station run to Manhattan Transfer, near Newark, N. J. without a stop. Work started April 1, 1904; completed in 1910. Two tubes of cast iron rings, 23 feet outside diameter and 21 feet 2 inches inside diameter; subaqueous portion 6,118 feet long. The Hudson tubes were put in service on Nov. 27, 1910, at which time the road was electrified between Long Island City and Manhattan Transfer. Electrification had been in progress since 1903.

Manhattan crosstown tunnels from the Pennsylvania Railroad Station, mentioned above, across New York under 32d and 33d Sts. to First Ave. Started July, 1905, completed in 1910. There are two tunnels, each with two tracks. The tunnels are built of concrete with the crown about 60 feet below the surface of the street.

East River tunnels connect with the crosstown tunnels and extend under the East River to Long Island City. Started September, 1904; completed in 1910. Four separate tubes with rings 23 feet outside diameter, each tube from the Manhattan shaft to the Long Island City shaft, 3,900 feet long. The tunnels under Manhattan and the East River were opened to Long Island traffic on Sep. 8, 1910.

New York Central Railroad System—Park Ave. Tunnel. The original tunnel was completed in 1837. It was a two-track tunnel and only extended under the "96th St. Hill." The railroad at that time terminated in the vicinity of City Hall. In 1872, the railroad was four-tracked, the four tracks being covered over from 56th St. north to the old tunnel at the "96th St. Hill." There was a two-track tunnel in the center and a single-track tunnel on either side. The length of the tunnel was approximately 10,000 feet. From 56th to 67th Sts., and from 71st to 80th Sts., the construction consisted of brick piers and stone retaining walls with I beam roof. From 67th to 71th Sts., and from 80th to 96th Sts., the construction consisted of brick arches, stone and brick piers, and stone walls. The minimum dimensions of the center tunnel were approximately 25 ft. wide x 15 ft. 6 in. high for I beam construction and 25 ft. wide x 17 ft. high for brick arch construction. The minimum dimensions of the side tunnels were 13ft. wide x 15 ft. 6 in. high for I beam construction and 16 ft. wide x 16 ft. 6 in. high for brick arch construction. Going north to 86th St., there was an adverse grade of 1.03% and then a slight down-grade to the north portal. The tunnel is substantially the same to date excepting the vents. Between 57th and 86th Sts., all the vents have been closed but two in each block. These have been reduced in area to 10 ft. x 12 ft., due to the City widening Park Avenue because of increased traffic.

St. Mary's Tunnel—It is on the Port Morris Branch and two straight tracks on a level grade pass through the tunnel under St. Mary's Park, the Bronx. The tunnel was built in 1904 and extended from 149th St. to Jackson Ave., a distance of about 1,800 feet. Two types of construction were used. A flat roof composed of I beams and concrete, resting on concrete walls and an arched roof tunnel of concrete. For the flat roof type, the dimensions were 26 ft. wide and 16 ft. high and for the arched roof type, the dimensions were 26 ft. wide and a center height of 21 ft. The tunnel is practically the same to date.

There are tunnels at Ossining (800 ft.); at Oscawana (215 ft.); at Ft. Montgomery (348 ft.); at Garrison (500 ft.); under Breakneck Mt., at Storm King (540 ft.); at New Hamburg (785 ft.); 2 miles north of Rhinecliff (227 ft.); at Haverstraw (1,678 ft.); at Ft. Montgomery, River Division (816 ft.); under West Point parade grounds (2,740 ft.); at Newburgh (458 ft.); and at Kingston (403 ft.).

Hudson and Manhattan Railroad System—North tunnels under the Hudson River from Jersey City to Morton St., New York. Started November, 1874; the first in New York, officially opened February 25, 1908. Two single track tubes, with a minimum inside diameter of 15 feet 3 inches, and approximately 5,700 feet long.

Up-town tunnels connect with north tunnels at Morton St. and extend to Christopher St. thence to Sixth Ave. and up Sixth Ave. to 33d St. Started March, 1904, completed in 1910. Section from Morton to 12th St. shield construction, remainder cut and cover.

South tunnels under Hudson River from Jersey City to the Church St. Terminal Building (Cortlandt, Church and Fulton Sts.), New York. Started May, 1905; opened for traffic July, 1909. Two tubes about 5,950 feet long, with cast iron rings, 16 feet 7 inches outside diameter and 15 feet 3 inches inside diameter.

Tunnels (consisting of two single track tubes) extend from the Hoboken terminal of the Lackawanna Railroad to Washington St., Jersey City, with connections to the north tunnels and to the Erie Railroad Station. At Washington St. a branch runs to the Pennsylvania Railroad Station at Jersey City, where connections are made with the south tunnels. West from Washington St., Jersey City, to a point east of Waldo Ave. is a double-track concrete subway with a center wall dividing the two tracks. West from this latter point the two tracks rise to the surface and extend upon the surface to Journal Square Station, Jersey City, at which point operating connection is made with the tracks of the Pennsylvania Railroad, extending to Manhattan Transfer, Harrison and Park Place, Newark. Work started March, 1906; completed July, 1911. A new and enlarged station at Journal Square has recently been constructed.

Interborough Rapid Transit Tunnel System—The first of its tubes under the East River from the Battery, New York, to Joralemon St., Brooklyn, connecting the New York and Brooklyn subways, was begun April, 1903; trains running January 9, 1908. Two tubes, 6,784 feet long, with a finished inside diameter of 15 feet 6 inches.

Clark Street Tube—These twin-tubes underneath the East River, connecting the Interborough-Seventh Avenue subway in Manhattan with the Fulton Street-Flatbush Avenue subway of the Interborough in Brooklyn, were completed and put in operation in the summer of 1919. They are 5,047 feet long; outside diameter of 17 feet 6 inches; inside diameter 15 feet.

Belmont Tunnel under the East River from 42d St., New York, to Long Island City. Subaqueous portion two single track tubes with cast-iron rings 16 feet 10 inches outside diameter, and a clear inside diameter of 15 feet 6 inches. Through rock a horseshoe shaped concrete section is used and in other places a rectangular double track cross section with reinforced concrete lining. Construction started by New York and Long Island Railroad, July 12, 1905; practically completed January 1, 1908. Train operation began June 22, 1915.

Harlem River Tunnel, Lenox Avenue Line—Connecting Lenox Avenue between 142nd and 143rd Sts., Manhattan, with 149th St. in the Bronx. Two single cast-iron tubes 15 feet inside diameter, with center diaphragm. Tubes 641 feet long. Begun Fall of 1901. Operated July 10, 1905.

Harlem River Tunnel, Lexington Avenue Line—Passes under the Harlem River north of 131st St. Consists of four single-track steel tubes connected in center with diaphragm and concrete reinforcement. Inside diameter 16 feet 6 inches. Length of tube 1,080 feet. Begun March 10, 1913. Completed Nov. 1, 1915. Operated July 17, 1918.

Brooklyn-Manhattan Transit Corp.—Whitehal St., Manhattan, to Montague St., Brooklyn. Length between bulkhead lines 3,900 feet, inside minimum diameter 15 feet, outside minimum diameter 17 feet 2 inches; work begun July, 1914, tunnel opened, Aug. 1, 1920.

Sixtieth Street Tunnel, from Manhattan to Long Island City, length between bulkheads 2,580 feet, minimum diameter inside 15 feet, maximum diameter outside 18 feet; work begun August, 1916, tunnel opened Aug. 1, 1920.

Fourteenth Street-Eastern, from Manhattan to Williamsburg. Length between bulkheads 3,050 feet, minimum diameter inside 15 feet, maximum diameter outside 18 feet; work begun February, 1916, tunnel opened June 30, 1924.

West Shore Railroad Tunnel, WEEHAWKEN, NEW JERSEY—Commenced in 1881, and completed twenty-three months later, at a cost of $525,000. It is double-tracked and the original

length was 3,983 feet. A steel and concrete portal, constructed in 1907 at the east increased its length to 4,273 feet. One-fourth of the tunnel is brick-lined, the remaining portion, unlined. The normal section is 27 feet in width and 19 feet high. 80,500 cubic yards of rock were removed, and five vertical shafts were utilized, giving ten working faces, and average progress of 173 linear feet per month was maintained. The average expenditure per linear foot of lined section was $200, and of unlined section, $110, and equivalent of $7.00 per cubic yard of excavation. The tunnel is a tangent, with the exception of the extended portion of the east end, previously mentioned, at which point the freight and passenger tracks divide. There is a grade of 0.30% toward the east, and 0.34% toward the west, from approximately the centre of the tunnel.

Erie Railroad—Bergen Tunnel through Bergen Hill, Jersey City, constructed during the years 1856 to 1861. As originally constructed it was 4385 feet long but was shortened at both ends at the time the Bergen Archways was constructed and the total length is now 4,162 feet. It is a two-track tunnel 28 feet wide, having a three center arch 21 feet high, partly brick lined. It has been used for freight traffic only since the construction of the Bergen Archways in 1910.

Bergen Archways through Bergen Hill, Jersey City, is parallel to the Bergen Tunnel and was started March 1906 and completed July 1910. It has four four-track tunnels, with open cuts between the tunnels, making the total length of the archways 4,450 feet. Tunnel sections 56 feet wide at bottom and 25 feet 3 inches high.

Otisville Tunnel through the Schunemunk Mountains, Orange County, New York, is a two-track tunnel 30 feet wide between concrete side walls and 25 feet high on the inside of the semi-circular brick arch. Length of tunnel is 5,314 feet and is used for freight traffic only.

N Y., Susquehanna and Western Railroad Tunnel through the Palisades at Edgewater, New Jersey, constructed during the years 1892 to 1894. It is a two-track tunnel partly brick lined, 27 feet wide and 21 feet high to the inside of a semi-elliptical arch. Length is 5,058 feet and is used for freight traffic only.

Lackawanna Railroad Tunnel, through Bergen Hill, Jersey City. Started February 28, 1906; completed February 14, 1909. Parallel to and 24 feet away from old tunnel and of the same length viz., 4,253 feet. New tunnel is double tracked, lined with concrete, having inside dimensions 23 feet high by 30 feet wide.

RAILROAD PASSENGER STATIONS IN MANHATTAN.

Baltimore & Ohio operates its trains in and out of the station of the Central of New Jersey, in Jersey City, with a trainside bus service to and from the Waldorf-Astoria Hotel and the Pershing Square Building (42nd St., opposite Grand Central Terminal) in Manhattan, and Joralemon St., near Court St., Brooklyn.

Central of New Jersey, foot of W. 23d and Liberty Streets; Sandy Hook Route (In Summer), foot of W. 42d and Cedar Streets, also.

Delaware, Lackawanna & Western, foot of Barclay, Christopher and W. 23d Streets.

Erie, foot of Chambers and West 23d Streets.

Hudson Terminal, Cortlandt, Dey, Church and Fulton Streets.

Lehigh Valley (see Pennsylvania).

Long Island, 7th Avenue and 33d Street (Pennsylvania Terminal).

New York Central, 42d Street and 4th Avenue, Grand Central Station; Putnam Division, Grand Central Terminal.

Grand Central Terminal. The work on the present Grand Central Station was begun in July, 1903 and the Station was opened to the public in 1913. The Terminal today comprises practically the area bounded on the south by Forty-second Street, on the west by Madison Avenue, on the north by Fiftieth Street and on the east by Lexington Avenue.

Within this area are the Grand Central Station, the Post Office, the Grand Central Palace, hotels, apartment houses and office buildings, beneath all of which there are two train levels and two subways.

The first train level below the street is practically entirely used for the through trains. It has an area of about 48 acres and there are 42 tracks. The train level below that is used for local commuting service. It has an area of about 31 acres and there are 24 tracks. Including all the tracks on the two levels such as platform, storage, express, mail, running and miscellaneous tracks, there are more than 33 miles of track in the Terminal.

Below the two train levels are the subways for the handling of baggage, mail and express. These subways are at the lowest elevation of any of the Terminal passageways, being between 50 and 60 feet below the street level. Here, all of the baggage, mail and express received and sent out of the Terminal is transferred to and from the individual tracks of the two train levels by means of elevators connecting with the subways.

The main power plant, including heating and electric substation units, is located at Fiftieth Street and serves all the buildings of the Terminal.

Access to most of the Terminal buildings may be had from the station concourse without going above ground as well as passageway to several subway rapid transit routes. Whether a person enters the Station from the street, the subways, the connecting hotels or offices, the movement is a progressive one in which different levels are reached by ramps of easy grade with the ready guidance of legends. The following areas give an idea of the size of the station:—Waiting Rooms, 12,958 sq. ft.; Retiring and Toilet Rooms, 20,025 sq. ft.; Restaurant and accessories, 20,292 sq. ft.; Ticket Offices, 5,258 sq. ft.; Concourses, 80,844 sq. ft.; Baggage Rooms, 57,501 sq. ft.; Baggage Checking Rooms, 2,495 sq. ft.; Parcel Checking Rooms, 5,383 sq. ft.; Cab Stands, 8,530 sq. ft.; and Cab Drives, 16,963 sq. ft.

New York, New Haven & Hartford, 4th Avenue and 42d Street, Grand Central Station.

New York, Ontario & Western, foot of Cortlandt and West 42d Streets.

New York, Susquehanna & Western, foot of Chambers and West 23d Streets.

Pennsylvania, foot of Cortlandt and Desbrosses Streets, 7th Avenue, 31st to 33d Street, and Hudson Terminal (Fulton and Church Streets).

Philadelphia & Reading, foot W. 23d and Liberty Sts.

Staten Island, foot of Whitehall Street, South Ferry.

West Shore, foot Cortlandt and West 42d Streets

FOREIGN CONSULATE GENERALS IN NEW YORK CITY.

Argentina.....17 Battery Pl.	France.....9 E. 40th.	Nicaragua.....50 Broad.
*Australia.....44 Whitehall.	Germany.....17 Battery Pl.	Norway.....115 Broad.
Austria.....8 Bridge.	Great Britain....44 Whitehall.	Panama.....1 Park Place
Belgium.....25 Madison Ave.	Greece.....63 Park Row.	Paraguay.....36 W. 44th.
Bolivia.....233 Broadway.	Guatemala.....17 Battery Pl.	Persia.....16 E. 40th.
Brazil.....17 Battery Pl.	Haiti.....116 Broad.	Peru.....42 Broadway.
Bulgaria.....366 Madison Av.	Honduras.....17 Battery Pl.	Poland.....953 Third Ave.
*Canada.....44 Whitehall.	Hungary.....7 Morris.	Portugal.....15 Moore.
Chile.....17 Battery Pl.	Iceland.....See Denmark.	Roumania.....1819 Broadway.
China.....13 Astor Place.	Irish Free State...1 Broadway.	Salvador.....55 W. 42nd.
Colombia.....11 W. 42nd St.	Italy.....20 E. 22d.	Serbia (Kingdom of Serbs, Croats, and Slovenes)..1819 Broadway.
Costa Rica.....17 Battery Pl.	Japan.....165 Broadway.	Siam.....2 Park Ave.
Cuba.....17 Battery Pl.	Jugo-Slavia.....1819 Broadway.	Spain.....1071 Sixth Ave.
Czechoslovakia...1440 Broadway.	Latvia.....255 Broadway.	Sweden.....70 E. 45th.
Denmark.....16 Bridge.	Liberia.....98 Park Pl.	Switzerland.....470 4th Ave.
Dominican Rep..17 Battery Pl.	Luxemburg.....79 5th Ave.	Turkey.....156 5th Ave.
Ecuador.....17 Battery Pl.	Mexico.....225 W. 34th.	*Un. of So. Africa.44 Whitehall.
Egypt.....103 Park Ave.	Monaco.....2 Rector.	Uruguay.....17 Battery Pl.
Estonia.....1860 Broadway.	Netherlands.....17 Battery Pl.	Venezuela.....113 Broad.
Finland.....5 State.	*New Zealand...44 Whitehall.	

*Not Consulates but commercial and passport control offices.

POPULATION OF NEW YORK CITY, 1925 STATE CENSUS.

BRONX COUNTY (BRONX BOROUGH).				
A. D.	Citizens.	Aliens.	Tot 1925	Tot 1920
1	88,467	16,884	105,351	110,315
2	123,437	21,668	145,105	117,611
3	66,313	18,300	84,613	83,042
4	61,375	19,829	81,204	84,195
5	71,553	20,502	92,055	88,428
6	103,309	13,887	117,196	70,482
7	76,174	20,250	96,424	89,123
8	136,354	13,866	150,220	88,820
Total	726,982	145,186	872,168	732,016

KINGS COUNTY (BROOKLYN BOROUGH).				
1	52,981	13,376	66,357	86,912
2	148,434	36,763	185,197	109,104
3	56,825	20,145	76,970	90,760
4	61,184	15,815	76,999	82,336
5	62,236	5,051	67,287	67,808
6	61,562	18,904	80,466	85,895
7	59,703	13,740	73,443	77,455
8	58,604	14,350	72,354	79,658
9	120,896	23,069	143,965	92,754
10	59,002	10,036	69,038	75,873
11	72,810	8,660	81,470	78,062
12	71,567	9,173	80,740	77,872
13	56,534	16,254	72,788	82,399
14	57,168	22,679	79,847	97,344
15	55,109	9,824	64,933	72,994
16	141,752	36,831	178,583	97,110
17	65,146	9,233	74,379	76,186
18	126,597	29,596	156,193	98,100
19	53,685	17,820	71,487	83,897
20	87,173	9,661	96,834	99,357
21	96,063	11,868	107,931	84,484
22	111,962	25,695	137,657	122,637
23	62,735	26,338	89,073	98,359
Total	1,799,128	404,863	2,203,991	2,018,356

NEW YORK COUNTY (MAN. BOROUGH).				
1	68,973	39,512	108,485	137,522
2	72,144	41,404	113,548	147,115
3	65,681	20,614	86,295	115,098
4	47,212	30,023	77,235	94,980
5	65,304	15,647	80,951	103,166
6	52,218	29,558	81,776	99,165
7	64,236	13,006	77,242	86,486
8	51,028	32,530	83,558	109,522
9	64,787	13,654	78,441	82,994
10	45,622	10,276	55,898	79,801
11	60,514	11,329	71,843	79,314
12	76,233	26,102	102,335	121,539
13	55,772	10,757	66,529	76,068
14	73,492	25,674	99,166	120,879
15	55,416	18,064	73,480	96,072
16	71,840	19,970	91,810	108,117
17	51,623	21,162	72,785	85,663
18	84,232	33,597	117,829	141,790
19	56,303	15,719	72,022	78,052
20	55,185	19,268	74,453	83,156
21	58,636	14,249	72,885	76,982
22	60,449	12,716	73,165	74,895
23	100,293	13,005	113,298	88,787
Total	1,457,198	487,836	1,945,029	2,284,103

QUEENS COUNTY (QUEENS BOROUGH).				
1	87,302	15,441	102,743	78,805
2	84,828	10,322	95,150	74,441
3	105,161	14,899	120,060	76,593
4	144,901	11,976	156,877	83,175
5	137,637	11,565	149,202	83,228
6	84,492	5,367	89,859	72,800
Total	644,321	69,570	713,891	469,042

RICHMOND COUNTY (RICH. BOROUGH).				
1	60,005	7,072	67,077	55,681
2	62,701	8,499	71,200	60,850
Total	122,706	15,571	138,277	116,531
Total City	4,750,330	1,123,026	5,873,356	5,620,048

N. Y. City Population in Colonial Times—(1656), 1,000; (1698), 4,937; (1703), 4,436; (1712), 5,840; (1723), 7,248; (1730), 8,500; (1740), 11,000; (1746), 11,717; (1750), 13,300; (1760), 14,000; (1770) 21,000; (1780), 18,000; (1786), 23,614; (1790), 33,131.

POPULATION OF N. Y. CITY BY BOROUGHS (PRESENT AREA), 1790-1928.

United States Census figures for every Federal Census year prior to 1910; for all other years prior to 1910, and for 1910 and every succeeding year, estimates of City's Bureau of Vital Statistics.

JULY 1.	Manhattan.	Bronx.	Brooklyn.	Richmond.	Queens.	Totals.
1790	33,131	1,761	4,495	3,835	6,159	49,401
1800	60,515	1,755	5,740	4,564	6,642	79,216
1810	96,373	2,267	8,303	5,347	7,444	119,734
1820	123,706	2,782	11,187	6,135	8,246	152,056
1830	202,589	3,023	20,535	7,082	9,049	242,278
1840	312,710	5,346	47,613	10,965	14,480	391,114
1850	515,547	8,032	138,882	15,061	18,593	696,115
1860	813,669	23,593	279,122	25,492	32,903	1,174,779
1870	942,292	37,393	419,921	33,029	45,468	1,478,103
1880	1,164,673	51,980	599,495	38,991	56,559	1,911,698
1890	1,441,216	88,908	838,547	51,693	87,050	2,507,414
1900	1,850,093	200,507	1,166,582	67,021	152,999	3,437,202
1905	1,950,000	295,000	1,335,000	75,000	195,000	3,850,000
1906	2,112,697	271,629	1,358,891	72,846	108,241	4,014,304
1907	2,174,335	290,097	1,404,569	74,173	209,686	4,152,860
1908	2,232,828	308,256	1,448,095	75,420	220,836	4,285,435
1909	2,292,894	327,553	1,492,970	76,688	232,580	4,422,685
1910	2,330,524	437,440	1,642,591	86,624	288,011	4,785,190
1911	2,325,638	468,448	1,682,144	89,772	307,067	4,873,069
1912	2,320,752	499,456	1,721,697	92,920	326,123	4,960,948
1913	2,315,866	530,464	1,761,250	96,068	345,179	5,048,827
1914	2,310,980	561,472	1,800,803	99,216	364,235	5,136,706
1915	2,306,094	592,480	1,840,356	102,364	383,291	5,224,585
1916	2,301,208	623,488	1,879,909	105,512	402,347	5,312,464
1917	2,296,322	654,496	1,919,462	108,660	421,403	5,400,343
1918	2,291,436	685,504	1,959,015	111,808	440,459	5,488,222
1919	2,286,550	716,512	1,998,568	114,956	459,515	5,576,101
1920	2,252,804	744,953	2,035,431	118,539	491,713	5,643,440
1921	2,190,206	770,827	2,069,581	122,554	537,055	5,690,223
1922	2,127,609	796,701	2,103,731	126,569	582,397	5,737,006
1923	2,065,010	822,575	2,137,881	130,584	627,739	5,783,789
1924	2,002,412	848,849	2,172,031	134,599	673,081	5,830,572
1925	1,939,814	974,323	2,206,181	138,614	718,423	5,877,355
1926	1,877,216	900,197	2,240,331	142,629	763,765	5,924,138
1927	1,814,617	926,071	2,274,481	146,644	809,107	5,970,920
1928	1,752,018	954,945	2,308,631	150,659	854,449	6,017,702
1929	1,689,419	977,819	2,342,781	154,674	899,791	6,064,484

U. S. Census Estimate for July 1, 1928—Manhattan, 1,752,000; Bronx, 951,900; Brooklyn, 2,308,500; Queens, 854,000; Richmond, 150,700; whole city—6,017,500.

United States Census—Manhattan (1910), 2,331,542; (1920), 2,284,103. Bronx (1910), 430,980; (1920), 732,016. Brooklyn (1910), 1,634,351; (1920), 2,018,356. Queens (1910), 1,634,351; (1920), 2,018,356. Queens (1910), 284,041; (1920), 469,042. Richmond (1910), 85,969; (1920), 116,531. Whole city (1910), 4,766,883; (1920), 5,620,048.

WARDS IN N. Y. CITY—AREA AND POPULATION.

BROOKLYN

Wards	Area in Acres	Pop. 1920	Persons to Acre
1	233.0	21,441	92.0
2	97.7	5,642	57.7
3	161.4	18,050	111.8
3	111.3	10,490	130.2
5	119.4	16,035	134.3
6	302.9	50,026	165.1
7	1,458.5	44,059	96.1
8	1,843.2	98,451	53.4
9	623.6	62,997	101.0
10	318.7	42,016	131.8
11	252.6	21,855	86.5
12	663.1	28,254	42.6
13	230.3	40,804	177.2
14	282.6	31,805	112.5
15	244.8	37,315	152.4
16	244.8	62,791	256.5
17	823.3	69,507	84.4
18	873.0	35,739	40.9
19	413.8	48,049	116.1
20	461.4	33,857	73.4
21	483.2	84,945	175.8
22	1,361.6	93,357	68.6
23	736.0	76,790	04.3
24	1,198.5	123,314	102.9
25	567.8	69,843	123.0
26	3,590.2	246,591	68.3
27	400.7	54,446	135.9
28	884.4	102,400	115.8
29	3,800.0	110,350	31.7
30	5,401.1	157,758	29.2
31	6,312.3	68,870	9.5
32	5,479.5	43,109	7.9
Total	38,977.8	2,018,356	51.8

BRONX

Wards	Area in Acres	Pop. 1920	Persons to Acre
23	4,267.0	414,180	97.1
24	22,255.8	317,836	14.1
Total	26,522.8	732,016	27.6

QUEENS

Wards	Area in Acres	Pop. 1920	Persons to Acre
1	4,650.0	89,971	19.4
2	14,700.0	174,866	11.9
3	22,000.0	49,387	2.2
4	36,600.0	133,278	3.6
5	3,770.0	21,540	5.7

RICHMOND

Wards	Area in Acres	Pop. 1920	Persons to Acre
1	3,340.0	38,650	11.6
2	4,130.0	20,319	4.9
3	10,050.0	23,942	2.4
4	8,180.0	20,318	2.5
5	10,900.0	13,302	1.2
Total	36,600.0	116,531	3.2

MANHATTAN

Wards	Area in Acres	Pop. 1920	Persons to Acre
1	154.0	9,604	62.3
2	81.0	372	.36
3	95.0	1,227	12.9
4	83.0	17,872	215.3
5	168.0	3,004	17.9
6	86.0	15,085	175.4
7	198.0	78,081	394.4
8	183.0	27,001	147.5
9	322.0	54,499	169.2
10	110.0	46,732	424.8
11	196.0	104,544	533.4
12	6,154.0	951,904	154.7
13	107.0	45,952	429.5
14	96.0	32,331	336.8
15	198.0	25,174	127.1
16	349.0	49,200	141.0
17	331.0	140,799	425.4
18	450.0	57,222	127.2
19	1,481.0	285,396	192.7
20	444.0	56,570	127.9
21	411.0	55,614	135.3
22	1,529.0	225,920	147.8
Total	13,226.0	2,284,103	172.7

COMPOSITION OF NEW YORK CITY POPULATION—1920.

Males, 2,802,638; females, 2,817,410; native white males, 1,703,127; native white females, 1,764,789; foreign-born white males, 1,020,090; foreign-born white females, 971,457, Negro males, 72,351; Negro females, 80,116; total foreign-born, 2,028,160.

Of the foreign-born whites Russia sent 479,797; Italy, 390,832; Ireland, 203,450; Germany, 194,154; Poland, 145,679; Austria, 126,739; England, 71,404; Hungary, 64,393.

Mother tongues—Yiddish and Hebrew, 946,139; English and Celtic, 897,452; Italian, 803,048; Germanic, 702,303; Slavic and Lettic, 486,666.

In 1920 the number of foreign-born whose fathers also were foreign-born, (the so-called first generation), was 1,991,547.

The number of native-born whose parent or parents were born abroad was 2,303,082.

Of those comprising the so-called first generation, 559,225 came from Russia and were mainly Jews; 392,225 came from Italy; 236,838 from Austria; 211,789 from Ireland; 206,645 from Germany; 72,440 from Hungary; 56,436 from England; 34,733 from Roumania; 34,211 from Sweden; 24,291 from Norway; and 22,447 from Scotland.

Foreign-born whites, 21 years and over, 1,797,882, of which 765,264 are naturalized; native whites, 21 years and over, 1,559,549.

Population in gainful occupations—Bronx, 308,204; Brooklyn, 861,913; Manhattan, 1,115,966; Queens, 197,832; Richmond, 47,497; whole city, 2,531,412.

Of the whole population in 1920, single persons numbered 761,197 males and 667,247 females. Married persons numbered 1,143,643 males and 1,115,670 females; widowers, 78,999; widows, 232,991; divorced men, 4,303; divorced women, 6,775.

LONDON AND NEW YORK POPULATION COMPARED.

The name of London is in general use to indicate two very different areas.

The smaller area, the administrative County of London, the area of jurisdiction of the London County Council, covers 117 square miles; the larger area, "Greater London," the combined areas of jurisdiction of the Metropolitan and City Police Forces, and commonly adopted in the consideration of many London problems, covers 693 square miles.

District	Area. Acres.	Population 1921	Population 1911
County of London...	74,816	4,483,249	4,521,685
City of London......	675	13,709	19,657
Central Criminal Court area........	268,356	—	6,610,031
Police area:			
(except City)......	447,626	7,466,492	7,231,701
(incl. City).........	448,301	7,480,201	7,251,358
Metropolitan area (incl. sub.).........	3,045,120	9,610,204	9,201,484

1,728,000 JEWS IN NEW YORK CITY; 4,228,029 IN UNITED STATES.

The Bureau of Jewish Social Research calculates there were 1,835,000 Jews in New York City at the beginning of 1929.

The American Jewish Committee estimates there are 4,228,029 Jews in the United States (excluding those who do not profess the faith), of whom 325,000 are in Chicago, 270,000 in Philadelphia, 90,000 in Boston, 85,000 in Cleveland, 75,000 in Detroit, 68,000 in Baltimore, 65,000 in Los Angeles, 65,000 in Newark, N. J., 53,000 in Pittsburgh, 50,000 in St. Louis.

Five sections of New York City are now more than 50 per cent Jewish in population. These are—the east side of Manhattan south of Fourteenth Street; the southwest corner of the Bronx south of 169th Street and east of Park Avenue; the district around Broadway, Brooklyn, from Gates Avenue to the East River; New Lots, Brooklyn; and Bath Beach, Brooklyn.

Four other sections of the city are more than 30 per cent Jewish in population. They are—Borough Park; the Eastern Parkway section; Flatbush, south of Avenue H, in Brooklyn; and Harlem east of Lenox Avenue and north of Ninety-sixth Street in Manhattan.

The Jewish population runs less than 5 per cent in all Queens, Greenpoint; the west side of Manhattan south of 145th Street; the East Side between Fourteenth and Eighty-sixth Street; and the western edge of Brooklyn north of Sixty-seventh Street and west of Bedford, Franklin and Parkside Avenues.

The lower East Side, the district south of Fourteenth Street and east of the Bowery, still contains the largest section of the Jewish population of the city, but there has been a decrease.

Brooklyn as a whole contains 45 per cent of the Jewish population, while Manhattan houses only 28 per cent, where in 1916 Manhattan contained 46 per cent of all the Jews in the city and Brooklyn only 37 per cent.

The death rate was given as 7.91 per thousand among the Jewish population, against 11.7 among the general population of the city and 13 of the State.

Despite the smaller proportion of deaths among them, the study showed that the Jews were not growing in number as rapidly as the general population. In Brooklyn, the Jewish birth rate was found to be 18 per 1,000, against 22.35 per 1,000 among the general population.

Seventy-five per cent of the Jewish population was found to be less than 45 years of age, compared with 66.7 per cent among the general white population.

BIRTHS, MARRIAGES AND DEATHS, N. Y. CITY (FIVE BOROUGHS).

(Compiled by Dr. W. H. Guilfoy, Registrar of Records, Department of Health.)

Year. (Calendar)	Estimated Pop. July 1.	Births.		Marriages.		Deaths.		Stillbirths.	
		No.	Rate.	No.	Rate.	No.	Rate.	No.	Rate.
1910	4,785,190	129,080	26.95	46,417	9.70	76,742	16.04	6,752	1.41
1911	4,873,069	134,542	27.61	48,765	10.01	75,423	15.48	6,669	1.37
1912	4,960,948	135,655	27.34	51,703	10.42	73,008	14.71	6,619	1.33
1913	5,048,827	135,134	26.77	51,268	10.15	73,902	14.64	6,631	1.31
1914	5,136,706	140,647	27.38	53,052	10.33	74,803	14.56	6,617	1.29
1915	5,224,585	141,256	27.04	50,997	9.76	76,193	14.58	6,413	1.23
1916	5,312,464	137,644	25.91	54,782	10.31	77,801	14.64	6,253	1.18
1917	5,400,343	141,564	26.21	59,210	10.96	78,575	14.55	6,117	1.13
1918	5,488,222	138,046	25.15	56,733	10.34	98,119	17.88	6,793	1.24
1919	5,576,101	130,377	23.35	60,256	10.80	74,433	13.35	5,984	1.07
1920	5,643,440	132,856	23.54	64,422	11.41	73,249	12.98	6,234	1.10
1921	5,690,223	134,241	23.59	60,846	10.69	64,257	11.29	6,297	1.11
1922	5,737,006	129,684	22.61	58,192	10.14	69,690	12.15	6,125	1.07
1923	5,783,789	129,160	22.33	66,430	11.49	69,452	12.01	6,023	1.04
1924	5,830,572	130,436	22.37	62,254	10.68	71,252	12.22	6,448	1.11
1925	5,877,355	128,790	21.91	64,826	11.03	71,864	12.23	6,134	1.04
1926	5,924,138	125,515	21.19	68,414	11.55	76,082	12.84	6,054	1.02
1927	5,970,920	128,889	21.59	66,430	11.13	70,430	11.80	5,894	0.99
1928	6,017,702	126,332	21.00	62,424	10.37	78,091	12.98	5,810	0.97

BROOKLYN BIRTHS, MARRIAGES AND DEATHS (INCLUDED IN TABLE ABOVE.)

Year.	Births.	Still-births.	Mar-riages.	Deaths.					
				All Causes.	Tuberc's	Pneum.	Kidney.	Cancer.	Nervous.
1910	42,708	2,221	12,881	25,676	2,430	3,645	2,160	1,212	883
1911	45,699	2,188	13,748	24,511	2,464	3,418	1,837	1,221	976
1912	45,454	2,230	14,563	23,994	2,441	3,392	1,977	1,252	854
1913	45,885	2,286	14,271	23,955	2,608	3,464	2,054	1,346	843
1914	48,241	2,231	14,858	24,092	2,692	3,229	1,921	1,428	926
1915	48,482	2,176	14,718	24,469	2,742	3,587	2,016	1,533	920
1916	48,590	2,234	15,920	25,567	2,599	3,877	2,341	1,552	2,076
1917	50,468	2,233	17,066	25,338	2,413	3,868	2,393	1,663	950
1918	49,568	2,422	13,592	32,944	2,677	4,877	2,268	1,692	960
1919	47,526	2,246	16,460	24,512	2,252	3,818	2,256	1,715	825
1920	49,171	2,193	18,242	24,420	1,959	3,317	2,099	1,731	776
1921	49,873	2,265	15,964	21,060	1,571	2,181	1,633	1,801	662
1922	48,734	2,243	16,185	23,425	1,524	3,051	1,968	1,989	722
1923	49,385	2,258	17,209	22,933	1,515	2,699	1,843	2,093	650
1924	50,681	2,462	17,516	23,712	1,425	3,446	1,241	2,080	731
1925	51,406	2,321	18,386	23,767	1,398	2,916	1,642	2,271	912
1926	50,067	2,268	18,861	25,749	1,400	3,841	1,987	2,346	1,010
1927	51,824	2,326	18,435	24,764	1,262	2,644	1,148	2,564	846
1928	50,828	2,435	17,356	26,056	1,302	3,542	1,254	2,660	878

BIRTHS, MARRIAGES, AND DEATHS, IN THE OTHER BOROUGHS.

Yr.	Manhattan.			Bronx.			Queens.			Richmond.		
	Births.	M'r'ges.	Deaths.	Births.	M'r'ges.	Deaths.	Births.	M'r'ges.	Deaths.	Births.	M'r'ges.	Deaths.
1910	66,357	28,883	38,660	10,905	2,308	6,968	7,119	1,839	3,971	1,991	506	1,467
1911	66,527	30,165	38,386	12,464	2,536	6,938	7,571	1,824	3,998	2,281	492	1,590
1912	66,249	31,780	36,548	13,676	2,823	6,944	8,002	2,007	3,978	2,274	530	1,544
1913	64,200	31,430	36,608	14,679	2,822	7,471	8,086	2,116	4,229	2,281	629	1,639
1914	65,412	31,486	36,582	15,704	4,058	7,589	8,937	2,006	4,678	2,353	614	1,862
1915	65,488	29,451	36,980	16,001	4,152	7,816	9,219	2,071	4,999	2,336	608	1,929
1916	61,030	31,735	36,702	16,144	4,080	7,966	9,453	2,352	5,488	2,447	695	2,078
1917	61,612	33,609	36,947	16,902	5,026	8,489	10,050	2,725	5,614	2,532	784	2,187
1918	59,434	36,367	44,155	16,843	3,973	11,320	9,518	2,134	6,997	2,683	667	2,700
1919	56,546	34,901	33,937	14,788	5,438	8,616	8,966	2,659	5,253	2,551	798	2,115
1920	56,839	36,496	33,396	14,591	6,078	8,123	9,485	2,728	5,203	2,770	880	2,107
1921	56,470	35,501	29,461	15,397	5,702	7,193	9,671	2,792	4,656	2,830	887	1,887
1922	53,435	33,338	31,603	14,890	5,021	7,677	9,757	2,818	5,020	2,868	830	1,965
1923	51,664	39,961	31,279	14,893	5,662	7,956	10,343	2,764	5,275	2,875	834	2,009
1924	50,384	35,439	31,640	15,160	5,453	8,079	11,294	2,984	5,660	2,917	862	2,161
1925	47,208	34,544	31,367	15,728	7,749	8,369	11,480	3,227	6,137	2,968	920	2,224
1926	44,199	37,516	32,122	16,402	7,492	9,120	12,051	3,508	6,798	2,796	1,040	2,293
1927	43,946	35,488	29,157	17,266	7,878	8,595	12,925	3,609	6,760	2,928	1,021	2,096
1928	42,382	31,919	32,168	17,537	8,532	9,874	12,677	3,639	7,635	2,908	978	2,358

DEATHS FROM ALCOHOLISM IN THE CITY OF NEW YORK.

(Official records from the Department of Health.)

	Man-hattan	The Bronx.	Brook-lyn.	Queens	Rich-mond.	City.		Man-hattan	The Bronx.	Brook-lyn.	Queens	Rich-mond.	City.
1898	193	17	104	9	.....	323	1914	447	39	142	23	9	660
1899	312	19	103	8	.....	442	1915	393	43	91	19	16	562
1900	274	16	103	9	.....	402	1916	469	35	146	30	7	687
1901	230	23	64	12	.....	329	1917	333	44	141	27	15	560
1902	239	13	88	3	2	345	1918	189	9	41	4	9	252
1903	473	34	109	9	5	630	1919	142	4	21	5	4	176
1904	487	34	127	9	8	665	1920	72	5	16	3	2	98
1905	396	40	135	14	11	596	1921	90	6	17	2	4	119
1906	392	33	183	19	9	636	1922	194	15	51	10	4	274
1907	482	50	161	18	8	719	1923	288	23	103	7	8	429
1908	279	35	75	13	7	409	1924	394	29	70	15	5	513
1909	353	45	95	34	6	533	1925	483	46	123	17	13	682
1910	409	28	143	36	5	621	1926	493	46	196	19	5	759
1911	382	44	155	40	15	636	1927	550	46	188	22	7	813
1912	349	42	141	24	14	570	1928	582	36	237	25	11	891
1913	436	57	133	22	8	656							

The State Legislature in 1929, made drug peddling a felony, and also made a felony of second-offense conviction for manufacturing or selling wood alcohol liquor for human consumption.

DEATHS, CHIEF CAUSES, (GREATER), CITY OF NEW YORK, SINCE 1910.

YEAR.	Diph. and Croup.	Pulm. Tuber.	Pneumonia.	Non-Pulm'ry Tuber.	Bronchitis.	Diar. Under 5 Yrs.	Cancer.	Kidney Dis.	Heart Disease.	Violence.	Puerp. Dis.	Typhoid Fever.
1910.....	1,715	8,692	10,519	1,382	928	5,918	3,710	5,638	6,870	4,638	761	558
1911.....	1,281	8,700	10,055	1,460	877	4,696	3,873	5,017	7,965	5,183	738	545
1912.....	1,125	8,591	9,979	1,390	732	4,149	4,071	5,724	8,890	4,762	676	499
1913.....	1,333	8,601	10,042	1,430	693	3,668	4,223	5,615	9,674	4,937	668	362
1914.....	1,491	8,918	9,678	1,372	601	3,579	4,467	5,617	10,058	4,985	679	334
1915.....	1,278	8,825	10,922	1,424	711	3,924	4,647	5,521	10,383	4,777	710	332
1916.....	1,031	8,411	10,568	1,237	813	3,053	4,701	6,546	10,687	5,060	653	216
1917.....	1,158	8,825	11,051	1,317	789	3,365	4,867	6,727	11,102	5,742	651	229
1918.....	1,245	8,779	20,628	1,318	930	2,556	4,931	5,269	12,105	5,257	666	196
1919.....	1,239	7,395	10,977	1,103	690	2,474	5,147	5,007	10,435	4,105	644	121
1920.....	1,045	6,165	10,058	970	918	2,694	5,317	4,833	11,342	3,944	708	137
1921.....	891	5,143	6,477	779	547	2,129	5,573	4,105	12,005	4,617	746	123
1922.....	873	5,033	8,794	769	429	1,720	5,945	4,450	13,361	4,797	699	129
1923.....	553	4,951	8,231	721	154	1,534	6,287	4,367	14,312	5,329	623	140
1924.....	714	4,780	9,152	807	128	1,183	6,557	3,705	15,134	5,416	678	184
1925.....	663	4,776	8,397	699	138	1,206	6,784	3,912	14,992	6,092	697	199
1926.....	477	4,828	10,521	680	236	1,002	7,033	4,361	15,784	5,987	595	111
1927.....	717	4,444	7,523	696	156	776	7,455	3,182	15,301	6,043	694	78
1928.....	642	4,636	10,019	690	181	1,053	7,725	3,433	16,671	6,248	668	87

DEATHS FROM STREET ACCIDENTS IN NEW YORK CITY.

(By the Registrar of Records, Department of Health. The rate is per 100,000 population.)

Year.	By Horse Vehicles.		By Street Cars.		By Autos.		Year.	By Horse Vehicles.		By Street Cars.		By Autos.	
	No.	Rate.	No.	Rate.	No.	Rate.		No.	Rate.	No.	Rate.	No.	Rate.
1898.....	88	2.69	113	3.45	.....	.....	1914.....	168	3.27	121	2.36	310	6.03
1899.....	103	3.07	167	4.97	1	0.03	1915.....	119	2.28	85	1.63	346	6.62
1900.....	105	3.04	181	5.25	5	0.14	1916.....	144	2.71	110	2.07	407	7.66
1901.....	106	2.93	185	5.25	6	0.17	1917.....	119	2.20	159	2.94	525	9.72
1902.....	156	4.26	175	4.77	9	0.24	1918.....	118	2.15	126	2.30	677	12.33
1903.....	184	4.87	180	4.76	12	0.32	1919.....	88	1.58	100	1.79	767	13.75
1904.....	192	4.92	167	4.28	14	0.36	1920.....	42	.74	82	1.45	763	13.47
1905.....	176	4.37	212	5.26	36	0.89	1921.....	62	1.08	85	1.48	849	14.76
1906.....	223	5.35	252	6.05	64	1.53	1922.....	58	.99	58	.99	870	14.90
1907.....	236	5.47	318	7.37	42	0.97	1923.....	30	.51	93	1.59	945	15.94
1908.....	158	3.53	257	5.75	81	1.81	1924.....	53	.88	74	1.20	961	15.97
1909.....	161	3.47	186	4.01	84	1.81	1925.....	42	.67	80	1.28	1,022	16.35
1910.....	169	3.54	168	3.51	111	2.32	1926.....	26	.44	105	1.77	1,069	18.04
1911.....	271	5.56	126	2.55	128	2.63	1927.....	22	.37	75	1.25	1,095	18.22
1912.....	194	3.91	111	2.24	188	3.79	1928.....	14	.23	64	1.06	1,075	17.90
1913.....	186	3.68	130	2.58	293	5.80							

EPIDEMIC MENINGITIS—NEW YORK CITY.

	Deaths			Deaths			Deaths			Deaths	
	No.	Rate		No.	Rate		No.	Rate		No.	Rate
1877.....	136	8	1890.....	136	6	1903.....	271	7	1916.....	176	3
1878.....	113	7	1891.....	189	8	1904.....	1403	36	1917.....	187	4
1879.....	112	6	1892.....	334	13	1905.....	2025	50	1918.....	262	5
1880.....	170	10	1893.....	616	23	1906.....	812	19	1919.....	171	3
1881.....	461	25	1894.....	234	8	1907.....	642	15	1920.....	123	2
1882.....	238	13	1895.....	297	10	1908.....	351	8	1921.....	147	3
1883.....	223	11	1896.....	262	9	1909.....	326	7	1922.....	110	2
1884.....	210	10	1897.....	365	10	1910.....	294	6	1923.....	80	1
1885.....	202	10	1898.....	357	11	1911.....	203	4	1924.....	106	2
1886.....	223	10	1899.....	394	12	1912.....	196	4	1925.....	99	2
1887.....	203	9	1900.....	306	9	1913.....	202	4	1926.....	120	2
1888.....	173	8	1901.....	267	8	1914.....	207	4	1927.....	119	3
1889.....	145	7	1902.....	265	7	1915.....	119	2	1928.....	514	8

The rate is per 100,000 population.

DIPHTHERIA, NEW YORK CITY, 1873-1928.

(Cases means cases reported; death rate is per 100,000 population.)

Year.	Cases.	Deaths.	Death Rate.	Year.	Cases.	Deaths.	Death Rate.	Year.	Cases.	Deaths.	Death Rate.
1873	2,392	2,460	172	1892	7,013	3,243	126	1911	13,486	1,281	26
1874	5,335	3,157	211	1893	8,693	3,436	130	1912	13,533	1,125	23
1875	7,190	4,492	294	1894	13,454	4,530	163	1913	14,845	1,333	26
1876	5,800	3,511	223	1895	15,040	3,630	127	1914	17,129	1,491	29
1877	4,608	2,526	156	1896	16,630	3,703	105	1915	15,279	1,278	24
1878	5,228	2,367	141	1897	15,043	2,588	86	1916	13,521	1,031	19
1879	3,584	2,132	124	1898	11,191	1,778	54	1917	12,624	1,158	21
1880	6,365	3,888	216	1899	11,520	1,924	57	1918	11,454	1,244	23
1881	8,414	4,894	267	1900	12,913	2,277	66	1919	14,014	1,239	22
1882	8,106	3,219	171	1901	12,329	2,068	58	1920	14,166	1,045	19
1883	3,281	2,380	123	1902	15,054	2,015	55	1921	15,110	891	16
1884	3,199	2,503	125	1903	18,317	2,190	58	1922	10,427	873	15
1885	4,268	3,012	146	1904	18,158	2,048	53	1923	8,050	553	10
1886	5,339	3,880	182	1905	13,686	1,544	38	1924	9,687	714	12
1887	7,918	4,509	204	1906	14,757	1,898	46	1925	9,051	663	11
1888	8,788	3,838	168	1907	15,276	1,740	40	1926	7,531	477	8
1889	9,287	3,758	160	1908	16,431	1,758	39	1927	13,507	717	12
1890	6,591	3,066	127	1909	15,097	1,714	37	1928	10,776	642	11
1891	7,214	3,150	126	1910	16,940	1,715	36				

From 1873 to 1897, inclusive, figures are for former City of New York plus those for City of Brooklyn; from 1898 figures are for Greater New York.

The rather sharp increase in the number of cases in 1894 probably reflects the introduction of bacteriological diagnosis by cultures.

MANUFACTURES IN NEW YORK CITY.

(Figures compiled by the U. S. Bureau of the Census.)

Year.	Establishments.	Wage Earners.	Wages in Year.	Cost of Materials.	Value of Products.	Capital.	Horse Power.,
	No.	*Aver. No.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*No. H.P.*
1899	19,243	388,586	196,656,000	634,210,000	1,172,870,000	853,238,000	.....
1904	20,839	464,716	248,128,000	818,029,000	1,526,523,000	1,042,946,000	.....
1909	25,933	553,923	323,414,000	1,090,783,000	2,027,425,000	1,361,860,000	428,838
1914	29,621	585,279	357,498,000	1,229,155,000	2,292,832,000	1,626,104,000	550,962
1919	32,590	638,775	805,822,451	2,861,476,000	5,260,707,577	3,038,557,492	.....
1921	26,801	536,665	762,596,719	2,248,500,925	4,328,187,499	.....	.....
1923	27,423	577,971	849,937,423	.....	5,310,017,414	.....	.....
1925	23,714	538,845	844,648,136	2,718,792,438	5,324,413,612	.....	.....
1927	27,062	552,507	904,646,427	2,853,834,232	5,722,071,259	.....	.....

SUMMARY FOR 1919 BY BOROUGHS.

BOROUGH.	Establishments.	Total Persons Engaged.	Wage Earners	Salaries.	Wages.	Value of Products.	Capital.
	No.	*No.*	*(Aver. No.)*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
Whole City	32,590	825,056	638,775	326,171,741	805,822,451	5,260,707,577	3,038,557,492
Bronx	1,370	25,150	20,036	8,280,025	23,658,433	114,975,501	96,124,561
Brooklyn	6,738	203,021	166,724	65,281,669	201,232,510	1,184,973,144	729,166,203
Manhattan	22,981	519,647	386,907	230,192,469	502,042,139	3,525,574,539	808,764,796
Queens	1,249	56,918	47,222	17,784,933	54,282,704	331,285,294	310,682,294
Richmond	252	20,320	17,886	4,632,645	24,606,665	103,899,099	93,819,638

SUMMARY FOR 1925 BY BOROUGHS.

Borough.	Establishments	Wage Earners	Wages in Year.	Cost of Materials	Value of Products
	No.	*Aver. No.*	*Dollars.*	*Dollars.*	*Dollars.*
Bronx	839	18,713	28,205,721	58,945,839	131,389,271
Brooklyn	4,293	137,962	198,304,066	564,688,316	1,081,081,923
Manhattan	17,138	323,443	531,235,632	1,790,767,042	3,592,098,351
Queens	1,303	50,949	75,014,900	251,478,301	440,623,710
Richmond	141	7,778	11,887,817	52,912,940	79,220,357
Total City 1925	23,714	538,845	844,648,136	2,718,792,438	5,324,413,612
Total City 1923	27,423	577,971	849,937,423	.....	5,310,017,414

SUMMARY FOR 1927 BY BOROUGHS.

Borough.	Establishments.	Wage Earners.	Wages in Year.	Cost of Materials.	Value of Products.
	No.	*Aver. No.*	*Dollars.*	*Dollars.*	*Dollars.*
Whole City	27,062	552,507	904,646,427	2,583,834,232	5,722,071,259
Bronx	1,118	21,520	33,507,396	70,637,035	155,245,385
Brooklyn	5,315	147,427	222,323,169	595,585,836	1,185,458,351
Manhattan	19,107	321,880	549,185,751	1,860,978,816	3,813495,044
Queens	1,385	53,994	85,963,177	270,422,271	479,945,459
Richmond	137	7,686	13,666,934	56,210,274	87,927,020

The City of New York leads all other American municipalities in the total value of manufactured products, and also in their variety.

NEW YORK CITY'S CANOPY.

Residents are under an aerial load of 2,200 tons of dirt and dust every day, according to a laboratory analysis of the content of New York's air compiled by Professor H. H. Sheldon of New York University for the Smoke Nuisance Committee, in May, 1929.

In the 341,000,000 cubic feet of atmosphere over the city, the dirt and dust content is formed as follows:

Sixty-five per cent is carbon dust, 15 per cent mineral and ash and 20 per cent germs and septic matter.

The 65 per cent carbon content amounts to 3,000,000 pounds of high volatile fuel.

This is enough to operate the city's electric light and power plants for six hours out of every twenty-four.

It is made up of unconsumed coal, gasoline, motor oil and other fuel, and the combination, according to Sheldon, "has a greater volatile and heat quality than soft coal."

There are also "appreciable" quantities of poisonous carbon monoxide, not to mention sulphur acids "strong enough to eat through linen."

"In sufficient quantities," Prof. Sheldon asserts, "these gases have an effect similar to the chlorin gas used during the World War, though their effect in moderate amounts is solely on the nasal and pulmonary membranes."

The germ content in the city's air consists of about 1,000,000 pounds of bacteria and other organic particles.

These range from the common diplococci and strephlycocci, found on the skin of all humans and responsible for blood poisoning, to "predatory spirochaetae." These, when found, are generally dead.

The germs are kept in constant motion by the traffic, and most city dwellers attain a certain immunity to the more common.

Most illness due to crowded conditions is caused by the rarer germs, Prof. Sheldon said, against which few persons develop a permanent resistance.

INTERNATIONAL HOUSE.

International House was incorporated in 1924; located at Riverside Drive and 124th Street, New York. Harry E. Edmonds, founder and director.

The purpose is improvement of the social, intellectual, spiritual and physical condition of men and women students, without discrimination because of religion, nationality, race, color or sex, and from any land, who are studying in the colleges, universities, and professional schools of the city of New York.

The land, building and furnishings were provided by John D. Rockefeller, Jr.

Affiliation, over 1,500 students from 65 countries. The House accommodates 350 men and 175 women in residence; is not managed for profit, and is self-supporting through student fees and room rents; deficits, if any, met by voluntary contributions.

George W. Wickersham, chairman Board of Governors; Frederick Osborn, chairman Executive Committee; Dave H. Morris Jr., treasurer.

CHIEF MANUFACTURING INDUSTRIES IN EACH BOROUGH.,

The Bureau of the Census is prohibited by law from publishing any statistics which might disclose, exactly or approximately, the data supplied by individual establishments. For this reason it is necessary, in the compilation of city statistics, to include in "All other industries" certain industries which are more important than some of those shown separately. As a rule, statistics are given for each industry represented by three establishments or more.

In some cases, however, a single establishment produced so large a proportion of the combined output of three or more establishments in a particular industry that the figures for the industry could not be given without disclosing approximately the data for the dominant establishment.

These facts should be borne in mind in making use of the city figures; and in particular it must not be assumed that all the industries for which separate figures are given are more important than any of those not shown separately.

Industry.	Wage Earners.	Wages in Year.	Value of Products.
	Aver. No.	*Dollars.*	*Dollars.*
Bronx			
Bread, bakery products	2,095	3,154,685	22,293,155
Electr. mach., appar., suppl.	1,589	1,982,274	12,562,380
Furniture, incl. office, store	557	863,831	4,337,878
Marble, gran., slate, etc.	677	1,899,544	5,593,527
Struct. and ornam. iron and steel	890	1,821,352	5,625,128
Brooklyn			
Bags, paper, etc., not made in mills	1,783	1,927,965	25,395,661
Boots and shoes, not rubber	9,723	16,600,333	52,420,588
Bread, bakery products	4,608	8,167,439	48,703,521
Clothing, male, female.	17,380	22,390,280	58,831,922
Coffee, spice roast'g, gr.	369	481,129	29,945,988
Electr. mach., app., suppl.	4,118	5,243,367	30,570,679
Foundry, mach. shop prod.	7,886	13,234,175	44,380,738
Furniture, incl. store and office	4,065	7,782,084	29,194,209
Knit goods	5,775	7,680,890	49,738,010
Paints, varnishes	2,288	3,359,929	48,214,920
Print'g&Pub., book, job	2,145	3,979,532	13,880,174
Print'g&Pub., newsp., period.	1,136	3,868,254	12,562,569
Ship building	5,306	9,424,060	20,590,351
Slaughtering, meat p'k'g	1,055	2,029,071	33,450,198
Manhattan			
Bread & other bakery prod.	11,285	17,000,509	100,475,353
Cigars and cigarettes	4,694	4,334,461	32,523,530
Clothing, male & female	94,848	165,871,148	1,439,213,761
Confectionery	4,005	4,285,566	24,071,187
Electr. mach., appar., suppl.	3,932	4,826,973	24,410,636
Fur goods	10,296	27,063,608	236,825,873
Furnishing goods, men's	4,823	7,422,106	62,208,717
Furniture, incl. store & office	4,230	7,722,929	26,944,091
Jewelry	3,607	9,191,635	51,571,749
Knit goods	2,467	3,572,608	23,251,733
Millinery	16,177	28,738,796	130,739,697
Pat. & proprietary med.	966	1,208,091	23,394,990
Perfumes, cosmet., etc.	3,805	4,475,193	60,251,801
Pocketb'ks, purses, etc.	4,442	8,815,855	38,531,586
Printing & Pub., book, job	19,927	42,178,016	179,882,636
Printing & Pub., newsp. & period.	10,240	26,766,850	315,044,157
Shirts	2,578	3,569,629	57,152,644
Silk manufactures	2,027	2,719,248	37,522,484
Trimmings, not made in mills	5,736	8,265,004	44,255,032
Queens.			
Bread, bakery prod.	3,284	4,317,872	25,960,937
Electr. mach., app., suppl.	3,128	3,709,800	21,697,574
Furn., incl. off., store.	2,369	3,960,668	14,633,216
Marble, gran., slate, etc.	1,458	3,987,220	10,685,257
Paints, varnishes	685	1,000,180	14,322,396
Print'g&pub., book, job	1,962	3,761,838	9,220,225
Printing & Pub., newsp. and period	167	465,511	2,180,847
Slaughter'g, meat p'k'g	304	427,369	7,553,731
Struct., ornam., iron, steel	1,297	2,869,146	11,766,464
Richmond.			
Bread, bakery prod.	156	274,734	1,370,762
Paints, varnishes	302	521,719	7,274,628
Shipbuilding	2,410	5,127,482	9,491,458

PRINCIPAL OCCUPATIONS, NEW YORK CITY, 1920.

Occupation.	Male.	Female.
All occupations	1,839,685	691,727
Actors	5,053	5,034
Artists, sculptors, teachers of art	5,095	3,112
Authors, editors, reporters	4,461	1,553
Bakers	15,510	249
Bankers, brokers, money lenders	14,615	246
Barbers, hairdressers, manicurists	15,448	3,691
Bookkeepers, cashiers, account'ts	42,449	40,234
Brick and stone masons	9,985	.....
Carpenters	42,478	3
Chauffeurs	49,185	280
Clergymen	4,037	17
Clerks, except in stores	137,283	68,949
Clerks in stores	26,114	12,190
Compositors, linotypers, typeset'rs	20,823	606
Draymen, teamsters, expressmen	28,785	80
Dressmakers and seamstresses	157	22,758
Electricians and electrical engin'rs	21,445	5
Elevator tenders	9,134	1,025
Engineers, stationary	17,470	.....
Firemen, except locomotive and fire department	11,709	.....
Guards, watchmen, doorkeepers	11,714	26
Janitors and sextons	9,123	9,612
Laborers, building, general	22,959	345
Laborers, porters, helpers in stores	11,655	918
Lawyers, judges and justices	11,246	253
Longshoremen and stevedores	37,050	221
Machinists, millwrights, toolmak's	42,664	1
Managers and supts., mfg	15,819	839
Manufacturers and officials	37,755	1,137
Musicians and teachers of music	10,160	5,233
Painters, glaziers, and varnishers	25,438	4
Physicians and surgeons	9,449	527
Plumbers and gas and steamfitters	19,354	.....
Policemen	11,725	29
Retail dealers	114,671	7,056
Salesmen and saleswomen	91,625	27,610
Semi-skilled operatives	88,248	31,775
Servants and waiters	54,970	94,658
Stenographers and typewriters	7,146	72,535
Tailors and tailoresses	46,932	3,261
Teachers, school	6,048	27,546
Telephone operators	1,351	20,068
Trained nurses	409	12,127

Women wage earners numbered 341,573 in Manhattan, 214,158 in Brooklyn, 77,409 in the Bronx, 46,539 in Queens, and 9,582 in Richmond.

CHILD LABOR IN THE CITY OF NEW YORK.

City.	Males 10 to 15 Years of Age, 1920.			Males 10 to 15 Years of Age, 1910.			Females 10 to 15 Years of Age, 1920.			Females 10 to 15 Years of Age, 1910		
	Total No.	Engaged in Gainful Occupations.		Total No.	Engaged in Gainful Occupations.		Total No.	Engaged in Gainful Occupations.		Total No.	Engaged in Gainful Occupations.	
		No.	Pct.		No.	Pct.		No.	Pct.		No.	Pct.
New York City	291,164	18,341	6.3	248,927	21,408	8.6	289,513	14,042	4.9	251,961	17,161	6.8
Bronx	40,509	2,103	5.2	25,091	1,805	7.2	39,555	1,578	4.0	23,819	1,203	5.1
Brooklyn	111,681	7,423	6.6	90,033	7,725	8.6	111,630	5,571	5.0	91,756	5,508	6.0
Manhattan	106,297	6,526	6.1	111,315	10,199	9.2	106,423	5,227	4.9	114,273	9,223	8.1
Queens	25,940	1,937	7.5	17,218	1,436	8.3	25,594	1,463	5.7	17,216	1,093	6.3
Richmond	6,737	352	5.2	5,270	243	4.6	6,311	203	3.2	4,897	134	2.7

NEW YORK CITY'S BIG BRIDGES.

THE TRI-BOROUGH BRIDGE.

The Tri-Borough Bridge, work on which was begun late in 1929, is to cost about $24,600,000, and, will parallel roughly, the present Hell Gate railway span.

The Queens terminal is to be at 2d and Hoyt Aves. The Bronx terminal will be 134th St. and Cypress Ave.

The span over Little Hell Gate will consist of two steel arch spans, each 375 feet in length, with a pier in the center of the waterway.

The span over the Bronx Kills is designed as a fixed bridge that could be made to serve as part of a bascule span if this waterway is made navigable. These stream crossings have been approved by the U. S. Engineers.

The Bronx approach crosses the freight yard of the New Haven Railroad.

The total length of the main bridge will be 13,560 feet.

There will be supporting piers on Randall's Island and on Ward's Island.

The connection from Second Ave. and 125th St. Manhattan, to the main bridge, will be 4,150 feet in length and will provide for six lanes of traffic. The terminal is at Second Ave., between 124th and 126th Sts.—124th St. will be used for east bound bridge traffic and 126th St. for west bound bridge traffic—125th St. can be also utilized, as at present, for both east and west bound traffic. The Manhattan approach passes over First Ave., and there is no crossing of traffic on that Avenue bound to and from the Willis Avenue Bridge.

Bridge.	Length With Appr'ch	Length of Span.	Height Above Water.	Begun.	Opened.	Cost of Construction.	Cost of Land.	Total Cost.
	Feet.	*Feet.*	*Feet.*			*Dollars.*	*Dollars.*	*Dollars.*
Brooklyn	6,016	1,595.5	133	1870, Jan. 3	1883, May 24	17,909,412	7,185,165	25,094,577
Williamsburg	7,308	1,600	135	1896, Nov. 7	1903, Dec. 19	15,091,497	9,096,593	24,188,090
Queensboro	7,449	1,182	135	1901, June ..	1909, Mar. 30	12,872,364	4,719,398	17,591,762
Manhattan	6,855	1,470	135	1901, Oct. 1	1909, Dec. 31	16,698,189	14,386,516	31,084,705
Hell Gate (N. H. R. R.) Arch	18,000	1,017	135	1912, July 1	1917, Mar. 1	12,000,000	3,000,000	15,000,000
Washington	2,375	509	133.5	1886, July ...	1888, Dec. ..	2,851,684	37,902	2,889,586
Third Avenue	2,228	300	24	1893, Nov...	1898, Aug. 1	1,783,412	2,213,664	3,997,076
Total cost of all bridges						97,667,662	45,302,412	142,990,074

All except the Hell Gate are municipal-owned bridges.

On the Brooklyn Bridge, 6-car through-train service began on Jan. 27, 1908.

The Queensboro Bridge is held up from link-chains and is of the cantilever type.

The Brooklyn, Williamsburg and Manhattan are suspension bridges. The Hell Gate is a steel-arch span.

OTHER DATA ON THE BIG BRIDGES.

Bridge.	Width Over All.	H'ght of Towers Over High-water.	Diameter of Cables	Weight of Cables and Sus-pend'rs.	H'ght of Road-way at Top, Centre.	Surface Railway Opened.	"L" Railway Opened.	Total Weight, Main Bridge.
	Feet.	*Feet.*	*Inches.*	*Tons.*	*Feet.*			*Tons.*
Brooklyn	86.0	272.0	15¾	3,900	137	1898—Jan. 23	1883—Sep. 24	13,800
Williamsburg	118.0	332.7	18⅝	4,900	145½	1904—Nov. 3	1908—Sept. 16	31,200
Queensboro	89.5	333.0	Cantil	ever.	143	1909—Sept. 19	1917—July 23	52,600
Manhattan	122.5	336.0	21¼	7,800	149	1912—Sept. 4	1915—June 22	41,700
Hell Gate Arch	93.0	240.0	Arch.		Traffic	began on Mar	ch 9, 1917.	26,000

TRAFFIC ON THE BIG EAST RIVER BRIDGES.

The following table shows the total number of persons crossing the East River bridges, in both directions, in 24 hours, afoot and on wheels, on a certain autumn or winter day.

	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	1928.
Brooklyn	159,311	216,923	150,211	148,064	144,145	148,667	200,463	193,234	162,541
Williamsburg	403,248	458,597	481,435	497,053	504,920	459,719	475,197	491,735	430,955
Queensboro	99,467	108,652	131,215	146,052	159,839	212,975	222,081	224,887	241,345
Manhattan	252,332	310,554	353,791	420,815	468,179	506,968	514,118	548,555	529,777
All bridges	1,512,198	1,761,328	1,935,762	2,214,657	2,363,511	2,500,706	2,641,018	2,736,971	2,885,204

HUDSON RIVER BRIDGE (FT. WASHINGTON TO FT. LEE).

Toll bridge of suspension type now being built by The Port of N. Y. Authority across the Hudson River between Ft. Washington Point (178th Street) New York City and Ft. Lee, N. J.

Construction work began May, 1927; work-cables stretched across river on July 9, 1929.

Principal dimensions: Length of main span, 3,500 ft. Length of side spans, 650 ft.

Clearance above mean high water at center of main span, 213 ft. Height of towers above mean high water, 635 ft.

Total width of bridge, 118 ft.

The cables are anchored in solid rock on the New Jersey side and in concrete anchorage block on rock on the New York side.

Capacity: Eight lanes of vehicular traffic, four rapid transit tracks and two sidewalks.

Bridge to be opened for vehicular traffic in 1932 at an estimated cost of $60,000,000.

PORT OF NEW YORK AUTHORITY AND ITS PLANS.

The Port Authority, in October, 1929, announced it had decided to locate the proposed Union Freight Depot on the block bounded by 15th St., 16th St., 8th Ave., and 9th Ave.

Through this station all freight shipped or received below 59th St. in less than carload lots through the eleven railroads that serve Manhattan will clear.

The cost was set at $15,000,000 for the site and building.

Arthur Kill Bridges—The first two were opened to traffic on June 29, 1928.

These are the Outerbridge Crossing, from Perth Amboy, N. J. to Tottenville, Staten Island, and the Goethals Bridge from Elizabeth, N. J., to Howland Hook, Staten Island.

Kill Van Kull Bridge—Ground was broken on Sept. 18, 1928 for the structure to cross from Bayonne, N. J., to Port Richmond, Staten Island. The cost for a high-arch span is estimated at $16,000,000. The bridge is expected to be open for traffic in 1932.

In the case of the Arthur Kill bridges each State advances $2,000,000, a total of $4,000,000, payable in equal installments over a period of five years. The rest of the cost, including interest during construction, will be met from an issue of Port Authority bonds of $14,000,000 already sold.

In aid of the Hudson River Bridge each State will advance $5,000,000, a total of $10,000,000, payable in equal annual installments over a period of five years. The rest of the cost will be met by the sale of Port Authority bonds.

The Port Authority has its headquarters at No. 75 West Street, Manhattan Borough. The Commissioners are: New Jersey, Frank C. Ferguson and Schuyler N. Rice, and William C. Heppenheimer; New York, John F. Galvin, and Howard S. Cullman of New York City, and John F. Murray, of Brooklyn. Mr. Galvin is Chairman of the body and Mr. Ferguson is Vice-Chairman.

Chief Executive Officer, J. E. Ramsey; *Counsel*, Julius Henry Cohen; *Treasurer*, William Leary; *Secretary*, Wilson J. Vance, *Asst. Treasurer*, D. L. Waters; *Auditor*, Marion Rodgers.

THE STATUE OF LIBERTY.

(Created by President Coolidge a National Monument, Oct. 15, 1924.)

The Statue of Liberty on Bedloe's Island, New York Harbor, was first proposed soon after the Franco-German War by a group of prominent Frenchmen, who commissioned one of their number, Frederic August Bartholdi, sculptor (born 1833 died 1904), to do the work. The U. S. Congress, Feb. 22, 1877, authorized President Hayes to set apart a site on the island, which Bartholdi, on a visit, had suggested. A committee was formed in 1874 to raise funds. In France, 180 cities, 40 general councils, many societies, and thousands of people contributed. In the United States, by the aid of The World, $300,000 was raised for the pedestal. The statue cost about $700,000, making the total about $1,000,000.

The Statue weighs 450,000 pounds (225 tons); the bronze alone weighs 200,000 pounds, and is 3-16 of an inch thick; 40 persons can stand in the head, and 12 in the torch; number of steps in statue, from pedestal to head, 161; number of rounds in ladder in uplifted right arm, 54.

The pedestal of the statue is 89 feet in height and 62 feet square at the base.

The head of the Statue was completed for the Paris Exposition, in 1878; the forearm had been sent to America and shown at the Centennial Exposition, Philadelphia, in 1876. Thence it was transferred to Madison Square, New York City, where it remained until 1886. On Oct. 24, 1881, the anniversary of the Battle of Yorktown, all the pieces of the framework and base were put in place at Paris, Levi P. Morton, the American Ambassador, driving the first rivet. The Statue was finished in 1883; on July 4, 1884, M. De Lesseps, President of the French Committee, officially presented the Statue to Ambassador Morton; on Aug. 5, 1884, the cornerstone of the pedestal was laid on Bedloe's Island; late in June, 1885, the French vessel, Isere, from Rouen, France, landed the Statue at New York in 210 packing cases; the work of putting the parts together was begun in May, 1886, and the Statue was unveiled on Oct. 28, 1886.

DIMENSIONS OF THE STATUE.

	Ft.	In.
Height from base to torch	151	1
Foundation of pedestal to torch	305	6
Heel to top of head	111	6
Length of hand	16	5
Index finger	8	0
Circumference at second joint	3	6
Size of finger nail	13x10 in.	
Head from chin to cranium	17	3
Head, thickness from ear to ear	10	0
Distance across the eye	2	6
Length of nose	4	6
Right arm, length	42	0
Right arm, greatest thickness	12	0
Thickness of waist	35	0
Width of mouth	3	0
Tablet, length	23	7
Tablet, width	13	7
Tablet, thickness	2	0

An idle young man from the Bronx, on May 13, 1929, jumped from the crown of the statue to the grass plot at the base of the pedestal, and was instantly killed.

The island has been known by five different names. First it was Oyster Island. When Governor Lovelace in 1670 made it an exempted jurisdiction where—

"no warrant of attachment or arrest shall be made of force or served unless it be by ye Governor's Speciall Warrant in Cases of breach of ye peace or Cryminall Mattrs,"

he referred to it as Love Island.

He was giving the exemption at that time to Isaac Bedloe, and from this came the designation of Bedloe's Island.

During the Revolutionary War it was known as Kennedy's Island. Captain Kennedy, commander of the British Naval Station of New York, had bought the property from Mary Smith, a daughter of Bedloe for £100.

In 1750 the island was sold to New York for a pest house site and in 1800 the State gave it to the Federal Government.

It came to be known as Fort Wood in 1841, when adapted as one of the military defenses of the harbor.

The only installation of military value on the island is the radio station, which handles all the traffic for the headquarters of the Second Corps Area at Governor's Island. Next to Arlington, the Fort Wood station is said to be the largest in the United States Army.

The radio operator has a standing "listening-in" assignment. As soon as the United States Government is notified officially of the take-off of a transoceanic flier from a point on the other side of the Atlantic, the operator at Fort Wood gets his instructions to stand by until further orders.

FORT HAMILTON, BROOKLYN.

(From an article in The Recruiting News, Governor's Island)

The first defenses at the entrance to the harbor, commonly called "The Narrows," were erected on the Long Island side about 1651 by Peter Suyvesant, then governor. Three years later the town of New Utrecht, settled by twenty families from Holland, sprang up around these defenses, the beginning of Fort Hamilton.

From that time until the Revolution little is known of the activities at this point.

It is certain, however, that the fortifications were not very strong, for in 1664 an English fleet easily entered the harbor and captured New Amsterdam. This town, retaken by the Dutch nine years later, again became New York when the English resumed control in 1674.

Lord Howe, in command of a British army, seems to have had little resistance when he crossed the Narrows from Staten Island and advanced upon Washington in the Battle of Long Island.

The importance of the Narrows as the key to New York Harbor apparently was not fully appreciated until 1824. At least the newly-born United States did not begin to fortify this strategic point completely until that year, when, on August 25, Lieutenant Talcott, Corps of Engineers, was ordered to the proposed site of Fort Hamilton—the southwest shore of Long Island, five and one half miles south of the Battery of New York City.

The piece of land upon which the post now stands was covered by a deed from the Mayor, Aldermen and Commonality of the City of New York, dated May 30, 1814, conveying about sixty acres of land in New Utrecht. Other tracts of land were deeded or otherwise acquired in the period 1826-1892.

Prior to this, however, a piece of land two acres in area and adjacent to Fort Hamilton was ceded by the New York Legislature to the United States—1807—and owing to its shape was called Fort Diamond. This fort was completed in 1822.

It is now called Fort Lafayette and is on a small island about two hundred yards off shore in the Narrows. During the Civil War several hundred prisoners were confined in it.

The actual construction of the present day Fort Hamilton was begun on April 26, 1825. Captain George Blaney and Lieutenant Mansfield, both of the Engineers Corps, U. S. Army, were superintending engineer and officer in immediate charge respectively.

The cornerstone was laid on the 11th of June, 1825, the fort completed, reported ready for occupancy, and turned over for that purpose on the 10th of July, 1831, by Major De Russy, who had succeeded to the superintendency of the construction.

Fort Hamilton was built of gray granite and intended for defense against attack either by land or water. It belonged to the German system of fortification, being quadrangular in form, its defense consisting of a caponniere flanking the east or principal land front, and bastions which were later added for the purpose of flanking the other three fronts.

In addition there was a water battery facing the Narrows, and two tiers of guns, one mounted in casemates, the other on barbette.

The landward defenses were designed for howitzers mounted in casemates; the water battery to have heavier guns commanding the ship channel.

The old inner fort or redoubt later was used as a Quartermaster storehouse, and, so legend has it, much of its construction was carried on by Captain Robert E. Lee, Corps of Engineers, who commanded Fort Hamilton in 1856. The house occupied by Captain Lee is still used as officers' quarters.

THE HARBOR OF NEW YORK.

(Data, as of June 25, 1929, by courtesy of the Chief of Engineers, U. S. Army.)

New York Bay is the principal entrance to New York City. It is divided into two parts, the Lower Bay and the Upper Bay, by the Narrows, a passage about five-eighths of a mile wide at its narrowest part. The entrance to the Lower Bay is between Sandy Hook on the south and Rockaway Point on the north and is about seven miles wide. The Upper Bay extends from the Narrows to the Battery. The principal entrance channels to the Harbor of New York are the Ambrose Channel and the Main Ship-Bayside-Gedney Channel.

Ambrose Channel, which is the newer and more important channel, was completed April 17, 1914. It has a comparatively straight course in a northwesterly and then northerly direction from deep water in the ocean through the Lower Bay. It is 38,000 feet in length and 2,000 feet in width, and has a depth of 40 feet at mean low water. The mean range of tide is about 4.5 feet.

Main Ship-Bayside-Gedney Channel is the route formerly used by deep-draught vessels. It extends westward past Sandy Hook and then northward through the Lower Bay. It has a depth of 30 feet at mean low water and a nominal width of 1,000 feet.

The **Anchorage Channel**, in the Upper Bay, has been completed to a width of 2,000 feet and depth of 40 feet at mean low water.

Within the harbor there are several channels connecting the different sections. Bay Ridge, Red Hook and Buttermilk Channels lie in Gowanus Bay along the Brooklyn shore of the Upper Bay and form an easterly channel that extends from the Narrows to East River and is separated from the Main Ship Channel by a broad shoal off Gowanus Bay and by Governor's Island. By means of these channels the extensive terminals of the Bush Terminal Co. and of the New York Dock Co., as well as the municipal terminals in South Brooklyn, are directly accessible for large ships and have easy communication with the other sections of the inner harbor.

Bay Ridge Channel has a minimum depth of 35 feet at mean low water for its full width of 1,200 feet, and a through controlling depth of 38 feet for a middle width of about 800 feet. Red Hook Channel has a minimum depth of 35 feet at mean low water for its full width of 1,200 feet and a through controlling depth of 38 feet for a width of 800 feet except at its junction with Buttermilk Channel, where it is but 600 feet wide. The combined length of these channels is about 4.5 miles and the mean range of tide is about 4½ feet. Buttermilk Channel has a controlling depth of 30 feet at mean low water through a channel 600 feet wide. The mean range of tides is about 4.5 feet.

The Hudson (North) River empties into Upper New York Bay at the Battery, the southernmost point of Manhattan Island. The width of the river between established pierhead lines is 3,900 feet at the Battery and gradually decreases to 2,750 feet between Castle Point, N. J., and West 14th Street, New York City, and 2,725 feet opposite West 59th Street, and increasing to 5,400 feet at the northern entrance to Harlem River (Spuyten Duyvil Creek). A channel with a least depth of 40 feet at mean low water is available through the Hudson River on the New York side of the river up to West 61st Street; thence up to about West 96th Street, deep water is found in the centre of the river and thence generally along the eastern shore to the northern boundary of the city. Along the Jersey City waterfront a channel connecting with deep water to the Upper Bay is 30 feet deep at mean low water and 800 feet wide. The depth along the Hoboken waterfront is 40 feet at mean low water for the entire width of the river. Above this along the Weehawken-Edgewater waterfront the channel is 25 feet deep at mean low water, except off the Warner Sugar Co. pier where it is but 21½ feet; the channel is 550 feet wide, connecting with the channel of 40 feet depth in about midstream opposite West 145th Street, New York City. The mean range of tide at the Battery is 4.4 feet.

The East River is a tidal strait about 16 miles long and from 600 to 4,000 feet wide, exclusive of bays and estuaries, and extends from the Battery in New York City to Throggs Neck, at the head of Long Island Sound. The river separates the Boroughs of Manhattan and the Bronx from the Boroughs of Queens and Brooklyn.

Between the Battery and Governor's Island a channel 500 feet wide has a controlling depth of 38 feet at mean low water. The channel of 30 feet depth is about 600 feet wide. Thence to Hell Gate the channel of 40 feet depth is 400 to 1,000 feet wide; through Hell Gate 32 feet deep and 500 feet wide; thence to Long Island Sound at Throggs Neck 35 feet and 700 to 1,000 feet wide; except at Middle Ground off Sunken Meadow, where it is about 325 feet on the east side of the reef and 200 feet wide on the west side. A project is under way for deepening the entire channel to 40 feet from the Upper Bay to the Navy Yard and thence 35 feet to Long Island Sound. The mean range of tide in the East River is 4.4 feet at the Battery, 4 feet at the Brooklyn Navy Yard and 6.6 feet at the east entrance to Hell Gate.

Harlem River and Spuyten Duyvil Creek together form a waterway about 8 miles in length, which extends from the East River to the Hudson River and separates the Borough of Manhattan from the Borough of the Bronx. The East River entrance to the Harlem River is about 8½ miles by water northeast of the Battery, and the Hudson River entrance to Spuyten Duyvil Creek is about 13½ miles by water north of the Battery. The improved channel in Harlem River has been dredged to a width of 150 to 400 feet and a depth of 15 feet at mean low water to High Bridge except at Macombs Dam Bridge, where ledge rock through the west draw (where work is in progress) limits the depth to 12 feet. Rock in the east draw has been removed to project depth. The section between High Bridge and Broadway Bridge is now being deepened to 15 feet at mean low water.

Bronx River is a short and narrow stream that empties into a shallow bay or estuary on the East River at Hunts Point, about 11 miles northeast of the Battery. The navigable portion of the river consists of a channel extending from its mouth to a dam at East 177th Street. This channel is about 2½ miles long and from about 50 to 300 feet wide and has a depth of 10 feet at mean low water and width of 100 feet in the lower section, extending from he East River up to Spofford Street, thence to Westchester Avenue, 9 feet. Above this up to a point 1,700 feet above the bridge the channel is 50 feet wide and 4 feet deep at mean low water; thence to the gas works at East 173d Street the channel is 20 to 30 feet wide and 2 feet deep at mean low water. Above this the depth gradually decreases and the bottom of the river is exposed at low water above a point situated just below the dyeworks at East 177th Street. The mean range of tide in the Bronx River is about 7 feet in the estuary and 6 feet at the dam.

Westchester Creek is a small stream lying wholly within the limits of the City of New York. This stream extends northward from an estuary in the north shore of East River about 14 miles northeast of the Battery. The estuary is about 1 mile long and from 500 to 3,000 feet wide. The channel is 8 feet deep at mean low water and 100 feet wide across the estuary, thence reducing in width to 80 feet, and in the upper portion, above Unionport, it is 60 feet wide. The mean range of tides is 6.8 feet.

East Chester Creek is a shallow stream that empties into East Chester Bay, on the north shore of Long Island Sound, about 12 miles west of the Connecticut State line and about 21 miles northeast of the Battery. The lower two miles of the navigable portion of this stream lie wholly within the limits of the City of New York. The available depth in the channel is 5 feet at mean low water or 12 feet at mean high water up to the Fulton Avenue Bridge; thence to the head of the improvement, about 300 feet above Fulton Avenue it is 4 feet at mean low water.

Flushing Bay is on the north shore of Long Island, about 12 miles from the Battery. The bay is about 1 mile wide and 2 miles long. Flushing Creek, which flows into the head of the bay, is a tidal stream navigable for a distance of about 3.5 miles from its mouth. The length of channel under improvement extends from the East River through the bay and up the creek to the upper Long Island railroad bridge, about five-eighths of a mile above the highway bridge at Jackson Avenue, Flushing, a total length of about 3 miles. The available mean low water depth up to 300 feet north of the bridge at Jackson Avenue is 10 feet, except in a few places along the channel lines; above this to the upper railroad bridge it is 7 feet. The mean range of the tide is about 7.1 feet.

ON THE BROOKLYN SIDE.

Newtown Creek is the inlet of the East River that separates for a distance of about 4 miles the Boroughs of Queens and Brooklyn. Newtown Creek has a width of 150 feet and a mean low water depth of 20 feet up to the wharf of the Brooklyn Union Gas Co., about 3,900 feet above Meeker Ave. Bridge; above this to Metropolitan Avenue the depth is 14 feet and width 125 feet. A channel 20 feet deep has been dredged in Dutch Kills, a tributary entering the creek from the north about one-half mile above Vernon Avenue Bridge. The total length of navigable

DESCRIPTION OF THE HARBOR (Continued.)

channel in the creek is about 5 miles, and in the Kills about one-half mile. The mean range of tide is about 4 feet.

Wallabout Channel is a channel in Wallabout Bay, an inlet of the East River adjacent to the United States Navy Yard in Brooklyn. The channel consists of a waterway extending in a half circle around the inside of the island, known as Cob Dock, and is divided into two parts by a stone causeway connecting the mainland with Cob Dock. The eastern section of the channel is about 2,000 feet long and from 250 to 350 feet wide, and has a depth of about 20 feet at mean low water. At the head of Wallabout Channel are two bodies of navigable water, Kent Avenue Basin and Wallabout Basin, which are 2,200 feet long and 1,300 feet long respectively.

Jamaica Bay is situated on the south shore of Long Island and lies wholly within the limits of the City of New York. It is about 8 miles long and 4 miles wide, and covers an area of approximately 32 square miles. The bay contains numerous small low-lying islands, which reduce the water surface area to about 18½ square miles. The bay is connected with the ocean by a shifting channel over a bar at Rockaway Inlet. The deep water channel through this bar is 400 feet wide and 23 feet deep at mean low water. Under a joint project for improvement by the Federal Government and the City of New York a channel 1000 feet wide and 30 feet deep at mean low water has been dredged from deep water at Barren Island up to Canarsie; thence 500 feet wide and 18 feet deep up to 500 feet northeast of Fresh Creek Basin. The mean tidal range is 4.5 feet. The United States is to provide and maintain the entrance channel and to reimburse the city for dredging the main channel in the bay, while the city is to dredge the other channels within the bay, bulkhead the shores of the bay, and fill in behind the bulkheads.

Newark Bay is a large estuary extending from the confluence of the Passaic and Hackensack Rivers south to Staten Island, a distance of about 6 miles. It is about 1½ miles wide. At Staten Island the bay is connected on the east with Kill van Kull, and on the west with Arthur Kill. The United States project channel through the bay is 30 feet deep, 1,800 feet wide at the entrance, narrowing to 400 feet a short distance above the Central Railroad of New Jersey bridge, thence continuing that width to the confluence of the Passaic and Hackensack River channels. The channel has been completed except at the locality of the Lehigh Valley R.R. bridge and at the bend at Bergen Point at the entrance, where work is in progress. The mean range of tide is 5 feet.

Passaic River is a tidal stream which is navigable for vessels drawing 6 feet of water as far as the City of Passaic, 16 miles above its mouth. In the lower portion of the river the depth of the navigable channel is 20 feet to the Jackson Street bridge at Newark; thence 16 feet deep to the Montclair and Greenwood Lake railroad bridge; thence 6 feet deep to Passaic. A channel 10 feet deep has been authorized between Newark and Passaic but work on it has not been commenced.

Hackensack River is a tidal stream which merges with the Passaic River at the head of Newark Bay; it is navigable to New Milford, 20½ miles from its mouth. At mean low water 30 feet can be carried to the Central Railroad of New Jersey bridge, and thence 22 feet to the Public Service power station at Marion, Jersey City, thence 12 feet to the highway bridge at Little Ferry, 10 feet through the bridge, thence from 10 to 12 feet to the New York-Susquehanna Railroad bridge in Hackensack, and thence quite shoal to New Milford. A Channel 30 feet deep and 300 feet wide has been authorized from the Central Railroad of New Jersey bridge to a point 2,000 feet above the Delaware, Lackawanna and Western Railroad bridge at Marion, Jersey City, and work on that channel is in progress.

Arthur Kill separates Staten Island from New Jersey. It is about 12 miles long. This channel, together with Kill van Kull, forms Staten Island Sound, and, with the lower end of Newark Bay, forms the inland waterway between New York and New Jersey, the boundary between the two States following the centre of the waterway. Vessels drawing 23 feet can be taken at mean low water into Newark Bay via Lower New York Bay, Raritan Bay and Arthur Kill. Vessels drawing 27 feet at mean low water can be taken through Upper New York Bay, Kill van Kull and Arthur Kill to about opposite the mouth of Rahway River. A channel 30 feet deep at mean low water and 400 feet wide is now under construction from Kill van Kull to Perth Amboy, passing south of Shooters Island.

Kill van Kull, a connecting waterway about 3 miles in length, lies along the northern shore of Staten Island and extends from the lower end of Newark Bay to Upper New York Bay. A channel 30 feet deep at mean low water and a minimum width of 400 feet has been constructed by dredging and rock removal through Kill van Kull from Upper New York Bay to within 1 mile of the entrance to Newark Bay. The controlling depth in the undredged portion of the channel in Kill van Kull is 27 feet at mean low water.

Raritan Bay lies at the southern end of Staten Island and forms the western portion of Lower New York Bay. Its greatest length from north to south is about 5 miles and from east to west about 7 miles. The Raritan River empties into the bay at its western end, and the Arthur Kill extends northward from its western end. Vessels enter the bay by way of the Main Ship-Bayside-Gedney Channel. A channel 30 feet deep at mean low water and 400 feet wide has been dredged from deep water northwest of Sandy Hook to Perth Amboy.

Raritan River empties into Raritan Bay at Perth Amboy. At mean low water vessels with a draught of 15 feet can be carried to the Washington Canal at Sayreville, a distance of 6.7 miles; thence 8 feet to New Brunswick, a distance of about 5.3 miles.

Elizabeth River is a small stream that empties into the Arthur Kill near its junction with Newark Bay. The navigable channel in the lower river has a depth of 6 feet at mean low water for half a mile; thence 4.5 feet for half a mile; thence about 1 foot to Broad Street, 1.7 miles.

TIDES AND CURRENTS IN NEW YORK HARBOR.

(Prepared for the Almanac by the U. S. Coast and Geodetic Survey)

At the time of low water at Fort Hamilton, excepting a few small indentations like Gowanus Bay, the current throughout the harbor is ebbing, the water flowing toward Lower Bay. And with the exception of Lower Bay, the tide over the whole harbor is falling.

In the Hudson the current is very nearly at its strength, while the tide is near low water, which is still 1 hour away.

The Harlem is now carrying the water from East River toward the Hudson, the tide being below mean sea level and about 2 hours from its low water.

Upper East River is bringing the water from Long Island Sound toward Hell Gate, while its level is falling rapidly, being now 2 hours after high water.

Through Hell Gate and lower East River, the water is flowing toward Upper Bay at very nearly its strength, which was passed an hour ago, the level of the water being a little below mean sea level and falling rapidly.

At the time of low water at Fort Hamilton the current in Newark Bay has not yet attained its strength.

The waters from Newark Bay are now pouring partly into Arthur Kill, but principally into Kill van Kull, which is carrying them into Upper Bay.

In Upper Bay the current has passed its strength about half an hour previously, but it is still running with a velocity not far from strength and passing on the waters from the Hudson River, East River, and Kill van Kull into the Narrows.

The level of the water in Newark Bay, Kill van Kull, and Upper Bay is still falling, but rather slowly, for low water is less than an hour away.

Low water at Fort Hamilton is coincident with the strength of the ebb current in the Narrows.

The tidal waters which are flowing into Upper Bay through Hudson River, East River, and Kill van Kull, together with the non-tidal waters from a territory having an area of very nearly 15,000 square miles, are now pouring through the Narrows into Lower Bay at the rate of more than three-quarters of a million cubic feet per second.

Arthur Kill, too, is flowing toward Lower Bay, and from Lower Bay the waters now are passing out to sea, although the strength of the current has already passed.

In Arthur Kill the level of the water is falling slowly, low water being half an hour away, but in Lower Bay the water is beginning to rise very slowly, the low water here having occurred a few minutes before this time.

At the time of high water at Fort Hamilton the current is flooding through the whole harbor and, with the exception of Lower Bay, the tide is still rising.

In the latter waterway the tide is earliest and high water occurred a few minutes previously, so that now the level of the water is falling.

FOREIGN COMMERCE OF THE PORT OF NEW YORK.

(Includes actual harbors of New York, Newark and Perth Amboy, and the port of Albany.)

IMPORTS AND EXPORTS.

YEAR (Fisc.)	GOLD AND SILVER.			MERCHANDISE.			
	Imports.	Exports—Domestic.	Exports—Foreign.	Imports.	Exports—Domestic.	Exports—Foreign.	Duties Collected.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
1900..	24,765,253	85,498,014	2,450,539	537,237,282	507,930,476	10,903,995	150,153,068
1901..	27,351,777	102,389,646	1,553,325	527,259,906	516,929,035	12,663,943	159,330,669
1902..	14,136,005	79,195,540	1,405,212	559,930,849	479,193,385	11,168,310	163,606,071
1903..	15,233,351	69,456,488	3,025,638	618,705,662	492,874,449	12,955,245	178,852,021
1904..	29,948,116	108,398,066	1,929,788	600,171,033	493,705,709	13,102,304	168,677,030
1905..	15,537,694	105,227,432	6,791,302	679,629,256	511,067,199	13,658,806	170,570,029
1906..	60,288,409	52,268,485	6,744,325	734,350,823	595,410,061	11,750,253	192,985,952
1907..	61,221,577	62,460,287	7,781,311	853,696,952	616,270,674	11,679,183	217,127,610
1908..	117,746,796	99,738,210	6,267,399	688,215,938	688,410,827	12,652,086	184,235,337
1909..	20,685,652	112,108,673	2,623,340	779,308,944	595,670,688	11,568,793	195,008,723
1910..	16,785,552	116,635,626	5,607,565	935,990,958	634,288,230	17,698,126	214,686,318
1911..	35,529,111	50,622,443	4,580,442	881,592,689	756,473,974	16,078,475	200,818,317
1912..	32,396,676	81,328,034	8,229,400	975,744,320	802,476,214	15,469,589	194,752,639
1913..	48,909,622	120,107,142	4,966,898	1,048,320,629	900,622,431	17,313,557	198,471,127
1914..	37,914,458	133,209,708	3,324,967	1,040,380,526	845,342,530	19,203,808	197,074,780
1915..	46,833,391	78,728,786	7,544,956	930,693,041	1,162,727,641	32,199,925	146,546,589
1916..	179,563,207	75,415,943	25,182,107	1,191,473,268	2,272,291,977	37,270,069	150,597,503
1917..	58,873,716	158,237,884	9,047,995	1,338,588,225	3,035,838,584	23,171,012	153,869,441
1918..	24,327,934	85,886,664	3,993,522	1,251,842,010	2,582,182,184	32,546,191	115,596,095
1919..	32,488,950	73,989,865	10,182,926	1,394,270,206	2,925,715,466	102,523,998	115,743,708
1920..	95,440,254	212,680,268	2,727,135	2,904,844,143	3,293,304,084	100,744,758	227,102,417
1921..	567,707,323	12,143,786	6,391,278	1,922,741,371	2,429,396,801	78,838,577	205,863,859
1922..	431,855,511	12,821,091	16,312,497	1,366,010,488	1,277,810,118	40,445,485	226,743,570
1923..	349,036,584	73,183,629	29,745,302	3,781,939,144	957,077,933	70,528,427	317,624,278
1924..	379,026,479	49,004,876	11,785,543	1,668,732,657	1,557,061,258	37,713,402	318,005,150
1925..	121,259,294	269,413,041	9,286,502	1,802,251,088	1,692,799,035	35,883,119	307,564,373
1926..	99,351,755	81,902,954	4,423,655	2,274,169,658	1,685,241,840	30,893,815	323,798,869
1927..	107,797,992	117,782,751	3,994,489	2,083,657,766	1,657,269,940	35,086,098	328,272,085
1928..	49,456,495	626,359,152	6,944,615	2,005,702,455	1,702,811,638	38,268,304	328,322,588
1929..	190,787,915	124,035,580	5,050,155	2,058,662,542	1,873,260,810	32,934,170	350,829,722

The Port of New York has an area of 175 square miles.

VESSELS ENTERED AND CLEARED.

Year Ending June 30.	Entered.		Cleared.		Year. Ending June 30.	Entered.		Cleared.	
	Vessels.	*Tons.*	*Vessels.*	*Tons.*		*Vessels.*	*Tons.*	*Vessels.*	*Tons.*
1900.....	4,233	8,176,761	4,018	7,843,529	1915.....	4,446	12,579,317	4,283	12,162,374
1901.....	4,189	8,679,273	3,823	8,118,427	1916.....	5,188	13,461,353	5,392	13,918,957
1902.....	4,127	8,982,767	3,666	8,415,291	1917.....	4,960	12,912,693	5,033	13,187,413
1903.....	3,852	9,053,096	3,680	8,847,072	1918.....	4,182	10,943,089	3,857	10,584,713
1904.....	3,769	9,235,524	3,303	8,700,590	1919.....	4,461	12,489,775	4,513	12,939,587
1905.....	3,874	9,630,853	3,439	9,311,527	1920.....	5,014	15,049,744	4,588	14,275,455
1906.....	4,079	10,476,993	3,690	9,913,960	1921.....	5,260	17,950,586	4,834	16,599,671
1907.....	4,229	11,383,345	3,764	10,472,601	1922.....	5,201	18,450,608	5,280	19,470,642
1908.....	4,207	12,154,780	3,878	11,930,964	1923.....	4,817	18,904,684	4,897	18,883,744
1909.....	4,120	12,528,723	3,703	11,866,413	1924.....	4,521	18,280,975	4,719	18,858,693
1910.....	4,166	13,042,818	3,746	12,541,903	1925.....	4,602	19,359,533	4,813	20,662,970
1911.....	4,113	13,428,950	3,853	13,366,893	1926.....	4,808	19,703,804	4,930	20,185,804
1912.....	4,011	13,673,765	3,796	13,549,138	1927.....	4,945	20,579,279	5,003	20,757,758
1913.....	4,223	14,464,161	3,866	14,370,619	1928.....	4,920	21,562,746	5,222	22,509,507
1914.....	4,475	15,767,547	4,272	15,421,394	1929.....	5,194	23,778,259	5,549	24,775,115

Totals on entrances and clearances do not include vessels that reached and left the United States via other domestic ports.

They cover the New York port district, including Newark and Perth Amboy, but not Albany.

The direct water front of Greater New York extends a distance of more than 3,000,000 linear feet, or approximately 578.4 miles, of which 43.2 miles is in Manhattan; 79.8 in the Bronx; 201.5 in Brooklyn; 196.8 in Queens; and 57.1 in Richmond.

The port water front on the New Jersey side extends 192.93 miles—grand total, 771.33 miles.

At the French port of Marseilles, in 1928, vessels cleared numbered 8,576 (5,382,863 cargo tons); at Havre, 7,768 (2,937,452 cargo tons); at Rouen, 3,477 (6,163,691 cargo tons).

At the German port of Hamburg, in 1928, vessels cleared with 8,116,000 tons of foreign cargo; at Bremen, with 1,469,000 tons

UNITED STATES OFFICERS OF CUSTOMS, PORT OF NEW YORK.

Collector's Office—*Collector*, Philip Elting; *Assistant Collector*, Henry C. Stuart; *Private Secretary*, D. Harry Ralston; *Appointment Clerk*, J. Leslie Robb; *Assistant Custodian*, Joseph M. Morgan; *Solicitor to Collector*, Mark P. Andrews; *Auditor*, Erastus S. Hawkins; *Cashier*, William T. Black. *Supplies and Service Division*, Francis Kaley, Supt.

Deputy Collectors—*Marine Division*, Stephen W. Hamilton; *Entry Division*, William P. Zwinge; *Warehouse Division*, Francis T. Leahy; *Records Division*, O. W. Christian; *Liquidating Division*, Thomas M. Thurston; *Drawback Division*, C. B. Winne; *Information Bureau*, Ernest C. Hawkins.

Surveyor's Office—*Surveyor*, Thomas W. Whittle; *Assistant Surveyor*, Milton P. Jackson.

Comptroller's Office—*Comptroller*, Arthur F. Foran; *Assistant Comptroller*, Thomas J. Skuse.

Appraiser's Office—*Appraiser*, Frederick J. H. Kracke; *Chief Assistant in Charge*, Augustus K. Thomas. *Assistant Appraisers*, Herman W. Beyer, Ferdinand M. Becker, John J. Reed, Henry S. Patten, Michael J. Hart, John Eardley, Alfred O. Dresdner, and Joseph H. Acker.

U. S. Internal Revenue Office—

PRODUCE IMPORTS AND EXPORTS AT NEW YORK CITY.

(Figures Compiled by the Produce Exchange for Calendar Years Named.)

RECEIPTS OF PRODUCE.

Article	1928	1927	1926	Article	1928	1927	1926
Flour, bbls.	19,720	29,742	76,834	Alcohol, bbls.	.....	.....	.....
Flour, sacks.	20,219,345	16,769,606	17,418,581	Beef, cases.	22,204	33,223	51,302
Wheat, bu.	67,716,500	72,758,970	78,518,900	Pork, bbls.	13,979	18,796	13,160
Corn, bu.	2,963,900	2,434,500	2,452,159	Cut Meats—			
Oats, bu.	8,576,000	17,446,000	22,170,000	tierces.	3,846	11,070	9,678
Barley, bu.	18,239,392	23,569,100	16,436,600	boxes.	587,378	672,772	950,649
Malt, bu.	1,205,000	1,255,830	902,900	Lard, tierces.	142,307	139,966	169,816
Rye, bu.	3,659,500	5,518,000	6,540,700	Lard, kegs.	15,546	26,184	29,627
Buckwheat, bu.	399,000	697,600	251,900	Lard, cases.	2,933,073	3,086,896	3,826,780
Peas, bu.	.....	8,400	1,600	Grease, tierces.	11,566	22,145	10,267
Beans, bags.	10,700	18,700	19,700	Butter, pkgs.	3,496,347	3,634,215	3,408,849
Oatmeal, bbls.	31,950	41,800	54,410	Cheese, boxes.	952,320	942,583	893,682
Cornmeal, sacks	203,700	230,525	304,725	Eggs, pkgs.	6,314,985	7,159,296	6,658,596
Hay, tons.	35,675	48,159	56,930	Oleo, tierces	55,569	95,259	122,014
Feed, tons.	1,450	1,260	4,778	Cot.S'd Oil,bbls	7,596	11,995	5,430
Flaxseed, bu.	1,681,225	6,352,800	6,059,000	Oil Cake, bags.	36,313	24,100	57,377
Hops, bales.	2,369	9,802	2,943	Lubr. Oil, bbls.	667	3,092	4,721
Whiskey, bbls.	.....	.....	.....				

EXPORTS OF PRODUCE.

Article	1928	1927	1926	Article	1928	1927	1926
Wheat, bu.	61,580,000	68,369,000	74,078,000	Hops, bales.	2,859	1,694	14,806
Corn, bu.	1,210,000	667,000	770,000	Beef, bbls.	5,624	10,440	11,583
Flour, bbls.	4,383,000	4,200,000	4,769,000	Pork, bbls.	4,591	5,477	10,876
Rye flour, bbls.	66,282	5,876	.....	B'c'n&Hams,lbs	81,933,000	85,884,000	165,115,000
Corn meal, sks.	1,456	4,000	4,863	Lard, lbs.	417,111,000	386,622,000	410,602,000
Oatmeal, sacks.	78,318	27,110	149,361	Tallow, lbs.	474,000	448,000	1,100,000
Oats, bu.	3,794,000	2,196,000	7,043,000	Grease, lbs.	33,554,000	50,622,000	42,987,000
Feed, lbs.	1,431,000	325,000	1,075,660	Cot. seed oil,lbs.	64,000	1,094,000	990,000
Rye, bu.	4,113,000	7,126,000	4,676,000	Lubr. Oil, gals.	35,555,000	38,993,000	46,943,000
Peas, bu.	25,100	45,096	22,400	Stearine, lbs.	811,000	1,107,000	264,000
Beans, bu.	.....	.....	.....	Oil-Cake, lbs.	367,686,000	477,381,000	481,836,000
Clover seed, bgs	20,090	68,687	48,438	Oil Meal, lbs.	4,837,000	11,024,000	6,852,000
Tim'y seed, bgs.	350	933	498				

FRUITS AND VEGETABLES UNLOADED AT NEW YORK CITY.

Figures, which show car lots, including boat receipts reduced to car-lot equivalents, cover 1928 by months, and were compiled by the Bureau of Agricultural Economics, U. S. Dept. of Agriculture.

Articles	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals 1928	Totals 1927
Apples	1,084	1,073	938	763	648	510	227	459	1,057	2,701	2,260	1,203	12,923	12,827
Cabbage	598	456	577	458	636	459	53	131	243	403	410	429	4,583	4,240
Cantaloupes	7	17	74	42	412	2,007	2,817	1,735	1,070	534	127	28	8,930	7,401
Celery	638	519	482	505	481	276	49	156	288	399	441	692	4,926	4,463
Grapefruit	404	456	507	450	338	183	84	115	243	458	429	471	4,138	5,337
Grapes	36	10	59	82	43	34	237	775	1,852	6,190	4,307	830	14,455	18,587
Lemons	265	446	344	278	529	626	433	231	141	153	195	210	3,851	3,248
Lettuce	785	664	783	860	1,140	252	819	983	684	599	607	922	9,098	9,054
Onions	646	703	568	942	1,163	903	627	729	1,503	1,888	818	1,373	11,863	9,421
Oranges	1,283	1,274	1,384	1,240	1,034	732	549	614	580	705	1,252	1,305	11,952	12,892
Peaches	.....	1	.....	.....	3	484	2,403	2,145	645	178	.....	.....	5,859	4,773
Pears	208	193	175	138	56	4	615	1,107	1,675	1,427	678	379	6,655	6,029
Plums & Fresh Prunes	1	.....	.....	.....	7	164	338	162	557	383	3	.....	1,615	1,437
Potatoes	1,307	1,619	1,592	1,621	2,712	3,365	2,256	1,289	1,603	1,901	1,329	1,435	22,029	22,308
Strawberries	15	29	118	339	1,313	254	23	4	2	.....	.....	.....	2,097	2,181
Sweet Potatoes	281	259	193	96	46	9	13	204	317	303	326	188	2,235	2,707
Tomatoes	522	315	363	592	1,047	1,257	1,153	306	248	648	418	587	7,456	7,158
Watermelons	.....	.....	.....	.....	30	761	2,052	767	53	.....	.....	.....	3,663	3,328

Chief states of origin of the fruits and vegetables unloaded at New York City in 1928 were, with number of carloads—

Apples—New York, 3,682; Washington, 4,857; Virginia, 1,605; Oregon, 450; California, 416; West Virginia, 355.

Cabbage—New York, 2,226; Florida, 741; South Carolina, 587; Virginia, 556; Texas, 378.

Cantaloupe—Arizona, 1,000; California, 6,443; Colorado, 694; Maryland, 315.

Celery—Florida, 1,859; California, 1,328; New York, 1,164.

Lettuce—California, 4,275; New York, 1,750; Arizona, 1,163; Florida, 821.

Grapefruit—Florida, 2,857; foreign, 1,251.

Oranges—California, 6,688; Florida, 4,259; foreign, 993.

Grapes—California, 13,578; New York, 486; Pennsylvania, 173.

Lemons—California, 1,493; foreign, 2,358.

Onions—Texas, 1,747; Indiana, 1,407; California, 596; Ohio, 614; New York, 469.

Peaches—Georgia, 3,426; North Carolina, 1,169; California, 334; New York, 257; Pennsylvania, 237.

Pears—California, 3,201; Oregon, 1,995; Washington, 868; New York, 558.

Plums and Prunes—California, 627; Idaho, 493; Oregon, 340; New York, 84.

Potatoes—Maine, 8,897; New York, 3,746; Virginia, 2,950; Florida, 1,930; North Carolina, 1,340; South Carolina, 1,129.

Strawberries—North Carolina, 802; Virginia, 358; Louisiana, 299; Florida, 298; Maryland, 138.

Sweet Potatoes—Virginia, 988; Maryland, 419; New Jersey, 371; Delaware, 193.

Tomatoes—Florida, 2,116; foreign, 1,762; California, 948; Mississippi, 746; Tennessee, 471; Maryland, 410.

Watermelons—Florida, 1,203; Georgia, 1,000; South Carolina, 965; North Carolina, 364.

CITY MARKETS.

The new $16,000,000 Bronx Terminal Market, at 151st St. and the Harlem River, was publicly opened in May, 1929.

Washington Market is bounded by Washington, West, Fulton, and Vesey Streets.

West Washington Market is on Thirteenth Ave. at West, Bloomfield and Gansevoort Streets. Facing it is **Gansevoort Open Air Truck Market.**

There are markets under the Williamsburgh, Queensboro and Third Ave. bridges in Manhattan.

Wallabout Market, largest in the United States, is in Brooklyn, bounded by Flushing Ave.; Wallabout Creek, East and Clinton Aves.

POPULATION AND AREA OF FOREIGN STATES AND COUNTRIES.

Country.	Continent.	Government or Ruling Power.	Area, Square Miles.	Population.	Pop. per Square Mile.	Capital or Chief City
Abyssinia (Ethiopia)	Africa	Kingdom	350,000	10,000,000	28.5	Addis Ababa
Aden and Prot	Asia	British Empire	9,080	54,923	6.0	Aden
Afghanistan	Asia	Kingdom	245,000	6,330,500	21.7	Kabul
Albania	Europe	Kingdom	17,374	831,877	47.9	Durazzo
Alberta	No. America	British Empire	255,285	607,599	2.3	Edmonton
Algeria	Africa	France	222,180	5,992,770	27.0	Algiers
Alsace	Europe	France	3,202	1,161,639	362.7	Strasbourg
Andorra	Europe	Fr.-Sp. Protect	191	5,231	27.3	Andorra
Angola	Africa	Portugal	484,800	2,481,956	4.8	Loanda
Anhalt	Europe	Germany	888	351,471	395.8	Dessau
Annam	Asia	French Protect	39,758	5,171,986	130.0	Hue
Antigua	West Indies	British Empire	170	29,767	175.1	St. John
Arabia	Asia	Kingdom	1,200,000	7,000,000	5.8	Mecca
Argentina	So. America	Republic	1,153,418	10,904,022	9.2	Buenos Ayres
Armenia	Asia	Soviet Republic	15,140	921,400	60.9	Erivan
Assam (India)	Asia	British Empire	53,015	7,606,232	143.0	Shillong
Australia	Oceania	British Empire	2,974,581	5,495,734	2.1	Melbourne
Austria	Europe	Republic	32,369	6,526,661	201.0	Vienna
Aust.-Hung (pre-war)	Europe	Emp. & King	261,259	49,880,000	190.9	Vienna
Azerbaijan	Asia	Russian Soviet	33,682	2,162,955	64.2	Baku
Azores	No. Atlantic	Portugal	922	242,613	250.0	Ponta Delgada
Baden	Europe	Germany	5,819	2,312,462	397.5	Karlsruhe
Bahamas	West Indies	British Empire	4,404	54,886	12.4	Nassau
Bahrein Isles	Asia	British Empire	250	120,000	480.0	Moharek
Balearic Isles	Europe	Spain	1,935	343,650	177.7	Palma
Baluchistan	Asia	British Empire	54,228	420,648	7.7	Quetta
Barbados	West Indies	British Empire	166	198,336	1194.7	Bridgetown
Baroda (India)	Asia	Semi-Indep'd't	8,135	2,126,522	262.0	Baroda
Bashkir	Europe	Soviet Russia	40,420	2,741,007	67.8	Ufa
Basutoland	Africa	British Empire	11,716	515,781	43.9	Meseru
Bavaria	Europe	Germany	29,377	7,379,594	251.2	Munich
Bechuanaland	Africa	Kingdom	275,000	154,983	.5	Serowe
Bengal (India)	Asia	British Empire	82,277	47,592,345	578.4	Calcutta
Belgium	Europe	Kingdom	11,752	7,923,077	675.0	Brussels
Bihar and Orissa	Asia	British Empire	111,717	27,851,891	249.3	Patna
Bermudas	No. America	British Empire	19	21,987	1157.2	Hamilton
Bhutan	Asia	British Protect	20,000	250,000	12.5	Punakha
Bismarck Islands	Oceania	British Empire	15,752	188,000	11.9	Rabaul
Bohemia	Europe	Czechoslovakia	20,333	6,670,582	331.9	Prague
Bolivia	So. America	Republic	506,467	2,952,139	4.8	La Paz
Bombay (Presidency)	Asia	British Empire	123,621	19,348,219	157.0	Bombay
Bombay (Prov.)	Asia	British Empire	77,035	16,012,342	208.0	Bombay
Borneo (Brit. North)	Asia	British Empire	31,106	257,804	6.6	Sandakan
Borneo (Dutch)	Asia	Holland	206,810	1,625,453	7.9	Banjermasin
Bosnia, Herzegovina	Europe	Yugo-Slavia	19,768	1,889,929	95.5	Sarajevo
Brazil	So. America	Republic	3,285,319	39,163,855	12.0	Rio de Janeiro
British Columbia	No. America	British Empire	355,855	524,528	1.1	Victoria
British Empire		Empire	13,226,749	446,726,752	33.4	London
Brunei	Asia	British Protect	2,500	26,500	10.6	Brunei
Brunswick	Europe	Germany	1,418	501,675	356.1	Brunswick
Bulgaria	Europe	Kingdom	39,824	5,596,800	139.9	Sofia
Burma (India)	Asia	British Empire	233,707	13,212,192	57.0	Rangoon
Cambodia	Asia	French Protect	62,550	2,465,581	36.4	Pnom-penh
Cameroon (French)	Africa	French Mand'te	166,489	1,500,000	9.0	Yaounda
Cameroon (British)	Africa	British Protect	36,000	400,000	11.1	Buca
Campeche	No. America	Mexico	18,089	72,000	3.9	Campeche
Canada	No. America	British Empire	3,684,723	9,796,800	2.6	Ottawa
Canary Isles	No. Atlantic	Spain	2,807	481,555	171.5	Santa Cruz
Cape of Good Hope	Africa	British Empire	276,966	2,781,185	10.0	Cape Town
Cape Verde Isles	Africa	Portugal	1,480	149,793	101.0	Porto Grande
Celebes	Asia	Holland	72,679	3,108,337	42.1	Macassar
Ceylon	Asia	British Empire	25,332	5,009,502	197.7	Colombo
Chad Colony	Africa	France	501,676	973,611	1.9	Bangui
Channel Islands	Europe	British Empire	75	89,614	1194.9	St. Heliers
Chile	So. America	Republic	281,820	4,364,395	15.4	Santiago
China (18 Provinces)	Asia	Republic	1,532,420	375,000,000	244.7	Peking
China (inc. Mongolia, Thibet, Manchuria, and Sinkiang)	Asia	Republic	4,277,170	400,800,000	93.7	Peking
Chosen (Korea)	Asia	Japan	84,738	19,519,927	230.3	Seoul
Cochin-China	Asia	French Protect	26,476	4,001,093	151.0	Saigon
Colombia	So. America	Republic	482,400	8,000,000	16.4	Bogota
Congo (Belgian)	Africa	Belgium	909,654	8,500,000	10.9	Kinshasa
Congo (French)	Africa	France	982,049	3,127,707	3.2	Brazzaville
Corsica	Europe	France	3,367	289,890	85.6	Ajaccio
Costa Rica	Cent. Amer.	Republic	23,005	471,521	20.4	San Jose
Crete	Europe	Greece	3,330	345,149	130.6	Candia
Croatia-Slavonia	Europe	Yugo-Slavia	16,920	2,739,593	161.9	Zagreb (Agram)
Cuba	West Indies	Republic	44,164	3,418,033	77.4	Havana
Curacao	So. America	Holland	403	56,522	139.0	Willemstad
Cyprus	Asia	British Empire	3,584	324,945	90.0	Miosia
Cyrenaica	Africa	Italy	230,000	229,700	1.0	Bengazi
Czechoslovakia	Europe	Republic	54,195	14,523,186	267.0	Prague
Daghestan	Europe	Soviet Russia	13,730	786,877	57.3	Makhach-Kala
Dahomey	Africa	France	42,460	979,609	23.0	Porto Noro
Dalmatia	Europe	Yugo-Slavia	4,916	621,429	126.4	Ragusa
Danzig	Europe	Free City	754	386,000	511.9	Danzig
Denmark	Europe	Kingdom	17,110	3,434,555	200.7	Copenhagen
Dominican Republic	West Indies	Republic	19,325	897,405	45.9	Santo Domingo
Dutch East Indies	Asia	Holland	733,642	49,534,618	67.5	Batavia
Ecuador	So. America	Republic	118,627	1,500,000	12.6	Quito
Egypt	Africa	Kingdom	347,840	14,168,756	40.4	Cairo
England	Europe	British Empire	50,874	35,678,530	701.3	London
Eritrea	Africa	Italy	45,435	405,681	8.9	Asmara
Estonia	Europe	Republic	18,355	1,110,538	60.4	Reval
Ethiopia (Abyssinia)	Africa	Kingdom	350,000	10,000,000	28.5	Addis Ababa

Country.	Continent.	Government or Ruling Power.	Area, Square Miles.	Population.	Pop. per Square Mile.	Capital or Chief City.
Faroe Isles	Europe	Denmark	540	21,352	39.5	Thornshawn
Falkland Isles	So. America	British Empire	4,618	3,510	.7	Stanley
Fed. Malay States	Asia	British Empire	27,648	1,404,000	50.7	Perak
Fiji Islands	Oceania	British Empire	7,435	171,644	22.7	Suva
Finland	Europe	Republic	149,641	3,582,406	23.5	Helsingfors
Formosa (Taiwan)	Asia	Japan	13,944	3,758,900	269.5	Tansui
France	Europe	Republic	212,659	40,745,874	191.4	Paris
French Equat. Africa	Africa	France	982,049	2,845,936	2.8	Brazzaville
French India	Asia	France	196	273,081	1393.3	Pondicherry
French Indo-China	Asia	France	265,004	19,844,181	74.9	Hanoi
French West Africa	Africa	France	1,844,400	13,541,611	7.3	Dakar
Gabun Colony	Africa	France	121,862	388,778	3.1	Libreville
Gambia	Africa	British Empire	4,010	210,530	52.5	Bathurst
Georgia	Europe	Soviet Russia	25,668	2,637,961	102.7	Tiflis
Germany (pre-war)	Europe	Empire	208,789	67,812,000	324.7	Berlin
Germany	Europe	Republic	180,976	62,348,782	345.0	Berlin
Gibraltar	Europe	British Empire	2	18,061	9030.5	Gibraltar
Goa	Asia	Portugal	1,469	515,772	351.1	New Goa
Greece	Europe	Republic	49,022	6,200,000	126.4	Athens
Greenland	No. America	Denmark	46,740	14,355	0.2	Sydproven
Guadeloupe	West Indies	France	688	243,243	353.5	Pointe-a-Pitre
Guatemala	Cent. Amer	Republic	42,353	2,119,165	50.0	Guatemala
Guiana, British	So. America	British Empire	89,480	299,839	3.3	Georgetown
Dutch	So. America	Holland	54,291	142,896	2.6	Paramaribo
French	So. America	France	32,000	44,202	1.3	Cayenne
Guinea, French	Africa	France	95,218	2,095,988	21.9	Konakry
Portuguese	Africa	Portugal	13,940	289,000	20.7	Bissau
Spanish	Africa	Spain	10,810	200,000	18.5	Santa Isabel
Hamburg	Europe	Germany	160	1,152,489	7209.9	Hamburg
Haiti	West Indies	Republic	10,204	2,300,200	225.4	Port-au-Prince
Hejaz	Asia	Kingdom	112,500	900,000	8.0	Mecca
Hesse	Europe	Germany	2,970	1,347,295	447.0	Darmstadt
Holland	Europe	Kingdom	13,205	7,416,419	561.6	Amsterdam
Honduras	Cent. Amer.	Republic	46,332	773,408	16.6	Tegucigalpa
Honduras, British	Cent. Amer.	British Empire	8,592	45,317	5.2	Belize
Hong Kong	Asia	British Empire	391	662,950	1693.5	Victoria
Hungary	Europe	Kingdom	35,901	8,368,273	233.1	Budapest
Hyderabad	Asia	Semi-Indep'd't	82,698	12,471,770	151.0	Hyderabad
Iceland	No. Atlantic	Kingdom	39,709	103 317	2.6	Reykjavik
India	Asia	British Empire	1,805,332	318,885,980	176.6	Delhi
(British)	Asia	British Empire	1,094,300	246,946,793	225.6	Delhi
(Native States)	Asia	British Empire	711,032	71,939,187	101.1	
Indo-China	Asia	French Protec	265,004	19,844,181	74.8	Hanoi
Iraq (Mesopotamia)	Asia	Kingdom	143,240	3,000,000	20.9	Bagdad
Ireland	Europe	British Empire	32,586	4,390,219	134.6	Dublin, Belfast
Irish Free State	Europe	British Empire	26,592	2,972,802	111.8	Dublin
Isle of Man	Europe	British Empire	227	60,238	265.3	Douglas
Italy	Europe	Kingdom	119,744	40,796,000	341.0	Rome
Ivory Coast	Africa	France	121,976	1,724,545	14.1	Bingerville
Jamaica	West Indies	British Empire	4,450	858,188	192.8	Kingston
Japan (proper)	Asia	Empire	148,756	59,138 000	396.5	Tokio
Japanese Empire	Asia	Empire	260,738	80,704,800	309.5	Tokio
Java and Madura	Asia	Holland	50,557	35,017,204	682.5	Batavia
Johore	Asia	British Empire	7,500	282,234	37.6	Johore Bahru
Kashmir (India)	Asia	Semi-Indep'd't	89,807	3,699,065	41.1	Serinagur
Kenya and Prot	Africa	British Empire	245,000	2,575,789	10.5	Nairobi
Korea	Asia	Japanese Emp	84,738	19,519,927	230.3	Seoul
Kuwait	Asia	Sultnate	1,950	40,000	20.5	Kuweit
Kwangchow	Asia	French Protect	190	208,044	1095.0	Kwangchow
Kwangtung	Asia	Japan	1,305	1,056,076	80.9	Dairen
Labrador	No. America	British Empire	120,000	3,647	.03	
Laos	Asia	French Protect	96,500	837,364	8.7	Pjabang
Latvia	Europe	Republic	40,856	1,870,520	45.8	Riga
Lebanon	Asia	French Mand'te	7,370	628,863	85.3	Beirut
Leeward Isles	West Indies	British Empire	648	122,242	188.6	Antigua
Liberia	Africa	Republic	36,834	1,500,000	40.7	Monrovia
Liechtenstein	Europe	Principality	65	11,500	177.0	Vaduz
Lippe	Europe	Germany	469	163,577	354.0	Detmold
Lithuania	Europe	Republic	20,550	2,011,173	97.9	Kovno
Lorraine	Europe	France	2,403	633,461	263.1	Metz
Lower California	America	Mexico	58,338	62,000	1.0	La Paz
Luxemburg	Europe	Grand Duchy	999	285,524	285.0	Luxemburg
Macao	Asia	Portugal	4	74,668	18667.0	Macao
Madagascar	Africa	France	228,707	3,598,728	15.7	Tananarivo
Madeira	Africa	Portugal	314	179,002	570.0	Funchal
Madras (India)	Asia	Semi-Indep'd't	142,260	42,318,985	297.0	Madras
Malay States, Fed	Asia	British Empire	27,648	1,404,000	50.7	Perak
Malay States, Other	Asia	British Protect	23,355	1,123,944	46.7	Johore
Malta	Europe	British Empire	122	212,528	1742.0	Valletta
Manchuria	Asia	China	363,610	27,490,000	75.7	Mukden
Manitoba	No. America	British Empire	251,832	639,056	2.4	Winnipeg
Martinique	West Indies	France	385	234,695	600.9	Fort de France
Mauritania	Africa	France	345,400	289,184	0.8	Morocco
Mauritius	Asia	British Empire	720	381,678	530.1	Port Louis
Meckl'b'g-Schwerin	Europe	Germany	5,068	674,411	133.6	Schwerin
Meckl'b'g-Strelitz	Europe	Germany	1,131	112,052	99.0	New Strelitz
Memel	Europe	Lithuania	1,057	138 530	131.0	Memel
Mesopotamia (Iraq)	Asia	Kingdom	143,240	3,000,000	20.9	Bagdad
Mexico	No. America	Republic	760,290	14,308,753	18.8	Mexico
Miquelon	No. America	France	83	499	6.0	St. Pierre
Molucca Isles	Asia	Holland	30,168	427,211	14.1	Ternate
Monaco	Europe	Principality	8	24,927	3116.0	Monaco
Mongolia	Asia	China	1,367,600	1,800,000	1.3	Urga
Montenegro	Europe	Yugo-Slavia	3,733	199,856	53.5	Cettinje
Moravia	Europe	Czechoslovakia	8,612	2,662,884	309.2	Brno
Morocco (French)	Africa	French Protect	213,000	4,229,146	19.8	Rabat
Morocco (Spanish)	Africa	Spanish Protect	18,360	744,000	40.5	Tetuan
Mozambique	Africa	Portugal	428,132	3,160,500	7.4	Lourenco-Marques
Mysore (India)	Asia	Semi-Indep'd't	29,475	5,978,892	203.0	Bangalore

Country.	Continent.	Government or Ruling Power.	Area, Square Miles.	Population.	Pop. per Square Mile.	Capital or Chief City.
Natal	Africa	British Empire	35,284	1,429,398	40.5	Pietermaritzburg
Nejd, The	Asia	Kingdom	170,000	2,000,000	12	.....
Nepal	Asia	Kingdom	54,000	5,639,092	104.4	Kathmandu
Netherlands	Europe	Kingdom	13,205	7,625,938	577.5	Amsterdam
New Brunswick	No. America	British Empire	27,985	387,876	13.8	St. John
New Caledonia	Australasia	France	7,650	47,505	6.2	Noumea
Newfoundland	No. America	British Empire	42,734	263,683	5.2	St. John's
New Guinea, British	Oceania	British Mandate	91,000	425.000	4.6	Rabaul
New Hebrides (Isl.)	Australasia	Fr. & Brit. Prot	5,500	60,000	109.0	Vila
New South Wales	Oceania	British Empire	309,432	2,099,763	6.7	Sydney
New Zealand	Oceania	British Empire	103,862	1,407,165	13.5	Wellington
Nicaragua	Cent. Amer.	Republic	49,200	638,119	12.8	Managua
Niger Territory	Africa	France	404,914	1,218,717	3.0	Zungeru
Nigeria, Northern	Africa	British Empire	276,034	10,257,983	37.1	.....
Nigeria, Southern	Africa	British Empire	91,894	8,371,459	99.1	Lagos
Northern Ireland	Europe	British Empire	5,237	1,256,322	239.8	Belfast.
Northern Territory	Australia	British Empire	523,620	3,870	.005	Darwin
N. W. Territory	No. America	British Empire	1,309,682	7,988	.006	Regina
Norway	Europe	Kingdom	124,964	2,649,775	21.1	Oslo (Christiania)
Nova Scotia	No. America	British Empire	21,428	523,837	24.4	Halifax
Nyassaland Prot	Africa	British Empire	37,890	1,175,842	31.0	Berera
Oldenburg	Europe	Germany	2,482	545,749	220.0	Oldenburg
Oman	Asia	Kingdom	82,000	500,000	4.2	Muscat
Ontario	No. America	British Empire	407,262	2,933,662	7.2	Toronto
Orange Free State	Africa	British Empire	49,647	628,827	12.6	Bloemfontein
Orkney Isles	Europe	British Empire	392	24,109	61.2	Kirkwall
Palestine	Asia	British Mandate	9,000	852,268	94.7	Jerusalem
Panama	So. America	Republic	33,667	442,522	11.9	Panama
Papua	Oceania	British Empire	90,540	275,000	3.0	Port Moresby
Paraguay	So. America	Republic	172,000	791,469	4.6	Asuncion
Persia	Asia	Kingdom	628,000	10,000,000	15.9	Teheran
Peru	So. America	Republic	533,916	5,500,000	10.5	Lima
Poland	Europe	Republic	149,140	30,212,962	202.5	Warsaw
Portugal	Europe	Republic	35,490	5,628,610	158.5	Lisbon
Prince Edward Isl	No. America	British Empire	2,184	88,615	40.5	Charlottetown
Principe & St. Thome	Africa	Portugal	360	58,907	163.6	Santa Cruz
Prussia	Europe	Germany	112,625	38,054,172	337.1	Berlin
Punjab, India	Asia	Semi-Indep'd't	99,846	20,685,024	207.0	Lahore
Quebec	No. America	British Empire	594,434	2,361,199	3.9	Quebec
Queensland	Oceania	British Empire	670,500	757,634	1.1	Brisbane
Rajputana	Asia	British Empire	129,058	13,308,781	103.1	Jaipur
Reunion	Ind. Ocean	France	970	172,190	179.5	St. Pierre
Rhodesia (Southern)	Africa	British Empire	148,575	873,647	5.9	Salisbury
Rhodesia (Northern)	Africa	British Empire	291,000	1,154,624	3.9	Livingston
Riau-Lingga	Asia	Holland	12,506	232,122	17.8	.....
Roumania	Europe	Kingdom	122,282	17,393,149	143.0	Bucharest
Russenia, Carpathian	Europe	Czechoslovakia	4,958	604,745	123.9	.....
Russia (U. S. S. R.)	Euro.-Asia	Soviet Republic	8,144,228	147,013,600	18.0	Moscow
Russia, Sov. Proper	Euro.-Asia	Soviet Republic	7,579,938	100,592,870	13.2	Moscow
Russia (pre-war)	Euro.-Asia	Empire	8,764,586	182,182,600	20.7	Petrograd
Saar	Europe	League of Nat'ns	738	770,000	1043.3	Sarrebrueck
Sahara, French	Africa	French	1,544,000	800,000	0.5	.....
St. Helena	Africa	British Empire	47	3,666	77.8	Jamestown
St. Pierre Islands	No. America	France	93	3,918	42.1	St. Pierre
Sakhalin Island (So.)	Asia	Japan	13,253	105,899	7.9	.....
Salvador	Cent. Amer	Republic	7,225	1,610,000	224.5	San Salvador
Samoa, Western	Oceania	British Mandate	1,260	40,229	31.9	Apia
San Marino	Europe	Republic	46	12,027	261.4	San Marino
Sarawak	Asia	British Empire	42,500	600,000	14.1	Kirching
Sardinia	Europe	Italy	9,299	916,192	98.5	Cagliari
Saskatchewan	No. America	British Empire	251,700	820,438	3.2	Regina
Saxony	Europe	Germany	5,787	4,996,138	863.8	Dresden
Schaumb'g-Lippe	Europe	Germany	131	48,660	371.4	Buckeburg
Scotland	Europe	British Empire	30,405	4,882,288	160.5	Glasgow
Senegal	Africa	France	74,112	1,358,439	18.3	St. Louis
Serbia (pre-war)	Europe	Yugo-Slavia	18,650	2,911,701	156.0	Belgrade
Serbs, Croats, Slov	Europe	Kingdom	96,134	12,017,323	125.0	Belgrade
Shetland Isles	Europe	British Empire	550	25,520	46.4	Lerwick
Siam	Asia	Kingdom	200,148	9,831,000	49.1	Bangkok
Siberia, (pre-war)	Asia	Russia	4,831,882	10,000,700	2.0	Omsk
Sicily	Europe	Italy	9,935	4,268,116	429.8	Palermo
Sierra Leone	Africa	British Empire	30,000	1,541,311	51.3	Freetown
Sikkim (India)	Asia	Semi-Indep'd't	2,818	81,722	29.0	Tumlong
Sinkiang	Asia	China	550,340	2,000,000	3.6	Ili
Slovakia	Europe	Czechoslovakia	19,148	3,000,870	154.1	Bratislava
Slovenia	Europe	Yugo-Slavia	6,253	1,056,464	168.9	Zagreb
Society Isles, etc	Oceania	France	1,520	31,655	20.8	Papeete
Solomon Islands	Australasia	British Protect	14,600	150,600	10.1	.....
Somaliland, British	Africa	British Empire	68,000	347,000	5.1	Berbera
French	Africa	France	5,790	208,000	35.9	Jibuti
Italian	Africa	Italy	245,000	650,000	2.6	Mogadisho
Soudan, Ang.-Egypt	Africa	British Empire	1,014,400	5,852,729	5.7	Khartoum
South Australia	Australia	British Empire	380,070	495,336	1.3	Adelaide
South West Africa	Africa	British Mandate	322,000	227,739	0.7	Windhoek
Spain	Europe	Kingdom	190,050	21,763,147	108.1	Madrid
Spitzbergen (Isles)	Europe	Norway	25,000	1,563	0.06	.....
Straits Settlement	Asia	British Empire	1,600	937,099	585.7	Singapore
Sudan (French)	Africa	France	648,480	2,634,082	4.0	Bamako
Sumatra	Asia	Holland	163,128	5,848,868	38.8	Batavia
Surinam (D. Guiana)	So. America	Holland	54,291	135,754	2.5	Paramaribo
Swaziland	Africa	British Empire	6,678	117,877	17.6	Mbabane
Sweden	Europe	Kingdom	173,157	6,087,925	35.1	Stockholm
Switzerland	Europe	Republic	15,976	3,987,000	249.5	Berne
Syria	Asia	French Mand'te	60,000	2,981,863	49.6	Beirut
Tahiti	Oceania	France	600	11,691	19.5	Papeete
Tanganyika	Africa	British Empire	373,494	4,123,493	11.0	Dar-es-Salam
Tangier	Africa	Internationalized	140	52,000	371.4	Tangier
Tasmania	Australasia	British Empire	26,215	213,877	8.1	Hobart
Thuringia	Europe	Germany	4,527	1,609,300	355.3	Weimar

Country.	Continent.	Government or Ruling Power.	Area, Square Miles.	Population.	Pop. per Square Mile.	Capital or Chief City.
Thibet	Asia	China	463,200	2,000,000	4.3	Lhasa
Timor Arch	Asia	Holl.-Port	26,410	1,146,660	5.5	Dilli
Togoland	Africa	French Mand'te	21,893	672,837	30.7	Lome
Togoland	Africa	British Mandate	12,600	350,000	27.7	
Tongo (Friendly) Isl	Oceania	British Protect	390	25,025	64.2	Nukualofa
Tonkin	Asia	French Protect	40,530	7,160,113	176.6	Hanoi
Transcaucasia	Asia	Russia	74,498	5,810,722	77.8	Tiflis
Transvaal	Africa	British Empire	110,450	2,087,636	18.9	Pretoria
Trinidad	West Indies	British Empire	1,862	365,913	196.5	Trinidad
Tripolitania	Africa	Italy	350,000	570,700	1.6	Tripoli
Tunis	Africa	France	50,000	2,159,758	43.2	Tunis
Turkey	Europe-Asia	Republic	282,627	13,640,810	48.3	Angora
Turkey (pre-war)	Europe-Asia	Sultanate	710,224	21,273,900	30.0	Constantinople
U. S. S. R	Europe-Asia	Soviet Republic	8,144,228	147,013,600	18.0	Moscow
Uganda Prot	Africa	British Empire	110,300	2,977,455	27.0	Entebbe
Ukraine	Europe	Soviet Republic	164,865	28,887,007	175.2	Kharkov
Union of So. Africa	Africa	British Empire	472,347	6,928,580	14.6	Pretoria
United Kingdom	Europe	British Empire	94,284	44,173,704	468.7	London
Uruguay	So. America	Republic	72,153	1,762,451	24.4	Montevideo
Venezuela	So. America	Republic	393,976	3,026,318	7.7	Caracas
Victoria	Australia	British Empire	87,884	1,531,529	17.4	Melbourne
Waldeck	Europe	Germany	408	55,750	136.6	Arolsen
Wales	Europe	British Empire	7,466	2,206,712	295.5	Cardiff
Weihaiwei	Asia	British Empire	285	154,622	542.5	Weihaiwei
Western Australia	Australia	British Empire	975,920	332,213	0.3	Perth
Westphalia (Pr.)	Europe	Germany	7,806	4,826,885	618.3	Essen
White Russia	Europe	Soviet Russia	42,383	4,924,624	116.2	Minsk
Windward Isles	West Indies	British Empire	516	168,677	326.9	St. George
Wurttemberg	Europe	Germany	7,534	2,579,453	342.4	Stuttgart
Yemen	Asia	Imamate	75,000	2,500,000	33.3	Sanaa
Yucatan	No. America	Mexico	15,939	162,000	10.1	Merida
Yugo-Slavia	Europe	Kingdom	96,134	12,017,323	125.0	Belgrade
Zanzibar	Africa	British Empire	1,020	215,879	211.6	Zanzibar

FOREIGN CITIES OF 200,000 POPULATION AND OVER.

(Compiled from the latest censuses and official estimates.)

City.	Country.	Pop'lat'n	City.	Country.	Pop'lat'n	City.	Country.	Pop'lat'n
Adelaide	Australia	327,700	Geis'nk'ch'n	Germany	207,153	Osaka, Gr't'r	Japan	2,333,800
Ahmedabad	India	274,000	Genoa	Italy	588,233	Oslo	Norway	258,520
Alexandria	Egypt	573,063	Glasgow	Scotland	1,034,000	Palermo	Italy	444,861
Algiers	Algeria	226,218	Goteburg	Sweden	233,303	Para	Brazil	236,400
Amoy	China	300,000	The Hague	Holland	416,179	Paris	France	2,838,416
Amsterdam	Holland	734,884	Hamburg	Germany	1,079,092	Peking	China	1,297,719
Antwerp	Belgium	300,175	Hangchow	China	1,000,000	Pern'mbuco	Brazil	238,843
Athens	Greece	385,026	Hankow	China	1,500,000	Pireus	Greece	300,000
Bahia	Brazil	283,422	Hanover	Germany	422,435	Plymouth	England	209,857
Baku	Russia	452,808	Havana	Cuba	562,968	Poona	India	215,009
Bangkok	Siam	745,640	Helsingfors	Finland	220,904	Portsmouth	England	247,400
Bangalore	India	238,000	Hong Kong	China	561,000	Prague	Cz'choslov	676,500
Barcelona	Spain	760,572	Hull	England	287,000	Rangoon	India	340,000
Batavia	Java	290,408	Hyderabad	India	405,000	Riga	Latvia	337,700
Belfast	Ireland	425,156	Johan'sburg	U. of So. Af	288,000	Rio Janeiro	Brazil	2,004,000
Belgrade	Serbia	240,000	Karachi	India	216,000	Rome	Italy	877,289
Benares	India	200,000	Kharkov	Russia	417,186	Rosario	Argentina	265,000
Berlin, Gr'ter	Germany	4,013,588	Kiel	Germany	213,587	Rostov	Russia	308,284
Birmingh'm	England	920,000	Kiev	Russia	513,789	Rotterdam	Holland	571,842
Bologna	Italy	240,020	Kobe	Japan	644,212	Salford	England	234,150
Bombay	India	1,176,000	Konigsberg	Germany	279,880	Salonica	Greece	263,000
Bordeaux	France	254,386	Kyoto	Japan	679,976	Santiago	Chile	320,000
Bradford	England	286,000	Lahore	India	282,000	Sao Paulo	Brazil	1,040,000
Bremen	Germany	294,966	Leeds	England	458,320	Saratov	Russia	230,000
Breslau	Germany	554,801	Leicester	England	234,190	Seoul	Korea	250,924
Brisbane	Australia	295,430	Leipsic	Germany	679,159	Sevilla	Spain	226,969
Bristol	England	377,000	Lemberg	Poland	219,000	Shanghai	China	1,539,000
Brno	Cz'choslov	222,000	Leningrad	Russia	1,614,008	Sheffield	England	491,000
Brussels	Belgium	758,727	Lille	France	200,633	Singapore	Straits Set	502,021
Bucharest	Roumania	875,000	Lisbon	Portugal	490,000	Sofia	Bulgaria	213,120
Budapest	Hungary	1,217,325	Liverpool	England	804,000	Soochow	China	550,000
Buenos Aires	Argentina	2,042,296	Lodz	Poland	452,000	Sourabaya	Dutch E. I	248,961
Cairo	Egypt	1,064,587	London, Grtr	England	7,742,212	Stettin	Germany	253,727
Calcutta	India	1,327,547	Lucknow	India	244,000	Stockholm	Sweden	464,699
Cape Town	U. of So. Af	207,000	Lyons	France	564,566	Stoke-on-T	England	240,440
Canton	China	950,000	Madras	India	527,000	Stuttgart	Germany	341,461
Cardiff	England	200,262	Madrid	Spain	813,991	Sydney	Australia	1,101,000
Catania	Italy	285,644	Madgeburg	Germany	292,296	Tabriz	Persia	200,000
Cawnpore	India	216,436	Manchester	England	730,550	Tashkent	Siberia	323,613
Changsha	China	535,000	Mannheim	Germany	247,488	Teheran	Persia	250,000
Chemnitz	Germany	333,851	Marseilles	France	647,705	Tientsin	China	839,000
Chingtoo	China	400,000	Melbourne	Australia	975,160	Tiflis	Georgia, R	292,973
Chungking	China	622,000	Messina	Italy	203,609	Tokio, Gr't'r	Japan	2,218,400
Cologne	Germany	698,064	Mexico City	Mexico	633,000	Toronto	Canada	521,893
Colombo	Ceylon	244,000	Milan	Italy	941,070	Trieste	Italy	252,517
Const'nople	Turkey	673,029	Montevideo	Uruguay	429,993	Tsinan	China	300,000
Copenhagen	Denmark	586,000	Montreal	Canada	618,000	Tsingtau	China	270,000
Danzig	Free State	386,000	Moscow	Russia	2,025,947	Turin	Italy	570,173
Delhi	India	304,200	Mukden	China	400,000	Valencia	Spain	256,263
Dortmund	Germany	320,256	Munich	Germany	680,704	Valparaiso	Chile	225,224
Dresden	Germany	619,157	Nagoya	Japan	768,560	Venice	Italy	253,608
Dublin	Ireland	419,156	Nanking	China	390,000	Vienna	Austria	1,868,328
Duisburg	Germany	271,790	Naples	Italy	966,423	Wanhsien	China	752,000
Dusseldorf	Germany	431,096	Newcastle	England	275,000	Warsaw	Poland	936,713
Edinburgh	Scotland	420,000	Ningpo	China	285,000	Wenchow	China	200,000
Essen	Germany	468,696	Nottingham	England	263,000	West Ham	England	300,905
Florence	Italy	277,688	Nurnberg	Germany	392,494	Yokouama	Japan	518,900
Foochow	China	315,000	Odessa	Russia	420,888	Zurich	Switzerl'd	215,460
Frankfort	Germany	461,849	Oporto	Portugal	204,000			

The British Empire.

THE BRITISH COMMONWEALTH OF NATIONS.

AREA AND POPULATION.

	Area, Square Miles.	Population, Census 1921.
UNITED KINGDOM	*94,284*	*44,173,704*
England	50,874	35,678,530
Wales	7,466	2,206,712
Scotland	30,405	4,882,288
Northern Ireland	5,237	(c) 1,256,322
Isle of Man	227	60,238
Channel Islands	75	89,614
Europe	*30,300*	*3,540,277*
Irish Free State	26,592	(c) 2,972,802
Gibraltar	2	(e) 17,288
Malta	122	(e) 225,242
Cyprus	3,584	(e) 324,945
ASIA	*1,961,376*	*329,320,901*
India	*1,805,332*	*318,885,980*
British Provinces	1,094,300	246,946,793
Native States, etc.	711,032	71,939,187
Ceylon	25,332	(e) 5,009,502
Maldive Islands	115	70,000
Aden (inc. Perim)	80	56,500
Socotra	1,382	(e) 12,000
Bahrein Islands	250	(e) 120,000
Straits Settlement	1,600	(e) 937,099
Federated Malay States	27,648	(e) 1,404,000
Other Malay States	23,355	1,123,944
British North Borneo	31,106	257,804
Brunei	2,500	(e) 26,500
Sarawak	42,000	(e) 600,000
Hongkong and Ter.	391	662,950
Weihaiwei	285	154,622
AFRICA	*3,871,357*	*50,093,437*
Union of South Africa	*794,347*	*6,933,652*
Cape of Good Hope	276,966	2,782,719
Natal	35,284	1,429,398
Orange Free State	49,647	628,827
The Transvaal	110,450	2,087,636
S. W. Africa (M)	322,000	232,811
South Africa	*782,969*	*2,814,912*
Basutoland	11,716	(e) 515,781
Bechuanaland Prot.	275,000	152,983
Northern Rhodesia	291,000	(e) 1,154,624
Southern Rhodesia	148,575	(e) 873,647
Swaziland	6,678	(e) 117,877
West Africa	*493,628*	*22,681,696*
Nigeria, Northern	276,034	10,259,983
Nigeria, Southern	91,894	8,371,459
Gold Coast, Ashanti	91,690	2,298,413
Sierra Leone Colony and Protectorate	30,000	1,541,311
Gambia Colony and and Protectorate	4,010	210,530
British East Africa	*835,764*	*11,395,458*
Kenya Colony and and Protectorate	245,060	(e) 2,575,789
Tanganyika (M)	373,494	4,123,493
Uganda Protectorate	110,300	(e) 2,977,455
Zanzibar Protectorate	1,020	(e) 215,879
Nyassaland	37,890	(e) 1,175,842
Somaliland Prot.	68,000	(e) 347,000
Anglo-Egyptian Soudan	1,014,600	(e) 5,852,729
Ascension Island	34	250
St. Helena Island	47	3,666
Tristan de Cunha	3	105
Seychelles Island	156	(e) 25,700
AFRICA (*Continued*).		
Mauritius Island	720	(e) 381,678
Dependencies	89	(e) 8,591
NORTH AMERICA	*3,847,467*	*9,266,339*
Canada	*3,684,723*	*8,999,009*
Alberta	255,285	(c) 607,599
British Columbia	355,855	524,582
Manitoba	251,832	(c) 639,056
New Brunswick	27,985	387,876
Nova Scotia	21,428	523,837
Ontario	407,262	2,933,662
Prince Edward Island	2,184	88,615
Quebec	594,434	2,361,199
Saskatchewan	251,700	(c) 820,438
Yukon	207,076	4,157
Northwest Territory	1,309,682	7,988
Newfoundland	42,734	263,683
Labrador	120,000	3,647
CENTRAL AMERICA:		
British Honduras	8,598	45,313
WEST INDIES	*12,423*	*1,775,050*
Bermudas	19	20,127
The Bahamas	4,404	(e) 54,886
Barbados	166	156,312
Jamaica	4,450	858,188
Turks and Caicos Isl'ds.	165	5,612
Cayman Islands	89	5,253
Leeward Islands	648	122,242
Windward Islands	516	(e) 168,677
Trinidad and Tobago	1,976	(e) 381,753
SOUTH AMERICA	*94,098*	*301,201*
British Guiana	89,480	297,691
Falkland Islands and Georgia	4,618	(e) 3,510
AUSTRALASIA	*3,278,591*	*7,777,178*
Australia	*2,974,581*	(a) *5,496,734*
New South Wales	309,432	2,100,371
Victoria	87,884	1,531,280
Queensland	670,500	755,972
South Australia	380,070	495,160
Western Australia	975,920	332,732
Tasmania	26,215	213,280
Northern Territory	523,620	3,867
Federal Territory	940	2,572
Papua, Territory of	90,540	(e) 275,000
New Guinea (M)	91,000	(e) 338,000
Bismarck Islands	13,000	(e) 188,000
Solomon Islands	3,400	(e) 17,000
New Zealand	103,862	(c) 1,467,155
Western Samoa (M)	1,260	(c) 40,229
Nauru (M)	8	(c) 2,217
Cook Island	990	(c) 13,833
OCEANIA	*28,366*	*430,367*
Fiji Colony	7,435	(e) 163,835
Tonga Islands Prot.	390	(e) 25,025
Gilbert and Ellice Islands Colony	180	29,897
British Solomon Islands Protectorate	14,600	(e) 150,600
New Hebrides (with France)	5,700	(e) 60,000
Other Pacific islands	60	(e) 1,000
BRITISH EMPIRE	13,226,749	446,726,752

(M)—British mandate. The mandates for the Kingdom of the Iraq (area, 143,240 square miles population estimated, 1923, 3,000,000) and Palestine (area, estimated, 9,000 square miles; population, estimated, 1926, 852,268) are not included. (a)—Exclusive of aborigines, estimated, 1923, at 60,000; (c)—Census of April, 1926; (e)—Official estimates 1923-26.

GOVERNMENT OF THE BRITISH EMPIRE.

The British Empire covers about one-fourth (13,226,749 square miles) of the world's habitable land surface; this excludes the Arctic regions. Its population in the aggregate, according to the best obtainable estimates, is some fifteen millions more than one-fourth of the inhabitants of the world—a total of 446,726,752.

This commonwealth of nations, the British Empire, has seven members of the League of Nations: The British Empire, Commonwealth of Australia, Dominion of Canada, India, Dominion of New Zealand, the Union of South Africa, and the Irish Free State.

The Capital of this vast empire is London.

The Statesman's Year Book, 1929, says: The municipal and parliamentary City of London, coinciding with the registration City of London, has an area of 675 acres. The registration County of London (the London for purposes of the census, the registration of births, deaths and marriages and for poor law purposes), coinciding with the administrative county, has an area of 74,850 acres, and nearly coincides with the collective area of the London parliamentary boroughs. The population of registration London, of the "Outer Ring," and of "Greater London" (the area covered by the City and the Metropolitan police), was:

	Area, Acres.	Population, 1921.	Est. 1927.
Registration London	74,850	4,484,523	4,541,000
Outer Ring"	368,599	2,995,678	3,255,353
Greater London"	443,449	7,480,201	7,796,353

Alderman Sir William A. Waterlow, K.B.E. is Lord Mayor for 1929-30.

The Ruling Sovereign is George V., the first of the House of Windsor, whose title is "by the Grace of God of Great Britain and Ireland and of the British Dominions Beyond the Seas, King, Defender of the Faith, Emperor of India." He was born June

3, 1865, the second son of King Edward VII. and Queen Alexandra, daughter of King Christian IX. of Denmark, and he succeeded to the throne on the death of his father May 6, 1910, and was crowned, June 22, 1911. He married, on July 6, 1893, Princess Victoria Mary, born May 26, 1867, daughter of the late H. S. H. Duke of Teck and H. R. H. Princess Mary of Cambridge. They have five living children. *His Heir*, H. R. H. Edward, Prince of Wales, born June 23, 1894; H. R. H. Prince Albert, Duke of York, born Dec. 14, 1895, married in Westminster Abbey, April 7, 1923, Lady Elizabeth Bowes-Lyon (born 1900), daughter of the Earl of Strathmore and Kinghorne (issue, a daughter, Elizabeth Alexandra Mary, born April 21, 1926); H. R. H. Princess Mary, born April 25, 1897, married Viscount Lascelles, K. G., son of the Earl of Harewood, Feb. 28, 1922, and who succeeded to the title on the death of his father, Oct. 6, 1929, (issue, George Henry Hubert, Viscount Lascelles, born Feb. 7, 1923, and the Hon. Gerald David, born Aug. 21, 1924); H. R. H. Prince Henry, born March 31, 1900, created Duke of Gloucester, March 31, 1928; and H. R. H. Prince George, born Dec. 20, 1902.

The serious illness of King George, beginning on Armistice Day, 1928, compelled the appointment by Royal Proclamation of a Council of State on Dec. 5 to exercise many of the powers of the Crown. It consisted of Queen Mary, the Prince of Wales, the Duke of York, the Archbishop of Canterbury, Dr. Lang, the Prime Minister, Stanley Baldwin, and the Lord Chancellor, Lord Havisham. On June 9, 1929, it was reconstituted with the new Prime Minister, Ramsay MacDonald and the new Lord Chancellor, Lord Sankey, replacing their predecessors. The King, during his convalescence, gradually increased his participation in public affairs, and he dissolved the Council of State in November.

The Premier is the Rt. Hon. James Ramsay MacDonald (born Oct. 12, 1866) Labor Premier from Jan. 22, 1924 to Nov. 4, 1924. He took office June 5, 1929, succeeding the Rt. Hon. Stanley Baldwin, who resigned after defeat at the polls May 30, 1929.

The Labor Cabinet—Ramsay MacDonald's second Labor Cabinet, announced June 7, 1929, is as follows, he being leader of the House of Commons with J. H. Thomas as deputy leader, and Lord Parmoor as leader of the House of Lords:

Prime Minister and First Lord of the Treasury, J. Ramsay MacDonald.
Lord Chancellor, Lord Justice Sankey.
Lord President of the Council, Lord Parmoor.
Lord Privy Seal and Deputy Leader of the House of Commons, James Henry Thomas.
Chancellor of the Exchequer, Philip Snowden.
Secretary of State for Foreign Affairs, Arthur Henderson.
Secretary of State for Home Affairs, John Robert Clynes,* Lord Passfield.
Secretary of State for the Colonies and Dominions (Sydney Webb.)*
Secretary of State for War, Tom Shaw*.
Secretary of State for India, Capt. Wedgewood Benn.
Secretary of State for Air, Lord Thomson.*
First Lord of the Admiralty, Albert V. Alexander.
President of the Board of Trade, William Graham.
President of the Board of Education, Sir Charles Phillips Trevelyan.*
Minister of Health, Arthur Greenwood.
Minister of Agriculture and Fisheries, Noel Buxton.*
Minister of Labor, Miss Margaret Bondfield.
First Commissioner of Works, George Lansbury.
Secretary for Scotland, William Adamson.*
Chancellor of the Duchy of Lancaster, Sir Oswald Mosley.
Minister of Transport, Herbert Morrison.

The ministers marked (*) were in the first Labor Cabinet.

In the Ministry, but not in the Cabinet, are:

Postmaster General, H. B. Lees-Smith.
Minister of Pensions, Frederick O. Roberts.
Attorney General, Sir William A. Jowitt.
Solicitor General, J. B. Melville.
Admiralty, Parliamentary and *Financial Secretary*, C. G. Ammon.
Civil Lord of the Admiralty, G. Hall.
Ministry of Agriculture, Parliamentary Secretary, C. Addison.
Air Ministry, Undersecretary of State, F. Montague.
Board of Trade, Parliamentary Secretary, W. R. Smith.
Mines Department, Parliamentary Secretary, Ben Turner.
Ministry of Dominions, Parliamentary Secretary, Arthur Ponsonby.
Colonial Office, Colonial Secretary, W. Lunn.
Board of Education, Parliamentary Secretary, Morgan Jones.
Foreign Office, Undersecretary, H. Dalton.
Ministry of Health, Parliamentary Secretary, Miss Susan Lawrence.
Treasury, Lords Commissioners, J. Allen Parkinson, Charles Edwards and Alfred Barnes.
Treasury, Financial Secretary, F. W. Pethick-Lawrence.
Home Office, Undersecretary, A. Short.
India Office, Undersecretary, Dr. Drummond Shiels.
Ministry of Labor, Parliamentary Secretary, J. J. Lawson.
Ministry of Transport, Parliamentary Secretary, Lord Russell.
War Office, Undersecretary, Lord De Lawarr.
War Office, Financial Secretary, E. Shinwell.

The First Sea Lord and Chief of the Naval Staff is Admiral of the Fleet Sir Charles E. Madden, Bt.

The Chief of the Imperial General Staff is Field Marshal George F. Milne.

The British Ambassador to the United States is Sir Esme Howard, G. C. M. G., K. C. B., born Sept. 15, 1863, who succeeded Sir Auckland Geddes, March 5, 1924. The selection of Sir Ronald Lindsay to succeed him on his retirement in Feb., 1930, was announced on Nov. 12. The diplomatic affairs of the entire British Empire in the United States are cared for by the Embassy at Washington. The Irish Free State has accredited to Washington a Minister Michael MacWhite, appointed March 14, 1929; Canada one, Vincent Massey, appointed Nov. 10, 1926; and the Union of South Africa one, Eric Hendrick Louw presented his credentials Nov. 5, 1929

The United States Ambassador to Great Britain is Charles G. Dawes, of Evanston, Ill., Vice-President of the United States 1925-29, Brigadier General, A.E.F., First Director, Bureau of the Budget.

Parliament is the legislative governing body for the empire. It consists of two Houses. The House of Lords is made up of the peers of the United Kingdom, to wit: the Royal Dukes, the Archbishops, the Dukes, the Marquises, the Earls, the Viscounts, thirty-six Bishops, and the Barons; also twenty-eight Irish peers elected for life, and sixteen Scotish peers elected for the duration of Parliament. The full membership of the House of Lords consists of about 740 members. There are about thirty women who are peeresses in their own right, but Lord Astor's third attempt to give them seats and votes in the House was defeated 125 to 80 on June 24, 1926. The House of Lords has a limited veto power only in legislation. A peer of the United Kingdom is ineligible to a seat in the House of Commons.

The House of Commons, elected May 30, 1929, and which met June 24, 1929, numbers 615 members elected by direct ballot in the several constituencies for the duration of Parliament. Of this House England has 492 members; Wales, 36; Scotland, 74; and Northern Ireland, 13. Clergymen of the Church of England, ministers of the Church of Scotland and Roman Catholic clergymen are disqualified from sitting as members, also certain Government officers, Sheriffs, and Government contractors. Members of the House of Commons are paid, since 1911, £400 a year.

Future sessions of Parliament will begin in October or November and be prorogued in July.

The Speaker is Capt. the Rt. Hon. Edward Algernon Fitzroy (Conservative) elected June 20, 1928, to succeed the Rt. Hon. J. H. Whitley, (resigned), and re-elected June 24, 1929.

The franchise was extended to women over 25 by the Act of 1918, with certain conditions. Parliament in 1928 extended the franchise to all women over 21, adding about 5,240,000 to the electorate of whom 1,500,000 are women between 21 and 25. The register for the 1929 election contained 25,092,848 names of voters of which 11,865,158 were men and 13,227,690 were women.

The popular vote compared with that of Oct. 29, 1924, was:

	1924.	1929.
Conservative	8,112,811	8,591,052
Labor	5,470,685	8,331,480
Liberal	2,909,122	5,257,536
Independent	106,589	260,711
Communist	41,072	50,614

The register in 1924 carried 21,730,988 names. The total vote recorded, 16,640,279, 76%. Thirty-one seats uncontested represented 1,076,466 voters unrecorded.

The composition of the House of Commons in the last four elections is as follows:

	Nov. 1922.	Dec. 1923.	Oct. 1924.	May 1929.
Laborites	142	192	152	189
Conservatives	347	257	412	260
Liberals	118	158	42	58
Independents	8	8	6	4
Constitutionalists	...	...	3	...
Nationalists	...	...	...	3
Prohibitionists	...	...	...	1

In 1924 the Conservatives won a seat for every 20,000 votes; the Laborites, 1 for every 36,000; and the Liberals, 1 for every 76,000; in 1929 the ratio was: Conservatives, 1 for every 33,000; Laborites, 1 for every 32,000; and Liberals, 1 for every 90,000. More candidates were put in the field than ever before—1,747 in all—599 Conservatives, 569 Laborites, 507 Liberals, and 39 Communists. Seven were returned unopposed, among them two Irish Nationalists, Joseph Devlin and J. S. Harbison from Northern Ireland, and a third Nationalist, T. P. O'Connor, father of the House and a member since 1880, from Liverpool.

Ten women sat in the last Parliament, and 13 of the 68 women candidates won seats in the new Parliament. Seven women were re-elected: Lady Astor, the Duchess of Atholl, and the Countess of Iveagh, Conservatives; and Miss Margaret Bonfield, Mrs. Susan Lawrence, Miss Jennie Lee, and Miss Ellen Wilkinson, Laborites. The new women members are: Miss Megan Lloyd-George, Liberal, (daughter of the former Prime Minister); Lady Cynthia Mosley, (daughter of the late Marquis Curzon, and wife of Sir Oswald Mosley, M. P.); Dr. Marion Phillips, Dr. Ethel Bentham, Mrs. Mary Agnes Hamilton, and Miss E. Picton-Turbervill, Laborites.

The political progress of the Labor Party is summarized in this table for the last nine elections:

General Election.	Seats Contested.	Members Returned.	Labor Vote.
1900	15	2	62,898
1906	50	29	323,195
1910 (Jan.)	78	40	505,690
1910 (Dec.)	56	42	370,802
1918	361	57	2,244,945
1922	414	142	4,236,733
1923	427	192	4,348,379
1924	514	151	5,487,620
1929	569	289	8,331,480

The Independent Labor Party was founded under the chairmanship of J. Keir Hardie, at Bradford, in 1893. At the general election of 1895, twenty-eight candidates contested seats and all were unsuccessful. In 1900, when two members were elected, the membership of the party numbered 375,931, affiliated trade unionists and socialists, the latter numbering 22,861. Three other members were returned to this Parliament in bye-elections. The name Labor Party was taken in 1906.

The Labor Party announced on Feb. 24, 1926, that a plebiscite of its constituent bodies had confirmed by a large majority the Liverpool resolutions excluding Communists from membership in the party.

The Dominions were defined by the Imperial Council of 1926 (See the World Almanac for 1927, pages 177-179) as "autonomous Communities within the British Empire, equal in status, in no way subordinate one to another in any aspect of their domestic or foreign affairs, though united by a common allegiance to the Crown, and freely associated as members of the British Commonwealth of Nations." The Conference further laid down that, as a consequence of this equality of status, the Governor-General of a Dominion "is the representative of the Crown, holding in all essential respects the same position in relation to the administration of public affairs in the Dominion as is held by His Majesty the King in Great Britain," and that "it is the right of the Government of the Dominion to advise the Crown in all matters relating to its own affairs." The Conference also recognized certain treaty-making rights as appertaining to the Dominions.

Up to July, 1925, all sections of the British Empire outside of Great Britain and Ireland were dealt with by the Colonial Office. In that month a new Secretaryship of State, for Dominion Affairs, was created. The Dominions Office was set up, taking over business connected with the self-governing Dominions, the self-governing Colony of Southern Rhodesia, and the South African territories (Basutoland, Bechuanaland Protectorate, and Swaziland), including business relating to the Imperial Conference.

The Colonial Office now deals with the administrative work of the Colonies, Protectorates, and Mandated Territories other than those for which the Dominions Office is responsible.

OWED TO GREAT BRITAIN.

On March 31, 1929, the outstanding British Government loans to the Dominions were:

Australia	£82,790,000
New Zealand	27,244,000
South Africa	9,625,000
Newfoundland	400,000
Trinidad	446,000
Jamaica	53,000
	£120,558,000

The funded Allied war debts were:

Italy	£262,500,000
Roumania	30,950,000
Portugal	23,300,000
Serb-Croat-Sloven Kingdom	32,450,000
Greece	23,100,000
	£372,300,000

Funded relief and reconstruction loans were:

Belgium	£9,000,000
Belgian Congo	3,600,000
Poland	4,484,000
Roumania	2,200,000
Estonia	235,000
Hungary	22,000
Czechoslovakia	125,000
Serb-Croat-Sloven Kingdom	2,038,000
Austria	9,039,000
	£30,743,000

Other funded loans were:

Latvia	£1,269,000
Greece	76,000
Poland	106,000
Czechoslovakia	620,000
Roumania	25,000
Estonia	917,000
Lithunia	90,000
	£3,103,000

The loans that have not yet been funded are:

Allied war debts—Russia	£934,037,000
France*	722,018,000
	£1,656,055,000

Relief and reconstruction loans:

Armenia	£140,000
Armenia (other debt)	1,104,000
	£1,244,000

The total capital amount due Great Britain from other countries detailed above is £2,184,003,000.

*Funding agreement ratified by France but not yet ratified by Great Britain.

POPULATION OF THE BRITISH ISLES.

Census Year.	England and Wales.	Scotland.	Ireland.	Total for United Kingdom. Males.	Females.	Total.
1801	8,892,536	1,608,420	.....	.....	.....	.....
1811	10,164,256	1,805,864	.....	.....	.....	.....
1821	12,000,236	2,091,521	6,801,827	10,174,868	10,718,716	20,893,584
1831	13,896,797	2,364,386	7,767,401	11,680,532	12,348,052	24,028,584
1841	15,914,148	2,620,184	8,196,597	13,060,497	13,670,432	26,730,929
1851	17,927,609	2,888,742	6,574,278	13,369,227	14,021,402	27,390,629
1861	20,066,224	3,062,294	5,798,967	14,063,477	14,864,008	28,927,485
1871	22,712,266	3,360,018	5,412,377	15,301,830	16,182,831	31,484,661
1881	25,974,439	3,735,573	5,174,836	16,972,654	17,912,194	34,884,848
1891	29,002,525	4,025,647	4,704,750	18,314,571	19,418,351	37,732,922
1901	32,527,843	4,472,103	4,458,775	20,102,408	21,356,313	41,458,721
1911	36,070,492	4,760,904	4,390,219	21,946,495	23,275,120	45,221,615
1921	37,885,242	4,882,288	No census.	*20,430,623	*22,336,907	*42,767,530

*The 1921 figures for males and females and total (last 3 columns), exclude Ireland. By the census of April, 1926, the Irish Free State had 2,972,802 population, 1,506,916 males and 1,465,886 females. Northern Ireland had 1,256,322—608,094 males, and 648,228 females.

BUDGETS OF GREAT BRITAIN, FISCAL YEARS, MARCH 31, 1928-29 AND 1929-30.

(According to the new method of accounting, in thousands of pounds sterling).

Ordinary revenues.	1928-29. Actual. £000.	1929-30. Estimated £000.
Inland revenue:		
Income tax	237,620	239,500
Supertax	56,150	58,000
Estate duties	80,570	81,000
Stamps	30,060	31,000
Excess-profits duty	850	.....
Corporation-profits tax	850	1,700
Land tax, etc.	840	800
Total	406,940	412,000
Customs	118,972	119,850
Excise	134,000	130,330
Motor-vehicle duties (net)	4,226	4,680
Total from taxes	664,138	666,800
Nontax revenue:		
Post office (net)	8,100	8,900
Crown lands	1,200	1,250
Receipts from sundry loans	28,111	30,550
Miscellaneous—		
Ordinary receipts	13,143	12,500
Withdrawn from rd. fd.	.....	.....
Special receipts	43,402	26,000
Total nontax revenue	93,966	79,200
Grand total	758,104	746,060
Equivalent in $1,000.)	*$3,680,895*	*$3,630,701*
Surplus, 1927-28	4,239	.....
Surplus, 1928-29	.....	18,394
Balance	762,343	764,454

Ordinary Expenditures.	1928-29. Actual. £000.	1929-30. Estimated £000.
Consolidated fund services:		
Nat'l debt, int. and m'g't	331,491	304,600
Payments to local taxation ac.	15,203	15,000
Pay. to N. Ireland Exchequer	5,100	5,400
Other consolidated fund serv.	2,807	3,500
Total consolidated serv.	334,601	328,500
Supply services:		
Defense services—		
Army	40,500	40,545
Navy	56,920	55,865
Air Force	16,050	16,200
Total	113,470	112,610
Civil services—		
Central Gov. and finance	.....	2,163
Imperial and foreign	5,580	5,144
Law and justice	12,123	12,407
Education	49,456	50,004
Health, labor and insur.	.....	79,056
Trade and Industry	.....	9,258
Buildings, rates, etc.	.....	8,230
War and civil pensions	.....	56,332
Miscellaneous	.....	731
Total	222,493	223,325
Tax collection—		
Customs and excise	.....	11,569
Inland revenue	.....	.....
Exchequer con. to l'c'l rev.	.....	15,560
Total supply services	347,600	363,064
Grand total	682,201	691,564
(Equivalent in $1,000.)	*$3,314,132*	*$3,365,496*
Nat'l debt (sinking fund)	57,509	50,400
Surplus, 1927-28	4,239	.....
Surplus, 1928-29	18,394	.....
Surplus, 1929-30 (est.)	.....	4,095
Balance	762,343	764,454

SELF-BALANCING REVENUES AND EXPENDITURES, 1928-29, and 1929-30.

	1928-29 £000.	1929-30 £000.
Post Office: Revenues required to meet expenditures	57,200	58,110
Road fund: Share of motor vehicles, duties	21,131	22,510
Total	78,331	80,620
(Equivalent in thousand dollars)	*$380,631*	*$392,337*

The surplus issued from revenue to redeem debt in 1921 was £230,556,789; in 1922, £45,693,247; in 1923, £101,515,847; 1924, £48,329,073, and in 1924-1925, £3,658,884; this is included as expenditure and balances the budget. The deficit in 1925-26 was £14,038,120; and in 1926-27, £36,693,794. The surplus in 1927-28 was £4,239,124; and in 1928-29, £18,394,463.

The net decrease of the national debt in 1923-4 was £91,773,155; in 1924-5, £34,251,565; and in 1925-6, £30,456,039. The net increase in 1926-27 was £7,029,803. The net decrease in 1927-28 was £12,017,049; and in 1928-29, £26,801,000.

The budget for 1929-30 presented to the House by Rt. Hon. Winston Churchill, Chancellor of the Exchequer, estimated the surplus at £4,096,000.

REVENUES AND EXPENDITURES OF GREAT BRITAIN.

Year.	Revenues.	Expenditures	Year.	Revenues.	Expenditures	Year.	Revenues.	Expendit.
Mar31	£.	£.	Mar31	£.	£.	Mar31	£.	£.
1903..	161,894,000	194,251,081	1912..	185,090,286	178,545,100	1921..	1,425,984,666	1,195,427,877
1904..	151,340,652	156,756,209	1913..	188,801,999	188,621,930	1922..	1,124,879,873	1,079,186,627
1905..	153,182,782	151,768,875	1914..	198,242,897	197,492,969	1923..	914,012,452	812,496,604
1906..	153,878,865	150,413,528	1915..	226,694,080	560,473,533	1924..	837,169,284	788,840,211
1907..	155,036,486	149,637,664	1916..	336,766,825	1,559,158,377	1925..	799,435,595	795,776,711
1908..	156,537,690	151,812,094	1917..	573,427,582	2,198,112,710	1926..	812,061,658	826,099,778
1909..	151,573,295	152,292,395	1918..	707,234,565	2,696,221,405	1927..	805,701,233	842,395,027
1910..	131,696,458	157,944,611	1919..	889,020,825	2,579,301,188	1928..	842,824,465	838,563,341
1911..	203,850,588	171,995,667	1920..	1,339,571,381	1,665,772,928	1929..	836,434,988	818,040,523

POPULATION OF CITIES OF OVER 100,000 IN GREAT BRITAIN, 1921.

Cities.	Population.	Cities.	Population.	Cities.	Population.
London (Greater)	7,476,168	Leicester	234,190	Brighton	142,427
Glasgow	1,034,069	Salford	234,150	Middlesborough	131,103
Birmingham	919,438	Plymouth	209,837	Derby	129,826
Liverpool	803,118	Cardiff	200,262	Leyton	128,432
Manchester	730,551	Croydon	190,877	Coventry	128,205
Sheffield	490,724	Swansen	182,312	Walthamston	127,441
Leeds	458,320	Bolton	178,678	Blackburn	126,630
Edinburgh	420,281	Dundee	168,217	Gateshead	124,514
Belfast	385,492	Willisden	165,669	Stockport	123,315
Bristol	377,061	Rhondda	162,729	Norwich	120,653
Dublin	309,272	Southampton	160,997	Preston	117,426
West Ham	300,905	Sunderland	159,100	South Shields	116,667
Hull	287,015	Aberdeen	158,906	Huddersfield	110,120
Bradford	285,979	Tottenham	146,695	Southend-on-Sea	106,021
Newcastle-on-Tyne	274,955	Birkenhead	145,592	Burnley	103,175
Nottingham	262,658	Oldham	145,001	St. Helen's	102,675
Portsmouth	247,343	East Ham	143,304	Wolverhampton	102,373
Stoke-on-Trent	240,440				

PUBLIC DEBT OF GREAT BRITAIN.

March 31.	£.	March 31.	£.	March 31.	£.	March 31.	£.
1902	765,215,653	1909	754,121,309	1916	2,189,838,245	1923	7,812,562,525
1903	798,349,190	1910	762,463,625	1917	4,063,644,981	1924	7,707,537,545
1904	794,498,100	1911	733,072,610	1918	5,921,095,819	1925	7,665,880,145
1905	796,736,382	1912	724,806,428	1919	7,481,050,442	1926	7,633,722,502
1906	788,990,187	1913	716,288,421	1920	7,875,641,961	1927	7,652,687,904
1907	779,164,704	1914	706,154,110	1921	7,623,097,128	1928	7,714,084,295
1908	762,326,051	1915	1,161,951,702	1922	7,720,532,214	1929	7,716,024,047

GREAT BRITAIN'S TRADE AND COMMERCE.

Year. (Calendar.)	Total Imports.	Exports.			Total Trade.
		Produce and Manufacture of Unit'd Kingdom.	Foreign and Colonial Merchandise.	Total.	
1913	£768,734,739	£525,253,595	£109,566,731	£634,820,326	£1,403,555,065
1914	696,635,113	430,721,357	95,474,166	526,195,523	1,222,830,636
1915	851,893,350	384,868,448	99,062,181	483,930,629	1,335,823,979
1916	948,506,492	506,279,707	97,566,178	603,845,885	1,552,352,377
1917	1,064,164,678	527,079,746	69,677,461	596,757,207	1,660,921,885
1918	1,316,150,903	501,418,997	30,945,081	532,364,078	1,848,514,981
1919	1,626,156,212	798,638,362	164,746,315	963,384,677	2,589,540,889
1920	1,932,648,881	1,334,469,269	222,753,331	1,557,222,600	3,489,871,481
1921	1,085,500,061	703,399,542	106,919,306	810,318,848	1,895,818,909
1922	1,003,098,899	719,507,410	103,694,670	823,202,080	1,826,300,979
1923	1,096,226,214	767,257,771	115,543,805	885,801,576	1,982,027,790
1924	1,277,439,144	800,966,837	139,970,143	940,936,980	2,218,376,124
1925	1,322,858,167	773,086,410	154,410,967	927,497,377	2,250,335,544
1926	1,242,863,679	651,892,504	125,565,633	777,458,137	2,020,321,817
1927	1,218,341,150	709,081,263	122,952,829	832,034,102	2,050,375,252
1928 Provisional	1,196,940,354	723,427,455	120,352,491	843,779,946	2,040,720,300

Receipts from customs duties on imports for the fiscal year 1928-29 were £118,972,000 (111,620,000 in 1927-28) of which £59,086,000 was from tobacco; £13,912,000 from sugar; £5,740,000 from tea; £6,670,000 from spirits; £4,248,000 from wine; £4,978,000 from beer; £2,077,000 from matches; £709,000 from cocoa; £198,000 from coffee; £643,000 from dried fruits; £2,470,000 from motor cars and motorcycles; £614,000 from clocks and watches; £239,000 from musical instruments; £192,000 from cinematograph films; £4,598,000 from silks and artificial silks; £633,000 from key Industry duties; £290,000 from hops; £230,000 from lace and embroidery; £101,000 from cutlery; £584,000 from gloves; £552,000 from packing and wrapping paper; and £57,000 from translucent pottery.

Excise receipts in 1928-29 total £134,000,000. The chief items were: £38,933,000 from spirits; £70,874,000 from beer; £203,000 from British wine; £355,000 from table waters; £1,491,000 from sugar; £1,888,000 from matches and mechanical lighters; £1,450,000 from silk and artificial silk; £6,033,000 from entertainments; £2,245,000 from betting; £4,439,000 from liquor licenses (duties); £137,000 from liquor licenses (monopoly values); £529,000 from other licenses; £1,394,000 from medicines, etc.; and £367,000 from railway duty.

From April 1, 1920, the direct foreign trade of the Irish Free State has been excluded.

TONNAGE AT BRITAIN'S HOME PORTS.

The net tonnage of the British and foreign vessels in foreign trade that entered and cleared with cargoes at the ports of the United Kingdom during sixteen years was:

Year.	Entered with Cargoes.			Cleared with Cargoes.		
	British.	Foreign.	Total.	British.	Foreign.	Total.
	Tons.	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*
1914	28,928,893	14,131,890	43,060,783	32,515,814	23,452,755	55,968,569
1915	22,861,738	10,862,166	33,723,904	20,380,530	19,148,832	39,529,362
1916	20,217,334	9,842,214	30,059,548	17,751,953	17,843,941	35,595,894
1917	18,795,945	4,433,501	23,228,546	16,926,662	9,149,162	26,075,824
1918	19,819,519	3,414,145	23,233,664	14,965,692	7,771,639	22,737,331
1919	22,064,874	7,491,078	29,555,952	21,962,895	12,599,212	34,562,107
1920	25,506,999	10,986,320	36,493,319	23,532,459	13,193,076	36,725,535
1921	25,123,899	11,999,435	37,123,334	24,282,304	12,115,137	36,397,441
1922	28,473,881	14,920,714	43,394,595	36,817,495	22,864,635	59,682,130
1923	33,079,445	18,012,594	51,092,039	42,139,130	28,551,848	70,690,978
1924	36,856,130	18,513,610	55,369,740	41,732,088	23,566,671	65,298,759
1925	34,597,114	17,524,710	52,128,700	37,148,012	20,878,931	58,028,317
1926	43,523,411	20,657,959	64,181,370	33,858,126	13,094,297	46,952,423
1927	40,421,205	20,168,177	60,589,382	42,363,239	21,134,492	63,497,731
1928	40,220,157	20,116,564	60,336,721	43,377,782	21,070,769	64,448,551

United States ships with cargoes entering British ports totaled 486,897 tons in 1918, 1,625,498 tons in 1919, 2,366,123 tons in 1920, 2,750,739 tons in 1921, 2,915,639 tons in 1922, 2,871,137 tons in 1923, 2,746,725 tons in 1924, 2,540,657 tons in 1925, 2,679,629 tons in 1926, 2,797,532 tons in 1927, and 3,210,262 tons in 1928.

As from April 1, 1923, trade between Great Britain and Northern Ireland on the one hand, and ports in the Irish Free State on the other hand, has been regarded as *foreign* trade. From the same date the trade of ports in the Irish Free State with ports outside Great Britain and Ireland ceased to be recorded in the navigation returns of the United Kingdom.

BRITISH PRIME MINISTERS SINCE 1801.

Henry Addington	1801	Lord John Russell	1846	Marquis of Salisbury	1886
William Pitt	1804	Earl of Derby	1852	Mr. Gladstone	1892
Lord Granville	1806	Earl of Aberdeen	1852	Earl of Rosebery	1894
Duke of Portland	1807	Viscount Palmerston	1855	Marquis of Salisbury	1895
Spencer Perceval	1809	Earl of Derby	1858	Arthur James Balfour	1902
Lord Liverpool	1812	Viscount Palmerston	1859	Sir H. Campbell-Bannerman	1905
George Canning	1827	Earl Russell	1865	Herbert Henry Asquith	1908
Lord Goderich	1827	Earl of Derby	1866	H. H. Asquith (Coalition)	1915
Duke of Wellington	1828	Benjamin Disraeli	1868	David Lloyd George	1916
Earl Grey	1830	William Ewart Gladstone	1868	Andrew Bonar Law	1922
Viscount Melbourne	1834	Earl of Beaconsfield	1874	Stanley Baldwin	1923
Sir Robert Peel	1834	Mr. Gladstone	1880	J. Ramsay MacDonald	1924
Viscount Melbourne	1835	Marquis of Salisbury	1885	Stanley Baldwin	1924
Sir Robert Peel	1841	Mr. Gladstone	1886	J. Ramsay MacDonald	1929

THE UNITED KINGDOM.

AREA, 94,284 square miles; England, 50,874; Wales, 7,466; Scotland, 30,405; Northern Ireland 5,237; Isle of Man, 227; Channel Islands, 75.

POPULATION, census of 1921, 44,147,601: England, 35,678,530; Wales, 2,206,712; Scotland, 4,882,288; Northern Ireland (1926), 1,256,322; Isle of Man, 60,238; Channel Islands, 89,614.

The United Kingdom, or British Isles, lie off the northwest corner of Europe, with the North Atlantic Ocean on the north and west, the North Sea on the east and the English Channel separating it from the mainland on the south. The Straits of Dover, 18 miles wide, divide it from France. The northern end of Scotland lies due west from the southern end of Norway.

The climate of the British Isles is equable, mild and somewhat warmer than that of the continent opposite, because of the Gulf Stream modifying the temperature of the Isles, which is mean at 49 degrees. Rainfall is abundant, averaging 34 inches annually, but is seldom heavy at a given time, so that the precipitation covers longer periods, and fogs often prevail in many parts, "London Fog," holding much soot in suspension, being peculiarly dense at times.

The coastline is tortuous, giving very many harbors for shipping, and numerous rivers up which deep sea craft may go. The northern ends are more rugged than the southern. Peculiar geological features are the chalk formation along the English Channel, the chalk stratum running under the waters of the channel into France; and the same "hardpan" sub-stratum recurring as in many parts of France.

The soil is of varied natural fertility. It is more sterile in the north, notwithstanding the figures show that the Scotch have attained a relatively high per acre production by intensive cultivation. But centuries of tillage have rendered necessary the elaborate and large use of artificial fertilizers.

The prevalent precipitation of moisture, together with the mild climate, has induced profuse growth of vegetation of all sorts. The Isles were naturally covered with forests, which have been largely cut off to accommodate so large a population on so small an area, a total less than the American State of New Mexico, and only about twice that of all New England, with a population of 464.3 to the square mile.

AGRICULTURE A GREAT INDUSTRY.

England, Wales and Scotland (including the Isle of Man) have a total land area of 56,391,000 acres. Distribution of the agricultural land in 1928, in thousands of acres, was:

	Woods, etc.	Grazing	Pasture.	Arable.
England.....	1,697	3,535	13,266	9,473
Wales.....	187	1,643	2,131	635
Scotland.....	852	9,708	1,523	3,133
Isle of Man..	1	35	22	61

Land actually under the plow has decreased steadily,—in 1928 over 1927, 145,700 acres; in 1927, 94,020; in 1926, 4,500; in 1925, 441,552; in 1924, 173,000; in 1923, 129,378; and in 1922, 308,000. There were 803,338 agricultural workers in 1925. The value of produce sold off the farms in 1923 (excluding that consumed in farmers' households) was estimated at £258,750,000. The country imported grain and flour to the value of £97,637,000 in 1928, (£110,969,000 in 1927); and food for animals—£9,186,000 (£8,418,000 in 1927).

The import of wheat alone was about 52,787,000 cwt. from other parts of the Empire and about 50,791,000 cwt. from foreign countries. The great wheat sources were: United States, 23,662,000 cwt.; Canada, 41,006,000 cwt.; Argentina, 24,399,000 cwt.; Australia, 10,233,000 cwt.; and British East India, 1,548,000 cwt.

The production of wheat in Great Britain in 1928 was 5,940,000 quarters from 1,463,000 acres; and in 1927, 6,817,000 quarters from 1,690,000 acres.

The aggregate number of holdings in Great Britain in 1928 was: From one to five acres, 74,456; from five to fifty acres, 185,672; from fifty to 300 acres, 128,384; over 300 acres, 12,383; total, 400,895. Under the Land Settlement Scheme, between December, 1918 and July 31, 1922, 17,511 applicants were provided with small holdings aggregating 247,000 acres. The number of holdings from one to five acres in Scotland was 16,787; and from five to fifty acres, 33,553; total, 50,340; grand total, under fifty acres for Great Britain, 310,468.

The census of farm animals in Great Britain in June, 1928, was: Horses, 1,204,198; cattle, 7,239,781; sheep, 23,968,314; and pigs, 3,166,547. There were in 1927 about 4,000,000 dogs, of which 250,000 were pedigreed.

MANUFACTURING AND TRADE.

Great Britain's strength, however, is largely in manufacturing, mining and trade. Coal, cotton textiles, woolen and worsted tissues, iron and steel, machinery and vehicles (including locomotives and shipping) are the key industries supplying the bulk of the exports. The figures for the exports of these groups for 1926, 1927 and 1928 in thousands of pounds sterling were:

Exports.	1926.	1927.	1928.
Coal.....	19,138	45,531	39,062
Cotton Goods.....	154,343	148,795	145,304
Woolen Goods.....	51,416	56,756	56,897
Other textiles.....	56,021	55,299	58,053
Iron and steel.....	55,077	69,429	66,802
Cutlery, machinery, etc.	66,528	70,654	70,628
Vehicles (incl. ships)...	30,583	35,414	46,965

Raw cotton imports from the United States totalled 1,694,000 bales in 1927; 2,308,000 in 1926; 2,457,000 in 1925 and 1,986,000 in 1924. Exports of cotton cloth aggregated 4,117,683,000 square yards in 1927 as compared with 3,834,482,200 in 1926 and 4,435,617,800 in 1925.

India is still far and away Great Britain's best customer for cotton goods, with China second, Australia third, Egypt fourth and Switzerland fifth, in 1923. Canada, Japan, the United States, Australia and China, in that order, were her best customers for woolen goods.

Great Britain ranked second to the United States in the world's production of pig iron and of steel ingots and castings in 1923, but Germany, which had had that rank in 1922, regained it in 1924. The production of pig iron in 1928 was 6,611,300 tons; in 1927, 7,416,000 tons; in 1926, 2,458,000 tons; in 1925, 6,236,000 tons; in 1924, 7,319,000 tons; in 1923, 7,440,500 tons; in 1922, 4,902,000 tons; and in 1913, 10,260,000 tons. The production of steel in 1928 was 8,525,100 tons; in 1927, 9,097,100 tons; in 1926, 3,596,100 tons; in 1925, 7,518,000 tons; in 1924, 8,250,100 tons; in 1923, 8,481,800 tons; in 1922, 5,881,000 tons; and in 1913, 7,663,900 tons.

The industry was hard hit by the coal strike in 1926. But 5 furnaces were in blast in September and October, 1926. Great recovery was made in 1927; at the end of January, 152 furnaces were in blast compared with 144 January 31, 1926; and 341 open hearth furnaces were lighted compared with 281 in 1926.

Coal mining, after a disastrous year marked by a three months' strike in 1921, showed an improvement in 1924, as seen by these figures, only to suffer further disaster by the strike of 1926:

Year.	Production. *Tons.*	Exported. *Tons.*	Value of Exports.
1920.....	229,532,000	24,931,853	£96,297,614
1921.....	163,500,000	24,660,552	42,951,591
1922.....	252,000,000	64,198,384	72,592,500
1923.....	278,501,000	79,450,000	99,835,646
1924.....	273,260,000	61,651,273	52,067,600
1925.....	248,328,000	50,837,118	50,476,211
1926.....	126,275,521	20,596,372	19,138,000
1927.....	255,264,615	51,149,193	45,530,795
1928.....	241,590,100	50,055,118	30,062,000

Relief given to the coal industry by a reduction of taxation in 1928 is estimated to be about £4,500,000 a year. On June 30, 1929, there were about 170,000 miners out of work.

FOREIGN TRADE.

The volume of Great Britain's re-exports should be noted because of her position as a vast clearing house through which the products of her dominions and colonies (rubber from the East Indies and Malaya, wood from Australia and New Zealand, wheat from Canada and Australia, cotton from Africa and India, gold from Africa) reach the world at large.

Of the imports in 1927, 44 per cent. were of food, drink and tobacco, as against 40 per cent. in the last pre-war year, 1913; 29 per cent. were of raw materials as against 35 per cent. in 1913, and 27 per cent. were of manufactured articles, as against 26 per cent. in 1913.

The value of these imports for the last four years, excluding bullion, in thousands of pounds, was:

Imports.	1925.	1926.	1927.	1928.
Food, etc...	571,613	530,498	538,527	531,913
Raw Mat'ls.	425,209	392,685	351,740	334,820
Mfd.articles.	319,840	314,973	322,413	318,016
Animals not for food..	2,303	2,155	2,653	3,065
Parcel post, non-dut'd.	3,893	2,552	3,009	9,127
Total.....	1,322,858	1,242,864	1,218,341	1,196,940

Exports.				
Foods, etc..	54,997	50,466	52,279	54,272
Raw mat'is..	84,371	47,151	76,352	70,169
Mfd.articles.	616,279	538,179	563,914	578,629
Animals not for food..	2,279	1,717	1,898	1,995
Parcel post.	15,142	14,380	14,639	18,363
Total....	773,086	651,893	709,081	723,429
Re-exports.				
Foods, etc..	32,165	26,346	26,514	27,538
Raw mat'is.	90,673	73,782	71,233	66,494
Mfd.articles.	31,464	25,213	25,046	26,039
Animals not for food..	109	134	160	280
Total.....	154,411	125,566	122,953	120,352
Grand Total...	2,250,355	2,020,323	2,050,375	2,040,719

The so-called invisible items for 1927 were estimated by the *British Board of Trade* to be: Net income from overseas investment £270,000,000 (£270,000,000 in 1926); net income from shipping; £120,000,000 (£120,000,000 in 1926); commissions, £63,000,000 (£60,000,000 in 1926); other services, £15,000,000 (£15,000,000 in 1926); total, £488,000,000. Deducting this from the excess import charge of £392,000,000 leaves a surplus balance of £96,000,000 as compared with a debit balance of £12,000,000 in 1926. The invisible balances in recent years (000 omitted) are:

	Visible Debit.	Invisible Credit.	Balance.
1927	£392,000	£488,000	+£ 96,000
1926	477,000	465,000	— 12,000
1925	395,000	449,000	+ 54,000
1924	349,000	435,000	+ 86,000
1923	220,000	373,000	+ 153,000
1922	170,000	325,000	+ 155,000
1920	343,000	595,000	+ 252,000
1913	158,000	339,000	+ 181,000
1907	142,000	280,000	+ 138,000

Sir Robert Kindersley, President of the National Savings Committee, estimated that British capital invested abroad as of May 1, 1928 totals £3,990,000,000, an increase of £490,000,000 over 1913; Sir Robert estimated that in 1927 actual new savings in Great Britain amounted to £86,000,000. New foreign and overseas capital issues in 1928 amounted to £143,384,000. New capital issues for domestic purposes totaled £219,135,000.

The prevailing policy of the British Empire for the greater part of the last century has been not to impose trade barriers on entrance of goods into the British Isles or the outlying holdings of the empire. This free trade policy has been modified by certain attached countries, which at times have even imposed import duties on goods from the mother country. And since the World War, under the dislocation of world industry and commerce and the unsettlement of the fiscal affairs of the Allies and their enemy countries, certain preferential arrangements have been made, and some barriers have been erected.

The United States in 1927 supplied 16.4%, £200,353,379, of all British imports, as against 18.4% in 1926, and 18.6% in 1925; and took 6.4% of all British exports in 1927, as against 7.5% in 1926, and 6.7% in 1925. Of total imports the percentage obtained from the British Empire in 1927 was 30.1%; in 1926, 30.3%; and in 1925, 32.5%; while of the total value of exports the percentage that went to the British Empire was 46% in 1927; 48.6% in 1926; and 43.3% in 1925.

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922 (inc. Irish Free St.).	$855,825,991	$356,867,428
1923 (inc. Irish Free St.).	882,321,257	404,071,815
1924 (inc. Irish Free St.).	982,034,509	366,476,902
1925 (exc. Irish Free St.)	1,033,856,369	412,704,535
1926 (exc. Irish Free St.)	972,384,840	383,189,536
1927 (exc. Irish Free St.)	840,058,638	357,930,937
1928 (exc. Irish Free St.)	847,276,661	348,434,661

RAILWAY CONSOLIDATICN.

The railways which had been taken over by the Government during the war were returned to their owners under the Decontrol Act in August, 1921. The Railways Act of 1921 provided for a consolidation of the existing 120 systems into four large geographical systems, to secure uniformity, efficiency and economy of operating conditions. These four groups are:

The Southern Railway Company (Group I), consisting of the London & South Western, the London, Brighton & South Coast, the South Eastern, the London, Chatham & Dover, and the South Eastern & Chatham, as the five amalgamated "constituent" companies that have absorbed fourteen smaller "subsidiary" lines, in total a main-line trackage of 2,200 miles and a capital of £148,000,000; and 90,000 stockholders.

The Great Western Railway Company (Group II), comprising the Great Western, the Alexandra Docks and Railways, Barry, Cambrian, Cardiff, Rhymney and Taff Vale constituents, which have absorbed twenty-eight subsidiary lines, a total main-line trackage of 3,800 miles and capital of £146,894,466, and 135,108 stockholders.

The London, Midland & Scottish Railway Company (Group III), composed of the London & North Western, Midland, Lancashire & Yorkshire, North Staffordshire, Furness, Caledonian, Glasgow & South Western, and Highland constituents amalgamated and absorbing twenty-seven smaller companies, with a total trackage of 7,790 miles and capital of £406,429,175, and 308,028 stockholders; and

The London & North Eastern Railway Company (Group IV), made up of the North Eastern, Great Central, Great Eastern, Great Northern, Hull & Barnsley, North British, and Great Northern of Scotland, seven constituents amalgamated and absorbing twenty-six other subsidiary roads, this group totaling about 6,590 miles of main track, having a capital of £364,871,121, and 252,961 stockholders. The total paid up capital of the four great companies being £1,066,195,762; and the total number of stockholders being 786,097.

Grand total of mileage (1927) is 20,400 miles.

The first and last groups were in operation from Jan. 1, 1923. Consolidation was completed on Oct. 1, 1923. The rolling stock of all lines is in process of modernizing and standardization; larger and more powerful locomotives built, also larger freight cars. New non-stop, long distance runs have been introduced and long runs speeded up. In 1928, 1,196,420,000 passengers were carried, and the freight traffic exceeded 325.4 million tons.

For the four groups an entirely new issue of corporate securities superseded the numerous previous individual issues; instead of some two hundred separate railway stocks on the market, the Stock Exchange now deals in less than forty. In place of some 1,350 railway directors, requiring the expenditure annually of some £200,000 in fees, there are now 102 positions only (21 in the Southern Group 25 in the Western, 28 in the London-Midland, and 28 in the North Eastern for the present).

The act further provided for a periodical revision of the traffic charges through the Railway Rates Tribunal, a permanent board of three "experienced" men, the chairman, a lawyer, one in commercial affairs and the other in the railway business, appointed for seven years. This court has already reclassified merchandise into twenty-one groups. Substantial reductions in freight rates were made in 1922 and passenger fates were cut to first-class 2½d. per mile, and third-class 1¼d. per mile, making a uniform basis of 50 per cent. over the pre-war rates. The act stipulates that charges shall be levied sufficient to provide annual net standard and revenue equivalent to the net revenue of 1913, allowance being made for additional capital outlay. In this way the rate fixing powers of the Tribunal are legally limited. If a surplus developes, 20 per cent. goes to the companies and 80 per cent. must be applied under supervision of the Tribunal to betterments or reduced rates.

The British Railways Rate Tribunal reported their decision on July 1, 1927, to take effect on Jan. 1, 1928. The standard basis of goods freight and of mineral rates is to be 60% above the base rates (pre-war), prevailing Jan. 14, 1920. The present ordinary fares (50% over pre-war rates) of 2½ d. (5 cents) a mile first class, and 1½ d. (3 cents) a mile third class, were authorized as standard. The fixed gross revenue of the four railway groups has been set at £196,632,901, and the standard revenue at £50,057,847. Of the standard revenue, the figures for the four railways are: London Midland & Scottish, £20,326,622; London & North Eastern, £14,787,733; Great Western, £8,312,013; and Southern, £6,631,479. Those standard charges had been provisionally approved on Dec. 31, 1926.

The third major provision of the act aims to give easy and final decision to railway labor matters by a definite procedure from local through to national wages boards. There were 677,148 railway employees March 31, 1928 as against 683,077 in 1927, 689,264 in 1926, and 702,062 in 1925.

During 1928 the railway companies failed to earn the standard revenues fixed by the tribunal by a sum of £9,057,732. The deficiencies were: London, Midland and Scottish, £4,055,801 (20%); London North Eastern, £3,509,914 (25%); Great Western, £1,252,890 (15.5%); and Southern, £237,067 (3.5%). For 1928 the aggregate receipts of the four railways were £194,000,000 (£202,400,000 in 1927); expenditures, £154,100,000 (£160,000,000 in 1927); and net income, £39,900,000 (£41,800,000 in 1927). The operating ratio was 79.4% (79.3% in 1927). Owing to a decline in revenue in 1928, a cut of 2½% in

all wages and salaries was agreed to by the unions; it was estimated to bring a saving of £3,000,000 a year.

USE OF ELECTRICITY.

In 1926 the amount of electricity generated in Great Britain was about 7,000,000,000 kilowatt-hours, of which 5,069,000,000 was sold by public utilities, the balance being required for railroad, tramway, and traction purposes; 69.3% was used for power, while 20.3% was consumed for lighting and domestic purposes. Steam plants produce 98.09% of the power generated, with an average fuel consumption of 2.55 pounds per K.w.h.

The revenue was £40,914,278 in 1924-25. The working expense, including cost of energy purchased, but excluding capital charges, was £23,409,893. The average cost per kilowatt-hour was 1.01 d., and the average revenue per kilowatt-hour was 1.76 d.

The electrical supply district of London covers an area of 737 square miles and has a population exceeding 8,000,000. There are 44 municipal companies and 45 private companies in this district. The kilowatt-hours sold in 1924-25 amounted to 964,924,072, an increase of 14.2% over 1923-24. The revenue amounted to £20,713,154. The generating plant capacity at the end of the year was 843,517 kilowatts, an increase of 12.7% over 1923-24, and the net capital expenditure amounted to £48,201,845.

Great Britain has approximately 10,000,000 homes, of which 1,400,000 or 14% are wired for electricity, as compared with the United States figure of 26,000,000, of which 14,500,000, or 55.8%, are wired for electricity.

The installation of telephones had on Dec. 31, 1927 reached 1,635,000, or one to every 27 inhabitants.

The British Isles have many canals—total mileage 4,673, of which 3,641 are in England and Wales, 194 in Scotland, and 848 in Ireland.

The merchant marine of Great Britain, July 1 1929, included 7,381 steamers of 18,123,887 net tons; 963 motor ships of 1,922,383 net tons; and 389 sailing ships of 120,061 net tons; total, 8,225 ships of 20,166,331 net tons.

In harbor development the United Kingdom has made forward strides. The improvement of the banks of the Tasmee River, which flows through London, has been extensive. Contracts for new docks and improvements at Tilbury, to cost about £4,000,000, were let by the Port of London Authority in July, 1926, to be completed in five years. Shipping using the Port of London in 1927 reached a record tonnage of 52,576,755 net tons.

Tidal gates for the Liverpool docks and piers are not duplicated. They enable the accommodation of deep draught craft regardless of the stages of the tides. A ship canal, 35½ miles long, makes Manchester the third seaport of the Kingdom. Constructed in 1887-94, at a cost of £17,000,000, it accommodates steamers up to 12,550 tons. The merchandise paying toll in 1927 was 6,359,420 tons, a record, and the traffic receipts were £1,576,237.

Southampton is the first passenger port of the kingdom. In 1925, 122,703 left from that port, exceeding Liverpool by 10,000; and arrivals were 76,656, 6,000 more than at Liverpool.

THE TRADE UNIONS.

The coal strike of 1926 began on May 1, was followed by the general strike, May 4-12, and settlement became general by the end of November. (See The World Almanac for 1927, pp. 564-5.) The Trade Unions on Jan. 21, 1927, approved by a majority of 1,745,000 votes, the conduct and the calling off of the general strike by its General Council.

As outcome of the strike was the Conservative Government's Trade Union bill fought over in Parliament for two months in the spring and finally passed by invoking closure for the first time since 1887, on June 25 by a majority of 218. The act, somewhat moderated in debate, establishes as fundamental principles that a general strike is illegal and no man shall be penalized for refusing to take part; that intimidation is illegal, that no man shall be compelled to subscribe to the funds of any particular party unless he so desires; and that civil service employees must give undivided allegiance to the State. Associations of employers were placed on the same basis as labor unions with reference to lockouts, political levies, and other activities of industrial warfare.

Membership in Trades Unions totaled 3,673,144 in 162 organizations at the 60th Trade Union congress Sept. 3, 1929. The number reported at the congress of 1928 was 3,814,842. The high mark was 6,996,000 in 1920. The government group of 13 organizations with 167,916 members in 1927 was reduced to 6 groups with 29,688 members because of withdrawal of Post Office workers and others on account of the Trade Disputes Act of 1927. The congress of 1928 endorsed by a vote of 3,075,000 to 556,000, the policy of industrial cooperation between employers and workmen and instructed its general council to proceed with discussion with Lord Melchett (Sir Alfred Mond) and his colleagues, on all questions of industrial reorganizations and to take steps with the Confederation of Employers' Organizations to establish a National Industrial Council and machinery for the settlement of disputes. The congress of 1929 voted for the continuance of this conference. It also urged resumption of diplomatic relations with Russia, as it would stimulate trade.

The British Trades Union Congress on Sept. 8, 1927 voted, 2,551,000 to 620,000, to sever relations with the Soviet Trade Union so long as the present Soviet attitude and policy were maintained; and declared unalterable opposition to the Trade Union bill.

The Labor party at its conference Oct. 3, 1927, took action in excluding the Communists. The registered membership of the British Communist party in September 1927 was 7,300, having dropped from over 10,000 in 1926. The British Cooperative Societies, numbering about 1,450, with a membership in the Union Congress, June 7, 1927, voted 1,960 to 1,843 to join the Labor party.

THE LIQUOR TRADE.

Great Britain's drink bill in 1926 was £301,300,000 (£315,000,000 in 1925); this included 12,869,000 gallons of whisky (14,010,000 in 1925); 26,600,000 barrels of beer (27,600,000 in 1925); and 16,492,000 gallons of wine (15,840,000 in 1925). The tax on spirits was 72s.6d. per gallon as compared with 14s.9d. before the war. The customs and excise duties in 1926-27 on spirits amounted to £43,531,000, on beer £54,187,000, and on wine £4,331,000. Northern Ireland's drink bill in 1926 was about £5,000,000, a decrease of about £3,000,000 from 1926; and the Irish Free State £16,500,000, a decrease of about £500,000. British exports of spirits in 1926 was 6,516,804 proof gallons; in 1925, 7,360,886, and in 1924, 8,372,986.

Under the Housing Acts of 1919, 1923 and 1924, the number of houses built in England and Wales since the armistice up to March 30, 1929, was 1,274,532, of which 828,792 were built with State assistance and 445,740 without State assistance. The total payments of Exchequer subsidy have been £74,204,633 ($361,376,503). The subsidy for 1928-29 was £10,669,974. The subsidy houses built by private enterprises was discontinued Sept. 30, 1929. In Scotland from 1919 to Dec. 31, 1927, the number of houses built with Government assistance was 69,966 including 2,228 steel houses.

UNEMPLOYMENT AND THE DOLES.

Unemployment continues the great economic and political problem. The number of registered workers is slightly below 12,000,000, covered by the Unemployment Insurance Act. This number does not include agricultural workers, domestic employees, national or local government employees or workers, who receive regularly more than £250 annually. The record of the unemployed (000 omitted) is:

	1924.	1925.	1926.	1927.	1928.	1929
Jan. 31..	1,320	1,237	1,201	1,332	1,199	1,434
April 30.	1,087	1,034	982	1,022	1,171	1,198
June 30	1,049	1,099	1,640	1,005	1,239	1,176
Aug. 31	1,191	1,606	1,550	1,076	1,367	1,190
Oct. 31	1,247	1,295	1,516	1,132	1,375	....

The 1,190,000 unemployed on Aug. 26, 1929 were: Men, 899,000; women, 218,000; boys and girls 73,000.

The Minister of Labor reported that unemployment had varied from 1,936,081 in January, 1922, to a minimum of 978,200 in May 23, 1927, the lowest in fact since 1920. In June 1926, the peak for three years, with 1,669,000 out of work, the miners on strike were not included. The previous peak was June 24, 1921, when 2,044,639 were out of work, of which 1,459,639 were men. The total amount paid in doles by the Government in 1926 was about £13,207,000, and in 1925, was £4,726,310.

The average number of unemployed and approximate payments to them for six years was:

Year (Ending March 31)	Ave. Unemployed.	Approximate Payments.
1920-21	1,130,000	£34,000,000
1921-22	1,750,000	52,850,000
1922-23	1,360,000	41,680,000
1923-24	1,203,000	35,971,000
1924-25	977,000	47,216,500
1925-26	1,046,800	50,201,758
Total Payments		£261,919,258

The total amount paid from the rates in England and Wales in 1925-26 was £31,400,000; and in Scotland £3,678,000. Total £35,078,000.

The total number of persons (excluding lunatics in asylums, those receiving medical relief only, and

casuals, totaling approximately 125,000) in receipt of Poor Law relief (domiciliary and institutional) in England and Wales at the end of June, 1928, was 1,088,000 (1,171,000 in June 1927, and 618,000 in June 1914). This is 277 to the 10,000 of the estimated population.

In 1926 under the workmen's compensation and employers liability acts in seven large groups of industries employing 7,001,795 persons in 2,345 fatal cases £674,611 was paid and in 368,563 non-fatal cases £5,332,310, a total of 370,908 cases and £6,006,921. In 1925 in 3,030 cases £864,726 was paid, and in 473,045, £5,778,204 was paid. The falling off in 1926 was due to the coal stoppage for in mining alone cases fell from 214,405 in 1925 to 131,231 in 1926.

Pension services of all kinds carried in the budget estimates totaled £127,459,000 in 1926-27, and £129,246,000 in 1927-28. Of this war pensions were £63,957,000 in 1926-27 and £61,877,000 in 1927-28; old age pensions, £29,983,000 and £32,746,000, (with £4,000,000 additional in contributory account each year); and State employees, teachers and police, £29,707,000, and £30,623,000. The number of war pensioners on March 31, 1926 was approximately 1,794,000.

OLD AGE PENSIONS.

The total number of pensions payable under the Old Age Pensions Acts March 25, 1927, was 1,031,575 (men, 361,140; women, 670,435). To this must be added 166,132 pensioners under the Widows', Orphans' and Old Age Contributory Pensions Act of 1925, making a total of 1,197,707. Of these, 1,175,259 were payable at the full 10s. rate, and 22,448 at other rates, from 8s. to 1s. a week. The total amount paid in pensions during the year was approximately £29,983,000.

The number of applications for pensions during the year was: contributory, 234,898; non-contributory, 163,377. Claims rejected and pensions revoked during the year totalled 46,235, of which 10,329 were on account of age, 14,316 on account of poor relief, 19,338 on account of means, and 2,252 for other reasons.

The number of non-contributory pensioners of whose death information reached the pensions officers was 117,443.

Old age pensions were introduced into Great Britain by the Earl of Oxford and Asquith when Prime Minister in 1908 and were later extended by Lloyd George in his famous budget as Chancellor of the Exchequer. These pensions ran up to five shillings weekly for persons who had reached the age of seventy and about 1,000,000 pensioners were on the rolls at a cost to the state of about £12,000,000 a year. These pensions were raised until every British subject and resident of the United Kingdom over seventy years of age, under certain qualifications, whose yearly means do not exceed £50 (broadly speaking $250) was entitled to a pension. The weekly amount was ten shillings if the pensioner's yearly means did not exceed £26 5s; above that sum the pension decreased by 2s for every £5 5s until at £47 5s it became 1s a week. On March 31, 1924, there were 916,771 old pensions payable, 326,805 to men and 589,966 to women. The budget carried for old age pensions £23,300,000 in 1923-24, and £24,201,000 in 1924-25. The provisions of the act were greatly expanded by Parliament in 1925 on the initiative of Chancellor of the Exchequer Churchill, who made it a feature of his budget. The new act in effect Jan 4, 1926, applies to all now insured under the National Health Insurance scheme, that is to 70 per cent. of the population of the United Kingdom.

It will provide pensions for widows, orphans and persons after the age of sixty-five. These pensions are to be paid from a fund to which employers and employed alike will contribute four pence extra for men and two pence for women, these contributions rising by stages to seven pence and three and one-half pence.

Widows of all men insured under the new plan dying after 1924, will receive ten shillings weekly for life unless they remarry, the eldest child five shillings and the other children three shillings weekly till they reach the age of fourteen. All restrictions and means of tests on insured persons over seventy will be abolished and the beneficiaries of the new scheme will receive ten shillings weekly after reaching the age of sixty-five.

All domestic servants and agricultural laborers will come under the new plan. The only workers who do not are those earning more than £250 a year or who belong to excepted occupations, such as the police force and civil service, schoolmasters and the like, who have their own scheme of insurance superannuating.

The additional burden on industry is estimated at £10,000,000 yearly, and the amount of the annual pension liability would be capitalized at $3,000,000,000.

COMPULSORY HEALTH INSURANCE.

Compulsory insurance against loss of health and for the prevention and cure of sickness is provided under the National Insurance Acts (1911-1921) under the Ministry of Health. Estimated number insured July, 1920, 15,850,000, of which 10,850,000 were men and 5,000,000 women. The average payments for nine years (1913-21) in England and Wales for sickness benefit was: Men, £3,368,620; women, £1,548,933; for disablement benefit: Men, £840,100; for women, £447,710. Average annual time lost: Men, 9,163,913 weeks; women, 5,212,461 weeks; total, 14,476,000 weeks (or 278,000 years).

British subjects emigrating to British countries from the United Kingdom in 1921 were 130,000; in 1922, 113,000; to foreign countries, in 1921, 43,000; in 1922, 40,000. Under the British Government's overseas settlement plan, which was in operation from April, 1919, to Dec. 21, 1922, 82,196 British ex-service men and women with their children (37,199 men, 21,672 women and 23,325 children) were given free passage to overseas dominions; 34,763 chose Australia; 26,560 Canada; 12,800 New Zealand, and 5,894 South Africa.

Under the Empire Settlement Act which was passed in the middle of 1922, the number of assisted passages granted to emigrants up to Oct. 1, 1928, was 256,232. Of these 140,556 went to Australia, 40,636 to New Zealand; 66,166 to Canada; and 739 to South Africa.

Emigration for the last 3 years to non-European countries was:

	1926.	1927.	1928.
United States	28,740	25,662	22,345
Canada	21,344	52,916	54,709
Australia	32,732	40,991	28,714
New Zealand	11,795	7,841	4,975
South Africa	232	7,572	7,075
India and Ceylon	.....	6,476	6,502

The birth and death-rates in England and Wales for the last six years are:

	1923.	1924.	1925.	1926.	1927.	1928.
Birth rate	19.7	18.8	18.3	17.8	16.6	16.7
Death rate	11.6	12.2	12.2	11.7	12.3	11.7

The expectation of life at birth in Great Britain is now eleven years greater for males and thirteen years greater for females than it was sixty years ago.

The census of 1921 returned 79.3% of the population of England and Wales living in urban districts. The proportion of aliens was 602 per 100,000. The number of Americans living in England was 19,171 (13,637 in 1911). The average number of children for all men was 1.27 each.

The authorized strength of the police force of England and Wales is about 57,000, and in Scotland, 6,500. The strength of the Metropolitan police (London) in 1928 was 19,379. The Commissioner of the Metropolitan Police is Viscount Byng, who took office at Scotland Yard Nov. 7, 1928.

The new Law of Property Act in effect Jan 1, 1926, changes and greatly simplifies the British Law regarding ownership and transfer of real estate. It abolished many ancient tenures and feudal rights and provides only two ways of holding land in England—by free hold and lease hold for a term of years. It abolished all legal distinction between the sexes in land holding and does away with the old rule of primogeniture in the inheritance of land where the owner dies intestate.

EDUCATION.

The most celebrated of British universities are Oxford and Cambridge, each with colleges founded in the thirteenth century, and inextricably intertwined in the fabric of British history. But there are many others in England, London, Durham, Manchester, Birmingham, Liverpool, Leeds, Sheffield, Bristol, and Reading (1926); in Scotland, St. Andrews, Edinburgh, Glasgow and Aberdeen; and one in Wales.

At the sixteen universities there were, in 1927-28, 5,006 professors and 47,666 resident students. Nine colleges exclusively for women had 2,080 students.

For elementary schools the budget for 1927-28 carried £53,258,000, which includes the expenditure in Scotland, and on museums and gallaries; the amounts appropriated in addition by local educations boards in England and Wales alone totaled for 1927-28, £14,490,000 The compulsory school age limit in England and Wales will be raised from 14 years to 15 on April 1, 1931. In 1928 the number of schools (public elementary, special and certified efficient) in England and Wales for elementary education was 20,684, with 5,560,100 pupils and about 165,010 teachers. In Scotland there were 2,903 schools with 664,958 pupils.

A notable event in the year 1929 was the reunion of the Church of Scotland (membership, 760,000) and the United Free Church (membership, 536,380)

into one national church under the first name which was voted by the General Assemblies of the two bodies in Edinburgh on May 24, 1929.

GOLD IN BANK OF ENGLAND.

The £164,500,152 gold holdings of the Bank of England on Aug. 5, 1925, was the largest in the history of the institution. On April 29, 1925, the week in which gold payment was resumed, they stood at £155,742,064. The lowest holdings since then were £143,711,895, on Jan. 20, 1926; and the highest, £176,584,362, on Sept. 13, 1928. Gold exports followed. Before the war the largest amount ever held was £53,634,723, on Jan. 12, 1914.

The statement of the Bank of England for the week ending Oct. 30, 1929, as compared with the corresponding week of one and two years ago, is as follows (000 omitted):

	1927 Total.	1928. Total.	1929. Total.
Gold holdings.....	£151,251	£164,921	£132,142
Reserve in banking dept., gold & notes	34,425	50,167	33,321
Notes in circulation	136,576	134,500	358,819
Public deposits.....	21,346	14,133	14,383
Other deposits.....	100,653	103,523	96,231
Bankers' accounts..	.....	.....	58,106
Other accounts.....	.....	.....	38,125
Govt. securities....	44,610	42,623	68,852
Other securities....	60,673	42,562	26,123
Ratio of Reserve...	28.22%	43.64%	30.12%

On Nov. 29, 1928, the fiduciary currency was amalgamated with Bank of England note issues, adding at that time £234,199,000 to the amount of Bank of England notes outstanding.

The Bank of England has been authorized to issue these notes as a fiduciary issue up to £260,000,000 in excess of its gold holdings and may not exceed this amount without Government sanction; this is in addition to the amount of notes it issues up to the full equivalent of the gold in its issue department.

The Bankers' Clearing House, London, reported that clearings for 1928 totaled £44,204,729,000, an increase of 6.3% over £41,550,541,000 in 1927, which was then a new record.

Savings deposits in the Post Office Savings Bank and in the Trustee Savings Banks on Sept. 1, 1929 totaled approximately £361,600,000, and in addition £360,000,000 in National savings certificates were outstanding.

Great Britain in the year ending March 31, 1929, according to the Commissioners of Internal Revenue, had 543 millionaires (in pounds sterling) whose aggregate income was $278,560,000, averaging more than $500,000 each. Those whose income exceeded $50,000 (ranking with "dollars" millionaires) numbered an additional 8,747, of which 6,424 were in the $50,000 to $100,000 brackets, 2,045 from $100,000 to $200,000, and 278 from $200,000 to $250,000. The gross income reported to the commissioners was £2,904,000,000 ($14,530,000,000), the lowest figure since 1928-19. This was reduced for taxable purposes to £1,300,000,000 ($6,500,000,000) of which the tax gatherers collected £228,000,000 ($1,100,000,000). The total number of individuals with incomes above the exemption limit of £120 ($600) was 4,650,000, more than half of whom were relieved by abatements and allowances, leaving approximately 2,250,000 to pay income taxes for the year.

The rates (local taxation) produced in 1928-29 in Great Britain £41,058,000 for relief of the poor, £40,407,000 for education, £11,173,000 for police, and £95,530,000 for other services.

The budget for 1929-30 (see table) brought in by Winston Churchill, Conservative Chancellor of the Exchequer, abolished the tea duty in existence since Queen Elizabeth's time. The four-pence a pound duty brought the government about £6,000,000, which is an immediate saving to all the people. Rating relief was provided to the extent of $12,000,000 a year for the farmer immediately. The taxes on betting in effect since Nov. 1, 1926, were repealed and a personal license tax of £10 a year put on bookmakers and £40 a year on each telephone in a bookmaker's office. Increase of duties were put on breweries and tobacco manufacturers and excise duties on liquor retailers reduced. The Government allowances for the year to aid highway building were increased by $40,000,000 to $115,000,000.

The new Labor Government on taking office at once negotiated a treaty with Soviet Russia for the resumption of diplomatic relations, assurances being given by Russia that thereupon definite questions, including propaganda and debt and war claims, would be considered. The treaty was ratified by the Soviet Government Oct. 11, but had yet (Nov. 5) to be considered by Parliament.

ARMY, NAVY AND AIR FORCE.

The regular army, exclusive of India, numbered March 31, 1928, 9,259 officers and 138,573 men; (total strength of the cavalry arm, 8,240; of all ranks total 148,232; of Royal artillery, 22,965; of infantry, 78,337). British garrisons in India numbered 59,978. The strength of the territorials in Great Britain, Dec. 1, 1928, was 140,699 of all ranks. The strength of the army reserve was 92,000. The estimates for 1929-30 provided for a maximum personnel of 150,500 officers and men, including British troops in India.

The budget estimate for the Army in 1929-30 was £40,545,000; in 1928-29, £40,050,000; in 1927-28, £44,565,000; in 1926-27, £42,500,000; and in 1925-26, £44,500,000.

The strength of the navy in its chief units, Feb.1, 1929, was: Battleships, 16; battle cruisers, 4; cruisers, 52; airplane carriers, 7; destroyers, 156; and submarines, 52; with 9 cruisers, 20 destroyers, 18 submarines and 1 aircraft carrier building. The battle cruiser Hood, commissioned 1921, is of 41,200 displacement, carries eight 15-inch guns, and has a speed of 31 knots.

Under the terms of the Washington Naval Armament Treaty (see The World Almanac for 1923, pp. 675-85) the British Empire retained 22 capital ships of 580,450 tons displacement. To replace 4, discarded, two new battleships, Nelson and Rodney (35,000 tons, nine 16-in. guns, speed 23 knots), were laid down in 1922 and commissioned in 1927. The subsequent building program was:

1924-25 estimates provided for the construction of five 10,000 ton cruisers and two destroyers, all completed.

1925-26,—four 10,000-ton cruisers, and two others of the same type for the Australian navy (Australia and Canberra) to replace the obsolete cruisers Melbourne and Sydney, all completed.

1926-27,—two 10,000 ton cruisers, one 8,400 ton cruiser, six submarines, two depot and repair ships, all building.

1927-28,—one 8,400 ton cruiser, nine destroyers, six submarines, two mine sweepers, all building.

1928-29,—two 8,000 ton cruisers, nine destroyers, six submarines.

1929-30,—one 10,000 ton cruiser, two 8,300 ton cruisers, one airplane carrier, nine destroyers, one fleet submarine, five submarines, one net layer.

The building of two 10,000 ton cruisers and one 8,000 ton cruiser which were on the program has been held up.

The personnel Jan. 1, 1914 numbered 144,871; and for 1928-29, 98,800, of whom 8,000 were officers.

The budget estimate for the navy for 1929-30 was £55,865,000; for 1928-29, £56,920,000; for 1927-28, £58,140,000 net; for 1926-27, £58,100,000; and for 1925-26, £60,500,000.

The Royal Air Force was created in April, 1918, by the amalgamation of the army and navy wings. At the close of the war, November, 1918, it was composed of 30,122 officers, 263,410 airmen, and 3,300 service airplanes. On March 15, 1924, it was composed of 3,500 officers, 31,500 airmen and 460 first-line airplanes (exclusive of reserve and training machines); 1,000 were added to the personnel in 1925. The strength of the Air Force Mar. 1, 1929, was 73 squadrons (of 12 airplanes each), 65 being regular and 8 auxillary air service. Of these 38 were in England and 22 abroad, while 25 flights (of 6 planes each and equivalent to 9 squadrons) were attached to the Navy. To the Home Defence force were assigned 25 regular and the 8 auxillary squadrons. The personnel was 32,000 exclusive of those serving in India, but including those serving in Iraq, Palestine and Aden.

The budget estimate for 1929-30 was £16,200,000; for 1928-29, £16,050,000; for 1927-28, £15,150,000; for 1926-27, £16,000,000; for 1925-26, £15,531,000; and for 1924-25, £14,511,000. For civil aviation £000,000 was allotted in 1928-29, £464,000 in 1927-28, and £357,000 in 1926-27. The air routes maintained were London-Manchester, London-Amsterdam, London-Paris, London-Brussels-Cologne, and Cairo-Bagdad.

The Croydon airdrome near London occupies 400 acres and as developed by the Air Ministry at a cost of £267,000 in 1928 has become one of the finest and best equipped airports in the world.

NORTHERN IRELAND.

(Ulster.)

AREA, 5,237 square miles.

POPULATION, census of 1926, 1,256,322.

CAPITAL, Belfast, population, 1926, 425,156.

Governor, The Duke of Abercorn, K. G., K. P., (born Nov. 30, 1869); appointed Dec. 11, 1922 for six years; reappointed for six years from Dec. 8, 1928.

Prime Minister, Viscount Craigavon (Sir James Craig), 1921.

Minister of Finance, H. M. Pollock.

Minister of Home Affairs, Sir R. Dawson Bates.

Minister of Education, Viscount Charlemont.

Minister of Labor, J. M. Andrews.

Minister of Agriculture, Sir E. M. Archdale, Bt.
Minister of Commerce, J. Milne Barbour.
Speaker, the Hon. Henry Mulholland.
Secretary to Cabinet, C. H. Blackmore.
Chairman of Senate, Marquis of Dufferin and Ava.

Six of the nine counties of Ulster, the northeast corner of Ireland, constitute Northern Ireland, together with the parliamentary boroughs of Belfast and Londonderry; they are Antrim, Armagh, Down, Londonderry, Fermanagh and Tyrone. The last two returned two Nationalist-Sinn Fein Members of Parliament at the November, 1922, election on a pro-Free State platform by a majority of about 7,000. The elected members did not take their seats in the Imperial Parliament, nor did the nine elected Nationalist members to the Northern Irish Parliament take theirs.

Joseph Devlin, Nationalist, took his seat in the next Parliament and with his colleague was returned to the Imperial Parliament elected in 1929.

In the general election of May 22, 1929, the result was: Unionists (Government), 38; Nationalists, 11; Labor, 1; Independent Unionists, 2.

A separate parliamentary and executive government for Northern Ireland was established in 1920 and "contracted out" of the newly established Irish Free State in December, 1922. The Parliament consists of a Senate of 26, and House of Commons of 52, both elected with power to legislate in local matters except such as are of Imperial concern or specifically reserved to the Imperial Parliament. Northern Ireland returns 13 members to the House of Commons.

The bulk of the taxation is imposed and collected by the Imperial authorities, which makes certain deductions and remits the remainder to the local exchequer; the contribution to the Imperial exchequer being tentatively paid at £7,920,000 a year. Total income and expenditures were:

Year.	Income.	Expend.	Surplus.
1922-23	£16,980,828	£16,948,786	£32,042
1923-24	14,536,857	14,490,079	46,778
1924-25	13,240,000	13,089,000	151,000
1925-26	12,726,000	12,676,000	50,000
1926-27	11,173,000	11,138,000	35,000
1927-28	11,024,000	10,775,000	249,000
1929-30	10,842,000	10,842,000	.....

The census of April, 1926, returned the population of Northern Ireland as 1,256,322, an increase of 0.5 per cent. over 1911. The population of Belfast was 425,156, with 35,288 in its suburban districts. The country is larger than Connecticut by 300 square miles.

The census of 1926 returned: Catholics, 420,428; Presbyterians, 393,374; Protestant Episcopalians, 338,724; Methodists, 49,554; other professions, 54,481.

Emigration in 1926 was 12,844, in 1925, 8,723, and in 1924, 8,000.

Ulster in 1928 had 1,013,877 acres under crops (1,022,915 in 1927). The yield in 1927 was: Oats, 275,758 tons from 309,639 acres; potatoes, 1,057,010 tons from 153,136 acres; turnips, 709,213 tons from 42,330 acres; flax, 4,988 tons from 26,334 acres; and hay, 945,236 tons from 468,403 acres. Flax acreage was increased to 37,786 in 1928, and the yield to approximately 7,500 tons.

The livestock in 1928 was: cattle, 737,866; sheep, 624,503; pigs, 229,125; goats, 51,443; horses, 92,889; mules, 252; and asses, 8,473.

There were 102,446 agricultural holdings exceeding one acre in 1927 in the hands of 100,671 separate occupiers.

Linen and shipbuilding are the chief industries, both controlled in Belfast. The linen factories have 1,000,000 spindles and 40,000 looms, employing 85,000 hands; and the product, linens to the value of £9,800,000, were exported in 1927 (£17,000,000 in 1926). The trade improved greatly in 1928; 12,991 metric tons of flax were imported, and unemployment in the industry which on Dec. 11, 1927 was 20,193, was reduced to 11,951 on Dec. 11, 1928.

The shipyards employ about 30,000 workers, with an output of 250,000 tons a year.

Unemployment was severe in the spring of 1925, being estimated at 54,000. It reached a maximum of 68,300 (25.7%) in December, 1925, and was 52,800 in December, 1926. The situation improved in 1927 and in May the number was 33,200 (12.6%). The number on Aug. 26, 1929 was 34,368.

Drawing old age pensions in 1925 were 15,160 men and 25,514 women; 37,105 drawing 10 shillings a week; total amount of pensions being £1,036,335. In 1927 the total was 42,000.

There are 765 miles of railways. In 1926, there entered the port of Belfast 5,551 vessels of 2,775,478 tonnage.

Gibraltar, the rock at the southernmost point of the Iberian Peninsula, guards the entrance to the Mediterranean. The width of the strait dividing Europe from Africa is fourteen miles. The Rock has been in British possession since 1713. It has been elaborated, tunneled and armed until it is considered impregnable. A large and secure harbor has been constructed at its foot. As a naval base its position is of the greatest strategic importance. The Rock is 2¾ miles long, ¾ of a mile wide and 1,396 feet in height; the area is nearly 2 square miles; a narrow isthmus connects it with the Spanish mainland. Its population, census of 1921, was 18,061 (estimated, fixed civil, population Jan. 1, 1925, 16,177 and 1,268 aliens). The military establishment numbers about 3,500 men. Gibraltar is a Crown Colony and the Governor and Commander-in-Chief, at present Gen. Sir Alexander J. Godley, G. C. B. (1928), exercises all the governmental functions.

Revenue, 1927, £160,031; expenditures, £160,114. Vessels entering the port in 1927 numbered, 4,429 of 6,624,204 tonnage.

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$2,723,024	$8,520
1923	615,131	16,373
1924	906,991	10,245
1925	1,347,724	34,425
1926	1,676,792	30,800
1927	1,449,398	52,867
1928	1,619,349	29,728

Malta, an island 17 miles long by 8 wide and 58 miles due douth of Sicily in the Mediterranean Sea and about 180 miles from the African coast, has had centuries of stormy history. It was annexed to the British Empire in 1814 following the Napoleonic wars and has been greatly strengthened and made into a base for repair and refitment for the British fleet. The harbor of Valetta (population 24,189) has been improved with a breakwater, but it is not large. The area of the island is 92 square miles, and the total area, including the neighboring islands of Gozo and Comino, is 118 square miles. The civil population, estimated 1927, 227,440.

The Governor, Gen. Sir John Du Cane, K. C. B. (1927), has an elected Legislature to care for purely local affairs.

Revenue, 1927-28, £823,128; expenditure, £887,523. Imports, 1927, £4,285,436; exports, £1,006,881. Vessels entring the port of Valletta, 1927, numbered 2,554 of 3,487,704 tons.

Cyprus is an island, third largest in the Mediterranean Sea, forty miles from Asia Minor and sixty from Syria. Its area is 3,584 square miles, and population, estimated Dec. 31, 1923, 324,945. It was administered by England under a convention of June 4, 1878, and was annexed Nov. 5, 1914.

Nicosia is the capital, population, 18,461; other towns, Larnaca, 10,652; Linasol, 11,843.

The island is agricultural, with wheat, barley, vetches, oats, olives, and cotton chief products. Thirty per cent. of the land area is cultivated.

Revenue, 1927, £655,997; expenditures, £615,029; debt, £180,438, for harbors, railroads and irrigation. Imports, 1927, £1,585,306; exports, £1,542,870.

Trade of Malta and Cyprus with the United States was:

Cal. Year.	Imports.	Exports.
1922	$1,492,909	$109,497
1923	1,066,798	122,525
1924	1,259,096	117,546
1925	1,192,228	228,489
1926	1,312,222	194,928
1927	1,112,339	225,943
1928	804,947	121,385

IRISH FREE STATE.

(Saorstat Eireann.)

AREA, 26,592 square miles.
POPULATION, census of 1926, 2,972,802.
CAPITAL, Dublin; population, census of 1926, 316,471; with suburbs, 419,156.

Governor General, James MacNeill. Appointed Dec. 6, 1928.
President of the Executive Council, William T. Cosgrave.
Vice President and Minister for Finance, Ernest Blythe.
Minister for Justice, Fitzgerald Kenny.
Minister for Defense, Desmond Fitzgerald.
Minister for External Affairs, and for Industry and Commerce, Patrick McGilligan.
Minister for Education, J. Marcus O'Sullivan.
Minister for Local Government, Gen. Richard Mulcahy.
Minister for Agriculture, P. J. Hogan.
Parliamentary Secretary for Posts and Telegraphs (in Finance Department), Michael Heffernan.
Minister of Fisheries, Finian Lynch.
Attorney General, John O'Byrne, Jr.

Speaker of Dail, Prof. Michael Hayes.
Chairman of the Senate, Thomas Westropp Bennett.
Minister Plenipotentiary to the United States, Michael MacWhite.
Trade Commissioner and Passport Control Officer, at New York, 1 Broadway, Matthew Murphy

The Irish Free State took its place among the world's commonwealths on Dec. 6, 1922, by proclamation of King George, the swearing in of Timothy M. Healy as Governor General and the meeting of the Parliament (Oireachtas), which succeeded the provisional regime. William T. Cosgrave was chosen President of the Executive Council and named the six Ministers and the thirty nominated Senators. The Union Jack was furled and the Irish tricolor, green, white and orange, raised over the Viceregal Lodge. It was the anniversary of the signing of the Anglo-Irish Treaty. The Constitution had been adopted by the Dail on Oct. 11, and enacted by the Imperial Parliament on Dec. 4. The last British troops, 3,000 men, under the command of Gen. Sir Nevil Macready, handed over the barracks and posts to the Free State soldiers on Dec. 17 and sailed from Dublin for England amid scenes of the greatest good will. (The history of the events leading up to the establishment of the Irish Free State may be found in The World Almanac for 1923, see pages 142-144.) (For the political history of the Irish Free State since 1922, see The World Almanac for 1929, pages 562-564.)

The franchise is extended to both sexes over the age of 21 for election of deputies to the Dail (Lower House). At the general elections of 1927, there were 1,730,426 voters on the list. Elections are determined under a Proportional Representation system. The system is not popular and there are indications that it may be abolished in the near future. The Irish Free State (26 counties) is divided into 28 electoral constituencies, including the two universities, Dublin University and the National University, each of which returns three deputies. The total number of deputies in the Dail is 153.

Seanad Eireann (the Senate) is comprised of citizens who are selected on the ground of special qualifications—service to the nation or special attainments—and numbers sixty senators. A recent Act of the Oireachtas (Irish Congress) has reduced the number of Senators to 40, altered the method of election under which the Senate nominated 20 members and the Dail Eireann 20 members, the election of senators being transferred from the electorate to the Dail and Senate voting conjointly. Previously the Irish Free State was a single electoral area for the election of Senators, the voters confined to those over 30 years. Only 25% of the registered electors voted in the last elections for vacancies in the Senate.

The election June 8, 1927 of the Fifth Dail Eirann returned 46 members of the government party and 44 of the Fianna Fail which had hitherto abstained; but on Aug. 11, De Valera and his followers took the oath, declaring it an empty political formality having no binding significance." A motion of no confidence on a tie vote was decided for the government by the casting vote of the Speaker.

The margin was too small to carry on. Cosgrave dissolved the Dail and forced a new election which, on Sept. 15, returned a sixth Dail Eireann:—

Cumann na nGaedheal (Government)	61
Fianna Fail (De Valera)	57
Independents	12
Labor	13
Independent Labor	1
Farmers	6
National League (Redmondites)	2

Michael Hayes, Ceann Comhairle (Speaker) made up the total of 153 deputies. Neither the Sinn Fein nor the Independent Republicans sought re-election. The session opened Oct. 11, 1927. All the deputies, with one exception, subscribed the roll and took the oath.

President Cosgrave was re-elected President of the Executive Council. Several changes were made in the Cabinet. Ernest Blythe was appointed Vice-President in place of the late Kevin O'Higgins. Desmond Fitzgerald was transferred from External Affairs Department to the Ministry of Defense. Patrick McGilligan became Minister both of External Affairs and the Department of Industry and Commerce. J. J. Walsh, former Minister of Posts and Telegraphs, had resigned previous to the general elections and did not seek re-election to the Dail. His seat in Cork is now filled by President Cosgrave. Instead of a Minister of Posts and Telegraphs, this Ministry was merged in that of the Ministry of Finance, Michael Heffernan, leader of the Farmers, being appointed Secretary of Posts and Telegraphs under Ernest Blythe, Minister of Finance. Economies were thus effected in two Departments by a process of amalgamation which has proved satisfactory.

Thomas A. Smiddy, former Minister at Washington, was sent to London as High Commissioner. Charles Bewley was made Minister to the Vatican.

The government escaped disaster by the slender margin of 151 votes in an electorate of 96,000 when Dr. Thomas O'Higgins, brother of the murdered vice-president, Kevin O'Higgins, won the bye-election for the letter's seat, North Dublin, on March 15, 1929. Its position was greatly strenghtened by decisive bye-election victory on June 9, when Gen. Sean Maceoin, the blacksmith, won Sligo-Leitrim by a majority of 3,977.

A suit brought in the Supreme Court of New York City to settle the ownership of $2,500,000 held by the Harriman National Bank, being the remainder of $8,000,000 subscribed in the United States to a bond issue of the Irish Republic after a two weeks' trial was dismissed by Justice Curtis H. Peters on May 11, 1927. He held that the Irish Republic never existed, therefore the Irish Free State was not its successor, and that the money, less legal fees (which were heavy), should be returned pro rata to the subscribers.

The subscribers numbered 303,000 and claims had been made by 135,000 in Dec. 31, 1928, the final date for receipt. Minister of Finance Blythe announced on July 2, 1929, the policy of the government, when the American courts certify that all the money held by the court has been refunded, to make good to all the subscribers the balance of the sums subscribed.

The Irish Free State consists of the three Southern provinces: Leinster, Munster and Connaught, and three counties: Cavan, Donegal and Monaghan of Ulster. Two of the remaining six counties of Ulster, Fermanagh and Tyrone (population exceeding 200,000), have pro-Free State majorities as shown by the election for members of Parliament on Nov. 15, 1922, when the Nationalists and Sinn Fein candidates were elected over the two Conservatives by a majority of about 7,000. The Free State is about equal in size to the States of New Hampshire, Vermont and Massachusetts.

The census of April, 1926, in Ireland, returned for the Irish Free State a population of 2,972,802, as compared with 3,139,688 in 1911, a loss of 3.7 per cent. The number of males was 1,506,916 and of females 1,456,886 (973 to 1,000). The Northern Ireland census showed a population of 1,256,322 (1,250,219 in 1911, a gain of 0.5 per cent.), making the total for all Ireland 4,229,124. The decrease in population is partly accounted for by the withdrawal of the British troops and their dependents, numbering about 34,000; more than 24,000 killed in the war; about the same number of officers and men who settled abroad after the war, and the more than 8,000 members of the Irish constabulary who have left the country. Commenting on emigration, the report says that in 1921 there were 1,817,457 native-born Irishmen living in foreign countries. This is 43 per cent. of Ireland's population. Of them, 1,037,234 are in the United States, 367,174 in England and Wales, 159,020, in Scotland, 105,033 in Australia, 34,419 in New Zealand, 12,289 in the Union of South Africa, and 8,414 in India. In 1927, 27,148 left the Free State; in 1926, 30,041, of which 26,063 went to the United States; and in 1925, 30,167, 26,416 to the United States.

Provision was made in 1925 for the utilization of the water power of the River Shannon, using Derg Lough, Rea Lough and Allen Lough as reservoirs, with a storage capacity of 827,000,000 cubic meters. The fall is 98 feet. While the plant will ultimately generate 165,000 horsepower and the high tension alternating current will be transmitted to about 200 transformer stations, the first installment is planned to develop 90,000 horsepower.

The Shannon power station will be ready to supply electric current to the whole of the Irish Free State during the winter of 1929-30. The intake gates, which control the passage of water into the canal seven and a half miles long, to the power house, were opened with ceremony by President Cosgrave, on July 22, 1929. The Electricity Supply Board anticipates a consumption of current amounting to 144,000,000 k.w.h. in 1932. The wiring of houses and villages has proceeded rapidly, much of the work being done by the installation department of the Electricity Supply Board. Thousands of houses are being wired on the hire-purchase system.

Expenditures on the Shannon electrification scheme total nearly £5,000,000, including the expenditure for wiring the towns in Leinster Province. The total cost will be approximately £7,000,000. ($35,000,000).

Henry Ford in 1929 removed his entire tractor plant to Cork, where extension of his factories, employing in 1929, 4,000 workers, will furnish capacity for a production of 125,000 a year, doubling the

output. By a rule of the United States Treasury Department, June 11, the American-Irish made tractors may be imported into the United States duty free.

The net output of Irish industry in 1926—that is, the gross value of output less the cost of materials, including light and power—was £24,190,000, on the basis of a total expenditure for salaries and wages of £13,200,000 paid to 107,300 workers.

The gross value of the output of leading industries was: Grain milling, £7,242,756; bread, etc., £4,900,531; sugar, confectionary and jam, £807,857; butter, cheese and margarine, £7,366,089; bacon curing, £5,451,326; brewing, £7,300,365; malting, £655,661; distilling, £288,425; aerated waters and bottling, £2,209,993; tobacco, £5,033,336; clothing and millinery, £1,724,259; boots and shoes, £401,845; hosiery, £238,507; woolen and worsted, £737,336; and linen, cotton, hemp and jute, £442,063.

Dublin showed an increase from 304,802 in 1911 to 316,471 in 1926 for the city; and from 397,957 in 1911 to 419,156 in 1926 for the city, with its four suburban districts. The population of Cork in 1926 is 78,468; of Limerick, 39,690; and of Waterford, 26,646.

The average annual births from 1911 to 1926 were 64,584 (21.1 per 1,000), and deaths, 48,764 (16.0 per 1,000).

Catholics formed 92.6% of the population in 1926, and Protestants of all denominations, 7.4% (220,792, a decline of over 106,456 since 1911).

Trinity College, Dublin, (founded 1591), had in 1928, 1,238 students and the four constituent colleges of the National University of Ireland (founded 1909), at Dublin, Cork, Galway and Maynooth, had 1,168, 494, 250, and 518 students respectively.

The number of schools (1928) was 5,648 with 518,002 pupils and 13,500 teachers. The budget for 1928-29 provided £3,475,832 for elementary education. Secondary schools numbered 284 with 25,510 pupils; cost, 1928-29, £276,400.

The Army, for 1928-29 has been reduced to 750 officers and 9,500 men, for which the budget provides £2,185,167. The police force is a nationally organized government body known as Garda Siochana (Civil Guards). Its strength is 220 officers and 6,994 men for which the budget provides £1,400,288.

The head is Gen. Eion O'Duffy, and the headquarters are in Phoenix Park, Dublin, with 700 substations among the whole county. The uniformed men are unarmed, well trained and respected, and do much government inspection work. Crime is at a low ebb. Mountjoy prison is the only one left in Dublin, and there are only seven in the whole country.

There are 13,000 "pubs," licensed to sell intoxicants, or one to every 230 persons, and the Government is taking steps to cut the number in half.

Agriculture is the chief industry. In 1927 the production was: Wheat, 38,059 tons from 34,466 acres; oats, 667,643 tons from 644,610 acres; barley and bere, 134,886 tons from 120,795 acres; rye, 4,544 tons from 6,056 acres; potatoes, 2,443,175 tons from 364,539 acres; turnips, 3,478,372 tons from 183,213 acres; mangels, 1,617,816 tons from 79,804 acres; sugar beet, 134,257 tons from 17,698 acres; cabbage, 334,294 tons from 30,871 acres; flax, 990 tons from 5,998 acres; and hay, 4,992,373 tons from 2,183,086 acres Farm animals numbered: cattle, 4,047,013; sheep, 3,120,308; pigs, 1,177,737; goats and kids, 185,810; horses, 428,502; mules and jennets, 19,065; and asses, 197,004.

The number of small holdings in Ireland, excluding all Ulster, in 1918 were: Not exceeding 1 acre, 80,929; from 1 to 5 acres, 29,381; from 5 to 10 acres, 37,047; from 10 to 15 acres, 34,443; from 15 to 30 acres, 74,476; from 30 to 50 acres, 44,227; total, 300,503. Holdings of above 50 acres were 77,015, making the grand total of holdings, small and large, 377,518.

The Irish Free State Land Purchase Bill, put before the Dail, May 28, 1923, to enable the Government to acquire, compulsorily from landlords, lands for distribution to tenants and to present holders of uneconomic tracts in congested districts, affects about 70,000 tenants, and requires about $120,000,000 for the operation of its provisions.

The bill provides that rents accruing up to the first gale (rent) day of 1920 shall be remitted. Arrears since that date, however, shall be paid, subject to a discount of 25 per cent. One year's arrears become payable on the passage of the bill.

The passage of the bill continued that process of land distribution which has been in progress since 1870. Between that year and the present about 400,000 tenants have become owners of their holdings. About 70,000 tenancies remain, and these will be converted into proprietorships by the new measure. In addition, the condition of members of the agricultural tenant class now in possession of unproductive holdings will be improved.

The fiscal autonomy of the Irish Free State was completed on April 1, 1923. Then the collection of all duties from taxes was undertaken, a customs system was established, and taxes separate and distinct from those imposed by the British Government were levied.

The budget for fiscal years ending Mar 31, in thousands of pounds sterling, are:

Year.	Revenues.	Expenditures.
1922-23 (actual)	27,863	31,198
1923-24 (actual)	31,415	(a) 42,384
1924-25 (actual)	26,968	29,793
1925-26 (actual)	25,489	28,007
1926-27 (actual)	25,175	28,341
1927-28 (actual)	24,473	31,437
1928-29 (actual)	24,566	29,053
1929-30 (estimated)	24,364	29,540

(a) Of which £10,581,000 was for the army.

The national debt was on March 31, 1929 approximately $144,057,450, or equivalent to $47.50 per capita as compared with $818 for Great Britain, $298 for Australia, and $146 for South Africa.

Following the report of the Commission headed by Dr. Henry Parker Willis, former Secretary of the Federal Reserve Board of New York, appointed in 1926, the Dail passed a Currency Act which became law Aug. 20, 1927. It makes the unit of currency the Saorstat pound = 123.27447 grains of gold 916.6 fine (= the pound sterling), and authorizes the coinage of pound and 10-shilling pieces when bullion is presented. It establishes a currency commission with which is associated share-holding banks. This Commission will issue legal tender notes based on gold, British bank notes, Government short term securities, or sterling balances held abroad, and also will provide for the issue by each share holding bank of consolidated bank notes based on commercial credits, —a maximum of £6,000,000, subject to readjustment every three years.

Great Britain and Northern Ireland supplied about 80 per cent. of the imports and took 96 per cent. of the exports in 1924 and 1925; 80 per cent. of the imports and 90 per cent. of the exports was trade in live animals and in food and drink.

Trade for four years was:

Year.	Imports.	Exports.
1924	£65,811,406	£48,448,395
1925	62,913,230	43,362,921
1926	61,285,941	41,956,712
1927	60,822,032	44,168,118

Trade between the Irish Free State and the United States being largely indirect through British agencies and British ports, official statistics do not reveal the actual figures. The figures given by the United States Department of Commerce for the direct trade are: Imports, 1928, $13,466,631; 1927, $10,882,180; 1926, $16,986,518; 1925, $7,280,334; exports, 1928, $1,723,729; 1927, $1,642,168; 1926, $1,476,397; 1925, $1,268,678.

The policy of the Government has been directed to moderate experimental tariffs, and has established a tariff commission.

The consolidation of the railways comprising 2,077 miles, formerly operated by twenty-six companies, into one operating company known as the Great Southern Railway, was completed early in 1925. The authorized capital (1925) was £44,034,755; gross receipts (1926), £4,344,653; expenditures, £3,895,220. Total railway mileage was 2,668.

Vessels entering the ports in 1927 numbered 13,494 of 9,262,100 tons.

INDIA.

AREA, of British provinces, 1,094,300 square miles; area of protected native states or agencies, 711,032 square miles. Total India, 1,805,332 square miles.

POPULATION, of British provinces, census of 1921, 247,003,293; native states and agencies, 71,882,687; total India, 318,885,980.

CAPITAL, Delhi; population, 304,420.

Viceroy and Governor General, Lord Irwin (E. F. L. Wood), took office April 3, 1925.

India is bounded on the north by Afghanistan and China; on the east by China, Siam and the Bay of Bengal; on the south by the Bay of Bengal, the Indian Ocean and the Arabian Sea; on the west by the Indian Ocean, the Arabian Sea, Persia and Afghanistan. Its territory is as large as that of the United States east of the Rocky Mountain States.

The climate ranges from the extremely hot in the southeast to cooler elevations of the northwest mountains, the whole being tropical in general character.

Approximately 20 per cent. of the area is forested; among the timber products being sandalwood, teak, ironwood, deodar, sissal, satinwood, date palm, cocoanut, sago, banyan and acacia.

The country is essentially agricultural, 70 per cent. of the people living therefrom. By the 1921 figures, there were in all of India, British India and the native states, 318,885,980 persons, of which about 229,045,000 were supported by soil tillage, forestry and livestock husbandry. Agriculture is crude, although improvement of method is being attained through the efforts of the British Department of Agriculture, which maintains staffs of experts to inculcate modernity among the natives. They also teach better ways of caring for domestic animals, and encourage the introduction of high-bred grades.

In 1927 there were 226,012,207 acres in crops and 49,699,603 in fallow, in British India, with 24,667,813 irrigated by canals, 5,565,265 by tanks, 12,006,462 by wells, and 5,545,093 by various other ways. The area irrigated by Government works was 28,100,000 acres. In 1928 the yield was: Rice, 27,972,000 tons from 77,790,000 acres; wheat, 7,762,000 tons from 32,211,000 acres; sugar cane, 3,221,000 tons from 2,954,000 acres; rape and mustard seed, 846,000 tons from 5,931,000 acres; linseed, 351,000 tons from 3,352,000 acres; sesamum, 544,000 tons from 5,445,000 acres; cotton, 5,871,000 bales from 24,722,000 acres; jute, 10,180,000 bales from 3,374,000 acres; tea, 390,919,800 pounds from 752,900 acres; and rubber, 26,042,800 pounds from 151,900,000 acres.

Under the State Forest Department are 251,755 square miles of forests of which 105,285 are reserved. The net revenue in 1929 was 26,431,932 rupees.

Livestock in 1924-25 numbered 120,340,000 oxen, 30,612,000 buffaloes, 23,233,000 sheep, 39,237,000 goats, 1,710,000 horses, 70,000 mules, 1,411,000 donkeys and 505,000 camels.

INDUSTRY, MINING AND COMMERCE

Excluding the Indian States and Government Factories, British India in 1927 had 6,393 industrial establishments subject to the Indian Factories Act, employing 1,268,200 persons. The cotton industry is the most important, there being June 30, 1927, 278 spinning and weaving mills employing 324,600 hands; and in all India 3,702,760 spindles, and 161,952 looms. The cotton mills in the fiscal year 1928-29 produced 648,283,337 pounds of yarn and 1,893,268 yards of cloth; 149,219,080 yards were exported.

Jute mills come next, 90 in number, with 50,354 power looms and employing 339,500 persons; cotton ginning and baling, 2,116 establishments, employing 143,300 persons. Other industries employing 11,000 persons or more are transport, rice mills, engineering, manufacture of arms and ammunition, printing, machinery, foundries, lumber, tea factories, woolen goods, sugar, oil and tobacco.

India has an unusually wide range of minerals. Coal production in 1927 was 22,082,336 long tons (1926, 20,999,167); iron ore, 1,846,735 tons (1926, 1,659,295); manganese ore, 1,129,353 tons (1926, 1,014,928); tungsten ore, 1,150 tons (1926, 1,484); copper matte, 11,872 tons (1926, 11,441); lead, 450,777 tons (1926, 362,910); gold, 384,272 ounces (1926, 384,158); and silver, 6,024,806 ounces (1926, 5,126,088).

India produced 8,300,000 barrels of petroleum in 1928; 7,787,000 in 1927; 8,728,000 in 1926; 8,000,000 in 1925; 8,416,000 in 1924; 8,406,000 in 1923; and 8,529,000 in 1922.

Shipping entering Indian ports in 1927-28 numbered 3,918 vessels of 8,876,840 tons, of which 2,213 of 6,184,868 tons were British.

India had open for traffic on March 31, 1928, 52,886 miles of railway, of which 40,299 were Imperial State lines and 4,988 Indian State lines. The gross earnings of all State owned lines in 1927-28 was $429,860,646. Railway development is not modern, four gauges being employed, preventing the interchange of cars from one line to another. Navigable waterways inland amount to 4,000 miles, and there are about 200,000 miles of highways.

The Sukkur Barrage in the Sind—one of the great irrigation schemes in the world—and the Sutlej Valley irrigation project, in the Punjab have both received the sanction of the Indian Government and the Bombay Legislative Assembly. The Sukkur Barrage will cost £18,500,000 and will be financed by loans aggregating $50,000,000. It provides for an extensive system of canals on both banks of the Indus River to supply perennial irrigation and it is expected that during the next ten years the cotton acreage in the Punjab will be trebled and between two and three million acres will be added to the wheat producing area. The Government will also stimulate sugar-cane production in the Sind.

The total capital cost of Government irrigation works up to 1923-24 was 892,500,000 rupees (1 rupee = $0.3666 at current rates of exchange) and the total value of irrigated crops for that year alone was estimated at 1,400 millions of rupees. The construction of new works continued in 1927-28 in practically all the provinces. The Sutlej system will bring 5,000,000 additional acres under cultivation. The first unit was opened April 12, 1926.

THE BRITISH ARMY IN INDIA.

The British regular forces in India are paid by the Indian Exchequer. The expenditure in 1928-29 was 580,412,000 rupees ($212,779,040.) The strength of the British Army in India in 1927 was 60,223; and of the native army, 167,562. They are organized in brigades and divisions with the native army, the normal proportion being one British battalion to 3 native. In October, 1927, there were 45 British infantry battalions, 127 native; 5 British cavalry regiments, 21 native. The horse (4 batteries), field (44 batteries) and garrison (9 batteries) artillery, the tank corps (8 companies) and Royal Air Force are wholly British. The native army has 19 pack artillery batteries, 24 engineer companies and 24 signal companies. In addition there is an auxiliary force, organized in 1920 for volunteers of British extraction, which numbers 23 infantry battalions, 20 garrison artillery batteries, 11 cavalry regiments, 19 railway battalions, 5 engineer companies and 1 signal service company. Eight regiments in 1923 were wholly officered by Indians as to company or squadron officers.

The creation of a Royal Indian Navy was announced Feb. 9, 1926.

A reorganization of the Indian Government has consolidated the departments under three heads: Commerce; Industries and Labor; Education, Health and Lands, together with a Board of Revenue to shape a definite taxation policy.

TO ADOPT GOLD STANDARD.

The Indian Currency Commission, appointed in August, 1925, to investigate the monetary system of India, recommended Aug. 6, 1926, a gold standard for India with the immediate stabilization of the rupee at its then rate of 1s. 6d., and the creation not later than January, 1929, of a central reserve bank with separate note issue and banking departments, the banking department to hold the reserves of the Bank of India, to carry all the Government's accounts and to handle all oversea remittances of the Government. The profits after deducting dividend payments and reserves, would accrue to the Government. The bank would have for twenty-five years the sole right of the issue of notes.

Opening such a bank has been postponed.

To secure the 1,868 million rupees of the State notes in circulation on Sept. 30, 1928, the Indian Government had a gold reserve of 322 million rupees at home, 29 million abroad, 1,130 million in silver, and 603 million in foreign securities.

The commission did not contemplate the minting and circulation of gold coin but the redemption of notes and silver rupees in gold bullion at the fixed rates; in foreign exchange transactions, the bank would be obligated to buy and sell bills of exchange unreservedly at rates within the gold points for the transfer of bullion between London and India. The date recommended for the institution of the gold standard is set at not later than January, 1931.

With no gold coin in circulation the temptation to melt down one's wealth—so prevalent among the natives—is avoided, and the fact that gold bars could be purchased from the Government at a never-varying rate would do away with the speculative holding and hoarding of gold that now prevails. Gold and securities redeemable in gold are to constitute between 40 and 60 per cent. of the reserves, but never less than 40 per cent. while actual gold would constitute at least 20 per cent., rising to 25 per cent. within ten years. One-half of the gold reserve would be held in India and one-half abroad. The Indian Government received the report with favor.

During 1925 India imported 3,421 tons of silver, valued at $73,263,157, and 10,393,867 fine ounces troy of gold, valued at $220,581,836, approximately 55 per cent. of the world's gold production and 42 per cent. of the world's silver production for that year. The United States was the greatest supplier of gold, providing 34 per cent., and 52 per cent. of the silver.

Bullion imports in 1926 were 4,095,652 fine ounces of gold valued at 233,754,182 rupees (about $84,151,500) and 127,325,739 ounces of silver valued at 212,776,625 rupees (about $76,599,585).

Gold is hoarded in India by all classes of people, as a reserve against famine, and to form a "marriage dot." The wealthy princes have accumulated enormous sums.

The net imports of gold into India 1919-1925 was

$1,031,000,000. In 1906 the hoarded wealth of India stood at $1,800,000,000. In 1925 it was computed at $2,500,000,000, an increase of $700,000,000 in seventeen years. The silver holdings in various forms was estimated at $2,750,000,000.

Recent budgets in rupees and converted into dollars (rupee = $0.3666) are:

First Year.	Revenues.	Expenditures
1925-26	1,306,797,000	1,304,384,000
	($479,071,780)	($478,187,175)
1926-27	1,304,297,000	1,303,766,000
	($478,140,280)	($477,960,600)
1927-28	1,289,600,000	1,252,600,000
	($472,767,360)	($459,203,160)
1928-29	1,253,000,000	1,132,000,000
	($451,080,000)	($407,120,000)
1929-30	1,340,633,000	1,340,633,000
	($491,463,950)	($491,463,950)

The public debt of March 31, 1928 was 9,887,900,000 rupees ($3,624,974,140); about two-thirds is for productive purposes.

Great Britain officially defines British India as that part of the Indian peninsula which is directly under British rule, but the technical delimitation of British India shades off into other areas, where British influence predominates and is virtually complete. The British imperial status was given when Queen Victoria was proclaimed Empress of India in 1876.

GOVERNMENT OF INDIA.

To the Secretary of State for India in the Cabinet at Westminster is intrusted the administration of the Indian Empire. He is assisted by a council of from 8 to 12 members, at least one-half of whom have lived in India. App op.iations of revenues must receive a majority of the votes in Council.

In India there is a legislature consisting of the Governor General and two Chambers, the Council of State (of whom 33 are elected and 27 nominated), and a Legislative Assembly (opened 1921), with 104 elected members and 41 nominated, of whom 26 are to be official members. The president is elected

This legislature has power, subject to certain restrictions, to enact laws for all persons in British India, for all British subjects within other parts of India, and for all native Indian subjects in any othe. parts of the world. The Governor General, after specific consent obtained from the King and Parliament, may enact measures essential to the safety, tranquility or interests of British India, against the wish of the Council or Assembly. The foreign and political department is directly under the Governor-General.

British India is divided into 15 administrations, each under a Governor.

Government there by Britain is declared to be based on the principle which has obtained in other colonies and dominions since the time the United States separated from the mother country—that of advancing the people as far as possible along the pathway toward autonomy and complete self-government. The ultimate objective is said to be that absolute self-government which the Dominion of Canada, the Commonwealth of Australia, the Union of South Africa and other areas have. The backward status of the people has prevented the realization of such an end so far, according to British authoritative statements.

Although the efforts of Britain to introduce better methods have accomplished much and have held loyal a large proportion of the people, there has lately been an arousal of extreme nationalism, with resistance by the agitators and their followers to British rule, taking, under the leadership of Gandhi, the form of non-co-operation.

The Viceroy, Lord Irwin, in an official statement at Delhi, Oct. 31, 1929, reaffirmed pledges made by Edwin Montague, Secretary for India in the Coalition Government in Parliament in 1919, and by Prime Minister Stanley Baldwin, and stated on the authority of the Government that the natural issue of India's constitutional progress is the attainment of a Dominion status." A Statutory Commission headed by Sir John Simon and representing all British political parties has been studying Indian conditions for over two years, but has not (Nov. 1, 1929) completed the task.

There has been much Communistic and Nationalistic agitation. Two bombs were exploded in the Legislative Assembly in Delhi by the "Hindustan Republican Army" on April 8th.

The year 1929 was marked by religious riots which raged in Bombay in February and more than 116 persons were killed and 700 injured.

The Legislative Assembly in September, 1929, by a very large majority, enacted a law introduced by a Hindu member, raising the minimum age for marriage of girls to 14 years and the age of consent to 16.

Women have had the vote in some provinces since 1924.

India had in 1925-26, 613,996 acres under opium; this was reduced to 143,750 acres in 1927. The Government of India on June 11, 1926, announced that it had decided to end opium exports for other than strictly medical purposes by effecting a 10 per cent. reduction in 1927 and continuing that reduction yearly so that the last exports will take place in 1935. The exports will be under a system of direct sales to the Government of the importing country. The revenue from opium in 1924-25 was £3,798,000; in 1925-26, £4,150,000; in 1926-27, £4,331,000; in 1927-28, £2,852,000; and in 1928-29 (estimated) £2,609,000.

POPULATION OF THE CITIES OF INDIA.

The principal cities of above 100,000 inhabitants with their population, by the census of 1921, are:

Town.	Pop.	Town.	Pop.
Calcutta (with suburbs)	1,327,547	Allahabad	157,220
Bombay	1,175,914	Mandalay	148,917
Madras	526,911	Nagpur	145,193
Hyerabad	404,187	Srinagar	141,735
Rangoon	341,962	Madura	138,894
Delhi	304,420	Bareilly	129,459
Lahore	281,781	Meerut	122,609
Ahmedabad	274,007	Trichinopoly	120,422
Lucknow	240,566	Jaipur	120,207
Bangalore	237,496	Patna	119,976
Karachi	216,883	Sholapur	119,581
Cawnpore	216,436	Dacca	119,450
Poona	214,796	Surat	117,434
Benares	198,447	Ajmer	113,512
Agra	185,532	Jubbulpore	108,793
Amritsar	160,218	Peshawar	104,452
		Rawalpindi	101,142

There are also 51 with a population of between 30,000 and 100,000.

The birth rate in British India for 1926 was 34.77; 1925, 33.65; 1924, 34.44; 1923, 35.6; and the death rate 1926, 26.76; 1925, 24.72; 1924, 28.49; 1923, 25.0.

Snakes killed 19,069 persons in 1927 and 57,116 poisonous snakes were killed; tigers killed 1,033 people; wolves, 465; leopards, 218; crocodiles, 140; bears, 78; elephants, 56; jackels, 45; and hyenas, 12. On the other hand, 25,612 wild animals were killed; of these 1,068 were tigers; 4,390 leopards; 2,739 bears; and 2,439 wolves. The government bounties paid amounted to 139,453 rupees.

RELIGIOUS STATISTICS OF INDIA.

(Census of 1921.)

Sects.	Number.
Total population	318,885,980
Hindus	216,734,586
Sikhs	3,238,803
Jains	1,178,596
Buddhists	11,591,268
Parsees	101,778
Mohammedans	68,735,233
Christians	4,754,079
Roman Catholics	1,823,079
Anglicans	533,180
Presbyterians	254,838
Baptists	444,479
Lutherans	240,816
Methodists	208,135
Congregationalists	123,016
Salvationlists	88,922
Syrian (Romo-Syrian)	420,968
Syrian (others)	367,588
Jews	21,778
Animistic	9,774,661
Others, about	18,000

The number of Europeans was 176,031 (males, 125,229; females, 50,802) and of Anglo-Indians, 113,090 (males, 56,668; females, 56,422). The English language is native to 308,071 and 2,500,000 know English.

It is said that there are 45 races, speaking 170 languages, and 2,400 castes and tribes, divided, 217,000,000 Hindus, 68,000,000 descendants of Turanian tribes, 68,000,000 Mohammedans, and there are 700 feudatory states. Each cult, caste and tribe adheres strongly to its religious beliefs and social rules, many of them with fanaticism, especially the Mohammedans, who even in far-off India look quite as faithfully toward Mecca each sundown as do those nearer to the capital of Islam for 1,000 years. The stability of these conditions, touching all classes, is probably the more assured because of all the population only about 11 per cent. is urban.

ILLITERACY IN INDIA.

The following statistics of illiteracy are those of the census of 1921.

BRITISH PROVINCES AND NATIVE STATES IN INDIA.

British Provinces.	Area in Sq.Miles.	Pop., 1921.
Ajmer-Merwara	2,711	495,271
Andamans and Nicobars	3,143	27,086
Assam	53,015	7,606,230
Baluchistan	54,228	420,648
Bengal	76,843	46,695,536
Bihar and Orissa	83,161	34,062,189
Bihar	*42,360*	*23,380,238*
Orissa	*13,786*	*4,968,873*
Chota Nagpur	*27,065*	*5,653,028*
Bombay (Presidency)	123,621	19,348,219
Bombay	*77,035*	*16,012,342*
Sind	*46,506*	*3,279,377*
Aden	*80*	*56,500*
Burma	233,707	13,212,192
Central Provinces and Berar	99,876	13,912,760
Central Provinces	*82,109*	*10,837,444*
Berar	*17,767*	*3,075,316*
Coorg	1,582	163,838
Delhi	593	488,188
Madras	142,260	42,318,985
Northwest Frontier Province	13,419	2,251,340
Punjab	99,846	20,685,024
United Provinces	106,295	45,375,787
Agra	*82,137*	*33,209,145*
Oudh	*24,158*	*12,166,642*
Total Provinces	1,094,300	247,003,293

State or Agency.	Area in Sq.Miles.	Pop., 1921.
Assam State (Manipur)	8,456	384,016
Baluchistan States	80,410	378,977
Baroda State	8,135	2,126,522
Bengal States	5,423	896,809
Bihar and Orissa States	28,556	3,971,603
Bombay States (incl. States in Western India Agency)	59,560	7,463,723
Central India Agency	52,317	6,028,282
Central Provinces States	31,081	2,217,406
Gwalior State	26,382	3,195,475
Hyderabad State	82,698	12,471,770
Kashmir State	89,807	3,699,065
Madras States Agency	10,644	5,460,312
Cochin	*1,361*	*979,019*
Travancore	*7,594*	*4,005,849*
Mysore State	29,469	5,859,952
N. W. Frontier Province (Agencies and Tribal areas)	25,500	2,825,136
Punjab States Agency	30,742	4,011,077
Rajputana Agency	129,058	13,308,781
Sikkim State	2,818	81,721
United Provinces States	2,218	1,164,824
Total States	711,032	71,882,687
Total Provinces	1,094,300	247,003,293
Total India	1,805,332	318,885,980

Note.—Figures in *italics* are included in the totals just preceding them.

	Able to Read and Write.	Unable to Read and Write.	Total.
Males	19,841,438	142,623,691	162,465,129
Females	2,782,213	150,807,899	153,590,112
Total	22,623,651	293,431,590	316,055,241

In 1924-25 there were in British India 193,627 "recognized" educational institutions with 9,186,411 pupils and 34,602 "unrecognized" with 610,933 scholars. The government expenditures were $31,936,610. There are eight universities.

The problem in India is always how to get enough food for the people—that is, enough to stave off starvation. Famines and scourges are frequent, and obstacles to efficient use of the natural resources are ever present in the conservatism of the people and disinclination to change.

Foreign trade, sea borne, excluding Government stores and Government gold and silver, in rupees, for eight years (ending March 31) was:

	Merchandise.	Gold and Silver.	Total.
Imports.			
1921	335,59,88,412	23,41,64,542	359,01,52,952
1922	266,34,63,422	31,14,96,936	297,49,60,358
1923	232,70,76,893	63,04,40,017	295,75,16,910
1924	227,61,13,390	52,20,27,403	279,81,40,793
1925	246,62,67,175	99,17,79,407	345,80,46,582
1926	226,17,77,961	55,40,31,421	281,58,09,382
1927	231,31,57,813	41,31,45,879	272,63,03,692
1928	249,90,01,719	34,81,60,468	284,71,62,187
Exports.			
1921	258,16,97,051	25,80,14,669	283,97,11,720
1922	245,44,35,012	18,99,32,016	264,43,67,028
1923	314,32,52,598	2,78,13,278	317,10,65,876
1924	362,08,44,876	3,55,40,655	365,63,84,531
1925	398,17,44,498	4,91,37,292	403,08,81,790
1926	385,32,69,476	3,51,68,068	388,84,37,544
1927	309,44,55,843	2,00,35,279	311,44,91,122
1928	328,65,61,600	2,62,46,022	331,28,07,622

The trans-frontier land trade in 1923-24 in rupees was: Imports, 17,77,38,514, exports, 15,72,40,705. Imports from Great Britain in 1927 were £86,349,452; exports to her, £65,912,962; and in 1928, imports, £83,921,000; exports, £64,491,000.

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$30,736,801	$91,151,961
1923	30,249,524	127,978,456
1924	34,900,844	103,276,536
1925	38,281,698	144,503,566
1926	50,012,864	150,929,680
1927	63,296,981	131,002,495
1928	53,698,822	148,931,039

Baluchistan is in the extreme western part of the India Empire, with 54,228 square miles of its total of 134,638 square miles under British authority, and, in 1921, 421,679 of population, practically all Mussulmans or Hindus. It is governed by British Residents under long-standing agreements.

Barren mountains and deserts render it comparatively unimportant economically, with some cereals produced, and little development of any kind. Minerals have been explored, and will some time afford wealth. Foreign trade totals about $1,000,000.

Sikkim is a state of India in the Himalayas, south from Thibet. The area is 2,818 square miles, and population in 1921 was 81,722, composed of Bhutias, Lepchas and Nepalese. It is governed by a Maharajah, H. H. Tashi Namgyal, under a British protectorate.

Cereals, fruits and woolen cloth are the products. The country is undeveloped.

The Andaman Islands, 204 in number, are in the Bay of Bengal, 120 miles from the mainland of Burma. Area is 2,260 square miles, and population 26,833. Timber wealth is large, but the use of the islands for a penal settlement, a self-supporting community of 11,500, is the chief interest. The natives are pygmy jungle-dwellers, experts with spear and arrow, and very savage.

The Nicobar Islands, 75 miles from Andaman Islands, have 635 square miles of area and population of 10,000.

OTHER BRITISH ASIATIC POSSESSIONS.

ADEN, PERIM, SOKOTRA, AND BAHREIN ISLANDS.

Aden, a peninsula on the Arabian coast, is at the southern end of the Red Sea, and has 75 square miles of area, in Aden proper, and 9,080 square miles including protectorate areas. The population, including Perim, in 1922 was 56,571, mostly Mohammedans. It is the principal commercial center for the Arabian peninsula, and the entrepot for the Red Sea markets of Abyssinia, Eritrea and Somaliland. In 1929, imports were valued at $35,757,794—cotton goods, grain, coal, sugar and foods—and exports at $29,551,040—salt, coffee, gum, hides, cotton goods and foods.

Manufacturing is chiefly of cigarettes and salt.

Aden is a free port, an important coaling station and has an excellent harbor. In 1928 merchant vessels numbering 1,575 of 5,707,000 tonnage called there.

Sokotra is an island off the African coast under British protection, and the Kuria Muria Islands, off the Arabian coast—all attached to Aden. Area in all is 1,382 square miles, and population 12,000, mostly engaged in livestock husbandry.

Trade of Aden with the United States was:

Cal. Year.	Imports.	Exports.
1922	$1,728,687	$1,706,264
1923	949 996	2,512,750
1924	470,944	2,185,631
1925	588,971	3,285,838
1926	549,294	2,892,085
1927	587,151	3,060,136
1928	516,591	3,319,860

The Bahrein Islands lie off the Arabian coast, in the Persian Gulf, the total area being 280 square miles, and the population 110,000, mostly Mohammedans. Pearl fishing is the chief interest. The foreign trade in 1926-27 was: Imports, £963,822.

chiefly rice, coffee, sugar, tea, and cotton piece goods; exports, £688,262.

CEYLON.

Governor, Sir H. J. Stanley, K. C. M. G., 1927.

Ceylon is an island as large as the State of West Virginia, off the southern tip of India, in the Indian Ocean, with 25,332 square miles of area and 4,509,544 of population, divided: Buddhists, 2,770,000; Hindus, 982,000; Mohammedans, 302,000; Christians, 444,000. Population on Dec. 31, 1926 was estimated at 5,009,502. Colombo (population, 1921, 244,110) is the chief city.

There are 1,125 miles of Government owned railroads.

Of the total 16,212,000 acres, 3,106,000 are tilled, and 1,000,000 pastureland. Products are cocoanuts, rubber, cinnamon, tea and grains. Tea is the most important, 227,000,000 pounds being exported in 1927, 145,000,000 to the United Kingdom. Rubber exportations in 1927 were 125,063,000 pounds of which 78,985,000 went to the United States. There were 65 plumbago mines working in 1927, and the export was 232,000 cwts. Total imports in 1927 were valued at $150,402,849, exports $160,454 908. The budget for 1926-27 was: Revenue, £8,623,928; expenditure, £8,069,752; debt, Sept. 30, about £12,883,000, all for public works.

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$788,531	$20,210,688
1923	1,560,974	27,948,789
1924	1,588,991	25,325,964
1925	2,385,739	48,158,967
1926	2,588,042	55,805,372
1927	2,674,151	40,846,039
1928	25,409,479	53,900,793

The Maldive Islands are 400 miles west from Ceylon, with 70,000 population, almost all Mohammedans. Cocoanuts, millet, palms, fruit and nuts are the products.

STRAITS SETTLEMENT.

AREA, Singapore Island, 217 square miles; Penang Island, 108 square miles; Wellesley, 280 square miles; Malacca, 840 square miles; Pangkor, 155 square miles; total, 1,600 square miles.

POPULATION, estimated 1924, Singapore, 474,817; Penang, 315,841; Malacca, 170,294; total, 960,952.

CAPITAL, Singapore.

Governor, Sir Hugh C. Clifford, G. C. M. G., March 24, 1927, also *High Commissioner* for the Federated Malay States; *High Commissioner* for Brunei, and *British Agent* for North Borneo and Sarawak.

The Straits Settlement is a Crown Colony, in which Singapore, an island twenty-seven miles long by fourteen wide, area, 217 square miles, is the chief port. Singapore just misses being the southernmost point of Asia by a half-mile water channel. The Johore Causeway has just been completed joining it with the mainland and affording through train service between Bangkok and Singapore. It is at the funnel point of the Strait of Malacca, which extends between the Malay Peninsula and the Island of Sumatra, the great water highway between India and China.

The British House of Commons voted in 1923 to spend £11,000,000 to make it an impregnable naval base. It is already heavily fortified and in strategic position as the Gibraltar and Aden of the Far East. Three of the seven sections of the pontoon dock, which has a lifting capacity of 50,000 tons, were launched at Newcastle in July, 1927. When completed in 1928 it was divided in two and towed to Singapore through the Suez Canal.

The contract for the construction of the new naval dockyard and base to cost about £7,750,000 was let by the admiralty in September 1928. The local government gave the site of 3,000 acres. An airfield of 600 acres will also be constructed.

A hundred years ago the island, owned by the Sultan of Johore on the mainland, was a deserted jungle save for a little fishing village. Sir Stamford Raffles in 1819 obtained it for the East India Company for a small fee and in two years the little trading centre he established had a population of 10,000. Singapore has been developed and maintained as a free port and is now a huge city of over 500,000 population, carrying on trade valued at $1,500,000,000 annually, with a shipping of all sorts amounting to 29,000,000 tons yearly, and is primarily a transshipping point. Its population has been drawn from all Asia, Oceania, the Malay Archipelago, Africa, Europe and America. Chinese predominate, making up one-half the population. Europeans, Americans and Australians number less than 10,000; and there are as many Japanese.

Rubber acreage (1928) was 337,000, and total Malayan production for the year was estimated at 450,000 tons.

The budget for 1929 calls for estimated revenues of 34,099,835 Straits dollars, and expenditures of 39,649,417. The Straits dollar = $0.5678 at par of exchange; average in 1928, $0.5628. In 1928 the revenue was $34,875,727; expenditure, $37,790,163. The public debt Dec. 31, 1927 was $59,257,302.

Imports, 1927, were 1,003,000,000 Straits dollars ($561,680,000 converted at $0.563, the average exchange rate for the year); exports, 1,057,000,000 Straits dollars ($591,920,000). Tin production in the Malay Peninsula in 1927 was 83,773 long tons (76,405 in 1926, 79,082 in 1925, and 80,674 in 1924). The United States took 46,370 tons in 1927, 44,513 tons in 1926 and 45,120 in 1925. Rubber exports from the Straits Settlements in 1927 were valued at £43,536,775; tin at £24,101,106; and pepper at £1,968,301.

There entered the port of Singapore in 1928, 8,705 merchant vessels of 14,693,015 tons; 20,685 native craft of 811,191 tons; and 62 men-of-war of 213,126 tons. Of this, British merchant vessels totaled 6,140,948 tons; Dutch, 3,220,857; Japanese, 1,917,205; French, 1,031,509; German, 786,067; Norwegian, 601,906; and American, 283,881.

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$5,623,206	$93,764,643
1923	7,352,567	153,790,206
1924	7,505,968	148,048,706
1925	11,221,024	313,959,163
1926	13,563,205	383,799,824
1927	13,627,110	277,784,466
1928	11,807,861	204,344,310

The Federated Malay States lie in the Malay Peninsula. They are *Perak*, area, 7,800 square miles; population, census of 1921, 599,055; *Selangor*, 3,156 square miles, population 401,000; *Negri Sembilan*, 2,550 square miles, population 178,762; *Pahang*, 14,000 square miles, population 146,064; total 27,506 square miles, population 1,324,890, of which 853,528 are males and 411,263 females.

Products are cocoanuts, rice, rubber, tapioca, pepper, camphor and nepah palms. The total area under rubber cultivation in 1926 was 1,231,257 acres, and 161,188 metric tons, valued at £34,783,031 were exported. Tin exported in 1926 amounted to 45,946 tons, in 1925 to 45,926 tons; gold output in 1926 was 14,475 ounces; in 1925 14,185 ounces; in 1924, 14,960 ounces.

The revenue, 1927, was 105,404,458 Straits dollars; expenditure, 93,263,915 Straits dollars. Debt, Sept. 30, 1928, 80,185,714 Straits dollars. Imports, 1927, £20,309,979; exports, £39,619,922.

The Unfederated Malay States, area, 23,355 square miles, and estimated population, all Mohammedans, 1921, 1,123,944, are five in number, Johore, Kedah, Perlis, Kelantan and Trengganu, each under a native Sultan and with a British adviser. Rubber is the chief export.

British North Borneo has 31,106 square miles area, with 257,804 population in 1921, chiefly Mohammedans on the seacoast, and aboriginal tribes inland.

Exports are mainly timber, sago, rice, gum and the tropical products.

Revenue, 1927, £454,588; expenditures, £256,440; imports, £1,224,705; exports, £1,978,596.

Brunei has been since 1888 a protected sultanate on the north side of the island of Borneo, between Sarawak and British North Borneo. Its area is about 2,500 square miles, and population, census of 1921, 25,454, of which 35 were Europeans. A British Resident is in control.

Revenue, 1927, £46,916; expenditures, £49,816; debt, £48,883.

Sarawak, the land of the white Rajah, is along the northwest coast of Borneo, between the mountains and the China Sea. Its coast line is 400 miles long and its area 42,000 square miles. Its population is estimated at about 600,000. The chief towns are the capital, Kuching, 23 miles up the Sarawak River, and Sibu, 60 miles up the Rejang River, which is navigable for large steamers. The chief exports are sago, pepper, gold, plantation rubber, gutta percha, gutta jelutong, cutch, petroleum, birds' nests, fish, oil nuts and sugar. The Rajah is H. H. Charles Vyner Brooke, great-nephew of James Brooke, the Englishman to whom the Sultan of Brunei gave the Government in 1842.

The output of petroleum in 1928, was 5,290,000 barrels; in 1927, 4,943,000 barrels; in 1926, 4,942,000 barrels.

Revenue, 1927, 6,243,065 Straits dollars; expenditure, 5,764,318 Straits dollars; no debt; imports, 25,664,546 Straits dollars; exports, 49,786,143 Straits dollars, of which rubber was 15,499,432; benzine, 16,712,282; kerosene, 4,072,574; fuel oil, 3,696,542; and crude oil, 2,835,368.

HONG KONG.

Governor General, Sir Cecil Clementi, K. C. M. G., appointed 1925.

British Hong Kong is a crown colony acquired in 1841, and lies at the mouth of the Canton River 60 miles from Canton. The island, 11 miles long area is 391 square miles, including the new territory, Kowloon, on the mainland. The population in 1923 was estimated at 681,800, non-Chinese being 14,500.

The colony suffered heavily in 1925, 1926 and 1927 in the strike and boycott of the Chinese.

Hong Kong is an important British station of great strategic value, commercially as well as naval.

Hong Kong is the gateway between the east and the west and one of the greatest trans-shipment ports in the world. The movement of shipping in 1923 was the largest in its history. Combined entrances and clearances, including junks and steam launches, totaled 778,222 vessels of 53,402,239 tons. Steamers entering the port numbered 6,321 of 12,979,033 tonnage. Over 65 per cent. of the tonnage was in the foreign trade, nearly one-half of it being British, nearly one-fourth Japanese, and one-tenth American.

Revenue, 1927, £2,134,453; expenditure, £2,084,506; debt about £1,500,000.

Imports in 1925, £43,484,410; in 1924, £75,055,085, and in 1923, £61,954,498; exports in 1925, £40,353,906; in 1924, £70,671,992, and in 1923, £61,372,331.

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$20,934,462	$15,303,632
1923	17,610,143	19,860,716
1924	17,476,124	16,489,838
1925	14,306,456	17,789,033
1926	12,819,076	11,293,111
1927	18,865,892	14,784,979
1928	21,977,505	13,572,895

WEIHAIWEI.

Weihaiwei is the Chinese Province of Shantung, and includes islands and the bay, which were leased in 1898. The area is 285 square miles, and the population was 154,416 in 1921. Under agreement made at the Shantung Settlement at the Washington Conference, January, 1922, Great Britain will restore the territory to China.

Total trade in 1928 was valued at $Mex. 17,650,100. Revenues, 1927-28, were $Mex. 275,946; expenditures, $Mex. 247,506.

UNION OF SOUTH AFRICA.

AREA, 472,347 square miles; divided, Cape of Good Hope, 276,966; Natal, 35,284; Orange Free State, 49,647; the Transvaal, 110,450.

POPULATION, census of 1921, 6,928,580; divided, Cape of Good Hope, 2,782,719; Natal, 1,429,398; Orange Free State, 628,827; the Transvaal, 2,087,636. Estimated Dec. 31, 1923, 7,234,753. Total Europeans, census of 1926, 1,676,000.

CAPITALS, Cape Town (seat of Legislature), population, census of 1921, 207,404; Pretoria (seat of Government), 74,052; other cities, Johannesburg, population, 288,131; Durban, 146,324; Port Elizabeth, 45,927; Kimberley, 39,320; Bloemfontein, 38,865, and six others having more than 10,000 but less than 21,000 whites.

Governor General, the Earl of Athlone, G. C. B., G. C. M. G., term expires December, 1930.

Premier, Gen. J. B. M. Hertzog (External Affairs).

Minister of Native Affairs, E. G. Jansen.

The Union of South Africa, referred to by some Britons as "The flower of British democratic development," includes the former colonies of the Cape of Good Hope and Natal, and the one-time Boer republics, the Transvaal and the Orange Free State. These were all united May 31, 1910, under self-governing privileges. Legislative power rests with a Senate of forty members, each with a £500 property qualification, eight appointed and thirty-two elected; and a House of Assembly of 135 elected members. Voters must be British subjects of European descent.

The Assembly: The general election of June 12, 1929, gave Gen. Hertzog's Nationalist party a clean majority over Gen. Smuts' South African party and the two Labor parties. Representation is: Cape, 53; Natal, 17; Transvaal, 55; Orange Free State, 18.

The Government, to which the British Parliament granted broadest powers, is on a very advanced platform of expression of the people's will. There is an elected provincial council in each state with an administration appointed by the Governor General which deals with local matters.

The government on July 24, 1929, announced plans for sending ministers to Washington, Rome and The Hague. Eric H. Louw, formerly Trade Commissioner to the United States and Canada, and later to London, is expected to be named as Minister. Establishment of an American Legation in Cape Town will follow.

The census of 1921 returned 1,519,488 whites and 5,409,092 colored; 4,697,813 were Bantu natives, 165,731 Asiatics and 545,548 of other races. Of the cities, Johannesburg, Cape Town, Pretoria, Port Elizabeth and East London alone returned a majority of white inhabitants.

The census of 1926 enumerated the European population only, with this result: Cape, 706,137; Natal, 158,916; Transvaal, 608,622; Orange Free State, 202,985; total, 1,676,660, being 10¾% increase since 1921.

The defense force of the Union has been entirely responsible for the military administration since Dec. 1, 1921, and the imperial soldiers have been withdrawn.

The railways owned by the several colonies prior to the Union were, in May, 1919, merged into one system, the South African Railways, under control of the Union Government. The total mileage in operation March 31, 1927, was 12,206. The capital expenditure up to March 31, 1926, was £125,088,377. Gross earnings, 1926-27 amounted to £24,093,347; expenditures, £19,437,177; surplus, £4,656,170. Passengers carried numbered 80,084,249. The mileage of privately owned lines was 691.

There were 76,679 miles of public roads in 1929 (Cape, 32,501; Transvaal, 20,207; Orange Free State, 11,571; Natal, 12,400); and about 40,000 farm roads. The actual mileage of good roads will not exceed 3,000. A systematized Federal Highway plan is under consideration.

The overseas shipping entering the ports in 1927 was 1,321 vessels of 5,267,556 tons; coastwise, 3,780 vessels of 9,698,803 tons.

The output of gold and diamonds from South Africa, from the earliest dates of discovery to Dec. 31, 1927, is given in the following table.

Province.	Gold.	Diamonds.
Cape of Good Hope	£21,947	£194,747,341
Natal	86,311	
Transvaal	961,597,235	48,398,119
Orange Free State		24,367,405
Total	£961,705,493	£267,512,865

The total value of the coal output for the Union up to Dec. 31, 1927, was £76,612,206, chiefly from Natal and the Transvaal; of tin, £6,054,977, chiefly from the Transvaal; and of copper, £25,484,000, chiefly from the Cape, but including, £4,478,016 from the Transvaal. The output of gold in 1928 was about 10,352,000 ounces, valued at £44,074,055 (the highest on record); in 1927, 10,123,491 ounces valued at £43,055,178; in 1926, 9,954,761 ounces, valued at £42,285,139; 9,597,592 ounces valued at £40,767,981 in 1925; and 9,585,040 ounces valued at £44,739,377 in 1924; diamonds, 1928, £12,000,000; 1927, 4,708,038 carats valued at £12,392,308; 1926, 3,217,000 carats valued at £10,692,000; 2,430,128 carats valued at £2,430,128 in 1925; and 2,440,398 valued at £8,033,408 in 1924.

The total mineral output for 1927 was valued at £61,546,801 (£59,084,230 in 1926). The number of natives employed in the mines, March, 1927 was 312,296.

The only uncontrolled sources of diamond production are alluvial fields in the Cape and the Transvaal. The output had never exceeded 200,000 carats in a year, but discoveries in the western part of the Transvaal in 1926 brought the production for that year up to 808,329 carats, valued at £3,983,681. The rush for Grosfontein farm field in Lichtenburg on March 4, 1927, was perhaps the greatest race in history. It was handled by the government mining commissioner and was a complete success. When the flag fell fully 25,000 runners, many trained athletes—some Olympic contenders—started in the three-mile dash to peg claims, while a crowd of about 100,000 looked on. A week before the rush was spoiled and declared illegal because then 12,000 broke away before the signal.

A fabulously rich diamantiferous area was discovered in April 1927, near the mouth of the Orange River in Namaqualand stretching down the South Atlantic Ocean to the Green River. The government has placed it under strict prohibition against prospecting.

A find of platinum in August, 1924, brought a rush to the Lydenburg district. The reef has been opened up and the value of the output was £93,307 in 1926 and £144,191 in 1927.

The agricultural and dairying industries have been well developed for African areas, and such produce is even shipped to the London market.

The Transvaal and Natal have each about 2,000,000 acres suitable for growing cotton. The total yield in 1927 was 11,822,612 pounds (24,936,775 pounds in 1926).

Livestock raising is one of the important industries, and about one-half of all the sheep in Africa, and one-quarter of all the cattle and all the goats, are in South Africa. There are (1926 census), 10,337,174 cattle; 856,040 horses; 126,909 mules; 755,280 donkeys; 103,668 ostriches; 38,858,777 sheep; 7,947,286 goats; 908,964 pigs. 1927: 10,412,466 cattle; 40,109,826 sheep; 7,565,613 goats; 848,272 pigs (horses, mules, donkeys and ostriches not enumerated). The yearly production of cattle hides and calf skins is 700,000, goat and kid skin, 2,500,000, sheep and lamb skins, 8,000,000, most of which is exported. The total in 1927 was valued at £3,786,877. The value of ostrich feathers exported in 1927 was £43,621; in 1926, £71,922; in 1925, £203,076; and 1924, £353,162.

The wool clip for 1928 was about 282,000,000 pounds; for 1927, 240,000,000 pounds, the export reaching 253,866,456 pounds.

Natal produced 13,388,000 tons of coal in 1928; and a sugar crop of 275,000 tons.

Progress is being made in the development of manufacturing to use the country's raw materials under a new protective tariff. The gross value of the industrial output in 1926-27 was £97,872,822. The number of establishments making returns was 7,172. During 1925 there were 1,512,107,260 kilowatts generated (not including what mining power plants used for mining power).

The state primary and secondary schools numbered in 1927, 4,665 for European children with about 336,459 pupils, and 3,501 for non-European children with 304,617 pupils; the number of teachers was 23,121 and the total state expenditure 7,597,672. There were 268 private schools for 18,839 white children, and 421 for 19,455 colored children; and 1,691 teachers. There are 10 universities with 219 professors and 6,460 students, including 370 music students.

The budget for seven years:

Year.	Revenue.	Ordinary Expenditure.	Extraordinary Expenditure.
1923-24	£24,252,888	£24,026,903	£12,229,000
1924-25	25,335,543	24,527,753	12,299,000
1925-26	26,986,778	26,315,220	13,667,000
1926-27	28,577,004	27,361,597	13,291,000
1927-28	29,672,000	27,672,000	13,470,000
1928-29	30,500,000	28,800,000	11,076,000
1929-30	.....	29,950,000	.....

The debt March 31, 1929, was £243,360,000 of which £189,382,079 is classed as productive, providing its sum interest of £8,177,160.

Imports were: 1928, £79,000,000; 1927, £73,955,308; 1926, £73,319,702; 1925, £71,065,433; 1924 £67,705,100; 1923, £57,836,761; 1922, £51,413,450; exports, 1927, £96,418,660; 1926, £80,651,515; 1925, £90,497,818; 1924, £82,107,900; 1923, £78,639,849; 1922, £64,978,524.

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$20,909,824	$8,203,210
1923	28,400,541	13,423,237
1924	36,020,181	7,726,542
1925	46,161,706	9,214,856
1926	51,079,969	19,826,854
1927	52,485,658	8,741,550
1928	57,015,909	9,208,986

South-West Africa, formerly German territory annexed 1884, occupies the Atlantic Coast from the Orange River to Angola. It was conquered by the armed forces of the Union in the World War, and surrendered on July 9, 1915, at Khorab. It is now administered by the Union under a mandate from the League of Nations, dated Dec. 17, 1920. It covers about 322,400 square miles and the native population is estimated at 227,750 with 24,511 (census of 1926) Europeans, between 7,000 and 8,000 of whom are Germans and the rest South African farmers. The native population is estimated at 208,300.

The discovery of a great field in nitrate of soda extending over 10,000 square miles extending from Marienthal beyond the Elephant and Nossob rivers was announced in July, 1929, by Prof. Smeath, of Cape Town University.

On Mt. Brukkaros, 60 miles from Keetmanshoop, is maintained a solar observatory for making accurate variations in the sun's heat by the Smithsonian Institution and the National Geographic Society. In Otjihaene near the Grootfontein railhead in the extreme northeast part of the territory has been discovered the largest known meteor, 10 x 10 x 6 feet and weighing 50 to 70 tons, embedded in a limestone ledge.

It has a very healthful climate, dry and temperate with variety as the country rises to mountainous elevations inland. It is essentially a stock-raising country. There are 1,431 miles of railroads.

The revenue 1927-28 was £631,500, and expenditure £1,117,002 (including £336,990 loan expenditure). The budget in 1928-29 was: Revenue, £748,000; expenditure, £1,194,111 (including £399,350 loan expenditure).

Imports, 1927, £2,490,816; exports, £3,475,561. Diamond exports in 1926 were 683,024 carats valued at £1,863,860; copper exports totaled 54,535 tons.

SOUTH AFRICA.

SOUTHERN RHODESIA.

Governor, Sir Cecil H. Rodwell, K. C. M. G., August 1928.

Premier, H. U. Moffat, (Native Affairs).

Southern Rhodesia lies in the central part of South Africa, extending from the Transvaal Province northward to the Zambesi River, with Portuguese East Africa on the east and Portuguese West Africa and Bechuanaland on the west. It has an area of 148,575 square miles; European population, census of May, 1926, 39,174; native population, estimated, 834,473. The country is rich in gold reefs and other minerals, but has proved to be a rich agricultural country, especially adapted to European settlers.

The legislature of 1927 established a policy of land segregation whereby out of a total of 96,000,000 acres, 48,000,000 is to be reserved for European occupation, 28,000,000 for native ownership, and 17,000,000 reserved for future determination. Acreage under crops 1923 was, European, 244,000; native, 1,273,915. Maize is the largest crop (267,400 acres in 1927); but tobacco attracts most attention, the yield for 1927 was about 17,000,000 pounds of Virginia tobacco, and 180,000 pounds of Turkish tobacco from 30,200 acres.

Fruit trees thrive. Dairy farming is on the increase. Cotton was grown on 62,858 acres in 1925. Stock raising is important, with (1927) 2,353,400 cattle, and 351,600 sheep.

Tle total output of gold from 1890 to Jan. 1, 1928, was £86,611,536. Coal raised in 1927 was 1,001,724 tons; chrome ore, 218,018 tons; and asbestos, 33,176 tons. Value of the mineral output in 1927 was £4,238,257; in 1926, £4,100,592; in 1925, £4,134,260; and in 1924, £4,478,449.

The total mileage of the railways in the two Rhodesias in 1928 was 2,468.

The two Rhodesias, Southern and Northern, have been under the administration of the British South Africa Company, which secured a Royal Charter Oct. 29, 1898.

The Victoria Falls in Southern Rhodesia on the Zambesi River are the greatest natural spectacle in South Africa. They are a mile wide and from 250 to nearly 350 feet high. The river forces itself through a hundred foot outlet into a yawning gorge that winds away for forty miles. The railroad bridge crosses this gorge nearly 400 feet above the water level.

Southern Rhodesia, on Nov. 6, 1922, voted in favor of responsible government and in consequence was formally annexed to the British Empire. A Governor, Cabinet and Legislative Assembly, with limited powers, took the reins of government on Oct. 1, 1923. Women vote.

Revenue, 1927-28 was £2,165,000; expenditures, £2,761,200; net debt, £4,095,000. Imports, 1927, £7,574,000; exports, £7,444,000.

Northern Rhodesia, now has the status of a Crown Colony. It extends from the Zambesi River north to the border of the Congo State and Tanganyika Territory. It has an area of about 291,000 square miles with a permanent European population (1925), of 4,624 and native population estimated at about 1,150,000. The country is mostly high plateau covered with thin forest. Much of it is suitable for farming and grazing. The lead mines yielded in 1927, 5,857 tons valued at £143,127; and copper, 3,290 tons valued at £197,231. The copper district being proved up has a potential production when fully developed of 1,000,000 tons a year. The total value of mineral production in 1927 was £360,337.

Revenue, 1927-28, was £474,683; expenditures, £518,666. Imports, 1927, £2,030,599; exports, £777,890.

Basutoland, with 11,716 square miles, and, by the census of 1921, 498,781 population, of which 1,603 were Europeans, lies in South Africa northeast from the Cape of Good Hope Province on an elevated plateau. It is well watered and has a fine climate. Stock raising is most important. Products are wool, wheat, cereals, with beginning of iron workings and coal production promised. The territory is governed by a resident Commissioner under the High Commissioner for South Africa.

It is in fact a reservation set apart for the natives, who are the most enlightened in South Africa and

have increased from 40,000 to 500,000 in a century. Whites are not permitted to own land in it.

The revenue for 1927-28 was £292,378; expenditures, £283,602. Under the new Native Tax Law every adult male pays £1 5s per annum and if he can afford more than one wife he pays £1 5s per annum for his wives up to a maximum of £3 15s.

Imports, 1927, £842,893; exports, £839,095.

Bechuanaland, area, 275,000 square miles and population, by the census of 1921, 152,983, is in the middle of Southern Africa, between South-West Africa and the Union of South Africa and Rhodesia. It is utterly undeveloped, but cattle growing and agriculture have gained momentum, and the live-stock already totals more than 600,000 head. Gold is mined, the 1926-27 output of both gold and silver being £16,020. It is a protectorate governed by a resident Commissioner.

Swaziland, with 6,678 square miles, and a population, estimated, 1923, of 117,877, lies at the southeast side of the Transvaal, in South Africa, and produces chiefly tobacco, corn, vegetables, sweet potatoes, and livestock. Some gold is yielded. The country is undeveloped. It is governed by a resident Commissioner under the authority of the High Commissioner for South Africa.

The trade of **British South Africa**, other than the Union of South Africa, with the United States for 1928 was: imports, $2,076,723 exports, $60,959.

BRITISH WEST AFRICA.

NIGERIA.

AREA, Protectorate of Northern Nigeria, 276,034 square miles; colony of Southern Nigeria and Protectorate, 91,894 square miles. Total, 367,918 square miles.

POPULATION, census of 1921, Northern Nigeria, 10,259,983; Southern Nigeria, 8,371,459; total, 18,631,442, including about 3,900 Europeans.

CAPITAL, Lagos.

Governor, Sir Graeme Thomson, G. C. M. G., K. C. B.

Nigeria lies in Western Africa, between Cameroon and Dahomey (French) on the Gulf of Guinea. The hinterland stretches back 600 miles to French West Africa. The tin, lead and iron ore industries are old and valuable. Nigeria is now the sixth largest tin producer in the world; production of tin concentrates in 1926 was 8,632 tons. Title is in the crown. Other products are palm oil, rubber, nuts, ivory, hides, livestock, ostrich feathers, drugs and tobacco.

Nigeria is a country, like most of Africa, of vast natural resources, with barely initial exploration done up to this time. The people, as in all Mohammedan countries, are backward, but Europeans with capital have gone in and are bringing resources into play. Slavery was abolished by ordinance in 1917, and slave-dealing suppressed.

Commerce is mostly by the trading stations common to such lands, at which simple manufactures are exchanged for native products. There are (1926) 1,470 miles of railroad.

Revenue, 1927-28, was: £6,304,663; expenditure, £7,086,775; debt, £23,559,209. Imports, 1927, 15,664,637; exports, £16,340,957; chiefly palm kernals, £4,438,886; palm oil, £3,374,550; cotton, £331,086; tin ore, £2,287,327; cocoa, £1,998,679; ground-nuts, £1,629,542, and hides and skins, £651,620.

Cameroon, 31,000 square miles, and 400,000 population, lies between British Nigeria and the French Congo in Western Africa. It is part of the former German colony Kamerun, the eastern and larger part of which went to France (which see). It is a region of fertile soils, and progress is rapid toward building up valuable agricultural production—cloves, vanilla, ginger, pepper and palm oil. Ivory is a large product.

The seat of Government is Buea and the administrator is the Governor of Nigeria. Its area and population are included in those of Southern Nigeria given above.

Gambia, area 4,010 square miles, and population, 1921, 210,530, is an independent West African British crown colony.

The Island of St. Mary on which is Bathurst, the seat of government, at the mouth of the Gambia river, is the Colony. The protectorate consists of only a six-mile wide strip of territory on each side of the river, and extends northeast for 200 miles from the coast as a thin wedge into the French colony Senegal. The river is navigable for ocean-going steamers for a considerable distance at all seasons.

Peanuts formed 95% of the exports in 1926, over 61,000 tons worth £863,000. Imports in 1927 were £956,741; and exports, £999,887, chiefly ground-nuts, £967,941.

The revenue, 1927, was £252,419; expenditure, £277,625.

THE GOLD COAST.

AREA, 91,690 square miles, including area of that part of Togoland under British mandate, 12,600 square miles.

POPULATION, census of 1921, 2,298,413, including Togoland, estimated 350,000. Europeans number 2,206.

CAPITAL, Accra; population, estimated, 38,000.

Governor, Sir Alexander R. Slater, K. C. M. G.

The Gold Coast lies along the Gulf of Guinea for 334 miles. The French Ivory Coast is on the west, and on the east is Togoland, formerly a German colony, and now divided by mandate of the League of Nations between Great Britain and France. The French portion, about 21,100 square miles, is attached for administrative purposes to Dahomey, in the east (which see); and the British, about 12,600 square miles, is administered by the Governor of the Gold Coast.

Under his administration also falls Ashanti, due north of the Gold Coast, and the Northern Territories, due north of Ashanti. These countries have enormous wealth in their forests, and the cultivation of cacao and rubber is being fostered.

There is a Government railway, 168 miles, from Seccondee to Kumasi, and a line from Accra to Kumasi.

Revenue, 1927-28, was: £5,217,639; expenditure, £4,714,947; debt, £11,791,000. Imports, 1927, £13,770,542; exports, £14,350,355. Chief exports, 1927, were: Cocoa, 209,910 tons, £11,727,566; gold bullion 189,571 troy ounces, £727,782; manganese, 369,205 tons, £682,962; diamonds, 460,959 carats, £512,159; kola nuts, 11,487,312 pounds, £191,380; palm kernels, 6,545 tons, £107,079; palm oil, 1,090 tons, £30,227; and rubber, 711,288 pounds, £30,738

SIERRA LEONE.

AREA, of colony, 4,000 square miles; of protectorate, 26,000 square miles; total, 30,000 square miles.

POPULATION of colony, census of 1921, 85,163; Europeans, 1,161; of Protectorate, census of 1921, 1,456,148. Total, 1,541,311.

CAPITAL, Freetown; population, 1921, 44,124.

Governor, Brig. Gen. Sir J. A. Byrne, K. B. E.

Sierra Leone lies on the west coast of Africa for 180 miles, between French Guinea and Liberia. In its capital, Freetown, it has the greatest seaport in West Africa, with an excellent harbor and a naval coaling station. The colony has been in British possession since 1767. The hinterland forms the protectorate, which extends inland about 180 miles.

All slaves, about 250,000 in number, held by natives were declared free on Dec. 31, 1927.

Revenue, 1927, was: £719,637; expenditure, 754,610; debt, £1,729,348. Imports, 1927, were valued at £2,112,024; exports, £1,767,259. Chief exports were palm kernels, 65,436 tons, £1,077,450; palm oil, 3,609 tons, £98,179; kola nuts, 4,462 tons, £268,915.

Tonnage entering and clearing Freetown, 4,058,059.

The trade of all British West Africa with the United States was:

Cal. Year.	Imports.	Exports.
1922	$6,816,284	$11,556,719
1923	8,126,657	17,497,461
1924	8,008,851	12,196,029
1925	10,688,077	17,349,299
1926	9,912,283	19,793,536
1927	13,776,953	23,945,098
1928	13,453,089	22,105,422

BRITISH EAST AFRICA.

Governor, Lieut. Col. Sir Edward Grigg, K. C. V. O., C. M. G., appointed in 1925.

Kenya, crown colony and protectorate, extends from the Indian Ocean northeast to Italian Somaliland, north to Abyssinia, west to Uganda, and south to Tanganyika; its boundaries are the Umba, Juba and Uganda Rivers. Its area is 245,060 square miles and estimated population of about 2,736,500 in 1926. This is exclusive of the territory on the Juba River (34,000 square miles, with 16,000 population), ceded to Italy by treaty of July 19, 1924, and added to Italian Somaliland. It had in 1926 about 12,521 Europeans, chiefly British, 30,583 East Indians and 10,500 Arabs.

In the northeast, stretching across the Equator, there is a tract of 200,000 square miles lying at an elevation of more than 4,000 feet, with a climate like that of California, vast rolling plains, crossed by rivers, dotted with lakes, where cotton and rubber can be grown, and two crops a year of food staples. Experts claim that enough cotton can be grown there to make the British textile industry independent of American supply. It is unexploited, occu-

pied only by roving natives and thronged with wild game. White men can live there in health as nowhere else in Central Africa.

The Europeans of Kenya passed laws reserving the highlands for white settlement, restricting the Indians to the lowlands and less healthy regions. The Indian settlers complained bitterly of the discrimination practiced against them, shutting them out from desired land and demanding political representation according to number, as equal citizens of the empire. The British colonists insisted that Kenya should remain a European colony in which their power should be dominant, and the British Government gave decision in their favor on July 25, 1923, in a Parliamentary paper to the effect that responsible self-government for the colony is out of the question; that the Indian demand for equal franchise cannot be granted, but that the Government is prepared to grant the Indians and Arabs representation on the Legislative Council through the communal system of election; that the elected members of the council shall comprise five Indians, one Arab and eleven Europeans. This leaves the franchise unchanged as regards white settlers. The policy of segregation as between Europeans and Asiatics in townships must be abandoned, but the existing practice of reserving agricultural land in the highlands for British and Europeans must be maintained.

Nairobi, a famous centre for big game hunting, is the capital. A Government railroad runs from Mombasa, on the coast, through Nairobi to Lake Victoria Nyanza, 618 miles.

Revenue, 1927, was: £2,846,110; expenditure, £2,515,115; debt, £10,000,000, chiefly for railroads and public works. Imports were, £7,697,180; exports, £5,397,216, chiefly cotton (mainly Uganda), £1,692,568; coffee, £1,310,701; maize, £505,893; fibres, £472,024; hides and skins, £349,875; and ivory, £65,985.

Tanganyika was formerly German East Africa, and was taken by the British in 1918, the Urundi and Ruanda districts going to Belgium, and the "Kionga Triangle" to Mozambique (Portuguese East Africa). It reaches from the coast to Lake Tanganyika and from Lake Nyassa to Victoria Nyanza. It is administered under a mandate from the League of Nations, by a Governor (D. J. Jardine, acting, since Jan., 1929), with headquarters at Dar-es-Salaam, an attractive German-built city of 30,000, from which the railroad runs to Lake Tanganyika.

The governor, Sir Donald Cameron, in his opening address to the new legislative council in 1926, said: "There is no provision in the Mandate for its termination or transfer. Tanganyika is a part of the British Empire, and will remain so."

The area is 373,494 square miles, and the population, in 1926 was estimated at 4,330 whites and 4,310,000 natives.

Forest wealth is large, and there is much land susceptible of agricultural development for the production of tropical fruits and other foodstuffs. Domestic animals figure in the wealth of the people, who are extremely crude and uncivilized. The total in 1927 was, 4,705,625 cattle, and 4,778,540 sheep and goats.

The western part of Tanganyika is a paradise for big game. There are many huge extinct craters, about 125 in number, west of the gorilla country, Kilimanjaro; that Ngoro Ngoro is surrounded by escarpments 2,000 feet high, is thirty-five miles wide and is crowded with game. Announcement was made in 1923 that it had been bought by Sir Charles Ross, of Scotland, who will protect it as a game preserve.

The revenue in 1927-28 was: £1,904,017; expenditure, £1,707,196; loans for capital improvements from the Imperial Government aggregate £3,135,446, and £2,070,000 additional was raised on the London market in June, 1928.

Imports, 1927, were valued at, £3,672,064; and exports, £3,440,576. Chief exports, 1927, were sisal, 33,012 tons, valued at, £1,160,735; cotton, 88,272 centals, £361,916; coffee, 131,899 dwts., £163,420; ground-nuts 14,147 tons, £238,082; and hides and skins, 55,467 cwts., £236,772. The export of gold was 9,548 troy ounces, £36,203, and diamonds, 18,095 carats, £102,754. In 1927, 464 ocean-going steamers in the foreign trade, of 1,932,219 tons, entered the five ports.

The Uganda Protectorate, in East Africa, has 110,300 square miles, including 16,377 square miles of water, and the population in 1928 was estimated at 3,157,000. The country is well advanced in civilization, 750,000 of the people belonging to the intelligent class. Cotton is the chief product. From 572,800 acres in 1926, 166,600 bales were produced. Since the British took it over there has been expansion of foreign trade by 200 per cent.

Revenue in 1927 was £1,292,306; expenditure, £1,430,976; debt, £1,107,595. Imports, 1927, were £1,819,961; exports, £2,310,260, chiefly cotton and cotton seed, coffee, rubber, hides and skins, and ivory.

For the adornment of the natives of British East Africa, 35,973,084 yards of cotton cloth, valued at £1,599,709, and 87 tons of brass wire, valued at £9,935, were imported in 1924 through Kieya.

The trade of all British East Africa with the United States was:

Cal. Year.	Imports.	Exports.
1922	$1,556,158	$918,209
1923	1,455,287	1,578,491
1924	2,561,522	1,657,249
1925	3,839,779	3,343,909
1926	3,977,063	2,257,733
1927	4,842,691	1,614,399
1928	4,890,471	2,810,216

Nyassaland, formerly known as British Central Africa, is situate on the southern and western shores of Lake Nyassa, and extends as far as Zambesi. It has 37,890 square miles, and by the census of 1926 had a population of 1,656 Europeans and 1,290,885 natives.

Revenue in 1927 was £346,341; expenditure, £266,519; debt, £755,002. Imports, £938,461; exports, £960,869 (tobacco, £780,964, cotton, £45,834 and tea, £56,640).

ZANZIBAR.

Zanzibar is an island of 640 square miles, 23 miles off the eastern coast of Africa, having 196,733 population in 1910. Lord Salisbury, in 1890, traded Heligoland in the North Sea with Germany for it.

It is governed by a Sultan, Seyyid Khalifa ibn Harub, K. C. M. G. (succeeded Dec. 9, 1911), but is administered by a British Resident, A. C. Hollis. The Island of Pemba, thirty miles to the northeast, area 380 square miles, is included in the Government. The total population of the Protectorate, census of 1924, was 216,790.

The people are Mohammedans, and their clove industry yields the bulk of the world's supply, there being, estimated, 48,000 acres, with 4,750,000 trees devoted to that product, the average output of the last 20 seasons being 17,940,000 pounds, and 5,200,000 pounds of clove stems. The copra industry is next, with 55,000 acres, on which 2,500,000 cocoanut trees produce.

Manufactures are pottery, rope, soap, oil, jewelry and mats.

Revenue, 1927, £544,083; expenditures, £642,292. There is no debt. Imports, 1928, 17,677,000 rupees; exports, 14,624,480 rupees. Cloves formed the largest item of export in 1926, being valued at 8,573,000 rupees; and in 1927 at 10,928,913 rupees (rupee equals 36.5 cents.)

Zanzibar, population 35,000, has one of the finest ports in Africa. Ocean-going shipping entered in 1927 numbered 353 vessels of 1,368,609 net tons.

MINOR AFRICAN POSSESSIONS.

Mauritius, an island in the Indian Ocean, 500 miles east from Madagascar, has 720 square miles, and in 1921, 385,074 population, of which 265,884 were Hindus. Port Louis, population 50,308, is the capital and chief seaport.

Revenue, 1926-27, was 14,682,807 rupees; expenditure, 16,461,062 rupees; debt, £1,765,724 mostly for public works. Imports, 1927, were valued at £3,679,042; exports, £3,774,203, mostly sugar, the crop in 1928 being 230,000 metric tons, and in 1927, 217,958 tons.

Seychelles and tributary dependencies include 90 islands of 156 square miles, and a 1925 population of 25,847, estimated, lying in the Indian Ocean near Mauritius. The capital is Victoria, a port with an important coaling station. From 23,000 acres, in 1920, there were 23,000,000 cocoanuts produced, other products being phosphates, mangrove, bark, livestock and fish.

Revenue, 1927, was, £49,134; expenditure, £44,216; debt, £2,805. Imports, 1927, 1,829,710 rupees; exports, 2,159,918 rupees.

Somaliland, a protectorate, with 68,000 square miles, and 347,000 population, all Mohammedans, is in Northeast Africa, on the Gulf of Aden, with Abyssinia to the south and west and Italian Somaliland on the east. The chief town is Berbera, population 30,000, and the products skins, resin, gum, cattle and sheep.

St. Helena, the island made famous by the exile of the Emperor Napoleon, is 1,200 miles off the west coast of Africa, has forty-seven square miles, and, 1921, 3,658 population. Fruits, nuts, timber, flax, lace making (flax the chief) are the industries. It is an important naval coaling station, and, although volcanic and small, has great strategic value.

Revenue, 1927, £20,486 (including Imperial grant of £2,500); expenditure, £16,740. There is no debt, but assets of £8,701. Imports, 1927, £49,678; exports, £34,274.

AUSTRALIA, COMMONWEALTH OF

AREA, 2,974,581 square miles, divided, States: New South Wales, 309,432; Victoria, 87,884; Queensland, 670,500; South Australia, 380,070; West Australia, 975,920; Tasmania, 26,215; territories: Northern Territory, 523,620; Federal Capital Territory, 940.

POPULATION, census of April, 1921, 5,495,734, divided: New South Wales, 2,100,371; Victoria, 1,531,280; Queensland, 755,972; South Australia, 495,160; West Australia, 332,732; Tasmania, 213,780; North Territory, 3,867; Federal Capital Territory, 2,572; full blood aborigines, not enumerated, estimated 60,000. Estimated population, Dec. 31, 1928, 6,336,777 (excluding aborigines).

CAPITAL, Canberra. State capitals: Sydney, New South Wales, population, including suburbs, 1927, 1,101,000; Melbourne, Victoria, 975,160; Brisbane, Queensland, 295,430; Adelaide, South Australia, 327,700; Perth, Western Australia, 191,800; Hobart, Tasmania, 56,200.

Prime Minister, James Henry Scullin, Labor, (Foreign, Industry).

Treasurer, Edward Granville Theodore.

Commissioner-General for the Commonwealth in the United States, Herbert Brookes. *Official Secretary*, D. M. Dow, office, 25 Broadway, New York City. Australian diplomatic interests are represented in Washington by the British Ambassador, and consular interests are cared for by the British Consuls.

Australia, itself a continent, is situated between 10° 41′ and 39° 8′ south latitude, or including Tasmania 43° 39′, and 113° 9′ to 153° 39′ east longtitude in the Pacific Ocean, with the Indian Ocean on the west, and the Southern Ocean on the South. The states of the Commonwealth are: New South Wales, Victoria, Queensland, South Australia, Western Australia, and Tasmania, formerly known as Van Diemen's Land, an island the size of the States of Vermont, New Hampshire and Massachusetts, which lies off the southeast corner of the mainland. The territories are the Northern Territory and the Federal Capital Territory. Altogether the Commonwealth is very nearly as large as Continental United States.

In the east mountains rise to about 7,000 feet altitude. The central portion extends westward in rolling plains until higher elevations are reached along the west coast. The Murray River, rising on the slopes of the mountains, is navigable inland for 2,000 miles. The climate, being in the Southern Hemisphere is temperate in the south, and in the north tropical. The interior portions are subject to high temperature, and in all parts the climate is regarded as healthful, being dry. Australia lies within the zones of the Southeast trades and prevailing westerly winds. The heaviest rains are precipitated along the Pacific slopes to the north of Lat. 30°. The highest coastal rains occur on the northwest coast of Western Australia. The westerly winds, which skirt the southern shore are responsible for the reliable rains over the southwest portion of Western Australia, the southeast areas of South Australia, a great part of Victoria, and the whole of Tasmania.

The development of Australia has been made in 150 years. The Commonwealth was proclaimed on Jan. 1, 1901. Australia is governed on the Federal plan with a Parliament of Senate and House of Representatives. The Commonwealth is one of the important units in the British Empire, with complete self-government similar to that obtaining in the Dominion of Canada. Like Canada, it accedes to Imperial requests voluntarily in all economic matters as well as military and naval, but "with a mind of its own." The loyalty of Australia to the British Empire was shown in the great war, in which her troops served with great distinction across the world on Gallipoli, in Palestine and in France.

A Federal Capital Territory of 940 square miles has been set up between Sydney and Melbourne, seventy miles inland, but connected with a fine landlocked harbor on Jervis Bay by a corridor. A city planned to reflect the finest features of modern cities has been laid out on ground plans designed by Walter Burley Griffin, an American architect. Parliament and Administrative Buildings, as well as a number of dwelling, shopping centres, etc., have been built. The first session of the Commonwealth Parliament at Canberra was opened with state by the Duke of York on May 9, 1927.

Land in Canberra cannot be held in fee simple, the title always resides in the Government. Leases may be obtained (maximum 99 years) by bid at auction and upon payment of the Government rental at 3% on the unimproved capital value of the land as fixed by the final bid. The first sale of leases took place in December, 1924. The first reappraisement of land takes place in 20 years and new reappraisements every 10 years thereafter. Building plans must be approved. A handsome system of parks along the Molongio River with an arboretum and broad boulevards has been planned, and over £5,000,000 expended before the opening of the Parliament buildings.

The registered electors for the House of Representatives numbered 3,266,739 in 1925, and the vote polled was 2,987,200. Under the Compulsory Voting Act, an elector failing to vote without a vaild reason is liable to a fine of $10. Of the men on the register, 91.63% voted; of the women, 91.14%.

A coalition of Nationalists and Country party carried the election of Nov. 14, 1925 with 51 seats to 24 Laborites, and was returned to power at the election of Nov. 17, 1928, with a majority of 13.

Prime Minister Stanley M. Bruce was defeated in the House by one vote following the defection of William M. Hughes, war-time Prime Minister, on his bill to repeal the act providing for the Federal System of Industrial Arbitration. He dissolved the House, and the general election of Oct. 12, 1929, returned: Laborites, 46; Nationalists, 14; Country Party, 10; Independents, 5. Prime Minister Bruce, four other ministers and 13 other members were defeated. J. H. Scullin (Yarra, Vic.), became Prime Minister of the Labor Government.

The Government sought ratification by a national referendum on Sept. 4, 1926, of two amendments to the Constitution, the first to make the Federal Industrial Arbitration Court the final industrial tribunal, with power to overrule every other industrial authority. The second to give the Commonwealth Government the power to provide food and other necessaries whenever the safety of the state is threatened by a strike. Both failed. The Prime Minister carried only two of the states and had to win four in order to amend the Constitution. In the total of votes cast he was in a decided minority.

The Commonwealth Arbitration Court in January, 1927, fixed a minimum wage for adults, even if unskilled; it varies from $22.23 for New South Wales, to $19.80 for Western Australia.

Homes provided by the Australian War Service Homes Commission up to Dec. 31, 1927, totaled 31,772, expenditures amounted to £22,172,600.

Australia's net immigration gain for the year ending December 31, 1927, was 48,924, and for 1928 it was 27,232, 15,705 were males and 11,527 were females. During the years 1923 to 1926 the increases amounted to 37,540; 43,749; 37,357; and 42,220 respectively. On April 8, 1925, an agreement was entered into between the British and Australian Governments under which it is proposed to furnish to the Government of the State loan moneys at a low rate of interest to enable suitable areas of land to be made available for settlement or to enable public works to be carried out to aid in developing settlement. The maximum amount of loan moneys provided for in the agreement is £34,000,000. If full advantage is taken of the proposal 450,000 settlers will be absorbed during a period of ten years. Special concessions are granted to immigrants in regard to cost of transport, financial assistance, etc.

AGRICULTURAL DEVELOPMENT.

Products are not dissimilar to those of the United States. The returns for 1926-27 show 17,772,000 acres under crops, the chief crops and acreage being:

	Acreage.	*Bushels.*	*Yield Per Acre.*
Wheat	11,687,919	160,761,886	13.75
Oats	844,114	12,571,203	14.89
Barley	370,943	6,931,053	(a) 18.30
Maize	286,178	6,970,273	24.36
		Tons.	
Hay	2,699,631	3,487,352	1.32
Potatoes	141,363	379,849	(b) 2.68
Sugar Cane	284,828	5,155,916	15.87

(a) Malting barley; other barley 21.13.
(b) Ordinary sweet potatoes, 3.48.

The wheat yield in 1927-28 was 116,737,082 bushels from 12,263,979 acres.

The figures for 1926-27 show that 220,000 acres of orchards yielded fruit valued at £8,198,000. Exports of fruit were:

	Pounds. 1926-27.	Pounds. 1927-28.	Value. 1928-29.
Fresh fruit	£ 803,260	1,636,000	709,671
Dried fruit	1,647,172	1,601,832	2,300 503

A Dried Fruit Export Control Board has been formed to develop the market in Australian dried fruits, and a selling organization has been established in London for this purpose.

The total forest area is not known, but the various State Governments are aiming at reserving 24,500,000 acres of which 12,137,659 acres are already per-

manently dedicated and 8,082,197 acres are held as temporary timber reserved.

The total mineral output up to the end of 1927 was valued at £1,152,000,000; of this, £626,000,000 was gold. The output of gold, which reached 2,721,000 fine ounces in 1910, has steadily declined; the amount for the last five years being 1923, 712,274; ounces; 1924, 675,937 ounces; 1925, 559,188 ounces; 1928, 521,315 ounces; and for 1927, 508,017 ounces.

The value of the output of the principal minerals in 1927 was: Gold, £2,159,073; silver and lead, £3,773,756; copper, £607,038; tin, £842,430; zinc, £1,178,119; iron, £1,448,641; and coal £12,259,769. The output of pig iron in 1928 was 410,873 tons, and of steel ingots 410,031 tons.

The value of Australian production for the fiscal years, 1926-27 and 1927-28 in thousands of pounds was:

	1926-27.	1927-28.
Agricultural	£98,295	£84,256
Pastoral	111,718	125,068
Dairy, poultry, and bee farming.	46,980	50,261
Forestry and fisheries	12,790	12,181
Mining	24,007	22,983
Manufacturing	153,634	158,562
Total	£447,424	£453,311

The increase in value of product of the manufacturing industries has more than doubled since the last pre-war year. More than one-half of the industrial establishments are in New South Wales. Of the total number of factories in 1926-27—21,579—New South Wales had 8,222 and Victoria, 7,690. The statistics for the years 1924-25 and 1926-27 were:

	1924-25.	1926-27.
Number of factories	20,795	21,579
Number of employees	439,949	467,247
Salaries and wages paid	£81,360,021	£90,575,166
Value of raw materials worked up	£221,993,978	£232,643,518
Total value of output	£380,843,986	£408,692,838
Value of land and buildings	£91,241,907	£103,345,178
Value of plant and machinery	£109,242,900	£116,747,185

Under the stimulus of Government guarantees cotton growing has progressed during recent years, and in 1926-27, 18,800 acres were picked for a production of 9,069,000 pounds of unginned cotton.

The total mileage of Government railways open for traffic in 1926-27 was 25,523. The cost of construction and equipment was £303,785,388. The net earnings on all Government railways in Australia in 1926-27 amounted to £8,601,000 including £27,000 on Federal railways. Two of the States showed losses. There were 968 miles privately owned railroads open for general traffic and 2,176 open for special traffic. The Premiers have adopted 4 feet 8½ inches as the standard gauge on the recommendation of a royal commission, but at June 30, 1928, no action had been taken in regard to a general conversion but some subsidiary lines are being built.

The Commonwealth government has enacted a Federal Aid highway law in which all the states have joined under which the Commonwealth provides four-sevenths where the state provides three-sevenths on the expenditures for construction of approved trunk highways. The Federal Aid grant is a total of £2,000,000 a year. Up to December, 1928, £5,450,000 had been expended.

Invalid and old age pensions allowed by the Commonwealth Government were increased to £52 per annum with a maximum amount allowable of £84.10s. A permanently blind person may receive a pension which will make his income together with his pension equal to £221 per annum or such other amount as is declared to be a basic wage. The number of persons receiving pensions on June 30, 1927, was: invalid, 152,399; old age, 133,234; and war pensions, 259,821. The Commonwealth also grants a maternity allowance under an Act passed on Oct. 10, 1912, and from that date until June 30, 1927, 1,952,640 claims, each for £5, were passed for payment.

There were 10,203 and 1,761 state and private schools respectively, with average attendances of 730,571. There are six universities, one situated in each State capital. Religious freedom is in evidence, 45.04% of the population belong to the Church of England; Roman Catholic, 21.53%; Presbyterian, 12.09%; and Methodist, 12.01%. It is possible that the percentage of Roman Catholics is slightly underestimated.

Military training for all male inhabitants between the ages of eighteen and twenty-six years is compulsory; but the Labor government on Nov. 1, 1929, announced its decision to substitute volunteer military training. The total strength of the land forces as of Aug. 1, 1927, was 53,876, of which number 1,748 were in the permanent army. The strength of the naval forces on Jan. 15, 1928, was 10,662. The Royal Australian Air Force was established on Aug. 13, 1921. The total defence expenditure for the year 1926-27 was £5,658,698, of which £421,132 was expended from loan.

In December, 1920, the Commonwealth Parliament passed the Air Navigation Act, the objects of which were to carry out the provisions of the Convention on Air Navigation, signed in Paris, Oct. 13, 1919, and to apply the principles of the convention not only to international flying, but to internal flying in Australia, and generally to legislate by regulation on the subject matter. A Controller of Aviation was appointed at once to administer the act and regulations. Aerial mail services are in active operation from Perth to Derby on the west coast of Western Australia; from Charleville to Camooweal and Cloncurry to Normanton, Queensland; from Sydney to Adelaide, and from Hay to Broken Hill to Melbourne. Approximately 1,850,000 passenger miles have been flown and 1,300,000 letters carried. The route mileage of the existing subsidized services is 3,292, but when the newly approved lines are in operation this figure will be increased to over 7,000 miles.

The merchant marine of Australia and New Zealand together, July 1, 1929, was 543 steamers of 617,270 net tons, and 60 motorships of 51,483 tons.

BUDGETS AND DEBTS.

The revenue and expenditure of the several states for the fiscal year 1926-27, including railway receipts and expenditure and the public debts of the states on June 30, 1927, were:

State.	Revenue.	Expenditure.	Public Debt.
N. S. Wales.	£44,149,566	£42,690,634	£240,781,363
Victoria	27,128,700	27,744,903	146,404,530
Queensland.	16,147,787	16,490,903	105,734,916
S. Australia.	10,754,897	11,834,947	90,284,162
W. Australia	9,750,833	9,722,588	71,501,913
Tasmania	3,040,220	2,855,077	24,516,688
Total	£111,002,003	£111,339,103	£679,223,572

The premiers of the several States at Melbourne in June, 1927, accepted a proposal for adjusting the financial relationship between the States and the Commonwealth. The Commonwealth takes over the debts of the States, and for a period of 58 years from July 1, 1927, will apply on the service thereof a sum equal to certain fixed payments made by the Commonwealth in 1926-27 to the States. The States are to make up the balance of interest, and both parties are to set up a sinking fund calculated to extinguish the debt in 50-60 years. All future borrowings are to be arranged by the Commonwealth acting through a Federal Loan Council consisting of representatives from each State. A referendum to incorporate it in the Federal Constitution was carried by a large majority Nov. 17, 1928.

A £7,000,000, 5¼% 10-year loan, issued at par by the Commonwealth for the States in June, 1929, was heavily oversubscribed. A £8,000,000 Commonwealth Loan was floated in London earlier in the year.

The total gross debt of the Commonwealth as of March 31, 1928, was £485,400,161, of which £172,730,984 was payable in London; £23,514,435 in New York, and £289,154,742 in Australia. That part classed as war debt was on Dec. 31, 1927, £293,551,287.

Revenue and expenditure (from the Consolidated Revenue Fund) of the Commonwealth for the last seven years were:

Year.	Revenue.	Expenditure.
1922-23	£64,720,635	£63,700,485
1923-24	66,017,203	68,354,624
1924-25	68,854,809	68,336,432
1925-26	72,285,806	75,109,438
1926-27	78,168,235	75,532,638
1927-28	76,670,222	82,120,459
1928-29	63,779,000	66,138,000

The accumulated deficit on June 30, 1929, was £4,988,000

The Commonwealth Bank, founded in 1912 with no capital other than a $50,000 loan from the Commonwealth Treasury, and for all the obligations of which the Commonwealth is responsible, had on June 30, 1927, made profits amounting to £6,031,514 and assets of £139,441,653, inclusive of note issue department. Its notes outstanding amounted to £44,628,226 May 28, 1928, with a gold reserve of £22,560,770, or nearly 51%, the bank having had the right to issue notes since December, 1920.

The principal source of revenue is derived from agriculture and pastoral pursuits. Wool is the chief export, and some of the finest qualities of merino wool, which attract buyers from all parts of the world, are grown in Australia.

The number of sheep on Dec. 31, 1928, was 106,115,000, the highest recorded since 106,421,000 in 1891; flocks having been reduced by drought and

other causes to 53,675,000 in 1902. The wool clip in 1928-29 was estimated at 950,000,000 pounds; that of 1927-28 was 865,000,000 pounds and of 1926-27, 924,000,000 pounds.

The exports of wool in 1928-29 were valued at £55,908,868 for greasy; £5,543,420 for scoured; and £166,957 for tops. In 1927-28, the values were £58,796,318 for greasy (688,844,600 pounds); £6,812,601 for scoured (53,844,900 pounds), and £438,199 for tops. Sheepskins exported in 1928-29 were valued at £4,588,828 and in 1927-28 at £4,453,149.

Exports of frozen beef in 1928-29 were valued at £2,888,287 (in 1927-28, £2,377,967); frozen lamb, £1,423,440 (in 1927-28, £931,120); and of frozen mutton, £742,603 (in 1927-28, £257,386); exports of butter in 1928-29 were valued at £7,543,187 (in 1927-28, £6,905,933); and of wheat in 1928-29, £20,372,624 (in 1927-28, £14,629,899).

Imports are chiefly textiles, petroleum products, machinery, and automobiles and parts.

Imports and exports were:

Fiscal Year.	Imports.	Exports.
1923-4	£140,618,293	£119,487,164
1924-5	157,143,296	162,030,159
1925-6	151,638,178	148,562,209
1926-7	164,716,594	144,895,183
1927-8	147,944,970	143,213,970
1928-9	143,628,033	144,780,175

Great Britain takes the largest portion (about 37%) of Australian exports, then follow France, Japan and the United States. Very heavy exports go from the United States to the Commonwealth. Australia is America's largest foreign market for automobiles.

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$80,520,340	$35,782,464
1923	119,389,076	41,089,001
1924	125,177,672	32,868,121
1925	148,523,955	55,110,266
1926	168,694,795	45,738,549
1927	159,125,666	38,626,656
1928	141,295,271	31,657,750

AUSTRALIAN POSSESSIONS.

Papua, or British New Guinea, is the south-eastern part of the Island of New Guinea north from Australia. Its area is estimated at 90,540 square miles with an estimated native population of 275,000, the people being crude tribes among whom the British are carrying civilizing work. The estimated white population in 1927 was about 1,400. The interior is partially unexplored. Queensland annexed the territory in 1883, and after several shifts control was taken over by the Federal Government of Australia in 1901, and by proclamation of September 1, 1906, it was declared the Territory of Papua. It is administered by Australia which gives it an annual subsidy of £50,000.

Revenue, 1928, £107,052; expenditure, £158,964; imports, £403,561; exports, £350,363.

Territory of New Guinea, formerly German New Guinea, the northwest quarter of the island, was placed after the war by the League of Nations under mandate to Great Britain. It is administered by Australia. It includes the **Bismarck Archipelago,** 13,000 square miles, and the former **German Solomon Islands,** 3,400 square miles. The total area of the mandated territory is about 91,000 square miles, with a native population estimated roughly at 425,000. Revenue 1927-28, was £305,522; expenditure, £280,190; imports, £660,753; exports, £1,079,855.

Norfolk Island. In 1913 the Federal Parliament provided for the taking over of this island as a territory of the Commonwealth and since July 1, 1914 it has been administered by the Department of Home and Territories. The island has an area of 8,528 acres. On June 30, 1927 the population numbered 853. The soil is very fertile and is suitable for the cultivation of citrus fruits, bananas and coffee.

Imports in 1926-27 were valued at £27,900, and exports, £13,600.

Nauru Island, formerly German, was mandated by the League of Nations to the British Empire. Its area is about 8 square miles; population, 1927, 2,163. It has valuable phosphate deposits, and exported 318,185 tons in 1927 and 274,935 in 1926.

NEW ZEALAND, DOMINION OF

AREA, New Zealand proper, 103,285 square miles, divided, North Island and adjacent islets, 44,131; South Islands and adjacent islets, 58,120; Stewart Island and adjacent islets, 662; Chatham Islands, 372. "Outlying" islands, 284; "annexed" islands, 293; grand total, 103,862.

POPULATION, census of April 20, 1926, 1,407,165; by provincial districts, Auckland, 424,925; Taranaki, 65,569; Hawke's Bay, 67,653; Wellington, 273,601; Marlborough, 18,568; Nelson, 50,545; Westland, 15,025; Canterbury, 213,746; Otago, 149,579, Southland, 65,173; to which must be added the Maoris, 62,781. Increase over 1921, 135,501, or 10.66%.

CAPITAL, Wellington; population, census of 1926, 121,324. Chief cities, Auckland, population, 1926, 192,176; Christchurch, 118,408; Dunedin, 85,103.

Governor General, Gen. Sir Charles Fergusson, Bart., G. C. M. G., K. C. B., etc.

Prime Minister, Sir Joseph G Ward, K.C.M.G (Finance, Foreign Affairs), United Party, Dec 1928.

Official Representative of Customs Department in Canada and the United States, W. J. Stevenson, 44 Whitehall St., New York City.

New Zealand lies 1,200 miles east of Australia, in the Pacific Ocean. The group is 1,000 miles long and 180 across at the broadest part, with a coast line of 3,000 miles. It extends north and south from 35° southern latitude to 46°. It consists of two principal islands, North Island (44,131 square miles); and South Island (58,120 square miles), and Stewart Island, (662 square miles). Auckland Islands (about 330 square miles) 200 miles south and uninhabited; Chatham Islands (375 square miles) 536 miles east; the Cook Island group (280 square miles) 1,500 miles northeast, with a population of 13,209 and of which Rarotonga is the largest, and some small uninhabited Islands, are also under the New Zealand flag. New Zealand proper is about the size of New York, Pennsylvania and New Jersey.

The agricultural possibilities are very great, two-thirds of the area being tillable, with 12,500,000 forested. The actual tilled area in 1927 was 18,830,436 acres, of which 16,680,348 were sown to grass; 3,112,892 acres of crown land were open to settlement March 31, 1928. The area of crown lands leased on that date was 18,014,185 acres. Production in 1928 was: Wheat, 9,541,000 bushels from 260,987 acres (7,952,000 bushels from 220,083 acres in 1927); oats, 3,852,000 bushels from 88,223 acres (4,997,000 bushels from 117,326 acres in 1927); barley, 862,000 bushels from 21,091 acres (1,243,000 bushels from 29,886 acres in 1927). The production of wheat was very high, being 36.56 bushels per acre.

The census of livestock in 1928 was: 307,160 horses; 3,530,811 cattle; 27,133,810 sheep; and 586,704 pigs. The wool export in 1927 was 220,500,720 pounds; 1926, 213,154,399 pounds; 1925, 205,726,856 pounds; 1924, 206,189,911 pounds; and 1923, 217,566,091 pounds; (wool exports by fiscal years were: 1928-29, 575,632 bales; 1927-28, 543,712 bales). Frozen meat export in 1927 was 3,364,965 cwt.; (in 1926, 3,034,356 cwt.); butter, 1927, 1,455,539 cwt.; (1926, 1,168,040 cwt.); cheese, 1927, 1,492,792 cwt.; (1926, 1,461,548 cwt.).

The total number of farm holdings was 85,628 holding 43,587,698 acres. The small holdings under 50 acres numbered 29,336 (473,486 acres). Holdings of 640 acres and above numbered 11,290 (33,153,336 acres). There were 55 holdings of over 50,000 acres, with a total of 4,836,928. In 1927 there were 102,335 males and 30,464 females engaged in agricultural, pastoral, and dairying pursuits. The number of immigrants (net) for the year 1927 was 2,428; for 1926, 11,860; for 1925, 12,674; for 1924, 9,222; and for 1923, 6,820.

Manufacturing establishments in 1926-27 numbered 5,088, with 81,904 employees and plants valued at £62,723,125 and products valued at £83,012,503, nearly half food products. The production of coal in 1928 was 2,436,689 tons (1927, 2,366,740 tons) of which 125,093 tons were exported (1927, 143,440 tons). Gold exported in 1927 amounted to £534,639.

The available water power is estimated at a total of 4,076,700 horsepower, of which 3,317,000 is in South Island and mostly located near the deep water sounds of the west coast, with many sites especially suitable for industries. About 70,150 h.p. was in use in 1925. Development is under way in North Island involving an expenditure of £15,000,000 by the state for plant and transmission lines to Auckland.

In 1928 there were 3,180 miles of railways Government-owned, and 117 miles privately owned. The total expenditure for construction on all Government lines up to March 31, 1928 were £58,797,458.

Vessels entering the ports in 1928 numbered 604, with a total tonnage of 2,195,804.

By the law enacted in 1898, and later amended, every person not an alien or an Asiatic who fulfills certain conditions is entitled to a pension of £45.10 a year, reducible by £1 for every £1 by which income exceeds £52. The joint annual income of a married couple in receipt of pensions must not exceed £143 (including pensions). Pensions in force, July, 1928, were: old age, 25,285 (1926, 23,139), annual value £1,061,970 (£994,977); average pension, £42 (£43); widows, 4,160 (3,912), annual value, £312,000

(£307,092); average pension, £75 (£78); war, 20,593 (20,674), annual value, £1,132,615 (£1,116,396); average pension, £55 (£54).

There is no large wealthy class, and none of the really poor in the Dominion; wealth is well distributed, and the purchasing power of the population unusually high, with high living standards. The latest official estimate of the private wealth of New Zealand is £744,609,000, or about £553 ($2,691) per capita. The increase in eleven years was approximately £460,000,000. During 1925 the imports were about $190 per capita, and New Zealand had one automobile for every 14 persons.

In 1927-28 taxation amounted to £11 17s 7d per capita. The lowest since 1919.

Savings bank depositors on March 31, 1926, numbered 758,155, with deposits of £46,948,628, an average of £63 3s 11d. In the five private savings banks the deposits totaled £6,364,383.

Imports are chiefly textiles and clothing, iron, steel and their products, oils, sugar, tobacco, paper and chemicals. Exports were frozen meat, butter, cheese, milk (preserved), wool, and hides and skins.

In 1926 Great Britain supplied 46.6% of the imports and British countries took 87.3% of the exports; the United States supplied 20.5% and took 8.4%.

New Zealand is politically organized along very broadly democratic lines, with tendency to advance rather rapidly in the realm of economic and sociological experiment.

In the national referendum on the licensing issue on Nov. 4, 1925, prohibition received 319,450 votes, national continuance of the present system 299,484, and State purchase and control, 56,043. As none of the issues secured the requisite minimum of half the total votes cast, national continuance is deemed to have been carried. In the election of Aug. 14, 1928, the vote was 374,502 in favor of a continuation of the existing system of licensed sale; 34,376 for state control, and 294,453 for prohibition.

The Defense Act provides for the gradual military training of every male from twelve to twenty-five, with service in the reserve up to thirty. The strength of the permanent force, June, 1926, was 104 officers and 411 of other ranks; there were 28,769 cadets and 22,000 in the reserve.

Its Government is by Legislative Council of thirty-eight appointed members, and a House of Representatives of 80 members elected for three years by adult suffrage. Women have had the vote since 1893.

The general election, Nov. 14, 1928, went heavily against Prime Minister Coates. The United Party lead by Sir Joseph G. Ward, who was Prime Minister in 1905 and 1911, won 27 seats and had the support of 5 Independents, to Reformed party 29 and the Labor party's 19. Sir Joseph Ward formed a government. His policy is to raise a loan of $300,000,000 to provide loans to settlers, and $50,000,000 for completion of the main railway lines and to provide roads for feeders. A £7,000,000 4½% 20-30 year loan was floated at 95 in London in January, 1929.

The Dominion of New Zealand is a member of the League of Nations. Recent budgets are:

Year.	Rev.	Exp.
1921-22	£28,127,007	£28,466,838
1922-23	27,579,443	26,263,760
1923-24	27,960,371	26,148,005
1924-25	28,643,000	27,399,200
1925-26	24,725,762	23,570,083
1926-27	24,266,200	23,986,616
1927-28	25,123,980	24,944,904
1928-29 (estimated)	23,868,250	23,608,104

The total surplus, including that estimated for 1928-29, amounts to £30,506,984.

The debt on Mar. 31, 1928 was £251,396,253, of which 51.38% was incurred for productive purposes, and £71,970,636 was war debt.

Imports and exports were:

Year.	Imports.	Exports.
1922	£35,005,440	£42,726,249
1923	43,486,544	45,967,119
1924	48,528,000	52,472,000
1925	52,456,407	55,262,272
1926	49,889,563	45,275,575
1927	44,782,946	48,496,354
1928	43,320,000	56,200,000

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$19,967,225	$10,435,865
1923	25,282,564	15,573,389
1924	29,306,357	13,524,998
1925	38,362,658	19,733,618
1926	41,574,571	18,826,083
1927	32,517,214	12,670,536
1928	35,969,988	19,224,460

WESTERN SAMOA.
(New Zealand Mandate).

Western Samoa was German Samoa, which included Savali and Upolu, the largest of the Samoan Islands in the Western Pacific, and was occupied by the British on Aug. 29, 1914, immediately on the outbreak of the World War. This territory was assigned as a mandate from the League of Nations to New Zealand under date of Dec. 17, 1920. The Administrator is Col. Stephen Shepherd Allen appointed March 22, 1928.

Savali is forty-eight miles by twenty-five miles and has an area of about 660 square miles. Upolu has an area of about 600 square miles. Both are mountainous, fertile and well watered. The population of the two aggregated by the census of Dec. 31, 1927, 42,865, of which 1,035 were British and 292 Americans.

The revenue for 1927-28 was £126,039, including the annual subsidy of £20,000 from the New Zealand government and also a loan of £30,000 to make up a deficiency in receipts from native taxation. Expenditures totaled £143,422; liabilities, Mar. 31, 1928 on the New Zealand loan account amounted to £147,500, of which £142,500 was for public work. Imports 1927 were valued at £304,369; and exports £335,978.

The chief product is copra, 11,655 tons valued at £242,672 were exported in 1927, and 12,249 tons valued at £275,086 in 1926. In 1927, 59 vessels of 91,417 tons entered and cleared from the port Apia.

BRITISH OCEANIA.

Fiji Islands, 250 in number, area, 7,435 square miles, population, census Dec. 31, 1926, 171,644. Europeans, 4,184; Fijians, 89,401; Indians, 68,733. Its products, tropical fruits, vegetables, sisal, hemp and domestic animals. Forest area in 2,366,000 acres.

The revenue for 1927 was £586,574; expenditures, £534,939; debt, £153,550; imports, £1,223,303; exports, chiefly sugar and copra, £1,997,374.

The Governor, Sir Eyre Hutson, K. C. M. G., is also High Commissioner for the Western Pacific.

Tonga Islands, or Friendly Islands, 390 square miles, with a population, 1927, of 27,048; exports are copra and livestock.

Revenue, 1926-27, £72,562; expenditures, £83,513; imports, 1927, £157,783; exports, £235,391.

The British Solomon Islands is a protectorate, and consists of fifteen large islands and four groups of small islands, with a total area of 14,600 square miles and a population, 1923, of 150,601, of which about 500 are Europeans. The value of the imports, 1927-28 was £261,741, and exports, £386,546, chiefly copra. Revenue, 1927-28 was £75,664, expenditures, £73,993.

Gilbert and Ellice Islands Colony is composed of the Gilbert and Ellice groups which were taken under British Protection in 1892; Ocean Island was annexed in 1900; Union Islands in 1911; Fanning and Washington Islands in 1916, and Christmas Island in 1919. The protectorates were annexed and made a colony, Nov. 12, 1915. The total area is 180 square miles, and the population census of 1921, 34,002.

The revenue 1926-27 was £52,925, and expenditures, £44,869; imports, £113,453; exports, £395,723, chiefly phosphate, 258,775 tons valued at £355,815.

The New Hebrides, area, 5,500 square miles; population about 60,000 are under the joint administration of Great Britain and France. The joint revenue for 1925 was 1,420,614 francs and expenditure 852,748 francs.

Trade of British Oceanica with the United States was:

Cal. Year.	Imports.	Exports.
1922	$388,406	$770,903
1923	440,774	1,000,358
1924	581,496	648,893
1925	1,065,262	624,920
1926	1,424,735	1,453,950
1927	1,155,958	1,146,380
1928	1,508,322	1,188,074

UNITED STATES BOARD OF MEDIATION.

The Board's headquarters are located on the seventh floor of the Earle Building, 13th and E Streets, N. W., Washington, D. C.

Samuel E. Winslow, Chairman; other members: G. Wallace W. Hanger, Edwin P. Morrow, Pat M. Neff, John Williams, John Marrinan; secretary: R. B. Bronson, assistant secretary; Robt. F. Cole Chief, Division of Administration; Chiefs of Technical Divisions, John W. Walsh, Thos. E. Bickers; and George A. Cook.

The Dominion of Canada.

(From data compiled for The World Almanac by R. H. Coats, Dominion Statistician.)

LAND AND WATER AREA, AND POPULATION BY PROVINCES.

Provinces.	Capitals.	Area in Square Miles.			Population.		
		Land.	Water.	Total.	1901.	1911.	1921.
Prince Edward Island	Charlottetown	2,184	.....	2,184	103,250	93,728	88,615
Nova Scotia	Halifax	20,743	685	21,428	459,574	492,338	523,837
New Brunswick	Fredericton	27,710	275	27,985	331,120	351,889	387,876
Quebec	Quebec	571,004	23,430	594,434	1,648,898	2,005,776	2,361,199
Ontario	Toronto	357,962	49,300	407,262	2,182,947	2,527,292	2,933,662
Manitoba	Winnipeg	224,777	27,055	251,832	255,211	461,394	610,118
Saskatchewan	Regina	237,975	13,725	251,700	91,279	492,432	757,510
Alberta	Edmonton	248,800	6,485	255,285	73,022	374,295	588,454
British Columbia	Victoria	349,970	5,885	355,855	178,657	392,480	524,582
Yukon	Dawson	205,346	1,730	207,076	27,219	8,512	4,157
Northwest Territories	.....	1,258,217	51,465	1,309,723	20,129	6,507	7,988
Total		3,504,688	180,035	3,648,723	5,371,315	7,206,643	(a) 8,788,483

(a) The Royal Canadian Navy in 1921 contained 485 which is included in the total.

Note.—Revised figures are given for 1911 to agree with boundary changes made in 1912. The population of the prairie provinces at the last census, as of June 1, 1926, is given below:

Manitoba	639,056
Saskatchewan	820,738
Alberta	607,599

Of the population in 1921 there were 4,529,945 males and 4,258,538 females; population per square mile, 2.41. The densest average per square mile was 141.47, in Beauharnois, Quebec. Of the males, 2,698,754 were single, 1,698,395 were married, 119,708 were widowed, 3,670 were divorced, and 9,418 were not given. Of the females, 2,378,844 were single, 1,631,761 were married, 236,522 were widowed, 3,731 were divorced, and 7,680 were not given.

Of the total population in 1921 of 8,788,483, 7,321,654 were of British or French origin. There remain 1,466,829, comprehending the following main classes: German, 294,636; Scandinavian, 167,359; Hebrew, 126,196; Dutch, 117,506,; Ukrainian, 106,721; Russian, 100,064; Italian, 66,769; Chinese, 39,587; Japanese, 15,868.

Owing to the Labrador Boundary Award, the area of Canada was reduced by 112,400 square miles—106,970 square miles of land and 5,430 square miles of water.

CANADIAN IMMIGRATION.

Year (Fiscal).	From United Kingdom	From United States.	From Other Co'ntries	Total.	Year (Fiscal).	From United Kingdom	From United States.	From Other Co'ntries	Total.
1901	11,810	17,987	19,352	49,149	1916	8,664	36,937	2,936	48,537
1902	17,259	26,388	23,732	67,379	1917	8,282	61,389	5,703	75,374
1903	41,792	49,473	37,099	128,364	1918	3,178	71,314	4,582	79,074
1904	50,374	45,171	34,786	130,331	1919	9,914	40,715	7,073	57,702
1905	65,359	43,543	37,364	146,266	1920	59,603	49,656	8,077	117,336
1906	86,796	57,796	44,472	189,064	1921	74,262	48,059	26,156	148,477
1907 (9 mos.)	55,791	34,659	34,217	124,667	1922	39,020	29,345	21,634	89,999
1908	120,182	58,312	83,975	262,469	1923	34,508	22,007	16,372	72,887
1909	52,901	59,832	34,175	146,908	1924	72,919	20,521	55,120	148,560
1910	59,790	103,798	45,206	208,794	1925	53,178	15,818	42,366	111,362
1911	123,013	121,541	66,620	311,084	1926	37,030	18,778	40,256	96,064
1912	138,121	133,710	82,406	354,237	1927	49,784	21,025	73,182	143,991
1913	150,542	139,009	112,881	402,422	1928	50,572	25,907	75,718	151,597
1914	142,622	107,530	134,726	384,878	1929	58,880	30,560	78,282	167,722
1915	43,276	59,779	41,734	144,789					

Note.—The Canadian fiscal year since 1907 ends with March 31; before that, June 30.

CHIEF SOURCES OF CANADA'S REVENUES.

(Consolidated Fund Receipts only).

Year (Fiscal.)	War Tax Revenue.	Customs.	Excise.	Post Office.	Pub. Works (incl. R'ys and Canals.)	Dominion Lands.	Total Receipts.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
1904	.....	40,461,591	12,958,708	4,652,325	6,972,219	1,443,023	70,669,817
1905	.....	41,437,569	12,586,475	5,125,373	7,395,377	1,292,301	71,182,773
1906	.....	46,053,377	14,010,220	5,933,343	8,310,267	1,668,162	80,139,360
1907 (9 mo.)	.....	39,717,079	11,805,413	5,061,728	6,839,586	1,443,632	67,969,328
1908	.....	57,200,276	15,782,152	7,107,887	9,973,523	1,883,620	96,054,506
1909	.....	47,088,444	14,937,768	7,401,624	9,362,272	2,153,255	85,093,404
1910	.....	59,767,681	15,253,353	7,958,548	10,114,990	2,886,000	101,503,711
1911	.....	71,838,089	16,869,837	9,146,952	10,818,834	3,108,736	117,780,409
1912	.....	85,051,872	19,261,662	10,492,394	11,651,947	3,775,857	136,108,217
1913	.....	111,764,699	21,447,445	12,051,729	13,158,078	3,402,027	168,689,903
1914	.....	104,691,238	21,452,037	12,954,530	14,197,033	3,036,030	163,174,395
1915	98,057	75,941,220	21,479,731	13,046,665	12,953,487	2,859,715	133,073,482
1916	3,620,782	98,649,409	22,428,492	18,858,690	19,296,418	2,299,350	172,147,838
1917	16,302,238	134,043,842	24,412,348	20,902,384	24,440,840	4,055,662	232,601,294
1918	25,379,901	144,172,630	27,168,445	21,345,394	27,971,098	4,443,758	260,778,953
1919	56,177,508	147,169,188	30,342,034	21,603,542	38,751,870	3,539,927	312,946,747
1920	82,079,801	168,796,823	42,698,082	24,471,709	921,014	4,622,592	349,746,338
1921	168,383,327	163,266,804	37,118,367	26,706,198	868,994	3,955,326	434,386,337
1922	177,484,161	105,686,645	36,755,207	26,402,299	1,294,572	2,799,450	381,952,387
1923	181,634,875	118,056,469	35,761,997	29,016,771	1,228,858	2,347,715	394,614,900
1924	182,036,261	121,500,798	38,181,747	28,865,374	1,400,167	2,281,704	396,837,682
1925	141,164,158	108,146,871	38,603,489	28,782,535	1,391,368	2,390,374	346,834,479
1926	157,296,320	127,355,143	42,923,549	30,334,575	1,416,596	2,803,513	380,745,506
1927	136,167,434	141,968,678	48,513,160	29,069,169	1,501,635	2,582,984	398,696,776
1928	130,319,088	156,985,818	57,400,897	31,562,580	1,808,761	3,702,801	422,717,983
1929	145,129,742	187,206,245	63,683,450	30,611,964	1,690,295	4,070,339	455,483,374

ASSETS AND NET DEBT OF CANADA.

End of Year (Fiscal).	Total Assets.	Net Debt.	End of Year (Fiscal).	Total Assets.	Net Debt.
1904	$104,094,793	$260,867,719	1917	$502,816,970	$879,186,298
1905	111,454,413	266,224,167	1918 (Active)	671,451,836	1,191,884,063
1906	125,226,703	267,042,977	1919 "	1,102,104,692	1,812,584,819
1907 (9 months)	116,294,966	263,671,860	1920 "	792,660,963	2,248,868,624
1908	130,246,298	277,960,860	1921 "	561,603,133	2,340,878,984
1909	154,605,148	323,930,279	1922 "	480,211,335	2,422,135,802
1910	134,394,500	336,268,546	1923 "	435,050,368	2,453,776,869
1911	134,399,435	340,042,052	1924 "	401,827,195	2,417,783,275
1912	168,419,131	339,919,461	1925 "	400,628,837	2,417,437,606
1913	168,930,930	314,301,625	1926 "	379,048,085	2,389,731,099
1914	208,394,519	335,996,850	1927 "	426,011,963	2,347,834,370
1915	251,097,731	449,376,083	1928 "	431,760,141	2,296,850,233
1916	321,831,631	615,156,171	1929 "	486,519,628	2,215,504,705

Canadian Government Revenues (Consolidated Fund Account) (1920), $349,746,335; (1921), $434,386,537; (1922), $381,952,387; (1923), $394,614,900; (1924), $396,837,682; (1925), $346,834,479; (1926), $380,745,506; (1927), $398,695,776; (1928), $422,717,983; (1929), $455,463,874.

Canadian Government Expenditures (Consolidated Fund Account) (1920), $303,843,930; (1921), $361,118,145; (1922), $347,560,691; (1923), $332,293,732; (1924), $324,813,190; (1925), $318,891,901; (1926), $320,660,479; (1927) $319,548,173; (1928), $336,167,961; (1929), $350,952,924.

Post Office and Dominion Government Savings Bank Deposits as of March 30 (1920), $42,334,812; (1921), $39,160,808; (1922), $34,666,834; (1923), $31,791,107; (1924), $33,209,638; (1925), $32,379,249; (1926), $32,830,544; (1927), $31,922,043; (1928), $31,103,776; (1929), $28,375,770.

Canadian Chartered Banks—Total on deposit, (1920), $2,438,079,792; (1921), $2,264,586,736; (1922), $2,120,997,030; (1923), $2,107,606,111; (1924), $2,130,621,760; (1925), $2,221,160,611; (1926), $2,277,192,043; (1927), $2,415,132,261; (1928), $2,610,594,865.

Capital paid up (1920), $123,617,120; (1921) $129,096,339; (1922), $125,456,485; (1923), $124,373,293; (1924), $122,572,300; (1925), $118,962,466; (1926), $116,638,254; (1927), $121,666,774; (1928), $122,839,879.

Assets (1920), $3,064,133,843; (1921), $2,841,720,079; (1922), $2,638,776,483; (1923), $2,643,773,986, (1924), $2,701,427,011; (1925), $2,789,619,061; (1926), $2,864,019,213; (1927), $3,029,680,616; (1928), $3,323,163,195.

Liabilities (1920), $2,784,068,698; (1921), $2,556,454,190; (1922), $2,364,822,657; (1923), $2,436,587,628; (1924) $2,685,022,171; (1925), $2,774,771,757; (1926), $2,846,680,907; (1927), $3,010,312,384; (1928), $3,301,669,529.

Life Insurance in force in Canada (Dominion companies) (1920), $2,580,100,007; (1921) $2,934,843,848; (1922), $3,171,388,996; (1923), $3,433,508,673; (1924) $3,763,996,472; (1925), $4,159,019,848; (1926), $4,610,196,334; (1927), $5,044,408,834; (1928) $5,609,032,167.

Fire Insurance at risk in Canada (Dominion companies) (1920), $5,969,872,278; (1921), $6,020,513,832; (1922), $6,348,637,436; (1923), $6,306,937,041; (1924), $7,224,475,267; (1925), $7,588,297,679; (1926), $8 051,444,136; (1927), $8,287,732,966; (1928), $8,773,838,173.

CANADIAN COMMERCIAL FAILURES, 1927 (Dun).

Provinces.	Trade Commercial.			Manufacturing.		Trading.		Other Com'l.	
	No.	Assets.	Liabilities.	No.	Liabilities.	No.	Liabilities.	No.	Liabilities.
		Dollars.	*Dollars.*		*Dollars.*		*Dollars.*		*Dollars.*
Ontario	585	11,114,909	15,732,560	133	2,933,098	416	10,168,590	36	2,641,872
Quebec	933	19,344,306	27,866,827	273	10,887,520	593	8,881,590	67	8,097,717
British Columbia	139	1,702,904	2,429,843	40	1,540,592	86	704,541	13	184,800
Nova Scotia	67	688,445	2,236,147	8	854,031	57	680,616	2	701,500
Newfoundland	20	227,851	524,292	2	10,500	17	510,849	1	2,943
Manitoba	160	2,025,878	2,651,028	22	355,209	126	2,131,378	12	164,441
New Brunswick	41	310,614	597,941	5	178,473	34	417,456	2	2,012
Prince Edw. Isl'd.	5	33,091	70,183	.....	.....	5	70,183	.....	.....
Alberta	74	449,751	574,286	15	246,700	53	320,086	6	7,500
Saskatchewan	96	509,642	737,092	8	37,860	82	655,732	6	43,500
Total, 1928	2,120	36,407,391	53,420,199	506	17,032,983	1,469	24,540,931	145	11,846,285
" 1926	2,196	25,668,509	37,082,882	527	16,465,754	1,548	17,320,905	121	3,296,223
" 1925	2,371	32,651,834	45,767,825	563	24,046,514	1,693	19,514,049	115	2,207,262
" 1924	2,474	47,937,427	64,530,975	625	36,542,658	1,720	21,324,089	129	6,664,228
" 1923	3,247	46,833,195	65,810,382	792	31,791,332	2,319	31,339,763	136	2,679,287
" 1922	3,695	63,097,789	78,068,959	857	39,080,791	2,717	33,004,203	121	5,983,965
" 1920	1,078	18,569,516	26,494,301	255	11,871,216	777	7,707,505	52	2,918,580
" 1919	755	10,741,441	16,256,259	213	10,234,477	494	4,475,628	48	1,546,154
" 1918	873	1,251,341	14,502,477	232	8,248,807	590	5,142,397	1	1,111,273
" 1917	1,097	13,051,900	18,241,465	261	7,455,094	777	8,417,239	1	2,369,132
" 1916	1,685	19,670,542	25,069,534	363	8,796,646	1,237	12,290,368	85	3,982,520
" 1915	1,661	30,526,358	41,162,321	655	13,877,414	1,888	21,696,890	118	5,558,017

Note—There was also one banking failure, liabilities $100,000, in 1924 (in Manitoba); one, liabilities $18,500,000 in 1923; and four, liabilities $220,000 in 1922; no bank failures in 1927 and 1928.

QUANTITY OF CANADIAN AND AMERICAN GRAINS EXPORTED VIA MONTREAL.

	Fiscal Years Ended March 31.					
	1924.	1925.	1926.	1927.	1928.	1929.
	Bushels.	*Bushels.*	*Bushels.*	*Bushels.*	*Bushels.*	*Bushels.*
Canadian:						
Barley	6,516,473	5,974,575	8,564,575	12,482,353	10,322,601	8,232,630
Corn	700	.....	.....	36	4,790	17,179
Oats	10,090,470	10,415,986	26,532,831	10,230,696	3,819,231	12,015,256
Rye	1,073,135	1,833,904	2,663,786	508,950	4,562,121	4,279,782
Wheat	60,342,395	51,915,273	44,884,507	52,279,941	45,071,658	70,683,183
Total	78,023,173	70,139,738	82,645,486	75,501,976	63,780,401	95,228,030
American:						
Barley	410,660	527,257	7,867,000	1,810,000	11,149,105	20,193,466
Corn	1,831,089	.....	137,000	676,000	137,467	114,264
Oats	.....	33,097	15,626,000	2,229,000	4,558,968	3,466,559
Rye	5,870,924	14,838,305	13,052,000	7,567,000	29,381,432	9,540,536
Wheat	27,849,597	67,365,986	37,182,000	34,817,000	69,910,090	74,305,412
Total	35,962,270	82,764,645	73,864,000	47,099,000	115,137,062	107,620 237
Grand Total	113,985,443	152,904,383	156,509,486	122,600,976	178,917,463	202,848,267

CANADIAN RAILWAY STATISTICS.

Year.	Track-age.	Capital.	Passengers.	Freight.	Gross Earnings.	Operating Expenses.
	Miles.	*Dollars.*	*Numbers.*	*Short Tons.*	*Dollars.*	*Dollars.*
1910 (June 30)	31,386	1,410,297,687	35,894,575	74,482,866	173,956,217	120,305,440
1915 "	45,833	1,875,810,888	49,322,035	87,204,533	199,843,072	147,731,099
1916 "	48,319	1,893,877,819	43,303,459	109,659,088	261,888,654	180,542,259
1917 "	50,254	1,985,110,991	48,106,530	121,916,272	310,771,479	222,890,637
1918 "	50,245	1,999,880,494	44,948,638	127,543,687	330,220,150	273,955,436
1919 "	50,220	2,009,209,510	43,754,194	116,699,572	382,976,901	341,866,509
1919 (Calendar)	50,691	2,036,165,606	47,940,456	111,487,780	408,598,360	376,789,093
1920 "	51,174	2,170,030,128	51,318,422	127,429,154	492,101,104	478,248,154
1921 "	51,747	2,164,687,636	46,793,251	103,131,132	455,008,891	422,581,205
1922 "	51,860	2,159,277,131	44,383,620	108,530,518	440,657,127	393,947,406
1923 "	51,936	3,264,674,038	44,834,337	118,289,604	478,338,046	412,362,815
1924 "	52,692	3,413,865,613	42,921,809	106,429,355	445,923,877	382,483,908
1925 "	54,286	3,471,080,909	41,458,084	109,850,925	455,297,288	372,149,656
1926 "	54,279	3,560,948,932	42,686,166	122,476,822	493,599,754	389,504,452
1927 "	54,717	3,637,837,496	41,840,550	125,967,439	499,064,207	407,646,280
1928 "	55,455	3,722,476,250	40,592,792	141,230,026	563,732,260	442 701,270

Figures of capital for the last three years include advances of Dominion Government to Canadian National for operating expenses, interest charges and stock acquired by Dominion Government which at time of acquiring had relatively little value, also cost of constructing Government lines.

The trackage of the Canadian Pacific Railway in 1928 was 20,175. The other principal railways are now, in pursuance of the government policy of nationalization, included in the Canadian National Railway System, which has a trackage (1928) of 27,794 (all tracks) miles.

FOREIGN TRADE OF CANADA SINCE 1868.

Year (Fisc.)	Total Imports.	Total Exports.	Year (Fisc.)	Total Imports.	Total Exports.	Year (Fisc.)	Total Imports.	Total Exports.
	Dollars.	*Dollars.*		*Dollars.*	*Dollars.*		*Dollars.*	*Dollars.*
1868	67,090,159	52,701,720	1889	109,098,196	87,210,911	1910	370,318,199	298,763,993
1869	63,154,941	56,256,573	1890	111,682,573	94,309,367	1911	452,724,603	290,900,210
1870	66,902,074	65,571,212	1891	111,533,954	97,470,369	1912	522,404,675	307,716,151
1871	84,214,388	67,483,268	1892	115,160,413	112,154,257	1913	671,207,234	377,068,355
1872	104,955,367	78,629,265	1893	115,170,830	114,430,654	1914	619,193,995	455,437,224
1873	124,509,129	85,943,935	1894	109,070,911	115,685,569	1915	455,955,908	461,442,509
1874	123,170,887	87,356,093	1895	100,675,891	109,313,484	1916	508,201,134	779,800,070
1875	117,408,568	76,847,142	1896	105,361,161	116,314,543	1917	846,450,878	1,179,211,100
1876	92,513,107	79,726,398	1897	106,617,827	134,457,703	1918	963,532,578	1,586,169,792
1877	94,126,394	75,141,654	1898	126,307,162	159,529,545	1919	919,711,705	1,268,765,285
1878	90,395,851	79,154,678	1899	149,422,416	154,880,880	1920	1,064,528,123	1,286,658,709
1879	78,702,519	70,786,669	1900	172,651,676	183,237,555	1921	1,240,158,882	1,210,428,119
1880	69,900,542	86,139,703	1901	177,930,919	194,509,143	1922	747,804,332	753,927,009
1881	90,488,329	97,319,818	1902	196,737,804	209,970,864	1923	892,579,244	945,295,837
1882	111,145,184	101,766,110	1903	225,094,809	225,229,761	1924	893,366,867	1,058,763,297
1883	121,861,496	97,454,204	1904	243,909,415	211,053,678	1925	796,932,337	1,051,361,643
1884	105,972,978	89,222,204	1905	251,964,214	201,472,061	1926	927,328,732	1,328,700,137
1885	99,735,775	87,211,381	1906	283,740,289	246,657,802	1927	1,030,892,505	1,267,573,142
1886	95,992,137	85,194,783	1907	250,225,833	192,037,233	1928	1,105,956,466	1,250,456,297
1887	105,107,210	89,510,242	1908	352,540,879	263,368,952	1929	1,265,679,091	1,388,773,075
1888	100,671,628	90,185,466	1909	288,594,196	259,922,366			

The imports are of merchandise for home consumption. The exports include foreign as well as domestic produce, the total of foreign for 1929 being $25,186,403. In 1929 the dutiable merchandise in the imports was valued at $821,075,430, the free at $444,603,661. The table does not include gold or (until 1919) silver imports or exports.

Merchandise imports from U. S.—1921, $856,176,820; 1922, $515,958,196; 1923, $540,989,738; 1924, $601,256,447; 1925, $509,780,069; 1926, $608,618,542; 1927, $687,022,521; 1928, $719,436,237; 1929, $868,056,680.

Merchandise (Canadian produce) exports to U. S.—1921, $542,322,967; 1922, $292,588,643; 1923, $369,080,218; 1924, $420,707,544; 1925, $417,417,144; 1926, $474,987,367; 1927, $466,422,789; 1928, $478,003,646; 1929, $500,167,599.

Merchandise imports from United Kingdom—1921, $213,973,562; 1922, $117,135,343; 1923, $141,330,143; 1924, $153,586,690; 1925, $151,083,946; 1926, $163,731,210; 1927, $163,939,065; 1928, $185,895,857; 1929, $194,020,573.

Merchandise exports to United Kingdom—1921, $312,843,871; 1922, $299,361,675; 1923, $379,067,445; 1924, $360,057,782; 1925, $395,843,433; 1926, $508,237,560; 1927, $446,872,551; 1928, $410,691,392; 1929, $429,730,485.

VALUE OF U. S.-CANADA MERCHANDISE TRADE (STATED IN DOLLARS). FISCAL YEAR

Fiscal Year.	Exports to U. S.	Imports From U. S.	Fiscal Year.	Exports to U. S.	Imports From U. S.	Fiscal Year.	Exports to U. S.	Imports From U. S.
1901	67,983,673	107,377,906	1911	104,115,823	275,824,265	1921	542,322,967	856,176,820
1902	66,567,784	115,001,533	1912	102,041,222	331,384,657	1922	292,588,643	515,955,196
1903	67,766,367	129,071,197	1913	130,725,953	436,887,315	1923	369,080,218	540,989,738
1904	66,856,885	143,329,697	1914	163,372,825	396,302,138	1924	420,707,544	601,256,447
1905	70,426,765	152,775,576	1915	173,320,216	297,142,059	1925	417,417,144	509,780,069
1906	83,546,306	169,256,452	1916	201,106,488	370,889,549	1926	474,987,367	608,618,542
1907 (9ms)	62,180,439	149,085,577	1917	280,616,330	665,312,759	1927	466,422,789	687,022,521
1908	90,814,871	205,309,803	1918	417,233,237	792,894,937	1928	478,003,646	719,436,237
1909	85,334,806	170,432,360	1919	454,873,170	750,203,024	1929	500,167,599	868,056,680
1910	104,199,675	218,004,556	1920	464,028,183	801,097,318			

PULPWOOD AND WOOD PULP PRODUCTION, 1928, IN CANADA.

Province.	Cords Cut.	Value.	Pulp Produced.	Kinds of Wood Manufactured.	Cords.	Value.
		Dollars.	*Tons.*			*Dollars.*
Quebec	2,621,148	33,780,925	2,018,566	Spruce	3,439,651	43,245,062
Ontario	1,395,992	17,960,778	1,046,603	Balsam, Fir	949,666	12,001,975
N. Brunswick and Man.	357,342	3,597,003	204,910	Hemlock	195,767	1,864,135
Nova Scotia	33,854	302,346	29,684	Poplar	23,315	305,475
British Columbia	383,008	3,907,755	254,375	Jack Pine	141,770	1,658,832
Total	4,791,344	59,548,807	3,610,724	Total and Other	4,791,344	59,548,807

In 1928 the capital invested in the Canadian wood pulp and paper industry was $685,687,459; value of 1928 output of pulp and paper, $305,920,434; number of concerns, 110; number of employees, 33,614; 1928 wage total, $47,322,648; value of pulp and paper exports, $192,771,615.

CROP YIELDS OF CANADA.

Year (Calendar).	Wheat.			Oats.		
	Acres.	*Bushels.*	*Dollars.*	*Acres.*	*Bushels.*	*Dollars.*
1910	8,864,752	132,075,082	104,816,825	8,652,015	243,506,292	86,796,130
1911	11,100,673	230,924,000	148,123,000	9,630,760	365,179,000	132,949,000
1912	10,996,700	224,159,000	139,090,000	9,966,000	391,629,000	126,304,000
1913	11,015,000	231,717,000	156,462,000	10,434,000	404,669,000	128,893,000
1914	10,293,900	161,280,000	196,418,000	10,061,500	313,078,000	151,811,000
1915	15,109,415	393,542,600	356,816,900	11,555,681	464,954,400	171,009,100
1916	15,369,709	262,781,000	344,096,400	10,996,487	410,211,000	210,957,500
1917	14,755,850	233,742,850	453,038,600	13,313,400	403,009,800	277,065,300
1918	17,353,902	189,075,350	381,677,700	14,790,336	426,312,500	331,357,400
1919	19,125,968	193,260,400	457,722,000	14,952,114	394,387,000	317,097,000
1920	18,232,374	263,189,300	427,357,300	15,849,928	530,709,700	280,115,400
1921	23,261,224	300,858,100	242,936,000	16,949,029	426,232,000	146,395,300
1922	22,422,693	399,786,400	339,419,000	14,541,229	491,239,000	185,455,000
1923	21,886,146	474,199,000	316,994,700	14,387,807	563,997,500	184,857,400
1924	22,055,710	262,097,000	320,362,000	14,491,289	405,976,000	200,688,000
1925	20,789,790	395,474,700	487,736,200	12,555,675	402,296,000	167,170,600
1926	22,895,649	407,136,000	442,221,000	12,741,340	383,416,000	184,098,000
1927	22,460,154	479,665,000	477,791,000	13,239,963	439,712,700	225,879,000
1928	24,119,140	566,726,000	451,235,000	13,136,516	452,153,000	210,956,000

Year (Cal)	Corn for Husking.			Barley.			Rye.		
	Acres.	*Bushels.*	*Dollars.*	*Acres.*	*Bushels.*	*Dollars.*	*Acres.*	*Bushels.*	*Dollars.*
1910	294,223	14,329,215	5,774,039	1,286,611	28,846,425	14,653,697	114,741	1,542,694	1,037,899
1911	321,875	19,185,000	12,357,000	1,521,694	44,415,000	24,704,000	131,240	2,492,000	1,899,700
1912	298,190	16,949,700	10,540,700	1,581,300	49,398,000	22,354,000	127,000	2,428,000	1,735,000
1913	278,140	16,772,600	10,784,300	1,613,000	48,319,000	20,144,000	119,300	2,300,000	1,524,000
1914	256,000	13,924,000	9,808,000	1,495,600	36,201,000	21,557,000	111,280	2,016,800	1,679,300
1915	253,300	14,368,000	10,243,000	1,718,432	54,017,100	27,985,000	121,677	2,486,200	1,921,900
1916	173,000	6,282,000	6,747,000	1,802,996	42,770,000	35,024,000	148,404	2,876,400	3,196,000
1917	234,339	7,762,700	14,307,200	2,392,200	55,057,750	59,654,400	211,880	3,857,200	6,267,200
1918	250,000	14,214,200	24,902,800	3,153,711	77,287,240	77,378,670	555,294	8,504,400	12,728,600
1919	264,607	16,940,500	22,080,000	2,645,509	56,389,400	69,330,300	753,081	10,207,400	14,240,000
1920	291,650	14,334,800	16,593,400	2,551,919	63,310,550	52,821,400	649,654	11,306,400	15,085,650
1921	296,866	14,904,000	12,317,000	2,795,665	59,709,100	28,254,150	1,842,498	21,455,260	15,399,300
1922	318,397	13,798,000	11,509,700	2,599,520	71,865,300	33,335,300	2,105,367	32,373,400	18,703,200
1923	317,729	13,608,000	12,466,000	2,784,571	76,997,800	32,570,700	1,448,142	23,231,800	11,339,900
1924	295,015	11,998,000	14,227,000	3,407,441	88,807,000	61,760,000	890,814	13,750,900	13,678,700
1925	238,767	10,564,300	9,938,700	3,523,933	87,118,300	46,014,100	642,976	9,158,500	7,047,800
1926	209,725	7,813,000	7,780,000	3,647,462	99,987,100	52,059,000	753,786	12,178,900	9,430,600
1927	131,626	4,262,000	4,212,000	3,505,713	96,938,000	64,193,000	743,311	14,950,600	12,255,500
1928	139,192	5,241,000	5,860,000	4,880,740	136,391,400	76,112,000	839,565	14,617,700	11,491,000

Other 1928 agricultural yields.—Beans, 1,170,500 bushels; buckwheat, 10,899,300 bushels; mixed grains, 39,130,000 bushels; flaxseed, 3,614,400 bushels; hay and clover, 16,515,000 tons; potatoes, 50,195,000 cwt; peas, 2,588,000 bushels.

Of the 1928 Canadian grain, the Prairie Provinces of Manitoba, Saskatchewan and Alberta raised 544,598,000 bushels of wheat, 297,676,000 bushels of oats, 112,684,000 bushels of barley, 3,519,400 bushels of flax and 13 158 000 bushels of rye.

Canadian grain exports in the year ended Mar. 31, 1929, were in bushels.—wheat, 370,459,551; oats, 15,657,348; barley, 35,699,767; rye, 9,456,512; peas, whole, 66,093; beans, 45,976; buckwheat, 402,358; corn, 28,289.

COAL PRODUCTION OF CANADA.

Year.	Nova Scotia.	New Brunsw'k.	Saskatchewan.	Alberta.	British Columbia.	Yukon Territory.	Total Production	Total Value.
	Tons.	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Dollars.*
1910	6,431,142	55,455	181,156	2,894,469	3,330,745	16,185	12,909,152	30,909,779
1915	7,463,370	127,391	240,107	3,360,818	2,065,613	9,724	13,267,023	32,111,182
1916	6,912,140	143,540	281,300	4,559,054	2,584,061	3,300	14,483,395	38,811,481
1917	6,327,091	189,095	355,445	4,736,368	2,433,888	4,872	14,046,759	43,199,831
1918	5,818,562	268,312	346,847	5,972,816	2,568,591	2,900	14,977,926	55,192,896
1919	5,790,196	166,377	379,347	4,933,660	2,649,516	.....	13,919,096	54,413,349
1920	6,437,156	171,685	335,222	6,907,765	3,095,011	.....	16,946,839	80,693,723
1921	5,734,928	187,192	335,632	5,909,217	2,890,291	233	15,057,493	72,451,656
1922	5,569,072	287,513	382,437	5,990,911	2,922,033	465	15,157,431	65,518,497
1923	6,597,838	276,617	438,100	6,854,397	2,823,306	313	16,990,571	72,058,986
1924	5,557,441	217,121	479,118	5,189,729	2,193,667	1,121	13,638,197	53,593,988
1925	3,842,978	208,012	471,965	5,869,031	2,742,252	730	13,134,968	49,261,951
1926	6,747,477	173,141	439,863	6,503,705	2,613,719	316	16,478,131	59,875,094
1927	7,071,876	203,950	470,216	6,934,162	2,746,243	414	17,426,861	61,867,463
1928	6,741,630	207,738	464,428	7,335,489	2,804,594	414	17,554,293	62,681,136

CANADA'S PIG IRON PRODUCTION.

Year.	Nova Scotia.		Quebec.		Ontario.		Totals.	
	Net Tons.	*Dollars.*	*Net Tons.*	*Dollars.*	*Net Tons.*	*Dollars.*	*Net Tons.*	*Dollars.*
1910	350,287	4,203,444	3,237	85,255	447,273	6,956,923	800,797	11,245,622
1911	390,242	4,682,904	658	17,282	526,635	7,606,939	917,535	12,307,125
1912	424,994	6,374,910	.....	.....	589,593	8,176,089	1,014,587	14,550,999
1913	480,068	7,201,020	.....	.....	648,899	9,338,992	1,128,967	16,540,012
1914	227,052	2,951,676	.....	.....	556,112	7,051,180	783,164	10,002,856
1915	420,275	5,462,847	.....	.....	493,500	6,129,972	913,775	11,374,199
1916	470,055	7,050,825	.....	.....	699,202	9,700,073	1,169,257	16,750,898
1917	472,147	10,387,234	.....	.....	698,333	14,638,726	1,170,480	25,025,960
1918	415,870	10,451,400	7,449	419,521	772,232	22,624,250	1,195,551	33,495,171
1919	285,087	7,141,641	7,701	331,797	624,993	17,104,151	917,346	24,577,589
1920	332,493	7,687,614	8,944	379,348	748,881	22,252,062	1,090,318	30,578,253
1921	169,504	3,633,516	683	15,283	520,154	11,800,355	690,341	15,449,154
1922	135,261	2,325,729	.....	.....	247,706	6,493,513	382,962	8,819,242
1923	277,654	5,360,099	.....	.....	602,168	15,095,496	879,822	21,355,595
1924	198,327	4,954,175	.....	.....	465,888	11,646,500	664,215	16,604,675
1925	226,910	4,402,674	.....	.....	413,248	8,040,015	639,258	12,442,689
1926	280,267	6,165,852	.....	.....	567,928	10,495,122	848,195	16,660,974
1927	279,495	.....	.....	.....	515,366	.....	794,861	.....
1928	302,756	.....	.....	.....	734,971	.....	1,037,727	.....

The output of steel in 1928 was 1,240,214 long tons, or 36 per cent. over the 907,945 long tons of 1927 and 59 per cent over the 1926 figure.

GOLD PRODUCTION, BY PROVINCES.

YEAR.	Nova Scotia.	Quebec.	Ontario.	Alberta.	British Columbia.	Yukon Territory.	Total.
1910	$163,891	$2,565	$63,849	$1,850	$5,403,318	$4,570,362	$10,205,835
1911	160,854	12,672	42,625	207	4,930,145	4,634,574	9,781,077
1912	90,638	13,270	1,788,596	1,509	5,205,485	5,549,296	12,648,794
1913	44,935	14,491	4,543,690	.....	6,149,027	5,846,780	16,598,923
1914	60,031	26,708	5,545,509	992	5,224,393	5,125,374	15,983,007
1915	137,180	22,720	8,404,693	4,026	5,651,184	4,758,098	18,977,901
1916	94,305	21,375	10,180,485	1,695	4,540,216	4,396,900	19,234,976
1917	45,685	31,235	8,749,581	.....	2,764,693	3,672,703	15,272,992
1918	24,310	40,083	8,516,299	558	3,624,476	2,118,325	14,463,689
1919	17,571	30,388	10,454,553	500	3,457,406	1,875,039	15,850,423
1920	16,013	22,164	13,112,555	.....	2,896,577	1,689,051	17,754,485
1921	9,075	13,127	14,640,062	1,013	3,117,147	1,364,217	19,148,920
1922	21,540	.....	20,678,862	.....	4,286,718	1,125,705	26,116,050
1923	13,540	13,788	20,086,904	.....	4,137,261	1,243,287	25,495,421
1924	21,643	18,253	25,668,795	.....	5,079,462	719,897	31,532,446
1925	33,612	33,116	30,202,357	.....	4,531,824	988,465	35,880,823
1926	34,687	76,072	30,950,180	.....	4,669,065	529,220	36,263,110
1927	63,127	172,217	33,634,108	868	3,784,889	639,483	38,300,464
1928	26,667	1,240,434	32,626,459	1,406	4,076,645	710,470	39,091,472

Note—Totals include small yearly productions from Manitoba in 1924, 1925, 1926, 1927 and 1928.

MINERAL OUTPUT OF CANADA, 1900–1928.

Year.	Gold.		Silver.	Copper.	Nickel.		Lead.	
	Dollars.	*Ozs. Fine*	*Ounces.*	*Pounds.*	*Pounds.*	*Dollars.*	*Pounds.*	*Dollars.*
1900	27,908,153	1,350,057	4,468,225	18,937,138	7,080,227	3,327,707	63,169,821	2,760,521
1901	24,128,503	1,167,216	5,539,192	37,827,019	9,189,047	4,594,523	51,900,958	2,249,387
1902	21,336,667	1,032,161	4,291,317	38,684,259	10,693,410	5,025,903	22,956,381	934,095
1903	18,843,590	911,539	3,198,581	42,684,454	12,505,510	5,002,204	18,139,283	768,532
1904	16,462,517	796,374	3,577,526	41,383,722	10,547,883	4,219,153	37,531,244	1,617,221
1905	14,159,195	684,951	6,000,023	48,092,753	18,876,315	7,550,526	56,864,915	2,676,632
1906	11,502,120	556,415	8,473,379	55,609,888	21,490,955	8,948,834	54,608,217	3,089,187
1907	8,382,780	405,517	12,779,799	56,455,047	21,189,793	9,535,407	47,738,703	2,542,086
1908	9,842,105	476,112	22,106,233	63,561,809	19,143,111	8,231,538	43,195,733	1,814,221
1909	9,382,230	453,865	27,529,473	52,493,863	26,282,991	9,461,877	45,857,424	1,692,139
1910	10,205,835	493,707	32,869,264	55,692,369	37,271,033	11,181,310	32,987,508	1,216,249
1911	9,781,077	473,159	32,559,044	55,648,011	34,098,744	10,229,623	23,784,969	827,717
1912	12,648,794	611,885	31,955,560	77,832,127	44,841,542	13,452,463	35,763,476	1,597,554
1913	16,598,923	802,973	31,845,803	76,976,925	49,676,772	14,903,032	37,662,703	1,754,705
1914	15,983,007	773,178	28,449,821	75,735,960	45,517,937	13,655,381	36,337,765	1,627,568
1915	18,977,901	918,056	26,625,960	100,785,150	68,308,657	20,492,597	46,316,450	2,593,721
1916	19,234,976	930,492	25,459,741	117,150,028	82,958,564	29,035,498	41,497,615	3,532,692
1917	15,272,992	738,831	22,221,274	109,227,332	84,330,280	33,732,112	32,576,281	3,628,020
1918	14,463,689	699,681	21,383,979	118,769,434	92,507,293	37,002,917	51,398,002	4,754,315
1919	15,850,423	766,764	16,020,657	75,053,581	44,544,883	17,817,953	43,827,699	3,053,037
1920	15,814,098	765,007	13,330,357	81,600,691	61,335,706	24,534,282	35,953,717	3,214,262
1921	19,148,920	926,329	13,543,198	47,620,820	19,293,060	6,752,571	66,679,592	3,828,742
1922	26,116,050	1,263,364	18,826,439	42,879,818	17,597,123	6,158,993	93,307,171	5,817,702
1923	25,495,421	1,233,341	18,601,744	86,881,537	62,453,843	18,332,077	111,234,466	7,985,522
1924	31,532,443	1,525,382	19,736,323	104,457,447	69,536,350	19,470,178	175,485,499	14,221,345
1925	35,880,826	1,735,735	20,228,988	111,450,518	75,977,114	15,946,672	253,590,578	23,127,460
1926	36,268,110	1,754,288	22,371,924	133,094,942	65,714,294	14,374,163	283,801,265	19,240,661
1927	38,300,464	1,852,785	22,736,698	140,147,440	66,798,717	15,262,171	311,423,161	16,477,139
1928	39,091,472	1,891,050	21,922,795	201,940,172	96,755,578	22,318,907	334,850,237	15,474,003

The gold production, 1858-1900 inclusive is valued at $146,619,546.

The silver production in 1928 by ounces in the several provinces was: Quebec, 910,364; Ontario, 7,234,414; Manitoba and Nova Scotia, 1840; British Columbia, 10,943,502; and Yukon Territory, 2,832,668.

ZINC PRODUCTION IN CANADA, 1916–28.

Year	*Tons.*	*Dollars.*	Year	*Tons.*	*Dollars.*	Year.	*Tons.*	*Dollars.*	Year	*Tons.*	*Dollars.*
1916.	11,682	2,991,623	1920.	19,932	3,335,496	1923.	30,208	3,991,701	1926.	74,969	11,110,413
1917.	14,834	2,640,817	1921.	26,545	2,471,310	1924.	49,454	6,274,791	1927.	82,748	10,250,793
1918.	17,542	2,862,436	1922.	28,145	3,217,536	1925.	54,634	8,328,446	1928.	93,306	10,250,586

CANADA, DOMINION OF

AREA, 3,684,723 square miles (see tables).

POPULATION, census of 1921, 8,788,483 (see tables). Official estimate June 30, 1929, 9,796,860.

CAPITAL Ottawa; population, 1929, 125,496; other cities, Montreal, population, 1921, 618,506; Toronto, 521,893; Winnipeg, 179,087 (191,356 census of 1926); Vancouver, 117,217; Hamilton, 114,151; Quebec, 95,193; Halifax, 58,372; Victoria, 38,727; Edmonton, 58,821 (65,163, census of 1926); Calgary, 63,305 (65,613 census of 1926); London, 60,959, St. John, 47,166.

Governor General—Right Hon. Viscount Willingdon G. C. S. I., G. C. M. G., G. C. I. E., G. B. E., appointed by the British Crown Aug. 19, 1926, took office Oct. 21, 1926.

Prime Minister and Secretary of State for External Affairs—William Lyon Mackenzie King.

Minister without Portfolio—Raoul Dandurand.

Minister of Justice and Attorney General—Ernest Lapointe.

Minister of Finance—

Minister of the Interior, and of Mines—Charles Stewart.

Minister of Agriculture—William R. Motherwell.

Minister of Health, and of Soldiers' Civil Re-establishment—James H. King.

Minister of Marine and Fisheries—Pierre J. A. Cardin.

Minister of Railways and Canals—Charles A. Dunning.

Minister of Public Works—John C. Elliott.

Solicitor General—Lucien Cannon.

Minister of National Defence—Col. J. L. Ralston.

Postmaster General—Peter J. Veniot.

Minister of Customs and Excise—William D. Euler.

Secretary of State—Fernand Rinfret.

Minister of Trade and Commerce—James Malcolm.

Minister of Immigration and Colonization—Robert Forke.

Minister of Labour—Peter Heenan.

Premier Mackenzie King (Liberal) took office Sept. 25, 1926, his party being returned at the general elections Sept. 14, 1926, when a new House was chosen as follows: Liberals, 118; Conservatives, 91; Liberal-Progressives, 11; United Farmers, Alberta, 11; Progressives, 9; Labor, 3; and Independent, 2.

The boundaries of Canada are: On the east, Baffin Bay, Labrador, the Gulf of St. Lawrence and the Atlantic; on the south, the Gulf of St. Lawrence, the Atlantic, Maine, New Hampshire, Vermont, New York, the St. Lawrence and the Great Lakes, Minnesota, North Dakota, Montana, Idaho, and Washington; and on the West, Alaska and the Pacific Ocean. Canada includes all the Arctic lands

in the area bounded on the east by a line passing midway between Greenland and Baffin, Devon, and Ellesmere Islands to the 60th Meridian of longitude, thence to the pole, and on the west by the 141st meridian longitude (the Alaska boundary) to the pole. Canada has 24,500 miles of coastline. The 3,000 mile boundary between Canada and the United States has been unfortified for more than one hundred years.

Canada has a very varied topography—mountains in the West, then foothills and prairies, the barriers north of Lake Superior, the open lands of Ontario, the rocky Laurentian district in Quebec, with the fertile Eastern Townships to the south of it, and then plains sloping down to sea level in the East; the mountains of New England extend north into Canada, where they attain to practically the same heights as in the United States.

The once common misconception that Canada is almost Arctic has been nearly dispelled. The climate of the southern parts of Canada corresponds to that of the northern States. The mean annual temperature was in 1927, 49.3° at Victoria; 36.0° at Winnipeg; 46.8° at Toronto; 42.1° at Fredericton; and 44.6° Fahrenheit at Yarmouth. These figures show only slight variations from West to East, but the extremes are much greater in the prairie and eastern provinces than in British Columbia.

The St. Lawrence River is navigable to ocean-going vessels for 600 miles, as far as Montreal, which is, by virtue of its Great Lakes connections and its proximity to London and Liverpool, the greatest grain exporting harbor on the continent. Montreal exported 144,988,595 bushels of wheat in the year ended Mar. 31, 1928, Canadian wheat alone amounting to 70,683,183 bushels.

The present facilities of the Port of Montreal comprise approximately 9 miles of deep draft wharf, capable of accommodating 100 large ocean steamers; four modern fireproof grain elevators, with a total storage capacity of 15,162,000 bushels, from which grain can be delivered simultaneously at a maximum rate of 500,000 bushels per hour, while at the same time inland vessels and railway cars can be unloaded at a maximum rate of approximately 300,000 bushels per hour; a cold storage warehouse of 4,628,000 cubic feet capacity, equipped and constructed on the most modern hygienic principles; 28 permanent fireproof two-story transit sheds; and electrified terminal railway system of about 70 miles operated by 100-ton electric locomotives. There were 2,377 arrivals and departures of steam and sailing oceangoing ships the year ending Mar 31, 1928, representing a registered tonnage of 8,224,874.

Canada's merchant marine, July 1, 1928, was: Coast, 502 steamers of 777,736 net tons; 77 motorships, 98,249 tons; 209 sailing ships of 91,685 tons; Great Lakes, 112 steamers of 313,199 tons; 2 motorships of 2,927 tons; and 3 sailing ships of 6,656 tons.

Of the other great rivers, the Mackenzie, flowing into the Arctic Ocean, has a length of 2,525 miles, the Yukon, of 1,765, and the Fraser, of 695. The rivers of Canada have an available force of 18,255,316 horsepower as against approximately 28,000,000 in the United States. The total installed capacity of hydro-electric plants on Dec. 31, 1928 was 5,349,232 horsepower.

NATIONAL WEALTH OF CANADA, 1926.

Provincial Distribution of the national wealth of Canada, with percentage and per capita analyses, 1926:

Provinces.	Estimated Wealth.	Percentage Distribution.	Wealth Per Capita.
Prince Ed. Island..	$145,745,000	0.6	$1,675
Nova Scotia.....	835,748,000	3.1	1,548
New Brunswick....	723,592,000	2.7	1,777
Quebec.....	6,656,108,000	24.9	2,598
Ontario.....	9,130,189,000	34.2	2,902
Manitoba.....	1,889,606,000	7.1	2,957
Saskatchewan.....	2,920,739,000	10.9	3,559
Alberta.....	2,192,067,000	8.2	3,608
British Columbia..	2,185,210,000	8.2	3,844
Yukon.....	12,478,000	0.1	.....
Total Canada.	$26,691,482,000	100.0	$2,482

Canada is the best foreign market ($868,056,680 in the fiscal year 1929 for American produce and manufactures) and has the highest per capita consumption of American goods; it also is the chief source of supplies for the United States, sending over the border $500,167,599 worth of Canadian goods in 1929. The United Kingdom is Canada's second best customer, taking $431,668,957 worth of Canadian goods in 1929.

Capital invested in joint stock companies in Canada, agriculture excepted, Dec. 31, 1924, is as follows:

Canadian capital.....	$2,191,543,867
British capital.....	305,863,275
United States capital.....	1,019,280,743
Other.....	117,500,045
Total.....	$3,634,187,930

Canada's investments abroad Jan. 1, 1928, amounted to about $1,579,000,000, and the net trade balance excluding invisible items was estimated at $141,000,000 in 1928 and $123,000,000 in 1929. Investments of other countries in Canada on Jan. 1, 1928, were estimated at $5,742,000,000, including $3,287,000,000 from the United States and $2,210,000,000 from Great Britain.

The Department of the Interior has under its administration an area exceeding 2,000,000 square miles. Specialized management of the varied natural resources of these territories is furnished through ten major divisions of the department, including the Dominion Lands Branch, Forest Service, National Parks, Water Power and Reclamation Service, Northwest Territories, Topographical, Geodetic, and Boundary Surveys, Dominion Observatories, Natural Resources Intelligence Service, together with the financial and general administrative units. In addition to the direct management of the Federally-controlled territories and resources, the several services of the department provide the necessary facilities for broad national co-operative action, where such is required to promote the efficient development and conservation of the Dominion's natural assets.

There are 3 504,688 square miles land area in Canada, of which, it is estimated, 311,234 square miles carry merchantable timber. An equal area has been burned over and is only now growing up to merchantable size again. Forest resources were estimated in 1929 at 424,637 million board feet of saw material, and 1,122 million cords of pulpwood. The great forests are in the areas of heaviest precipitation, but in the West the heavy rains come in the non-growing winter season, so that 99 per cent. of the western timber is coniferous. For the year 1927 Canada had a lumber production of 4,098,081 thousand board feet, valued at $97,508,786, and a woodpulp production in 1927 of 5,929,456 cords, valued at $70,284,895.

Out of 300,000,000 acres of arable land only 59,351,811 were under field crops in 1928. Agriculture accounted for 8,027,301,000 (1928) of the total wealth of the Dominion and occupies about 2,500,000 persons. The gross value of agricultural production was 1,730,304,000 in 1928 ($1,783,160,000 in 1927).

WHEAT PRODUCTS.

Canada ranks second among the wheat producing countries of the world, and is now the leading wheat exporting country in the world. In 1928 the Canadian production was 566 million bushels, over 60% of the production of the United States, while the preliminary estimate of the 1929 crop is 293,792,000 bushels. The acreage sown exceeded that of 1928 by 1,132,000 acres. Ninety-six per cent. of the Canadian wheat average is in the Prairie Provinces, Manitoba, Saskatchewan and Alberta. Of the other grains, the largest crops are in oats and barley.

Fine fruits are grown in the valleys of British Columbia and in the Niagara district of Ontario. In Nova Scotia and Ontario apples are an important crop.

Dairy product exports during 1929 were: Butter 1,889,200 pounds; cheese, 112,609,200 pounds (nearly all to the United Kingdom); powdered and condensed milk, 25,801,600 pounds; fresh cream, 2,834,354 gallons; fresh milk, 3,753,871 gallons.

Meat exports in 1929 were valued at $19,184,930; in 1926 at $29,408,705.

The production of furs for the 1927-28 season amounted to 3,595,302 pelts, valued at $18,717,035. There were 3,067 fox farms in 1929, value of animals, and pelts sold, $4,736,377.

Canadian fisheries are an immensely valuable resource. The waters are cold, the fish are of the most desirable species, salmon, cod, trout and whitefish, and the extent of the fisheries is very great. The value of the catch for 1928 was $54,000,000.

The importance of Canada's mineral production has been sufficiently shown in the foregoing tables.

Manufactures have increased greatly, both because more Canadian firms are operating and because American firms have set up branches in Canada. The latter movement has been encouraged by the desire to sell in the Canadian market free of duty and to enjoy tariff preferences throughout the British Empire. The industrial census of 1927 shows that there were 22,936 manufacturing establishments in Canada with a capital of $4,337,631,558, employing 618,933 persons and paying $693,932,228 in wages and salaries. The value of the materials used was $1,789,574,604, and the gross value of the product, $3,425,498,540.

The production of motor vehicles during 1928 was 242,054, valued at $149,176,999. The number in 1927 was 179,054. Canada imported from the United States 42,386 passenger cars and 7,319 trucks from April 1, 1928 to March 31, 1929.

Canada has considerable shipping on both ocean fronts. On Dec. 31, 1927, there was a registered tonnage of 1,388,000, and for 1928 seagoing and coastwise clearances of 86,963,348 tons.

Of the railways in Canada, the Canadian Pacific is the great privately owned corporation. The Canadian National Railway System operates practically all other important lines in the Dominion.

Canada has spent large amounts in building good roads in the last five years.

It is estimated that tourists spent over $250,000,000 in Canada in 1928, and about $216,000,000 in 1927.

The wonderful scenery of the Canadian Rockies is at its best in the seven National Parks, where the hunting of game is forbidden. These are the Rocky Mountains Park, around Banff (2,751 square miles, established in 1885), Yoho (476 sq. mi.), Glacier (468 sq. m.), Revelstoke (100 sq. m.), Kootenay (587 sq. m.) and Waterton Lakes, (220 sq. m.), all traversed by the Canadian Pacific Railway, and made accessible to motorists by the highway from Calgary to Vancouver, newly completed except for a 90-mile stretch between Golden and Revelstoke now under construction; and Jasper Park (5,380 sq. m.), reached by the Canadian National Railway. There are also 10 large animal parks and preserves, and the broken lake country of Northern Ontario and Quebec is a paradise for sportsmen and campers.

Canada maintains its own military forces and controls the use of these forces, the same applying to its naval and air forces.

At the Versailles Peace Conference, Canada, Australia, New Zealand, South Africa and India were separately represented within the British Empire delegation. Thereafter each of them became in its own right, side by side with Great Britain, original members of the League of Nations. In the Assembly of the League of Nations they vote quite independently of Great Britain.

Canada in 1926 set up independent diplomatic relations with the United States, appointing Vincent Massey the first minister. William Phillips, formerly Ambassador to Belgium, was made United States minister to Canada.

Canada, like the United States, is a Federation with provincial governments similar on the whole to the State governments of the United States. The Dominion Government, however, possesses the residual powers in legislation.

Since 1858 the Canadian unit of currency has been the gold dollar, of the same weight and fineness as the United States dollar. During and since the World War, 1914-18, the paper dollar was not redeemable in gold but gold payment was resumed on July 1, 1926.

SIXTY YEARS' PROGRESS.

In July, 1927, Canada celebrated the Sixtieth Anniversary of the Confederation. Sixty years ago, Canada had a population of three million; foreign trade amounted to $120,000,000 and during the ten years 1867-77 the wheat crop did not exceed 25,000,000 bushels.

Today, Canadian foreign trade is twenty times as large as at the time of Confederation; manufactured products fifteen times as valuable; the wheat crop sixteen to twenty times as large, and the ratio of increase in other agricultural products even greater. Mining products, which had a value in 1886 of $10,250,000, had a value of $274,989,487 in 1928. Canada stands first in the production of asbestos, nickel and cobalt; third, in gold and silver, and her known coal reserves are exceeded only by those of the United States.

Foreign trade amounted in the fiscal year 1928-29 to $2,654,452,000, and placed Canada fifth among the nations of the world in this respect.

In the West in 1928, the field crop was valued at $682,864,000, and the total value of the field crops of the Dominion amounted to more than $1,125,003,000.

Canada is the most important export market of the United States, taking 18% of the total exports of that country; and the United States, in turn, is the largest market for Canadian goods, taking 37% of the total exports of Canada.

Great Britain is second only to the United States in imports from and exports to Canada. During the last twelve months, Canadian imports from Great Britain had a value of $194,000,000 and exports amounted to $430,000,000.

In the fiscal year of 1921-22, Canada sold $413,000 worth of goods to China and $387,000 to Japan; in 1928-29 the exports to China amounted to $23,687,053, and to Japan $42,099,968.

Within the thirty-eight years between 1890 and 1928, the acreage devoted to wheat crops in Canada has quadrupled. In 1870, the wheat crop amounted to 20 million bushels, in 1900 to 55½ million, and now the average annual crop amounts to more than 400 million bushels. The growth in the production of oats is proportional to that attained in wheat and the barley crop is now about 106 million bushels.

In 1927, the value of dairy products amounted to over $250,000,000, including 178 million pounds of butter and the 138 million pounds of cheese.

The value of Canada's primary forest products in 1927 was $205,631,727. Over two and a half billion cubic feet of standing timber is cut annually. Canada now produces one-third of the total world's newsprint.

According to the first Dominion census in 1870, manufactured products were valued at $221,000,000 on a capital of $78,000,000. In 1878, a general policy of protection was established, followed by a steady industrial expansion. At the end of the nineteenth century, manufactured products were valued at $481,000,000. The value reached a peak of $3,772,000,000 in 1920, and in 1927 the capital invested was $4,337,631,558; and the value of the products was $3,425,498,540. Since the beginning of the present century, the exports of manufactured goods have increased from $99,000,000 to $648,000,000.

Under the provisions of the British North America Act, which created the Dominion of Canada, exclusive authority in matters connected with banking was conferred upon Parliament. At that time there were 28 banks, with combined capital amounting to $31,000,000, total loans to $54,000,000, and total assets to $90,000,000 On Aug. 31, 1929, total assets had reached $3,452,000,000. At the present time, the 11 chartered banks (there have been many amalgamations), have 4,153 branches, of which more than 3,900 are scattered throughout Canada, providing a branch for every 2,500 inhabitants. Canadian banks now have branches in Great Britain, France and Spain, the United States, the West Indies and in all of the principal commercial countries of Latin America.

Within the past five years, good crops have been sold at prices which have enabled the farmer to liquidate a large portion of the debt incurred during the post-war agricultural deflation. Farm prices and industrial wages are high, insuring well distributed buying power. Employment throughout industry is at new high levels, and immigration shows improvement. Recent finds in the mining areas of Northern Ontario and Quebec, and the encouraging discoveries of oil in the West gave promise that the most interesting developments of the immediate future will take place in the mining industry.

NEWFOUNDLAND.

Including Labrador.

AREA, 42,750 square miles, Labrador 120,000 square miles.

POPULATION, estd. 1926, Newfoundland, 262,280; Labrador, 1924, 3,874.

CAPITAL: St. John's: population, 1924, 38,782.

Governor, Sir John Middleton, K.B.E., appointed June, 1928.

Premier, Sir Richard Squires, Nov., 1928.

Newfoundland, at the eastern end of British America, in the Atlantic Ocean, is an island the size of Virginia and a little larger than Cuba. It is separated from Canada by the Straits of Belle Isle, the Gulf of St. Lawrence and Cabot Straits.

Newfoundland is the oldest English Colony. Discovered by John Cabot, June 24th, 1497 (Cape Bonavista), it was, in August, 1583, formally occupied by Sir Humphrey Gilbert, and by the Treaty of Utrecht, 1713, acknowledged to be British. A Governor was appointed in 1728, and in 1855 "responsible government" was accorded to the island. It is administered by an appointed Governor, aided by an Executive Council, with a Legislature of two Houses, the Assembly elected by manhood suffrage. Women were enfranchised in 1925.

Newfoundland has steadfastly refused to join the Dominion of Canada. Labrador is by award of the Privy Council made in 1927 now incorporated in the Colony It has 850 miles of coastline, and is inhabited chiefly by Eskimos engaged in fishing and hunting. It has much timber.

Newfoundland is rugged in topography, and to this and to its rigorous winter climate is doubtless due the stern and peculiarly serious character of its inhabitants, whose avocations are mainly fishing and lumbering. The Colony contributed 11,922 men to the British Armies in the World War, and 3,000 others enlisted in the Canadian Contingent.

By legislative enactment on Aug. 15, 1924, prohibition, in effect since 1915, gave way to a law allowing the purchase of one bottle of spirits a day by any one person and permitting hotels to supply guests with beer and wine.

Besides the foodstuffs producible in that northern latitude, there are resources of minerals which are

not yet much developed, including iron ores, copper and gold. The forests are a great source of revenue. Paper pulp is taken from there to England and the United States.

Premier W. S. Monroe resigned in August 1928, and was succeeded by F. C. Alderdice. A general election was held in October, which resulted in a sweeping victory for Sir Richard Squires and the Opposition.

The export of iron ore in 1927-28 was: To Germany, 919,662 tons; to Nova Scotia, 530,632 tons; to the United Kingdom, 13,750 tons; and to the United States, 78,248 tons. Newsprint paper to a total value of $13,600,000 was shipped in 1927-28, to England, 84,452 tons; to the United States, 98,930 tons; and to other places, 1,570 tons.

The value of the fisheries in 1927-28 was about $15,000,000.

Newfoundland had, in 1928, 934 miles of state-owned railroads, which in the fiscal year ending June 30, 1928, showed a net loss of $446,000. There were 55 miles of private line.

The budget for 1929-30 estimated receipts at $10,956,000 and expenditures at $11,143,000. The revenue for 1927-28 was $9,466,005, and expenditures, $10,740,925. The revenue for 1926-27 was $8,932,426, and expenditures, $10,533,409. The gross public debt, June 30, 1928, was $79,477,479, net debt, $75,720,628.

The Government floated a $6,000,000, 25-year bond issue in June, 1929, in London.

Exports are chiefly dried cod, manufactured paper, iron ore, cod and seal oils.

Foreign trade was heaviest with the United States, Canada second, and Great Britain third in 1927-28. Trade for three years was:

	Imports	Exports
1925-26	$27,552,315	$27,563,211
1926-27	25,813,873	30,839,859
1927-28	27,637,136	33,664,619

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$6,607,118	$2,301,963
1923	8,374,803	2,166,153
1924	9,697,675	2,568,660
1925	9,623,273	3,712,706
1926	8,851,385	9,038,965
1927	8,483,122	9,065,958
1928	9,229,405	9,888,281

BRITISH WEST INDIES.

JAMAICA.

AREA, 4,450 square miles; Turks and Caicos Islands, 224; total, 4,674 square miles.

POPULATION, census of 1921, 858,188 (white, 14,476; colored, 157,223; black, 660,420; East Indian, 18,610; Chinese, 3,696); not stated, 3,693. Turks and Caicos Islands, 1921, 5,612, of which 210 were white. Total, 863,800; estimated, 1926, 936,927.

CAPITAL, Kingston; population, 1921, 62,562. Other cities: Spanish Town, 8,694; Port Antonio, 7,074; Montego Bay, 6,616.

Governor, Sir R. E. Stubbs, K. C. M. G., appointed 1925.

Jamaica is situate in the Caribbean Sea, ninety miles south of Cuba, and is the largest and most valuable of the British West Indies. It is about the size of the State of Connecticut. It has a rather mixed population, West Indians predominating. In 1926 there were 1,108,244 acres cared for, of which 274,418 were tilled, and 833,826 pasture. Products are tropical. Imports from the United States are larger than from any other country, and exports to this country second to those to Britain. There are 210 miles of railroads.

The climate has attractions for winter tourists, and many citizens of this country visit the island. The island figures largely in the history of the Buccaneers of the West Indies before and during the time of Sir Henry Morgan, once its Governor. The old haunt of the pirate, Port Royal, at the entrance of the harbor, was destroyed and sunk under the sea by an earthquake.

In 1927, 1,754 vessels of 3,001,232 tons entered the ports.

Revenue: 1927-28, £2,275,094; expenditures, £1,980,888; debt, £4,922,330

Imports were, in 1927, £6,001,768; in 1926, £5,636,188; in 1925, £5,058,350; in 1924, £4,827,074; in 1923, £5,281,078; exports, in 1927, £4,257,750; in 1926, £3,935,059; in 1925, £3,145,610; in 1924, £3,074,042; in 1923, £4,288,494.

Sugar exports in 1927 were just under 50,000 tons valued at £800,000; and rum, 740,528 gallons. Banana exports amounted to 17,058,319 stems.

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$8,196,249	$7,261,979
1923	8,837,000	6,626,261
1924	7,291,083	6,174,493
1925	8,944,852	8,237,611
1926	8,383,633	9,110,754
1927	8,640,627	9,722,893
1928	8,140,213	7,999,207

BERMUDA.

AREA, 19 square miles.

POPULATION, census of 1921, 20,127 (7,006 white); estimated 1927, 30,814.

CAPITAL, Hamilton; population, 3,000.

Governor, Lieut. Gen. Sir Louis Jean Bols, K.C.B., K.C.M.G., appointed 1927.

Bermuda, a crown colony, is a group of 360 small islands of coral formation, about twenty inhabited, in mid-Atlantic, 677 miles southeast of New York and 580 miles east of North Carolina. To Americans, the main island, capital Hamilton, is a favorite winter resort, fully 30,000 visiting it annually. It ships to New York quantities of Easter lilies, early potatoes and onions. Of its 12,360 acres 4,000 are under cultivation.

The Governor is aided by two Councils and an elected House of Assembly of thirty-six members. The franchise is limited to men owning property valued at $300 a year; in 1918 there were 1,408 electors, of whom 934 were white and 474 colored.

Bermuda is an important naval base with a well equipped dockyard. Food supplies are mostly imported from the United States and Canada.

Revenue, 1927, £290,236; expenditures, £249,420; debt, £70,000. Imports, £1,532,794; exports, £249,958.

Tonnage entering and leaving the port in 1927 totaled 3,041,350 tons.

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$3,280,950	$1,026,031
1923	4,033,572	1,099,075
1924	3,474,817	1,194,600
1925	3,159,947	893,177
1926	3,287,320	1,124,160
1927	3,775,754	1,106,513
1928	3,458,263	944,513

BARBADOS.

AREA, 166 square miles.

POPULATION, census of 1921, 156,312; est'd 1927, 169,385.

CAPITAL, Bridgetown; population, 13,486.

Governor, Sir W. C. F. Robertson, K. C. M. G.; appointed 1925.

Barbados is the most eastern of the Windward Islands, in the West Indies, lying out in the Atlantic at 13° north latitude.

Of the total 106,470 acres, 74,000 are tilled, producing chiefly sugar and cotton. Imports are heaviest from the United States, and exports heaviest to Canada. Tonnage entered and cleared in 1927 totaled 3,775,385. There are twenty-eight miles of narrow gauge railroad.

Revenue, 1927-28, £414,884; expenditures, £481,252; debt, £585,000. Imports, 1927-28, £2,300,108; exports, £1,603,531.

Trade with the United States was:

Cal. Year.	Imports.	Cal. Year.	
1922	$1,541,050	$512,158	
1923	1,519,371	359,264	
1924	1,606,743	206,239	
1925	1,410,511	455,685	
1926	1,592,616	568,683	
1927	1,616,149	495,818	
1928	1,529,965	437,043	

TRINIDAD AND TOBAGO.

AREA, 1,862 square miles. Tobago, 114 square miles.

POPULATION, estimate 1924, 381,753.

CAPITAL, Port au Spain; population, 70,146.

Governor, Sir Horace Archer Byatt, K. C. M. G.

Trinidad, the most southerly of the West Indies, lies off the north coast of South America. Trade is heaviest, both import and export, with the United States. Total area is: Trinidad, 1,191,678 acres, of which 517,538 are cultivated; Tobago, 73,213. Products are mostly asphalt, oil, with derivatives therefrom. The great asphalt lake, 110 acres in extent, on the island is immensely valuable and seems inexhaustible.

The output of crude petroleum in 1928 was 7,750,000 barrels; 5,380,464 in 1927; 4,971,000 in

1926; 4,387,000 in 1925; from about 1,000 wells. The export of asphalt in 1927 was 186,369 metric tons, valued at £464,475, from which the colony derived a revenue of £90,668.

There are 123 miles of railroad in operation.

Port au Spain is one of the finest towns in the West Indies.

Revenue, 1927, £1,686,053; expenditures, £1,497,024; debt, £3,281,854. Imports, £5,082,871; exports, £6,018,864; trans-shipments, £707,152.

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$4,872,198	$4,519,754
1923	4,394,054	5,161,979
1924	3,822,403	4,862,208
1925	4,028,891	5,969,984
1926	4,905,135	8,234,031
1927	5,929,560	7,642,936
1928	4,716,393	9,674,047

THE BAHAMAS.

AREA, 4,404 square miles.

POPULATION, estimate Dec. 31, 1923, 54,886.

CAPITAL, Nassau; population, about 12,000.

Governor, Sir C. W. Orr, K.C.M.G., 1926.

The Bahama Islands number twenty, part of them uninhabited, and are in the Atlantic Ocean, off the coast of America. Nassau, on the Island of New Providence, near the Florida coast, is an attractive winter resort for Americans.

Sponges and sisal are the chief sources of revenue. Fruit growing is being developed. Trade with the United States is three times as heavy as with any other country.

Revenue, 1927-28, £485,319; expenditures, £673,986; debt, £176,230. Imports, 1927, £1,844,932; exports, £483,773.

WINDWARD ISLANDS.

AREA: Grenada, 133 square miles; St. Vincent, 150; St. Lucia, 233; total, 516.

POPULATION, estimate, Dec. 31, 1923, Grenada, 53,847; St. Vincent, 68,086; St. Lucia, 46,744; total, 168,677.

CAPITAL, St. George's, on Grenada Island.

Governor, Sir F. S. James, K. B. E., C. M. G.

The Windward Islands lie at the eastern side of the Caribbean Sea, west from Martinique. They are Grenada and the Grenadines, St. Vincent and St. Lucia. Each has its own local Government.

Products mostly are sugar, cocoa, nutmegs, cotton, mace and fruits.

Total Revenues, 1927, £293,386; total expenditures, £293,377; total debt, £476,711. Imports for all islands, 1927, £816,549; and exports, £865,950.

LEEWARD ISLANDS.

AREA, 648 square miles.

POPULATION, census of 1921, 122,242.

CAPITAL, Antigua.

Governor, Sir Eustace Fiennes, Bart.

The Leeward Islands, of the West Indies, are part of the Lesser Antilles, forming Froude's "Bow of Ulysses." They comprise in one administration five Presidencies, and include the Islands of Antigua, Barbuda, Redonda, St. Christopher, Nevis, Anguilla, Dominica, Montserrat, and the (British) Virgin Islands, with Sombrero, under Commissioners, and all except the latter having their own local Legislature.

Their chief products are sugar, molasses, cocoa and tropical growths. Trade with the United States is growing.

Total revenue, 1927, £379,244; expenditures, £263,697; debts, £246,131. Imports, 1927, £854,816; exports, £662,492.

The trade of the Bahamas, the Windward Islands and the Leeward Islands with the United States was:

Cal. Year.	Imports.	Exports.
1922	$5,974,151	$1,906,114
1923	5,836,372	1,923,206
1924	5,162,364	2,859,061
1925	5,572,096	3,027,739
1926	6,039,528	3,380,163
1927	5,749,839	3,861,740
1928	5,634,557	2,262,446

BRITISH HONDURAS.

AREA, 8,598 square miles.

POPULATION, census of 1921, 45,317.

CAPITAL, Belize, population, 12,660.

Governor, Sir J. A. Burdon, K. B. E., C. M. G.

British Honduras is situate on the Caribbean Sea, south of Yucatan, and produces chiefly tropical fruits, mahogany, logwood, chicle, and cedar, much of which comes to the United States. Of the imports, a considerable trade is with this country and Canada, and comprehends things produced both in this country and Britain.

Revenue, 1927-28 was £222,544; expenditures, £231,684; debt, £155,589. Imports, £944,751; exports, £835,700.

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$1,846,925	$2,220,779
1923	1,817,084	2,227,140
1924	1,835,701	2,154,854
1925	2,162,405	2,834,172
1926	2,568,655	2,845,409
1927	2,060,519	3,748,766
1928	1,837,099	2,830,807

BRITISH GUIANA.

AREA, 89,480 square miles.

POPULATION, census of 1921, 297,691; including 124,900 East Indians; estimated, 1926, 306,844.

CAPITAL, Georgetown; population, 55,490.

Governor, Sir Cecil Hunter Rodwell, K. C. M. G., appointed 1925.

British Guiana is on the north shore of South America, with Venezuela on the west, Dutch Guiana on the east, and Brazil on the south. It is administered by a Governor, assisted by a Court of Policy, seven appointed and eight elected, these with six others constituting the Combined Court that rules.

Areas tilled are 177,000 acres, producing in 1926 sugar cane from 55,673 acres, rice from 49,890 acres, cocoanuts from 29,979 acres, coffee from 6,243 acres, rubber from 2,980 acres. Sugar production in 1926 was 98,152, of which 84,693 tons, valued at £1,260,410, were exported.

The placer gold mining industry is important, the 1926 production being £29,489; total production, 1884-1926, being £9,707,698. The production of diamonds in 1926 was 164,156 carats, valued at £819,816; (value 1901-1926, £5,214,033).

There are 97 miles of railroads and 450 miles of river navigation. In 1926, 3,160 vessels of 1,090,806 tons entered and cleared the ports

Revenue, 1927, £1,068,865; expenditures, £1,481,361; debt, £2,675,270. Imports, £2,470,818; exports, £3,263,420.

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$1,903,079	$809,477
1923	1,703,393	762,066
1924	1,865,236	930,962
1925	2,000,602	950,861
1926	1,881,344	1,206,157
1927	1,501,027	981,186
1928	1,347,914	913,680

FALKLAND ISLANDS AND SOUTH GEORGIA.

AREA, 6,500 square miles, including more than 100 islands, and South Georgia, estimated, 1,000 square miles.

POPULATION, Falkland Island, estimate Dec. 31, 1923, 3,510 (2,540 males, 970 females). South Georgia, 1926, 1,895; only 7 females.

Governor, Arnold W. Hodson, C. M. G.

The Falkland Islands lie 300 miles east from the Strait of Magellan at the southern end of South America. Their main value is in their strategic location, although there are large sheep farms and whaling interests. It was off the Falkland Islands the British war fleet under Admiral Sturdee defeated the troublesome German fleet in the late war, completing the elimination of the naval force of the Central Powers in the South Pacific.

Although Great Britain has held possession of the Islands since 1834, Argentina refuses to renounce her claim of ownership.

Revenue 1926, £281,357; expenditures, £156,054. Assets exceeded liabilities Dec. 31, 1926 by £231,670. Imports £709,246; exports, £4,400,701 (including wool, £214,290, and whale products, £4,101,709).

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1923	$567	$1,272,299
1924	15,876	411,158
1925	3,777	654,510
1926	60,340	104,475
1927	67,187	
1928	79,804	3,182

PROFESSIONAL WEIGHT LIFTING.

Carry—2,250 lbs. carried on back, eight steps, side-stepping, P. J. McCarthy, St. Louis, Aug. 4, 1898.

Back Lift—6,370 lbs. raised by using arms, legs and back, under platform loaded with stone until it was clear of contact with trusses, P. J. McCarthy, St. Louis, Mo., Sept. 17, 1898.

Other Foreign Countries.

AFGHANISTAN, KINGDOM OF

AREA, estimated, 245,000 square miles.
POPULATION, estimated 6,330,500.
CAPITAL, Kabul; population, estimated, 150,000; other cities, Kandahar, population, 31,000, and Herat, 20,000.
Amir, Nadir Kahn, proclaimed Amir Oct. 15, 1229.

Afghanistan occupies a mountainous country in Asia between 61° and 72° east longitude and 29° and 38° 20′ north latitude. Its extreme breadth northeast to southwest is about 700 miles, and from the Herat frontier on the west to the Khyber Pass on the east it is 600 miles. It is bounded on the north by the Turkoman S.S.R. of the U.S.S.R., on the east by British India, on the south by Baluchistan (British India), and on the west by Persia. The elevation is generally over 4,000 feet. There are three great river basins, the Oxus and the Kabul in the northeast, and the Helmund, which runs southwest through the middle of the country. It lacks 20,000 square miles of being as large as Texas.

Towering above Kabul are the Hindo-Kush Mountains, 15,000 and 16,000 feet high and reaching 25,425 feet 100 or 200 miles to the east. Trade to India flows through the famous Khyber Pass from Kabul to Peshawur.

Afghanistan has been called "the land of rocks and stones and sanguinary feuds." Its people are nearly all Mohammedans. The Durani have been the dominant race for 200 years, the Tajiks, aborignes, being cultivators and traders. Along the frontier are warlike and independent tribes of Pathans and others with a fixed habit of raiding across the border and receiving punishment. Disturbances have been frequent. The languages spoken are Pushtu and Persian.

There are many fertile plains and valleys in the mountain, and good irrigation makes available all profitable soil. There are two harvests a year, one of wheat, barley or lentils, and the other of rice, millet, maize and dal. Fruits of the temperate zone are plentiful. Sheep and transport animals are raised. The fat-tailed sheep is native to the country. Its tail is of immense weight and size, formed of masses of fat, a store of nourishment drawn on by the animal in winter. These sheep furnish the Afghans their chief meat diet, and the fat of the tail is a substitute for butter. Wool and skins are the main articles of export, together with fruits, nuts and ghi. The imports are textiles, metals and hardware, leather goods, tea and sugar. Transfrontier trade with India amounts to about $15,000,000 annually, and about $9,000,000 with Russia and Persia. Copper, lead and iron are found.

There are no railroads in the country, but plans have been developing looking toward the building of railroads across the country in the northeast to connect Termez, the rail head of the road from Bokhara, with Peshawur, in British India, via Kabul, and another to connect with the railroad from Merv at its rail head at Kuska, via Herat, in the west, and Kandahar, in the south, to New Chaman and Quetta, in Baluchistan. Merchandise is now transported on camel or pony back along the seven important trade routes. There are no financial institutions. The state yearly revenue is about $10,000,000.

The Government is monarchical and the laws and customs those of Islam. King Amanullah's father was recipient of a subsidy from the British Government, but that was ended by a new treaty signed on Nov. 22, 1921, in which Great Britain recognized the complete independence of Afghanistan, established the frontiers, and withdrew the privilege Afghanistan had enjoyed of importing arms and ammunition through India.

In 1921 Soviet Russia, by treaty which recognized the independence of Bokhara and Khiva, replaced the British subsidy with an annual grant of 1,000,000 gold rubles ($500,000), and the Turks entered into an offensive and defensive alliance with both Russia and Afghanistan. The British then negotiated another treaty with King Amanullah permitting him to import arms through India.

Soviet Russia negotiated treaty of "mutual neutrality and non-aggression" on Aug. 31, 1920.

King Amanullah, who had succeeded his father, assassinated Feb, 20, 1919, made a tour of European capitals in 1928 with his Queen Surrayyi who appeared unveiled. On his return he started many notable reforms, some against Mohammedan practices. Violent opposition from tribesmen and mullahs met this too rapid Westernization. Serious uprisings with much bloodshed broke out in November. A brigand chieftain nicknamed Bacho Sakao (the Waterboy) took a hand and threatened the capital. The king rescinded his reforms by proclamation but it was too late. He abdicated Jan. 14, 1929 in favor of his brother Inayatullah who lasted three days. The usurper declared himself King Habibullah and invested and captured Kabul. King Amanullah and his uncle Nadir Khan fought on bitterly.

The British Legation in February evacuated the Europeans from Kabul by British Royal Air Force planes, some 580 persons being taken in extreme cold and over mountains 12,000 feet high to Peshawur by eight airplanes in about 80 flights. Sir Francis Humphrys, the British Minister, was the last to leave.

Amanullah, his cause hopeless, fled from Kandahar, reaching India May 22 with his queen, Surrayyi, his brother and his wife, and sailed from Bombay for Italy June 22. Nadir Khan kept up the fight and captured Kabul early in October after a series of fierce engagements. Habibullah fled after murdering Amanullah's brother and five other hostages. Nadir Kahn was proclaimed Amir on Oct. 15 and was promptly recognized by Soviet Russia.

The Afghan army was reported to number 100,000 well armed men. Service is compulsory.

ALBANIA, KINGDOM OF

AREA, estimated, 17,374 square miles.
POPULATION, census of 1921, 831,877.
CAPITAL, Tirana; pop., estimated, 12,000; other cities, Durazzo, pop., 5,000; Scutari, pop., 32,000; Elbasan, pop., 13,000; Valona, pop., 7,000.
King, Ahmed Zogu, born 1894, made President by the Assembly Sept. 29, 1925, assumed crown Sept. 1, 1928.
Premier, Kosta Kotta, (Interior), Sept. 4, 1928.

Albania, after centuries of Turkish domination and of contention between its Balkan neighbors and Italy during and after the World War, has had its independence assured under a treaty with Italy, Aug. 2, 1920, and was formally admitted into the League of Nations in January, 1921.

A treaty was signed by Albania and the powers on July 31, 1926, establishing its boundaries as delimited by an International Commission.

A treaty (of Tirana) between Italy and Albania, a compact of mutual support and cooperation, was signed Nov. 27, 1926. It disturbed Europe but especially Jugo-Slavia. A diplomatic break between the two Balkan countries in June 1927 was referred to and settled by the League of Nations.

The country is mountainous, bounded by Jugo-Slavia on the north and east, Greece on the south, and the Adriatic Sea on the west. It is an agricultural and cattle and sheep raising state. There are no railroads, banks or currency and few schools. It is about the size of New Hampshire and Vermont.

The latest census, 1921, returned the population as: Mohammedans, 534,675; Greek Christians, 158,215; Roman Catholics, 88,987; total, 831,877.

Revolution in May and June, 1924, resulted in the overthrow of the Premier, Ahmed Zogu, and the establishment, on June 12, of a nationalist provisional government with Bishop Fan Stylian Noli, former Foreign Minister, at the head. He was educated at Harvard University, 1909-12, and was the head of the Albanian Orthodox Greek Church.

In turn his government was overturned at Christmas time, 1924, by Ahmed Zogu. Bishop Noli fled to Italy. Premier Ahmed Zogu abolished the army, about 8,000 men, had the National Assembly proclaim Albania a republic, and on February 20 ratify an oil exploration grant to the Anglo-Persian Oil Company. A State monopoly on oil sales was, in June 1929, granted to the Italian Company, Agip, for $300,000.

The Assembly elected Ahmed Zogu President of the republic for a seven year term in Jan., 1925, and he assumed that office Sept. 29. A constitution adopted March 2, concentrated great power in the hands of the President, who could name or dismiss Ministers at will. The Senate has 18 members, of which six are appointed by the President. There are 53 Deputies elected for four years. Judges serve during good behavior.

An Assembly elected July-August 1928 amended the Constitution and proclaimed Ahmed Zogu King of the Albanians.

A new civil code patterned after the latest French, Swiss and Italian codes, and replacing the ancient Turko-Arabic civil code, was adopted on April 2, 1929. Heads of families were also ordered to adopt surnames.

The budget for 1927-28 provided for revenues 30,879,800 gold francs, and expenditures 30,838,000 gold francs; and for 1926-27, revenues 23,609,000 gold francs and expenditures 23,103,000 gold francs.

The public debt, 1928, was 70,500,000 gold francs.

The trade of the country, chiefly with Italy (67% of imports in 1926, and 45.8% of exports), converted into dollars was:

Year.	Imports.	Exports.
1924	$3,955,518	$2,389,845
1925	4,208,380	3,112,503
1926	4,800,141	2,309,649

ANDORRA, REPUBLIC OF

AREA, 191 square miles.
POPULATION, 1921, 5,231, scattered in 30 villages.
First Syndic, P. Font-Aremy.

Andorra is a republic in a valley of the Pyrenees under the suzerainty of France and the Spanish Bishop of Urgel. It has enjoyed undisturbed sovereignty since 1278 and was granted a constitution as a republic by Napoleon in 1806. It pays an annual tribute of 1420 francs. It is governed by a Council of 24, elected for 4 years by heads of families in each of the six parishes. The inhabitants speak Catalan and are Roman Catholics. Sheep raising is the chief industry.

Press reports from Paris Oct. 7, 1928, said that a syndicate of Paris and Strasbourg financiers with a capital of $4,500,000 had acquired the mining water power and tobacco growing right, had begun the construction of new roads through the mountain passes, and a connection by rail with Barcelona. It proposes to build a hotel and casino and create a mountain Monte Carlo and health resort.

ARABIA

AREA, estimated, 1,200,000 square miles.
POPULATION, estimated, 7,000,000.

The Arabians occupy a peninsula in the southwest corner of Asia between Palestine on the west, Syria on the north and Mesopotamia on the northeast (an indeterminate line), the Persian Gulf, the Gulf of Oman, the Arabian Sea and the Red Sea, with the exception of Aden, a strongly fortified coaling station of 75 square miles with a protectorate of adjacent territory of 9,000 square miles, pop. 54,923, held by Great Britain. Nearly one-half of Arabia is desert. It is, roughly, as large as that portion of the United States stretching east of California to the Mississippi and north from Texas to the Canadian line. Maps are very deficient. The boundaries of the native states of Arabia are undefined. Turkey, in the treaty of peace, renounced all rights to Arabia. The organization of the native states had been developed under British auspices, the principal rulers (the King of the Hejaz and the Imam of Yemen) being subsidized on condition that they maintain internal peace and place the control of foreign affairs in the hands of British advisers.

THE KINGDOM OF THE HEJAZ AND OF NEJD

King of the Hejaz and Sultan of Nejd, Abdul Aziz ibn Abdul-Rahman al Faisal al Saud, born 1880.
Capital, Riyadh, population 20,000.

The Hejaz lies on the southwestern part of Arabia from the Egyptian line to Asir along the Red Sea. Its area is about 112,500 square miles; population (estimated) about 900,000. The Nejd now includes about 170,000 square miles of the interior and a population of 2,000,000 almost entirely nomad. The dependencies include El Hasa, Katif, Jabal Shammar, El Jauf and the greater part of Asir.

The importance of the Hejaz is due to its possession of the holy cities of Islam, Medina, where the Mosque of the Prophet enshrines the tomb of Mahomet, who died in the city June 7, 632, and Mecca, his birthplace, containing a great mosque sheltering the sacred shrine, the Kaaba, in which is the black stone given by Gabriel to Abraham. As many as 200,000 of the faithful have made the pilgrimage in a year. Medina (pop. 20,000) is 820 miles from Damascus, and is the terminus of the Hejaz railroad. Mecca (pop. 60,000), the capital is 200 miles further south, and is 55 miles from Jeddah (pop. 20,000), the chief port on the Red Sea. The chief product is dates. Some hides, wool and gum are exported.

The Kingdom of the Hejaz was a creation of the World War. Husein ibn Ali, Grand Sheriff of Mecca, cast off his allegiance to the Sultan and proclaimed himself King of the Hejaz in 1916, joining the Allies in the war. The Hejaz was represented at the Peace Conference by Emir Feisal, third son of Husein, now King of the Iraq, and was admitted to the League of Nations in 1920. The King's second son, Emir Abdullah became ruler of Transjordania when that Arab state was set up within the Palestine Mandate.

King Husein had himself proclaimed Caliph of Islam in March 1924. This did not suit Abdul-Aziz es-Saud ibn Saud, Sultan of Nejd, able and warlike leader of the Wahabis, the extreme fanatic austere Moslem zealots. In August, 1924, he invaded Transjordania but was driven back by British air forces. In September he captured Taif, 60 miles east of Mecca, and threatened the Holy City. King Husein abdicated both throne and his claim to the Caliphate on October 3. His eldest son, Emir Ali, succeeded as king, but did not claim the Caliphate. Ibn Saud captured Mecca by assault of Sept 14, King Ali and his forces retreating to Jeddah, the port on the Red Sea. The Wahabis held Mecca, and in December captured Medina. King Ali abdicated and left the Hejaz. Ibn Saud entered Jeddah and on Jan. 11, 1926, in Mecca was proclaimed King of the Hejaz and Sultan of Nejd.

Ibn Saud had been vigorously spreading his authority over the interior of Arabia. In 1920 he had annexed Abha and other parts of Asir. In 1921 he captured and annexed the Amirate of Jebel Shammar and in July, 1922, he had captured the Jauf district and extended his influence up to Wadi Sirhan, so that when he assumed the title of King, his dominions embraced the whole area of desert Arabia. In October, 1925, he concluded an agreement with the British Government fixing the Iraq boundary and consenting to a revision of the northwestern frontier which threw the old Turkish province of Maan with Aqaba into Transjordania. Much friction persists. Insubordination, tribal feuds and an uncontrollable passion for raiding kept Arabia in a turmoil with some heavy fighting in 1929.

The administrative districts number twelve, some being administered by appointed governors and some by local emirs. The products are dates, wheat, barley, fruit, hides, wool, and Arab clocks, besides camels, horses, donkeys and sheep. Exports are insignificant.

Ibn Saud has thirteen surviving sons, the second, Emir Faisal, being Viceroy of Mecca.

THE IMAMATE OF YEMEN

Imam, Yahya Mohammed Hamid ed-Din.

Yemen is in the southwest part of the peninsula between Asir and the British protectorate Aden. Its area is estimated at 75,000 square miles and population 2,500,000. Capital Sanaa (pop. 20,000); chief port Hodeida (pop. 40,000). On the plateau of El Jebel, the most fertile part of Arabia, grain and coffee are grown. Hides and coffee are exported. Mocha, once a flourishing coffee port, no longer counts.

The Imam signed a treaty of friendship and commerce with Soviet Russia, Nov. 1, 1928.

THE SULTANATE OF KUWEIT

Sultan, Ahmed ibn Jobar; succeeded March, 1921.

Kuwelt, area 1,950 square miles, and population estimated at 50,000, extends along the Persian Gulf from Mesopotamia to Nejd. Its capital, Kuweit (pop. 25,000), is an important port on the Persian Gulf, and had been selected as seaport terminal of the German Berlin to Bagdad railroad. Horses, wool, dates and pearls are exported.

The total trade almost wholly with India, Iraq, Persia and the Arab coast was: 1925-26, £694,760; 1926-27, £439,542; and 1927-28, £629,447.

THE SULTANATE OF OMAN

Sultan, Seyyid Taimur ibn Feisal ibn Turki; succeeded his father, 1913.

Oman occupies the southeast portion of the Arabian peninsula with a coast line about 1,000 miles long, extending from El Katar on the Persian Gulf to Ras Sajir on the Arabian Sea. It has an estimated area of 82,000 square miles and a population estimated at 500,000, chiefly Arabs. The nomadic tribes of the interior after seven years of rebellion have completely thrown off the control of the Sultan and by an agreement, October, 1920, have entire home rule and freedom of trade. The Sultan has for years been subsidized by the Government of India, which maintains there a political agent, Major C. C. J. Barrett (1926). The capital is Muscat (pop. estimated, 20,000). The best camels in Arabia are bred in the interior. The chief exports are dates.

Food supplies and textiles are imported. Trade is mostly with India.

The trade of the Hejaz and Arabia with the United States in 1926 was: Imports, $59,818; exports, $1,661,183; in 1927, imports, $399,773; exports, $71,068; in 1928, imports, $322,021; exports, $95,329.

ARGENTINA, REPUBLIC OF

AREA, 1,153,418 square miles.
POPULATION, official estimate, June 12, 1929, 10,904,022.

CAPITAL, Buenos Aires, pop., Census Sept., 1928, 2,042,889; chief cities, Rosario, pop., 265,000; Cordoba, 186,000; La Plata, 161,978; Tucuman, 110,000; Santa Fe, 105,000; Mendoza 58,790; Avellande, 46,277; Bahia Blanca, 87,400.

President, Dr. Hipolito Irigoyen, born 1852. (1928-1934). Inaugurated, Oct. 12, 1928.

Vice President, Dr. Enrico Martinez.

Premier, Elpidio Gonzales (Interior).

Argentina extends from Bolivia 2,300 miles to Cape Horn and from the ridge of the Andes to the South Atlantic, occupying the greater part of southern South America. Its greatest breadth is about 930 miles. In area it is about equal to the eleven Mountain and Pacific States of the United States. It is bounded by Bolivia on the north, Paraguay on the northeast, Brazil, Uruguay and the South Atlantic Ocean on the east and Chile on the west. All boundary disputes have been settled by arbitration.

East of the Andes are great plains, heavily wooded and called the Gran Chaco in the north, and vast treeless pampas, given over to wheat and cattle raising, stretching south down to the plains of Patagonia. Vast tracts of land amounting to 237,768,000 acres are public domain land, opened by the Federal Government to colonization. In the years 1857-1926 the number of immigrants by sea was 5,741,653. Immigration comes principally from Spain and Italy. A law passed in 1919 requires each intending immigrant to produce a certificate of good character and ability to work. Immigrants in 1922 numbered 139,953, of which 58,970 were Italians and 44,738 Spaniards; in 1923, 232,501; in 1924, 160,127; in 1925, 125,365; in 1926, 113,352; and in 1927, 161,518.

Wheat, maize, flax and oats are the principal crops. The sugar and wine industries are making great progress. Sheep, cattle, horses, goats and pigs form the chief wealth on the ranches. Packing houses have been established and the export of frozen beef and mutton and other livestock products has become a great industry.

The livestock census of Dec. 31, 1922, returned 37,064,850 head of cattle, 30,671,841 sheep and 1,436,638 hogs.

Meat consumption in 1924 was 198 pounds per capita, the highest known. Argentina imports goods to the annual value of $80 to $95 per capita.

According to the official figures received by the United States Department of Commerce the slaughter at the Argentine packing houses during 1927, compared with previous years, was as follows:

	1927.	1925.	1924.	1921.
Cattle.	3,233,787	3,322,677	3,808,000	1,625,000
Sheep	4,600,000	4,240,275	4,371,000	3,768,000
Hogs.	.....	100,451	361,665	280,000

The exports of beef in 1928 totalled 515,846 metric tons, (703,089 in 1927); mutton, 78,000 metric tons (83,126 in 1927); and hides, 142,000 metric tons (170,966 in 1927). Argentina supplies more than half the hides imported by the United States.

Production of wheat in 1927-28 was 5,373,942 metric tons on 19,168,800 acres; of maize, 6,455,552 metric tons on 11,805,600 acres; and linseed 2,033,032 metric tons on 7,051,850 acres. In the calendar year 1928 wheat exports totalled 5,327,000 metric tons; corn, 6,430,000 tons; linseed, 1,970,000 tons; and birdseed, 14,000 tons.

Cotton production was 45,165 metric tons from 189,365 acres in 1926-27, and 73,140 tons from 272,528 acres in 1927-28. Sugar output was 474,256 metric tons from 237,500 acres in 1927, and 414,527 tons in 1928. Wine production was 143,091,872 gallons from 280,000 acres.

There is little mining, but 9,100,000 barrels of petroleum were produced from 539 wells in 1928; 8,612,525 in 1927; 7,952,000 in 1926; 6,336,000 in 1925; 4,163,000 in 1924; and 3,399,651 in 1923.

Textiles, oils and chemicals, iron, agricultural implements and machinery, glassware and crockery, and foodstuffs are the principal imports. Manufacturing is on the increase. The value of industrial production in 1928 was estimated officially to be $1,225,000,000 from 61,000 establishments employing 600,000 men.

In 1927 there were entered in all Argentine ports 3,376 steamers, with a tonnage of 11,862,737. The Merchant Marine on July 1, 1928, numbered 292 ships of 287,614 tonnage. Argentina had on January 1, 1928, 24,020 miles of railroads, of which 4,112 are owned by the state; the privately owned railroads are almost entirely in the hands of English companies.

The total receipts of the state-owned railroads in 1926 were 51,387,000 paper pesos and expenses 51,338,000 pesos showing a net profit of 49,000 pesos. Total receipts of all Argentine railways for 1926 were 261,500,000 gold pesos (250,000,000 in 1925), and total expenditures were 184,700,000 (179,300,000 in 1925). Passengers carried totaled 145,000,000 and freight 45,500,000 tons.

For highways $11,000,000 was spent in 1928, half by the Federal Government and half by the provincial governments.

Foreign capital invested (1928) in Argentina amounts to approximately $3,150,000,000, half of which is British and about $484,000,000 American.

Argentina proclaimed its independence of Spain July 9, 1816, and the years until 1852 were years of disturbance and civil war. The Constitution then adopted and under which, somewhat amended, the republic is governed to-day, is modeled closely after that of the United States. There are 14 provinces, with a very high measure of home rule, electing their own Governors and Legislatures, and 10 territories administered by Governors appointed by the President, also a Federal District (Buenos Aires, area 72 square miles), whose Mayor is appointed by the President and who is assisted by a deliberative council elected by the tax-paying inhabitants.

The President of the republic, who must be a Roman Catholic and Argentine by birth, is elected by an Electoral College for a six-year term and is ineligible for re-election. Congress consists of a Senate of 30 members, chosen by a special body of electors for six years, one-third retiring each two years; and a House of Deputies, numbering 158, elected by direct vote for four years, one-half retiring every two years. The Roman Catholic religion is supported by the state, but all creeds are tolerated. Primary education is free, secular and compulsory, but the percentage of illiteracy is still high. In 1926 there were 10,608 primary schools with 45,271 teachers and 1,302,534 pupils. There are national universities at Cordoba, founded in 1613, with 1,603 students in 1920; Buenos Aires, with 10,404 students; La Plata, 2,979, and Rosario. There are also three provincial universities.

Service in the national militia is compulsory, the peace strength of the army being 1,750 officers and 25,600 men, with a reserve of 300,000. The navy consists of two dreadnoughts of 27,940 tons each, mounting twelve 12-inch guns, and refitted in 1924; four armored cruisers and one light cruiser. Parliament in September, 1926, authorized the Government to spend 75,000,000 gold pesos in ten years to modernize the fleet providing for three light cruisers, six destroyers and six submarines.

Argentina withdrew her delegation from the League of Nations in 1920, and, though the League Assembly unanimously requested her return in September, 1928, refused to do so.

Argentina returned to the gold standard on August 26, 1927, by Presidential decree. The gold peso (equals 96.48 cents) had an average exchange value of 92 cents in 1926. Following an abundant harvest and an exceptional export of cereals the peso steadily increased in value, reaching 96.30 cents in March, 1927, and averaging 96.84-48 cents in August—above par. Gold had been accumulated until the Conversion office had 455,663,784 pesos worth on hand as a cover for the note circulation of 1,324,000,000 paper pesos (one paper peso equals 42.44 cents at par of exchange), amounting, that is; to 78%. The gold stock of the Conversion office on April 30, 1928, 498,879,969 gold pesos plus the 20,000,000 gold pesos of the Conversion fund held by the Banco de la Nacion Argentina gave a gold reserve of 84.24% against the note circulation of 1,426,836,341 pesos.

Argentina floated a $20,000,000 5½% 34-year Federal loan at 97 in New York Feb. 3, 1928; a $41,101,000 6% 33-year loan for the Province of Buenos Aires at 96½ in New York March 1, 1928; and a third, $3,396,000 6%, 33-year loan for the City of Buenos Aires at 98½ in New York Jan. 15, 1928.

The funded debt on June 30, 1927, was (in dollars) $1,090,525,643, or about $109 per capita, much of it being incurred for public works and revenue producing properties. The national wealth was estimated by the 1914 census at $14,543,000,000, with government owned property estimated at $1,125,000,000. The floating debt, Dec. 31, 1927, was 408,440,376 pesos.

The budget for 1929, which was unanimously voted by the Chamber, and is the first enacted since 1923, provides for expenditures of 704,131,454 paper pesos.

The budget for 1928 provided for expenditures of 660,000,000 paper pesos, and the issuance of bonds totaling 142,000,000 pesos for consolidating part of the floating debt, and of bonds totaling 140,000,000 pesos for public works. During the last 10 years, 76,450,000 paper pesos have been appropriated for roadways. Revenues in 1927 amounted to 655,568,683 paper pesos and expenditures to 651,934,237 paper pesos.

Imports and exports for eight years in dollars were:

Year.	Imports.	Exports.
1921	$615,950,000	$651,840,000
1922	665,420,000	652,422,000
1923	682,225,426	603,858,543
1924	799,695,500	971,892,210
1925	845,982,628	839,378,753
1926	792,065,600	763,121,600
1927	826,628,650	973,892,735
1928	877,976,000	990 268,000

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$95,542,385	$85,677,952
1923	112,781,892	115,276,307
1924	116,997,569	75,297,795
1925	148,748,606	80,169,993
1926	143,574,682	88,137,205
1927	163,349,682	96,961,236
1928	178,898,648	99,484,924

AUSTRIA, REPUBLIC OF
DIE REPUBLIK OSTERREICH.

AREA, 32,369 square miles.

POPULATION, census of March 7, 1923, 6,526,661.

CAPITAL, Vienna; population, census of Jan. 1, 1925, 1,868,328, of which 1,006,290 were women and 862,038 men (in 1910 it was 2,031,489). Other cities, Graz, population, 152,731; Linz, 101,347; Innsbruck, 56,365; and nine others of more than 10,000.

President, Dr. Wilhelm Miklas, Dec. 9, 1928, term four years.

Chancellor, Johann Schober (Foreign), Sept. 26, 1929.

The Austria of to-day—mere remnant of the former Austrian Empire—is now a republic in Central Europe, with Germany its neighbor to the west and the north, Czechoslovakia on the north and east, Hungary on the east, and Yugo-Slavia and Italy on the south. It is about the size of the four New England States of Vermont, New Hampshire, Massachusetts and Connecticut, and has about 200,000 more inhabitants than the four together

Austria is not only vastly reduced in area and population, but was in an economic plight equalled by few countries in world history. In the pre-war days of Emperor Francis Joseph of the Hapsburg dynasty the Austro-Hungarian Empire had 261,259 square miles and about 51,000,000 population. The Dual Monarchy included Austria proper, with Vienna, one of the brilliant political, commercial, industrial, financial and art centres of the world; Hungary, Transylvania, Czechoslovakia, Polish Galicia, the Trentino, Slavonia, Croatia, Bosnia, Herzegovina, the Banat, territories which gave it access to the Adriatic, and control of practically all the Danube River.

Hungary is an independent kingdom now. All the provinces mentioned have gone and Austria now is made up of these provinces:

Provinces.	Area Sq. M.	Pop. 1923 Census.	Pop. per Sq. M.
Vienna (City and State of).	107	1,863,783	17,419
Burgenland	1,552	286,299	184
Lower Austria	7,451	1,478,697	198
Upper Austria	4,626	873,702	189
Salzburg	2,762	222,731	81
Styria	6,323	977,350	155
Carinthia	3,688	370,432	100
Tyrol	4,882	313,699	64
Vorariberg	1,005	139,968	139
Total	32,396	6,526,661	201

From 1910 to 1920 the population decreased 3.8 per cent., the men decreasing 6.53 per cent. in the war losses. The birth rate in 1926 was 19.2 and in 1925, 20.6; the death rate in 1926 was 14.9; and in 1925, 14.4.

In 1910 the present Austrian territory had 5,979,667 Roman Catholics, the Austrian Empire being the most powerful Catholic unit in Europe. The Catholics were 94.11 per cent. of all; Jews, 2.99 per cent.; and Protestants, 2.60 per cent.

The World War was precipitated by the assassination of the heir presumptive to the throne, the Archduke Franz Ferdinand, by a Serbian in Sarajevo, Bosnia, on June 28, 1914.

Austria was proclaimed a republic on Nov. 12, 1918, the day after the armistice; a National Assembly assumed the Government and appointed a Cabinet. On Feb. 16, 1919, the National Constitutional Assembly, consisting of one Chamber, was elected by the direct vote of all men and women over 21 years of age.

A Constitution was adopted Oct. 1, 1920, which provides for a Parliament of two Houses, a Bundesrat of 46 members, chosen indirectly, and a Nationalrat, elected by direct vote for four years. These two Houses elect a President to serve for four years and eligible to two terms only. All special privileges were abolished. Religious liberty is a fundamental law. School attendance between the ages of 6 and 14 is compulsory. In 1926 there were in the Republic 5,293 public and private elementary schools with 28,757 teachers and 712,275 pupils; 145 secondary schools with 3,593 teachers and 44,513 pupils; and three universities supported by the State—Vienna with 9,500 students; Graz, 2,500; and Innsbruck, 1,500.

Compulsory military service was abolished by the Treaty of St. Germain and the army limited to 30,000; the military budget, 1927, was 79,700,000 schillings.

The army numbered 20,114 in six mixed brigades in 1927. There is no navy.

Austria was forced to seek foreign assistance shortly after it was proclaimed a republic, and the European Allies, and to a large extent the United States, responded by advancing relief and food credits amounting approximately to $72,000,000 during 1919 and 1920. By the fall of 1920 the food credits had been exhausted, and in March, 1921, Austria again sought foreign assistance, this time through the League of Nations. Austria wanted an international loan, but this was refused as its assets were burdened by relief liens and, in addition, by a reparation sum to be fixed by the Reparation Commission as soon as Austria's resources and capacity permitted.

Great Britain in February, 1922, loaned Austria £2,350,000 (approximately $10,440,000 at the then rate of exchange) on the security of the State Gobelins; and France later loaned approximately $1,400,000; Italy, $3,500,000; and Czechoslovakia, $15,000,000. On a third appeal the League of Nations on August 31, 1922 took the situation in hand and formed a rehabilitation plan which was accepted by the Austrian Parliament on Dec. 3, 1922, Dr. Alfred Zimmerman of the Netherlands was made General Commissioner. The League guaranteed an international loan of approximately $126,000,000 in 7% 20-year bonds which was oversubscribed in the United States (allotted $25,000,000), England, Sweden, Holland, Belgium, Czechoslovakia and Switzerland. Far reaching reforms of administration, taxation and the finances were put in effect and a new National Bank set up. The budget was balanced. A new unit of currency, the schilling (equals 10,000 paper crowns) was made the official standard and its rate of exchange stabilized at $0.14084, where it has remained for five years. The success of the rehabilitation permitted the League of Nations to remove its tutelage on June 30, 1926, when Dr. Zimmerman was recalled. The League, however, retained the right to re-establish it by a three-fourths vote of the Council if advisable, and retained also control of the resources to guarantee service of the loan, until June 30, 1928 when Dr. van Toningen of the Netherlands, the last Controller of the League, was recalled from Vienna Of the international Loan over $100,000,000 has been expended on railroad construction, road improvement and other productive capital enterprises, about $14,000,000 remaining on Jan. 1, 1928.

(For details of the Rehabilitation see The World Almanac for 1928, page 590; and for 1927, pages 592, 593.)

Budgets for four years, in schillings, are:

	Revenues.	Expenditures.
1926 (actual)	1,145,446,000	1,177,863,000
1927 (actual)	1,750,400,000	1,750,400,000
1928 (actual)	1,142,000,000	1,015,000,003
1929 (proposed)	1,777,000,000	1,742,000,000

The public debt on Dec. 31, 1928 was 2,363,600,000 schillings ($332,558,000); service on the debt was 151,800,000 schillings.

Circulation on Aug. 31, 1929, was 1,046 million schillings with a cover of 169 million schillings in gold and 614 millions in foreign bills, or 75%. Saving bank deposits exceed a billion schillings.

Unemployment figures were: 38,000 on Sept. 15, 1922; 167,400, Feb. 15, 1923; 76,000, Oct. 15; 176,000, March 15, 1924; 66,000, Aug. 15, 1924; 189,000, Feb. 28, 1925; 223,000, Aug. 15; 224,000, Jan. 30, 1926; 150,981, July 30; 151,000, Oct. 30; 244,257, Feb. 28, 1927; 158,332, May 31; 133,000, Sept. 15; 224,000, Jan. 15, 1928; 173,000, Apr. 15; 115,000, Aug. 15; 256,000, Feb. 15, 1929; 196,000, Apr. 15; 117,000, June 15. Doles paid out in 1925 were estimated at $14,000,000. During 1926 approximately 153,000,000 schillings ($21,800,000) were paid out in doles of which 118,000,000 was contributed by the employers and by the trade unions of equal basis by law, and 26,000,000 was contributed by the Federal Government, 4,800,000 by the Provincial Government, 4,300,000 by the municipalities. The average number of unemployed for the entire year 1926 was 176,000.

At the general election Sunday, April 24, 1927, the anti-Socialist (Government) Coalition won 94 seats to the Socialist 71 on a poll of 3,607,856 votes (90% of the lists). The Socialist vote was 1,536,000,

The Communists polled only 70,000 and failed to win a seat. Mgr. Seibel became Chancellor for the fourth time. He resigned April 3, 1929, causing a government crisis which ended when Dr. Ernst Streerenwitz formed a ministry on May 7. This gave way before the clashing interests of the Heimwehr (Fascist private army) and the Shuetzbund (Socialist private army). Johann Shober, formerly chief of the Vienna police and Chancellor in 1921, asked by a coalition of Pan-German, Agrarian and Christian Socialist parties to head a government, did so on Sept. 26 and maintained order. He presented an extensive constitutional revision program to strengthen the authority of the Central Government.

The City and Province of Vienna, with complete fiscal autonomy, is under control of the Social Democratic Party. The membership of the Socialist controlled Federation of Labor on Dec. 31, 1927, was 772,762, which included 174,991 women. In the City of Vienna the membership of the Socialist party was 387,677 which included 128,658 women. The city is heavily taxed as some capital improvements like housing are paid for on the "pay as you go" principle instead of by the issuance of bonds. The municipal budget for 1929 is $33,000,000. The budget has been balanced since 1920. The funded debt is approximately $400,000,000 including a 6% 25-year bond issue of $30,000,000 floated at 90½ in New York, Dec. 1, 1927. Viennese must also pay their share of the approximately $110,000,000 Federal budget.

Movement for the union of Austria and Germany (the Anschluss issue) has grown steadily in Austria, although union is forbidden under the Versailles Treaty and the protocols of the League of Nations. A judicial system is being worked out parallel with that of Germany and new laws are being made to harmonize with those in Germany. Education is also being made to conform with common standards. An inland postal arrangement is also in operation.

Agriculture on which 30% of the population depend has shown steady improvement since the war. In 1927, 4,762,740 acres were under cultivation. The chief crop yields were: Wheat, 325,495 metric tons from 505,124 acres; rye, 511,220 tons from 947,642 acres; barley, 238,075 tons from 365,617 acres; oats, 438,809 tons from 768,982 acres; potatoes, 2,664,768 tons from 452,913 acres; and turnips, 1,660,647 tons from 131,853 acres. The production of raw sugar in 1926-27 was 79,686 metric tons.

The main industries are the making of machinery, agricultural and industrial, with considerable making of automobiles; textiles, cotton and wool, which are exporting yarns to Germany; leather and fancy goods, which have always had world-wide repute; woodwork, furniture and paper.

The cotton spinning industry had 1,059,872 spindles in operation during 1925, producing 59,759,000 pounds of yarn. 20,889,000 were exported. Cotton looms numbered 14,000.

The pig iron product in 1928 was 457,911 metric tons (457,911 in 1927, and 332,863 in 1926); steel ingots, 635,657 metric tons (551,216 in 1927, and 473,666 in 1926); and rolling mill products, 480,898 metric tons (405,177 in 1927, and 342,953 in 1926).

Lignite production in 1927 was 3,077,229 metric tons; and coal 175,520 tons.

The Austrial Alps and the Danube can furnish, it is estimated, more than 1,700,000 water horsepower. Of this, in November, 1918, 170,000 horsepower had been developed. By Dec. 31, 1927, this had been increased to a turbine capacity of 689,597 horsepower with a maximum annual output of 2,246,100,000 kilowatt-hours.

In 1927 Austria had 4,373 miles of railroads, of which 3,684 were operated by the state. On Dec. 31, 1927, 593 kilometers of the state railroads had been electrified.

Imports and exports in dollars were:

Year.	Imports.	Exports.
1924	$496,000,000	$284,000,000
1925	412,000,000	278,000,000
1926	400,857,000	248,857,000
1927	442,881,000	287,499,000
1928	457,387,560	312,255,510

Trade with the United States for recent years:

Cal. Year.	Imports.	Exports.
1922	$1,626,279	$2,950,910
1923	1,832,512	4,696,852
1924	3,191,912	5,017,783
1925	2,883,592	5,857,969
1926	2,891,481	9,418,687
1927	4,364,146	10,611,063
1928	5,992,744	12,125,719

BELGIUM KINGDOM OF

AREA, 11,752 square miles.

POPULATION, census of Dec. 31, 1928, 7,923,077, including Eupen and Malmedy (pop., 64,542); 674 to the square mile.

CAPITAL, Brussels, pop. Dec. 31, 1927, 211,913 (with suburbs, 815,198). Chief port, Antwerp, pop., 300,175 (with suburbs, 421,988). Important cities, Ghent, pop., 163,207 (with suburbs, 204,105). Liege, pop., 168,823 (with suburbs, 250,187); Bruges, pop., 51,686 (with suburbs, 78,000); Malines, pop., 60,293; Ostend, pop., 44,352; Verviers, pop., 41,417; and Louvain, pop., 40,371.

King of the Belgians, Albert, born April 8, 1875, succeeded his uncle Leopold II. Dec. 17, 1909; Married Oct. 2, 1900, the Duchess Elizabeth of Bavaria. *Heir Apparent,* Prince Leopold, Duke of Brabant, born Nov. 3, 1901; married Nov. 10, 1926, to Princess Astrid (born Nov. 17, 1905), third daughter of Prince Carl, brother of the King of Sweden; to them a daughter Princess Josephine Charlotte was born Oct. 11, 1927. Other children, Prince Charles Theodore, Count of Flanders, born Oct. 10, 1903; Princess Marie Jose, born Aug. 4, 1906, betrothed Oct. 24, 1929 to the Crown Prince of Italy.

Premier, Henri Jaspar (Colonies) Catholic Party May 22, 1926.

Minister for Foreign Affairs, Paul Hymans, Liberal.

Belgium is bounded on the north by the Netherlands, on the east by Germany and Luxemburg, on the south by France, and on the west by the North Sea. It has a frontier of 831 miles and a seaboard of 62 miles. It is not quite as large as the State of Maryland. The Scheldt and the Meuse are the principal rivers. Below Antwerp the Scheldt flows to the North Sea through the Netherlands and the Belgian Government is spending 350,000,000 francs dredging the channel as far as Flushing and improving the port of Antwerp, which has become the greatest port of Continental Europe. The western part is low, level and fertile; the eastern, the tableland of the Ardennes, has a poor soil.

Belgium formed part of the Low Countries from the readjustment of Europe in 1815 following Napoleon's downfall, until Oct. 14, 1830, when following a revolution which broke out Aug. 25, a National Congress proclaimed its independence. The Constitution of 1831 proclaimed it a "Constitutional, representative and hereditary monarchy," and the National Congress elected Prince Leopold of Saxe-Coburg King of the Belgians on June 4 of that year. He died in 1865 and was succeeded by his son, Leopold II., who died in 1909. By the Treaty of London, April 19, 1839, the famous "scrap of paper," separation from the Netherlands and the neutrality and inviolability of Belgium were guaranteed by Austria, France, Great Britain, the Netherlands, Prussia and Russia. The Germans invaded the Kingdom on Aug. 2, 1914, and held nearly all of Belgium throughout the war, evacuating it immediately after the Armistice. Under the Treaty of Versailles, Eupen and Malmedy and Moresnet were ceded by Germany, adding 382 square miles and 64,520 inhabitants to the kingdom. These cantons were joined to the province of Liege on March 5, 1925.

By July 31, 1928, 1,343,980 out of 1,372,175 war claims entered had been definitely settled, the rest being held in abeyance because claimants were dead or could not be found. Payments in 1928 reached 378,700,000 francs. Ten years after the armistice reconstruction of the war devastated territory was practically completed. About 215,000 acres of ravaged fields were under cultivation, 932 miles of roads had been rebuilt; 766 miles of rails laid on the main lines and 1,300 miles on other lines; and 350 bridges had been constructed. Over 100,000 completely, or partially, destroyed homes and factories had been rebuilt as well as 1,230 public edifices and 400 schoolhouses.

In the reconstruction productive capacity in practically all industries has been largely increased by modernization of plants and scientifically planned extensions; and also in the great development of electrical power.

Belgium claimed 6,500,000,000 gold marks from Germany to make good the worthless paper marks with which the Germans had flooded the country during the occupation. This claim was withdrawn from before the Young Reparations Experts for private settlement which was reached July 13, 1929 at Brussels. It is provided that Germany shall pay Belgium from September 1, 1929 to March 31, 1930, 16,200,000 reichmarks; during the next three years annuities of 21,500,000 marks; during the next eight years annuities of 26,000,000 marks; during the next eight years annuities of 20,100,000 marks and thereafter seventeen annuities of 9,300,000 marks. These payments represent a present capital value of 320,000,000 marks (about $76,800,000) and are unconditional.

The new fireproof Library of the University of Louvain, designed by Whitney Warren of New York in the purest Flemish Renaissance, was dedicated on July 4, 1928. It replaces the one burned by the

Germans in the World War and already houses 750,000 books, 300,000 of which are from Germany as reparation. The cost, $2,000,000, including the endowment, was raised entirely in the United States, and the $80,000 carillon was given by the engineers of America.

Belgium is the most densely populated country in Europe, having 674 inhabitants to the square mile. In the province of Brabant the ratio is 1,216.

The population is divided into two well defined groups, the Flemish and the Walloons. The former, who speak Dutch, are somewhat in the majority, preponderating in Flanders, Limburg and Brabant, including Antwerp. French and Flemish are joint official languages. The Roman Catholic is the religion of the great majority, but complete religious toleration prevails. The state does not interfere with the intimate affairs of the churches and part of the income of the ministers of all denominations is paid from the national treasury.

Belgium has four universities, those of Ghent (1,551 students in 1928) and Liege (2,278) are state institutions, and those of Brussels (1,945) and Louvain (3,551) are free. Attached to them are various technical schools with 3,034 students. There are 134 state high schools, 44 of which are for girls, and many private schools under ecclesiastical control. Schools are supported by local taxation and each commune must have at least one primary school. The percentage of illiteracy has been decreasing rapidly.

The country has 6,420 miles of roads, the majority paved with stone (Belgian blocks), and 1,039 of navigable waterways—rivers and canals. The number of vessels entering Belgian ports in 1927 was 18,684 of 27,825,695 tons. In 1927 at the port of Antwerp there entered 11,418 vessels of 23,490,300 tons; and in 1928, 11,333 of 23,604,634 tons. Inland waterway tonnage exceeds 28,000,000 metric tons annually.

Belgium and Holland signed a convention April 3, 1925, providing the Scheldt shall be closed to war ships in war time but open to all other vessels both in war and peace, thus guaranteeing its free navigation.

The chief imports are wool, cotton, flax, hides, building wood, iron and steel, machinery, coal, chemical products, bitumen, zinc ore, wheat and wine. The chief exports were manufactures of wool, cotton, flax, leather and glassware, iron, steel and zinc products and sugar. The coal, iron and quarry industries are very valuable, as are the glass, textile and sugar, and the lace of Brussels, Malines and Bruges is famous.

The cotton textile industry has expanded from a production of 45,000 metric tons of cotton yarn and 1,518,134 spindles in 1913 to 74,000 metric tons and 2,111,837 spindles in 1928. By the census in 1926 there were 13,082 industrial establishments employing 1,080,331 workers and 96,567 salaried officers.

Production of pig iron from 56 blast furnaces in 1928 was 3,905,320 metric tons (3,751,440 in 1927); and of steel ingots, 3,890,9[illegible] metric tons (3,708,495 in 1927). Production exceeded that of 1913 by about 50%. Zinc production was approximately 207,300 metric tons (201,630 in 1927) exceeding that of 1913, then a record output of 204,220.

Coal output in 1928 was 27,542,780 metric tons in 1928 (27,573,550 in 1927).

In 1926, 1,787,750 hectares (4,415,743 acres), which is 99% as compared with 1913, were cultivated; 696,397 hectares (1,720,100 acres), being 39%, were sown to cereals. Home production can satisfy national needs as to 84% with the exception of wheat, 26%. The forests are carefully cared for.

The Belgian national railway system has a total of about 3,000 miles of track and a capitalization of 10,000 million francs (approximately $278,000,000) of preferred stock nearly half of which is held by the public, and 1,000 million francs ($27,800,000) of common stock, non-transferable, owned by the Government. There is no funded debt.

The Belgian merchant marine on July 1, 1928, consisted of 233 sea vessels of 492,609 gross tons.

Compulsory old age insurance for workers of both sexes earning less than 12,000 francs a year was voted on Dec. 10, 1924. The minimum pension is 720 francs. The charge to the State for 1927 was 213,000,000 francs. For three years unemployment has been negligible.

Parliament consists of a Senate of 120 and a House of Representatives numbering 186, all of whom are directly elected by the people (except 27 Senators who are elected by provincial councils); Senators for 8 years and Representatives for 4. Universal male suffrage with plural voting up to three by property and educational qualification was introduced in 1894. Proportional representation was introduced in 1900. By an emergency measure the present Parliament was elected in 1919 on a one-man-one-vote basis and the law was revised to establish that franchise in 1921.

Parliament must meet annually, in November and must sit for at least forty days. Woman's suffrage was defeated by the Senate, 71 to 56, in August, 1925; and again on April 30, 1929 by a vote of 59 to 34. Yet for the first time a woman, Mlle. Dujardie (Socialist) was elected from Liege to the Chamber of Deputies, in May. Voting is compulsory.

The party strength of the present Parliament elected May 26, 1929 as compared with the last elected in 1925 is:

	Senate.		Deputies.	
Party	1925	1929	1925	1929
Catholics	71	41	78	76
Socialists	59	36	79	70
Liberals	23	13	22	28
Miscellaneous	..	3	8	9

Financial stability was established by drastic and courageous methods in 1926-1927. The paper franc which had fallen to 2.12 cents was stabilized Oct. 25, 1926 at 2.78 cents and has since been maintained at that point unsupported in any way. A new monetary unit the belga (= 5 paper francs = .2021 grams of gold = 7.20 to the dollar = 35 to the £) was established for the foreign trade. (See the World Almanac for 1927, pages 594 and 595; for 1928, page 592; and for 1929, page 590.)

Recent budgets in thousands of francs were:

	Revenue.	Expenditures.
1926, actual	11,346,893	13,076,112
1927, actual	10,599,751	9,533,394
1928, estimated	10,550,464	10,396,469
1929, proposed	11,485,089	10,747,205

The public debt on September 30, 1928 was: External, all funded, 28,321,667,000 francs; internal, funded, 22,188,885,000 francs; floating, 3,533,965,000 francs; total, 54,044,517,000 francs (about $1,502,438,000).

The note circulation of the Banque Nationale on September 5, 1929 was Frs. 13,230,000,000 with a gold reserve of Frs. 5,104,000,000 and a gold exchange reserve of Frs. 2,741,000,000. The ratio of gold reserve was 57.24%.

The City of Antwerp floated a $10,000,000 30-year 5% loan at 94 on the New York market Dec. 15, 1928.

Imports and exports for seven years in paper francs, (000 omitted) are:

Year.	Imports.	Exports.
1922	9,098,007	6,083,118
1923	13,204,780	9,725,054
1924	17,581,108	13,932,504
1925	17,806,000	14,536,000
1926	23,000,226	19,500,942
1927	29,179,537	26,620,738
1928	31,564,000	30,145,000

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$101,529,759	$53,848,160
1923	100,762,303	68,005,401
1924	116,004,850	65,559,231
1925	120,257,911	69,019,037
1926	99,299,398	77,793,008
1927	116,216,009	72,234,129
1928	111,864,679	75,100,431

BELGIAN CONGO.

AREA, 900,654 square miles.

POPULATION, estimated, 1925, 8,500,000. The white population on Jan. 1, 1927, was 18,169, of whom 11,898 were Belgians.

CAPITAL, Leopoldville, formerly called Kinshasa (replaced Boma as capital December, 1921). Provincial capitals, Elizabethville (Katanga), Leopoldville (Congo-Kasai), Coquilhatville (Equator), and Stanleyville (Eastern).

Governor General, Lt. Gen. A. Tilkens, appointed Dec. 27, 1927.

The Congo Free State had its origin in the vision of King Leopold II. of Belgium, who, roused by Stanley's discoveries, realized the great economic possibilities in the development of the vast territory reached by the Congo. The International Association of the Congo, which he founded and largely financed, sent Stanley back in 1879. He founded the first station, Vivi, in February, 1880, and in all twenty-four before he returned in 1884. Leopold pushed the work with the aid of a handful of men, mostly officers, and in 1885 the powers, in convention at Berlin, recognized the association as an independent state under his sovereignty—"the trade of all nations to enjoy complete freedom." The indeterminate boundaries were held to include the basin of the Congo and Lake Tanganyika, with its eastern tributaries. From 1895 the Belgian Government associated itself with this work, opening credits, although Parliament was hostile. The administration of affairs later provoked violent agitation to secure the amelioration of the condition of the natives. The Congo Free State was ceded to Belgium by the treaty of 1907, becoming, by the law of Oct. 18, 1909, Belgian Congo under control of the newly created Ministry of the Colonies.

In territory it is about the size of the fifteen Southern States of the United States. The average mean temperature is 80.6° Fahrenheit, and the average rainfall is 43.27 inches.

King Albert has set apart the Parc National Albert embracing the three volcanoes Visoke, Karissimbi, and Mikeno (Akeley's gorilla country) as a sanctuary for the flora and fauna of Africa. With the Queen he visited Belgian Congo in the summer of 1928.

The park comprises about 800,000 acres. Administration will be in the hands of a commission on which King Albert has already appointed two American scientists, Dr. John D. Merriam, President of the Carnegie Institute, and Dr. Henry Fairfield Osborn, President of the American Museum of Natural History.

Belgian Congo has a short coast line on the South Atlantic at the mouth of the Congo, where is situated the village of Banana on a fine natural harbor. Equatorial French Africa lies to the north and west, and Angola (Portuguese) to the south, beyond which and to the east is North Rhodesia; to the east Tanganyika, now British, but formerly German East Africa, and Uganda (British); to the north it also touches the Soudan. Vast, sunless and well-nigh impenetrable tropical forests fill the upper reaches of the river, covering about 25,000 square miles. The lianas yield 3,000 to 4,000 tons of rubber yearly. The oil-palm is cultivated, and palm kernels and palm oil to the value of 168,021,000 francs were exported in 1926. The export of copal in 1926 amounted to 20,866,410 kilos valued at 39,646,000 francs. Ivory exports amounted to 231,762 kilos, valued at 27,811,000 francs. Coffee, cocoa, rice, cotton and tobacco grow freely. Cattle thrive where there is no tsetse fly.

Cotton cultivation is expanding rapidly; 7,000 tons were grown in 1925-26; and it is expected that about 30,000 tons will be grown annually by 1930.

The chief industry is copper mining in Katanga, where the copper bearing belt is 250 miles long by 25 to 50 miles wide. The output in 1927 was 88,400 metric tons, 80,640 tons in 1926, 89,323 tons in 1925, 85,662 tons in 1924, and 56,479 tons in 1923. The reserves are estimated at 40,000,000 tons. In this district is a large deposit of pitch blende ore from which the factory at Oolen, Belgium, produces about four grams of finished product a month.

Placer mining in Welle produced 5,352 kilograms of gold in 1926, and the diamond output in the Kasai Basin was 1,076,113 carats valued at 75,243,000 francs; and in 1927, 1,020,000 carats.

The Congo is navigable for large vessels for 95 miles to Matadi. A railroad 249 miles long transships freight around the series of falls and rapids to Leopoldville on Stanley Pool. From here the river and its branches are navigable for about 3,750 miles. Railroads have been built around the falls on the upper river, and to connect important points. The total mileage in 1927 was 1,623. There are 7,125 miles of roads, partly suitable for automobiles. At Boma, the former capital, 60 miles up the Congo from its mouth, 198 seagoing vessels of 668,195 tonnage entered in 1927, and at all three ports the number of deep sea vessels entered was 944 of 1,875,856 tonnage.

A motor road now runs from Rejaf, the Nile terminus of navigation from Khartum, to Stanleyville on the Congo, terminus of navigation from Leopoldville on Stanley Pool. The trip on regular service for mail and passengers now takes five days.

Recent ordinary budget estimates were:

Year.	Revenues.	Expend.
1924	francs 182,358,043	177,152,598
1925	francs 146,555,000	137,086,745
1926	francs 315,708,200	320,416,527
1927	francs 316,708,200	406,963,114
1928	francs 521,563,585	521,241,955

Extraordinary expenditures for public works for three years have amounted to 309,310,000 francs. The debt on Dec. 31, 1927 was 1,893,050,983 francs of which 1,770,411,383 francs was funded.

Imports and exports for eight years:

Year.	Imports.	Exports.
1919	francs 85,681,001	204,146,254
1920	francs 237,534,767	315,245,514
1921	francs 276,027,218	217,980,062
1922	francs 268,719,988	294,579,315
1923	francs 390,098,015	552,011,784
1924	francs 489,645,238	477,004,348
1925	francs 876,245,000	628,573,946
1926	francs 1,293,197,000	729,302,000
1927	francs 1,496,359,000	1,055,239,000

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$363,046	$282,265
1923	321,934	973,115
1924	498,159	1,185,560
1925	786,866	1,823,585
1926	1,233,136	1,696,634
1927	728,523	16,014,833
1928	771,175	15,729,008

Ruanda and Urundi, districts formerly in German East Africa, have been ceded to Belgium as mandatory of the League of Nations. The total area is about 20,500 square miles and population of natives estimated at 3,000,000. Both are united administratively with Belgian Congo under a vice-governor at Astrida. The Ruanda plateau is one of Africa's best cattle countries. Several peaks of the Birunga range reach an altitude of 14,000 feet.

BHUTAN, KINGDOM OF

AREA, about 20,000 square miles.
POPULATION, estimated, 250,000.
CAPITAL, Punakha (a strong natural fortress).
Ruler, Maharajah Jik-me Wangchuk, succeeded Aug. 21, 1926.

Bhutan is a semi-independent native state having control of its internal affairs (treaty of 1910), lying on the southern slope of the Himalayas between Thibet on the north and British India on the south, with Sikkam on the west. It is 190 miles long from east to west and 90 miles extreme breadth. The people are Mongolians, the original inhabitants having been subjugated about two centuries ago by Thibetans. Their religion is Buddhism of the Thibetan form. Agriculture and stock raising (sturdy ponies especially) are the chief industries. Trade with India in 1920-21 amounted to £152,200; in 1923-24 to £92,360; and in 1924-25 to £64,900.

Since 1910 the ruler has received a subsidy of 100,000 rupees from the British Government.

BOLIVIA, REPUBLIC OF

AREA, 506,467 square miles; subject to revision on settlement of disputed boundary lines.
POPULATION, official estimate, 1926, 2,952,139.
CAPITAL, Sucre, pop. 16,194; actual seat of government, La Paz, pop., census 1928, 142,549.
President, Dr. Hernando Siles (1926-1930); assumed office Jan. 10, 1926.
Premier, Abel Icurralde, (Foreign).

Bolivia, the only country in South America without a seaport, is bounded by Peru and Chile on the west, Brazil on the north and east, Paraguay on the east and Argentina on the south. It lies across the Andes, and its chief topographical feature is the great central plateau at an altitude of 12,000 feet, over 500 miles long, lying between two great cordilleras having three of the highest peaks in America. Its area equals that of Oregon, California, Nevada, Arizona and New Mexico together. Over 50 per cent. of the population are Indians speaking their own dialects only and 25 per cent. are of mixed blood. The percentage of illiteracy is very high. Farming, grazing and mining are the chief occupations. The chief exports are tin, copper, antimony, bismuth, silver, lead, tungsten, rubber, cocoa, hides and alpaca wool. Under the Spaniards from 1540 to 1750 the mines produced gold to the value of $2,000,000,000. The annual production now is less than $500,000.

An American corporation, the Patino Mine and Enterprises, Consolidated, in which the National Lead Co. is dominant, bought for $30,000,000 in August, 1924, the Llalagua and Uncia mines, thereby securing control of 80 per cent. of the tin production of Bolivia, which is one-quarter of the world's supply.

In 1928, 711,627 tons of ore were mined, and at the smelter from 481,028 tons of high grade ore 17,290 tons of pure tin were extracted worth £133 a ton in the London market.

Export of minerals, in metric tons, for three years was:

	1925	1926	1927
Tin	54,330	53,639	66,624
Lead	36,837	30,911	22,682
Copper	14,659	19,476	23,996
Silver ore	11,343	11,826	5,857
Zinc	6,210	17,561	12,889
Antimony	3,147	7,409	6,718

The value of all mineral exports in 1927 was 117,552,098 bolivianos, and in 1928, 108,003,572 bolivianos.

La Paz is connected by a railroad (264 miles) with Arica on the Pacific. The principal railroad line runs from Antofagasta to La Paz (725 miles).

The Atocha-Villazon railroad, connecting Bolivia with the Argentine railroad system, was completed

in July, 1925. It is 124 miles, entirely between altitudes of 9,500 and 14,000 feet, and cost $10,000,000.

The total railroad mileage in 1925 was 1,491, with 231 miles under construction.

By the constitution of 1880 the President is elected for four years by direct popular vote. All men over twenty-one who can read and write have the vote. Congress is composed of a Senate of 16 elected for six years and a House of Deputies of 70, elected for four years.

(For boundary disputes, see Index.)

The peace strength of the army is 7,400 with reserves of 230,000.

There were 1,647 primary and secondary schools in 1926 with 3,345 teachers and 92,947 pupils.

Bolivia called in Prof. Edwin W. Kemmerer of Princeton in 1927 and accepted his commission's plans for financial and monetary reform enacting them into law in April 1928. The gold standard was reestablished after 14 years and the boliviano stabilized at 36.5 cents, par having been 38.9 and the average rate of exchange in 1927 34.39 cents. The national bank was reorganized and its charter extended for 25 years. It retains a monopoly of note circulation.

The new laws established real estate and income taxes, instituted a modern budget, treasury and accounting control system and reorganized banking. By a contract signed Dec. 14, 1928, E. O. Detlefsen of New York, was made Superintendent General of Banks for at least three years. Joseph T. Byrne assumed on Sept. 10, 1928, the office of American Advisor to the Comptroller General.

A $23,000,000 7% 40-year bond issue was floated in New York at 97½ Sept. 20, 1928, to aid in readjusting the debt which with this issue amounted to approximately $70,600,000. About $110,000,000 American capital was, in 1928, invested in Bolivia.

The budget for 1929 was balanced at 94,950,619 bolivianos (about $34,657,000) and that for 1928 at 51,897,187 bolivianos (about $18,615,000).

Imports and exports in bolivianos were:

Year.	Imports.	Exports.
1922	53,092,129	94,789,561
1923	55,589,506	107,693,862
1924	62,570,410	115,191,409
1925	68,065,121	119,286,370
1926	70,831,469	122,681,291
1927	66,104,672	127,093,926
1928		118,800,000

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$2,602,096	$722,224
1923	3,038,793	2,353,664
1924	4,122,417	84,372
1925	5,083,145	84,461
1926	5,163,292	279,086
1927	4,941,681	217,500
1928	4,950,524	203,927

BRAZIL, UNITED STATES OF

AREA, official estimate, 3,285,319 square miles; some boundaries agreed upon are still undefined.

POPULATION, official estimate, Dec. 31, 1928, 39,163,855. Census of Sept. 1, 1920, 30,635,605. Native born, 29,045,227; Italian born, 558,405, Portuguese, 433,577; Spanish, 219,142; German, 52,870; Japanese, 27,976; U. S., 3,439.

CAPITAL, Rio de Janeiro, pop., 1920, 1,157,873; est. 1929, 2,004,000. Chief cities, Sao Paulo, pop., 1920, 579,033 (1,040,000 est. 1929); Bahia, 283,422 (320,000 est. 1925); Pernambuco, 238,843 (355,871 by Municipal Census of 1925); Para, 236,402; Porto Alegre, 179,263; Niotheroy, 86,238; Curytiba, 78,986; Manaos, 75,704; Bello Horizente, 55,653.

President, Dr. Washington Luis Pereira de Sousa (1926-30), born Oct. 6, 1870, inaugurated Nov. 15, 1926.

Premier, Dr. Octavio Mangabeira (Foreign).

Brazil is the largest state in South America, exceeding the size of continental United States (exclusive of Alaska) by 250,000 square miles. It has a coast line on the Atlantic Ocean of 4,106 miles, and extends 2,691 miles from north to south and 2,500 miles east to west. It is bounded on the north by Colombia, Venezuela, the Guianas and the Atlantic Ocean, on the east by the Atlantic, on the south by Uruguay, Argentina, Paraguay and Bolivia, and on the west by Argentina, Paraguay, Bolivia, Peru and Colombia. The northern half is the great heavily wooded basin of the Amazon (3,854 miles long, the longest river in the world), which rises in the Peruvian Andes, and with its tributaries drains 2,000,000 square miles and empties into the Atlantic at the Equator. It is navigable in Brazil for vessels of deep draft for 2,300 miles; and in all its rivers Brazil possesses 40,000 miles of navigable waterways. Mountain ranges, interspersed with fertile valleys, traverse the eastern and southern states. The majestic falls of the Iguassu, one of the natural wonders of the world, are on the border of Parana, a Southern State.

There are 378 important waterfalls, only 154 of which have been roughly measured, and have a potential force of at least 50,000,000 horsepower. In addition there are a great number having between 6,000 and 50,000 horsepower. About 500,000 h.p. have been developed.

The mineral wealth of Brazil is vast and but little developed. Manganese is exported exclusively to the United States (287,569 tons in 1926 and 249,324 tons in 1927), also the greater part of the world supply of monozite. The gold production is $3,000,000 a year. Coal deposits are extensive but of inferior quality. Production in 1925 was 392,376 metric tons.

But a small part of the rich agricultural land has been brought under cultivation. Four-fifths of the world's coffee supply is grown in the states of Sao Paulo, Rio de Janeiro, Espirite Santo and Minas Geraes. The average annual crop is about 13,225,000 sacks of 132 pounds each. In 1927 there were exported 15,115,000 bags, valued at $304,555,397 or 70% of the total exports; over one-half went to the United States. In 1928 production reached 19,300,000 bags valued at $465,000,000, and 13,881,000 bags were exported. A government statement issued April 10, 1929 said that 10,000,000 bags of coffee were in warehouses.

Of rubber 26,186 tons valued at $12,548,303 were exported in 1927 and 18,688 tons in 1928. Other imports and exports are sacao, tobacco, yerba, leather, hides and meat.

Cotton growing is encouraged by the Government. The area under cotton is about 1,475,000 acres which produced 172,000 tons in 1924-25, 130,421 in 1925-26, 111,097 in 1926-27 and 106,660 tons in 1927-28.

Brazil ranks fourth among cane sugar producing countries with an output in 1927 of 850,565 tons.

Agricultural production in 1928 was officially estimated at $970,900,000.

Manufacturing of all kinds is being fostered. In 1927 there were 357 cotton factories with 2,584,050 spindles and 28,383 looms in operation. The census returns of 1920 showed there were in all 11,338 factories with 365,615 employees, capital of 2,232,814,000 milreis ($502,383,150), and an annual output of 2,989,176,000 milreis ($672,564,600). The vast forests are practically untouched. Stock raising is important. The chief imports are textiles, hardware, machinery, crockery, glassware, etc.

In 1926 there entered the ports of Brazil 24,397 steam vessels, of 35,924,754 tonnage. Brazil on Jan. 1, 1928, had 19,702 miles of railroads in operation. Of this, 11,613 miles were owned by the Federal Government (5,317 of which were Government operated); 4,540 owned by the states and 3,162 miles privately owned. The principal system, the Central Brazil Railway (1,563 miles), is Government owned. The system is joined up with the railroads of Paraguay, Argentina, and Uruguay. Most of the railways showed a deficit in 1924.

Brazil has (1928) 5,161 miles of first class motor roads and 28,291 miles of second class.

British investments in Brazil were estimated in 1926 to aggregate £284,265,268; French, 2,217,561,800 francs; American, (1928) $417,000,000; and other countries about $300,000,000.

Brazil, discovered in 1500 by Cabral, a Portuguese navigator, was developed as a colony of Portugal until the royal house of Braganza, fleeing from Lisbon before Napoleon's army in November, 1807, transferred the seat of Government to Rio de Janeiro in March, 1808. In 1815 Brazil was proclaimed a kingdom, and in 1822 Dom Pedro, son of King John VI., who had been left as Regent on his father's return to Portugal, was crowned Constitutional Emperor and Brazil freed from Portugal. He abdicated in 1831 in favor of his son Dom Pedro II., who was then five years old. Crowned in 1841, he ruled with varying fortune until Nov. 15, 1889, when he was driven from the throne into exile by a revolution which established a republic, the United States of Brazil. The Constitution was adopted July 24, 1891, and is modeled largely on that of the United States. There are 20 states, largely autonomous, one territory (Acre), bought from Bolivia in 1902, and a Federal District. All males over 21 who can read and write have the franchise. The President is elected by direct vote for four years. Congress consists of a Senate of 63 members chosen by direct vote for nine years one-third retiring every three years, and a Chamber of Deputies, of 212 members, elected by direct vote

for three years, representation of the minority being provided for. The Cabinet is responsible to the President only.

Congress in 1916 abolished capital punishment, except under military law.

Immigrants numbered 34,821 in 1922, 86,767 in 1923, 98,125 in 1924, 84,883 in 1925, and 137,171 in 1926; and 101,568 in 1927. Of the latter, 31,236 were Portuguese, 12,487 Italians, 12,186 Lithuanians, 9,084 Japanese, 9,070 Spaniards, and 4,876 Germans. Immigrants in 1928 numbered 82,061 and included 32,582 Portuguese, 11,169 Japanese, and 5,493 Spaniards.

All but 100,000 of the inhabitants are Roman Catholics, but religious toleration is guaranteed. Education is free in the primary grades but not compulsory save in some progressive cities. In recent years, however, great progress has been made. The University of Rio de Janeiro was founded Sept. 7, 1920. Military service is compulsory. The standing army Dec. 31, 1926, numbered 43,015 officers and men with a reserve of 560,000. The navy has two dreadnoughts and in 1918 a personnel of 693 officers and 9,650 men.

Brazil announced in March, 1926, its withdrawal from the League of Nations and refused in May 1928 an invitation to reconsider its decision.

President Pereira de Sousa secured the passage by Congress Dec. 18, 1925, of a currency stabilization law. It declares the milreis (par of exchange $0.3244) to be worth 200 milligrams of gold nine-tenths fine equivalent to $0.11963, being approximately the foreign exchange value of the milreis at that date. The gold milreis was by presidential decree of May 3, 1928, declared to equal 4.567 paper milreis. The Bank of Brazil was authorized to buy and sell foreign exchange for the account of the National Treasury, and the government was authorized to negotiate a loan for the undertaking.

A 6½% stabilization loan of $41,000,000 was floated in New York and £8,500,000 floated in London in October, 1927. Two 6½% bond issues aggregating $60,000,000 were floated in New York in the summer of 1926.

Federal Treasury notes in circulation June 30, 1927, amounted to 1,952,000,000 milreis ($235,000,000), and notes of the Bank of Brazil to 592,000,000 milreis ($71,000,000.) Gold reserve 1,151,081,000 milreis.

The foreign debt, Dec. 31, 1928, amounted to £102,968,592, $152,800,427 and 333,577,086 francs. The consolidated internal debt aggregated 2,392,746 paper contos. The total note circulation on that date was 3,379,025 paper contos, 36.8% secured by gold and the total gold reserve was £30,533,389. The foreign debts of the several states of the union on Oct. 27, 1928, amounted to £46,364,679; 313,621,500 francs, $170,933,500 and 14,240,000 florins. The internal debt totalled $128,030,000 and floating debt approximately $53,000,000.

Recent budgets, which are on a double basis of gold milreis and paper milreis, are here given in contos (1 conto = 1,000 milreis = average $116,90 in 1924, $142.80 in 1925 and $119,63 in 1926).

	Revenues.		Expenditures.	
Year.	Gold.	Paper.	Gold.	Paper.
1925.....	102,891	921,898	87,340	915,133
1926.....	158,039	1,018,139	80,624	1,366,164
1927.....	163,100	1,042,931	87,031	1,365,053
1928.....	182,382	1,254,262	139,116	1,452,152
1929.....	187,897	1,352,644	134,535	1,502,946
1930.....	199,117	1,365,296	134,830	1,609,061

Imports and exports, in dollars at average of exchange, were:

Year.	Imports.	Exports.
1921.....	$217,443,287	$219,871,650
1922.....	213,518,088	301,302,842
1923.....	231,134,786	334,450,880
1924.....	324,570,394	440,442,956
1925.....	406,162,136	483,758,118
1926.....	382,650,000	454,530,714
1927.....	391,386,225	401,899,849
1928.....	441,763,601	430,899,609

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922.....	$43,246,691	$120,383,028
1923.....	45,583,620	143,233,628
1924.....	65,206,712	179,334,668
1925.....	87,461,021	221,571,803
1926.....	95,449,419	235,307,073
1927.....	88,737,268	203,027,137
1928.....	100,676,439	220,668,450

BULGARIA, KINGDOM OF

AREA, 39,814 square miles.

POPULATION, census of Dec. 31, 1927, 5,596,800; about 85% are of Bulgarian origin.

CAPITAL, Sofia, pop., census of 1927, 213,162; other cities, Philippopolis, pop., 851,88; Warna, 60,761; Ruschuk, 45,672; Silvno, 29,280; Plevna, 29,058; and eleven of more than 15,000 population.

King (sometimes known as Czar), Boris III., born Jan. 30, 1894, succeeded on abdication of his father, Ferdinand, Oct. 3, 1918.

Premier, Andre Liaptcheff (Interior), Jan. 3, 1926.

Bulgaria is bounded on the north by Roumania, on the west by Serbia, on the south by Greece, on the east by the Black Sea, and on the southeast by Turkey. It is about the size of the State of Kentucky.

The Principality of Bulgaria was created by the Treaty of Berlin on July 13, 1878, as an autonomous and tributary principality under the suzerainty of the Sultan of Turkey. Bulgaria declared its independence on Oct. 5, 1908. Eastern Rumelia joined Bulgaria on Sept. 18, 1885, after revolution against the Sultan.

In the first Balkan War, Bulgaria, with Serbia, Greece and Montenegro, fought Turkey, the war ending in the Treaty of London on March 30, 1913, when Turkey ceded to the allied Balkan nations all territory west of the line from Midia on the Black Sea to Enos on the Aegean Sea, and also Crete. The Balkan League broke up soon after the treaty was signed, war breaking out between the allies—the second Balkan War. Roumania intervened and procured an extension (part of the Dobrudja) of her frontier at Bulgaria's expense. Peace came again with the Treaty of Bucharest on July 26, 1913, all signing.

Bulgaria was an ally of the Central Powers in the World War. By the Peace Treaty of Neuilly (Paris) of Nov. 27, 1919, Bulgaria ceded Thrace to Greece and the "Strumnitza Line" and a strip of territory on the northwest to Serbia. The treaty deprived Bulgaria of the Aegean Sea front. The Treaty of Lausanne (1923), giving Thrace to Turkey, fixes the boundary between Bulgaria and Turkey just west of Adrianople.

By an agreement concluded in June, 1924, Greece allows Bulgaria a commercial outlet to the Aegean in the part of Kavala joined to the frontier by a narrow corridor under the supervision of the League of Nations.

(For the overthrow of Alexander Stambuliski in June, 1923, his death and the communist assassinations, the cathedral outrage of April 16, 1925, and its reprisals, see the World Almanac for 1926, page 642.)

In the elections of April, 1923, Stambuliski had won 200 Agrarian seats to his opponent's 32; in the November election, after the coup d'etat, the bourgeois Government received 172 seats to the Agrarians' 39; Communists, 99; Socialists, 30; Radicals, 14, and Liberals, 8.

The election of May 1927 gave the government parties 189 deputies (the premier's party obtaining 171) and the opposition 84 (15 of whom were in exile) including 5 communists and 6 extreme socialists.

Bulgaria's language is Slavonic of Indo-European influence, allied to the Russian. The state church, Orthodox Greek, is governed by a Synod of Bishops, the clergy being paid by the state. For fifty years it has been under ban of excommunication because it wouldn't accept membership in the See of Constantinople, but it was announced Aug. 15, 1929 that after a month of negotiation the several Greek church patriarchs and the Metropolitan of Sofia, Bishop Stephane, had concluded an agreement under which the ban would be canceled at a great church council of all the 500 Eastern Orthodox bishops at Mount Athos in 1930.

Elementary education is obligatory for children from 7 to 14 years of age. The state maintains 5,840 primary and secondary schools, which, together with 1,660 private schools, have 745,000 pupils. There are 48 institutions for special instruction, 118 professional schools, 10 for training teachers and a state university at Sofia with 2,700 students, and a free university with 1,500.

Illiteracy is indicated by the 17.3 per cent. of it in the Bulgarian Army.

Two-thirds of the people are engaged in agriculture. Although lands are held in fee, pastures and woodlands are held in perpetuity by the communes. Small holdings run from one to six acres. Methods are very primitive, although gradually machinery is being brought in.

The cultivated area is 9,290,175 acres of the total of 25,785,000 of the country. Production is low because of crude methods. The annual production of cereals, 2,641,614 tons from 6,109,000 acres (census of 1928), is less than one-half ton to the acre. Wheat production in 1928 was 1,380,000 metric tons (1,146,000 in 1927) and tobacco 23,041,000 pounds (34,800,000 in 1927).

In 1928, 12,100 acres produced 13,725,000 pounds of roses from which 48,997 ounces of attar of roses were distilled.

Coal production in 1928 was 1,412,000 tons, of which all but 175,000 tons were from state mines.

Iron, lead, copper, gold, silver and manganese are found. The production in 1927 was: copper, 10,934 tons (35,536 in 1927); lead 2,229 (11,211 in 1927).

Industry is not much developed. In 1922 there were 1,540 manufacturing establishments employing 63,000. Unemployment has practically disappeared.

Forests cover 7,203,000 acres, or 30 per cent. of the total area—fir, beech, oak and pine.

Exports are tobacco, maize, hides, wheat, barley, petroleum and attar of roses; and textiles, metals, machinery and oils are the chief imports.

Bulgaria had in 1928, 1,854 miles of railroads owned and operated by the state. River navigation having access to the Danube—a great traffic route—is important. In 1925, 2,792 vessels of 1,639,937 tons entered the Black Sea ports, and 6,874 of 1,433,500 tons, the Danube ports.

Earthquakes on April 18, 1928, killed 103, injured 672, totally destroyed 13,800 houses, partially destroyed 18,300, and wrecked 142 towns and villages.

By the Constitution adopted in 1870 and amended in 1893 and 1911, legislative authority is vested in a single chamber, the Sobranje, or National Assembly, of 227 members, elected for four years by universal suffrage. The King must give assent to all laws enacted before they become effective. Executive power is vested in the Council of ten Ministers nominated by the King.

Pre-war Bulgaria's army was composed of 3,900 officers and 56,000 men, with a war mobilization strength of 500,000. The Treaty of Neuilly limits it to 20,000 men, who must be volunteers, obligatory military service having been abolished.

In January, 1924, there went into effect a new tariff prohibiting the import of some 150 articles not of the first necessity.

Turkey, Italy, Greece and Germany were the chief buyers, and the heaviest imports were from Italy, Germany, England, France and Austria.

The amount of reparations to be paid by Bulgaria was fixed in 1923 at 550,000,000 gold francs probably payable in sixty years. The first instalment, 2,500,000 gold francs, was paid Oct. 1, 1923. The bill for the Army of Occupation was fixed on March 23, 1924, at $4,825,000, to be paid in ten annual instalments.

The Governments of Great Britain, France and Italy released Bulgaria from interallied military control Jan. 1, 1926, as she had fulfilled all treaty obligations.

The Council of the League of Nations on March 10, 1928, approved a plan for a Bulgarian stabilization loan of $27,000,000 at 7½% to be used to strengthen the national bank and other banks, meet arrears in the budget and for communications. Of this loan $9,000,000 floated in New York at 97 on Nov. 21, 1928.

The National debt on Sept. 30, 1927 was: External, about $116,709,000; internal, funded, $4,275,000; floating, $34,328,000.

The leva is the unit of currency; its gold par being $0.193; it has been stabilized at about $0.007244 since the summer of 1924.

The bank note circulation on July 31, 1929 was 4,121,000,000 leva. The gold reserve was 1,387,000,000 leva with 1,111,000,000 leva held abroad.

Recent budgets in levas (000 omitted) are

	Revenues	Expenditures
1924-25, actual	7,274,600	6,420,500
1925-26, actual	6,407,800	6,890,800
1926-27, estimated	6,924,200	7,610,900
1927-28, estimated	6,993,100	6,992,900
1928-29, proposed	6,787,000	6,750,000
1929-30, proposed	6,686,000	6,274,000

It is proposed to spend 781 million levas of special funds in 1928-29, and 478 million leva in 1929-30.

Imports and exports for seven years in both levas and dollars, at yearly average of exchange, were:

Year.	Imports.	Exports.
1922	leva 4,037,622,000	4,329,718,000
	$27,791,000	$29,801,000
1923	leva 5,153,784,240	2,896,420,548
	$45,251,000	$31,258,000
1924	leva 5,357,311,000	4,902,266,000
	$40,463,000	$35,693,000
1925	leva 7,291,341,000	5,642,466,000
	$53,217,790	$41,190,100
1926	leva 6,246,000,000	5,617,000,000
	$44,971,200	$40,442,400
1927	leva 6,133,000,000	6,628,000,000
	$44,403,220	$47,988,135
1928	leva 7,041,000,000	6,233,000,000
	$50,695,000	$44,776,000

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$563,519	$1,334,149
1923	613,425	893,911
1924	332,315	1,543,821
1925	301,682	967,533
1926	357,788	1,295,445
1927	467,770	890,596
1928	648,595	714,647

CHILE, REPUBLIC OF

AREA, 281,820 square miles.

POPULATION, census of Aug. 1, 1921, 3,774,485; (estimated, official, May 1, 1929, 4,364,395).

CAPITAL, Santiago, pop. 1929, 620,000; chief port, Valparaiso, pop. 225,242; other cities, Concepcion, pop. 66,074; Antofagasta, 51,531; Iquique, 37,421; Talca, 36,079; Vina del Mar, 33,441; Chillan, 30,881.

President, Gen. Carlos Ibanez, (1927-1932), born 1882, elected May 22, 1927, inaugurated July 21, 1927.

Minister of the Interior, Enrique Bermudoz.

Minister of Foreign Affairs, Manuel Barros Castanon.

Minister of Finance, Rudolfo Jaramillo.

Chile, one of the most energetic and prosperous of the republics of Latin America, with inexhaustible mineral resources, lies on the west coast of South America, occupying the strip of land between the Andes and the South Pacific, from Peru to Diego Ramerez Island 55°59'S., having an extreme length of about 2,620 miles, with a coast line of 2,900 miles. The average breadth north of 40° is 100 miles. Its area is slightly greater than that of the eight South Atlantic States of the United States.

The Andes have many lofty peaks, notably Aconagua (altitude 23,080 feet), on the Chilean-Argentine boundary, the highest peak in the Americas; Corcoputi (22,162 feet), El Muerto (21,227 feet), the Baya (19,993 feet), the Guallatiri (19,882 feet). From 1907 to 1924 there have been 12,694 earthquakes, an average of two daily.

The land in the north part is arid, but two provinces there, Tarapaca and Antofagasta, produced 95 per cent of the world's nitrate supply until the process of obtaining nitrate from the air was made commercially profitable. The production of nitrate in 1920 was 2,606,571 metric tons, valued at $172,800,000, but was stagnant in 1921. The output in 1922 was 1,071,797 metric tons; in 1923, 1,903,527; in 1924, 2,403,427; in 1925, 2,371,000; in 1926, 2,569,000 in 1927, 1,615,111 tons; and in 1928, 3,400,000 tons.

Sales of nitrate in 1927 amounted to 2,288,000 metric tons, and in 1928, 2,878,000 tons. The amount exported in 1927 was 2,385,441 tons. The export tax in 1925 brought a revenue of 255,233,880 pesos.

Chile is the world's second largest producer of copper, the amount in 1928 being 277,419 metric tons and in 1927, 239,325 tons. There are also enormous iron deposits in the Provinces of Atacama and Coquimbo, estimated at a billion tons. Much gold and silver is produced. There are large deposits of coal south of Valparaiso, 1,382,000 tons being mined in 1928, and the resource being estimated at two billion metric tons. The total value of all mineral products for 1928 was $250,000,000.

The census of manufactures 1926 showed an 48% increase in production over 1920, and an increase of 33% in capital invested. The number of plants was 3,075; of employees, 78,499; capital invested, 1,782,958,000 pesos, value of products, 1,471,586,000 pesos; and horse-power employed 369,326 of which 43% was steam, 27% electricity and 23% hydraulic.

Chile has, government statistics show, about 58,994,000 acres classed as agricultural; but of this 20% is said to be sterile, 20% forests, and 53% cultivated and natural pastures. About 273,700 acres are in vineyards and orchards, and 3,342,400 acres devoted to cereals, beans, peas, potatoes and vegetables. Of wheat, 1,967,514 metric tons was produced from 1,459,100 acres in 1926-27, 226,503 tons of barley from 134,138 acres; 120,165 tons of oats from 94,440 acres; 88,074 tons of maize from 56,798 acres; 121,174 tons of beans from 91,977 acres; and 323,177 tons of potatoes from 67,020 acres. The production of wine was 68,774,500 gallons. Cattle in 1926 numbered 1,918,433; sheep, 4,093,872; goats, 357,033; pigs, 246,636; and horses, 323,581.

The population is almost entirely of European origin; there are about 30,000 Araucans (natives) in the Andes and an indeterminate number of nomadic Fuegans in Terra del Fuego.

Education is free, supported by the state, and since 1920 compulsory. In July 1928, 459,777 pupils were enrolled in the public primary schools. A fundamental reform of the educational system is in progress. Plans for 600 new modern schools have been made to cost $7,200,000. The University of Chile (state) at Santiago had 4,502 students in 1920

and the Catholic University 614. There is a university also at Concepcion, and another being organized in Valparaiso. The Roman Catholic Religion is dominant though not maintained by the state since 1925, and all religions are protected.

All able-bodied citizens are liable for service in the state militia. The peace strength of the army is 23,782 with 609,734 in the reserve. In the navy is one dreadnought, the Almirante Latorre (formerly H. B. M. S. Canada), 28,000 tons, mounting ten 14-inch guns; one pre-dreadnought, the Captain Prat, 6,966 tons; two armored cruisers and four protected cruisers; also eleven destroyers and six new submarines. The strength of the navy is 6,000 men. An air force was formed in 1918 under British instruction, with a nucleus of fourteen seaplanes and eighty airplanes bought in Great Britain. Chile is becoming one of the leading purchasers of American airplanes.

Chile was neutral during the World War; on specific invitation she joined the League of Nations Nov. 4, 1919.

Chile has 5,618 miles of railroads, 3,616 being state owned. The state railways showed a profit in 1924 of 5,537,000 pesos; and in 1925 of 8,026,325 pesos. The state owns the longitudinal railroad traversing the republic from north to south for a distance of 2,862 miles; with spurs, its mileage is 3,133. An electric railroad connects Valparaiso and Santiago, 117 miles. In 1926, 1,100 steamers in the foreign trade of 3,206,465 tons entered the ports.

Chile's merchant marine on July 1, 1928, numbered 130 vessels of 170,864 tonnage. A ship subsidy act effective Jan. 14, 1928, carries 2,000,000 annually is to be granted to Chilean navigation companies in proportion to cargo passing through the Panama Canal.

Daniel Guggenheim of New York gave the Chilean Government in 1929 $500,000 for the promotion of civil aviation.

British capital invested in Chile exceeded £100,000,000 in 1925, and American capital invested in 1928 was estimated at $520,000,000, largely for mining and loans. The total wealth of the country on July 1, 1923, was estimated at over $3,327,000,000, equivalent to $855 per capita.

Chile threw off the Spanish yoke in 1810-18, and adopted in 1833 the highly centralized constitution which was replaced by a new greatly liberalized constitution drafted by President Arturo Alessandri and adopted by a tremendous majority in a referendum, Aug. 30, 1925.

The President is elected for six years, the forty-five senators for eight, and the deputies for four, all by direct popular vote. Electors are males over twenty-one who can read and write. Bills may be passed by a two-thirds vote over the President's veto. He appoints the nine Ministers, who are responsible to him.

The years 1924-25 saw many laws enacted in amelioration of labor and social conditions. An income tax law was put into effect, estimated to yield $21,500,000 yearly, and other laws aimed to break the hold of the aristocratic element on the state.

(For the political history of Chile 1924-1927 see The World Almanac for 1928, pages 596-97, and for 1927, page 599. For Tacna-Arica settlement see Index).

Under advice of a commission of American financial experts headed by Prof. Edwin W. Kemmerer of Princeton University, a Central Bank was created by decree Aug. 23, 1926, with a capital of 150,000,000 pesos, which will have the exclusive right to issue paper money convertible to gold, also silver pieces, and which will be the fiscal agent for the Government municipalities, railways and other financial concerns.

The central bank commenced operations on Jan. 11, 1926. The gold and gold exchange held by it on May 17, 1929, amounted to $64,224,000, providing a ratio of gold cover to notes outstanding and deposits of over 98%. The peso has been stable at par of exchange (equals 12.17 cents) for over three years.

The national public debt Dec. 31, 1928, including all guaranteed obligations, amounted to 3,419,754,680 pesos (approximately $410,370,561), of which the foreign debt was 3,100,783,309 pesos (about $372,093,997) and the internal debt 318,971,371 pesos (about $38,276,564). A $45,912,000 6% 33-year refunding loan was floated at 93½ in New York Jan. 28, 1928 for the redemption to issues of 8% dollar bonds and other purposes. A $16,000,000 6% 33-year loan was floated at 94 in New York Sept. 28, 1928 for public works. The City of Santiago sold $4,000,000 7% 21-year bonds on the New York market at 100¼ on Jan. 21, 1928; and the Mortgage Bank of Chile, $20,000,000 6% 33-year bonds guaranteed by the government on the New York market at 95¾ on May 1, 1923.

A $10,000,000 33-year 6% loan was floated at 93½ in New York March 11, 1929; and a $20,000,000 33-year 6% loan for the Mortgage Bank of Chile guaranteed by the Government was floated at 92 in New York June 27, 1929. A United Municipalities loan of $15,000,000 7% was floated in New York in 1929.

The official valuation of state property in 1929 was approximately $650,000,000 and of taxable real estate $1,980,000,000.

Ordinary budgets for the last four years are:

	Revenues	Expenditures
1926, actual Pesos	755,401,152	972,602,852
1927, actual Pesos	909,129,764	905,665,712
1928, actual Pesos	1,021,000,000	982,700,000
1929, estimated Pesos	1,205,000,000	1,160,000,000
1930, estimated Pesos	1,215,000,000	1,165,000,000

A program for public works to cost 1,575,000,000 pesos to be expended from 1928 to 1933 recommended by the President, was adopted by Congress Feb. 13, 1928. For 1928, 246,500,000 pesos was voted to be met by a loan; and for 1929, 225,099,000 pesos.

Foreign trade was:

	Imports.	Exports.
1921	$139,175,414	$158,321,899
1922	86,571,275	121,037,500
1923	120,198,389	196,081,823
1924	132,589,170	242,637,765
1925	146,805,334	228,582,000
1926	156,155,000	199,794,000
1927	103,583,012	205,632,543
1928	142,303,079	239,181,687

Trade with the United States was:

	Imports.	Exports.
1922	$22,464,102	$59,714,457
1923	31,057,952	91,801,355
1924	31,377,819	98,678,618
1925	39,273,692	89,194,286
1926	49,043,193	81,442,281
1927	37,888,715	61,857,438
1928	40,360,605	75,159,582

CHINA, REPUBLIC OF

AREA, 4,277,170 square miles: divided, China proper, 1,532,420; Sinkiang (Eastern Turkestan,) 550,340; Manchuria, 363,610; Mongolia, 1,367,600; Thibet, 463,200.

POPULATION, estimated 1920, for China Proper, 375,000,000; Sinkiang, 2,000,000; Manchuria, 20,000,000; Mongolia, 1,800,000; Thibet, 2,000,000; total for all China, 400,800,000.

Foreigners resident in China, according to the customs authorities in 1926, numbered 346,683, of which 9,401 were Americans, 14,670 British, 74,089 Russians, and 235,339 Japanese. There are 21 Treaty Powers in China.

CAPITAL, Nanking, pop. (estd.) 390,000; old capital, Peking, renamed 1928 Peiping by the Nationalists, pop. police census 1927, 1,297,719; other cities, estimated: Shanghai, 1,539,000; Hankow, 1,500,000; Hangchow, 1,000,000; Canton, 950,000; Tientsin, 839,000; Chungking, 622,000; Changsha, 535,000; Soochow, 500,000; Chingtoo, 400,000; Foochow, 315,000; Tsinan, 300,000; Ningpo, 285,000; Tsingtau, 270,000.

President and Chairman of the State Council, Gen. Chiang Kai-shek, inaugurated Oct. 10, 1928.

Ministers, appointed Oct. 15, 1928:

Foreign Affairs, C. T. Wang.
Finance, T. V. Soong.
Agriculture, Yi Pei-chi.
Industry, H. H. King.
Education, Dr. Chiang Meng-ling.
Railways, Sun Fo.
Interior, Chao Tai-wen.
Communications, Wang Po-chun.
Health, Chou Ming-Yu (M.D. Univ. of Va.).

China, the home of a highly civilized nation when Europeans were still in the bronze age, and with a history reaching back to 2205 B. C., occupies a territory in the eastern part of Asia about one-third larger than continental United States. To the north and northeast lies Siberia; to the west Russian Turkestan: to the southwest and south the well-nigh impassable barrier of the Himalayas forms the Thibetan-Indian frontier. French Indo-China borders it on the south; and the China Sea and Yellow Sea on the east separate it from the Philippines, Formosa (now Japanese), the Japanese Empire and Korea. The country is of rolling topography, rising to high elevations in the north in the Kinghan and Tarbagatai Mountains in Mongolia; the Himalayan and Kwenlun Mountains in the southwest, in Thibet, and the Hinghan Mountains of Manchuria. Its length from north to south is 1,860 miles, and its breadth from east to west is about 1,500 miles.

China Proper—China of the 18 Provinces—occupies the rich fertile southeastern part of the

country, an area nearly twice the size of the United States east of the Mississippi. There the population on the generally accepted estimates has a density of 174 to the square mile. China Proper is one of the best watered countries of the world. From the mountains on the west four great rivers run in general course eastward to the sea, through great alluvial plains stretching for hundreds of miles along the ocean and inland to a depth of 300 miles. These rivers drain four-fifths of the country. The Yangtsekiang, 3,158 miles long, rises in the centre of the high plateau of Thibet, 16,000 feet in altitude. At Pingshenhsien, 1,215 miles from its source, it becomes in part navigable, but with dangerous rapids, to the vicinity of Ichang, 2,193 miles from its source. From Ichang to Hankow it is navigable by small river steamers and from Hankow to its mouth, 595 miles, by sea-going vessels. The Hanho, a tributary from the north at Hankow, is navigable for 600 miles. The Yellow River (Hwangho), 2,700 miles long, and also rising in Thibet, is navigable only in part. It is called "China's Sorrow" because of the devastation it causes in flood time, when it overflows its banks, bursts its dikes and sweeps over the farm lands. In 1898, when a disastrous flood occurred, salt and sand were deposited over an area of 200 square miles, below Lokow, to a depth of 2 to 10 feet, amounting to over sixteen billion cubic feet. The Sikiang, over 1,250 miles long, waters South China, its branches reaching the sea in the Canton delta from Hongkong to the west of Macao. It is navigable for steamers for 200 miles, and for smaller craft for another 100 miles. The Paiho waters the plain of North China, and empties into the Gulf of Chihli at Taku. The Amur River, 2,920 miles long, and navigable for 1,500 miles, which forms the boundary between Manchuria and Siberia; the Yalu, navigable for 600 miles, the boundary between Manchuria and Korea, and the Liao in Manchuria, are also highly important. A network of canals helps to care for the inland navigation.

China's coast line is 2,150 miles long, or with indentations about 5,000. China has 56 so-called treaty ports, 8 voluntarily opened ports, and 25 ports of call. The climate compares favorably with that of countries in similar latitudes.

POPULATION.

The population of China is not a matter of exact census tabulation. The Board of Revenue Census of 1885 returned a population of 377,636,000 exclusive of Manchuria. That of the Board of Interior (Minchenpu) in 1910, a year before the fall of the Manchus, was 331,188,000, inclusive of Manchuria; but this was of families, the multiple for individuals being 5.5. In 1918 the survey of the China Continuation Committee gave an estimate of 440,925,000, and the Chinese Post Office survey of 1924 returned 436,094,953, both exclusive of Mongolia, Sinkiang and Thibet. The compilers regard these figures as probably too high. Former American Minister to China W. W. Rockhill held in his time that the population of China had been greatly overestimated, and quoted the figure for 1885 for the 18 provinces as 306,551,000. It would seem that the population of China Proper, including the 3 Manchurian provinces, is about 400,000,000. Manchuria has increased greatly in population since the building of the railroad and the development of the economic possibilities of the soy bean, from 15,000,000 in 1914 to 22,000,000 in 1924.

The Province of Kiangsu, in which Shanghai is situated, having about 33,700,000 people in 38,600 square miles and 874 to the square mile, is the most densely populated political unit in the world.

Mr. Ta Chen in a monograph "Chinese Migrations, etc.," published July, 1923, by the United States Bureau of Labor Statistics, holds that the population is too great for the arable land of the country, his figures showing 59,223,984 farmers enumerated as cultivators of 269,553,076 acres of land, an average of 4.5 acres to a farm; the average size of the family being 5.5 in China Proper, and 8.3 in Manchuria; 75 per cent. of the native population living on farms. Uncultivated land is estimated at about 160,500,000. Chinese emigration, he holds, arises from pressure of population and gives these figures of the Chinese resident abroad in 1922:

Country.	*Chinese.*	*Country.*	*Chinese.*
Anam	197,300	Java	1,825,700
Australia	35,000	Korea	11,300
Brazil	20,000	Macao	74,500
Burma	134,600	Mexico	3,000
Canada	12,000	Peru	45,000
Cuba	90,000	Philippines	55,212
East Indies	1,023,500	Siam	1,500,000
Europe	1,760	Siberia	37,000
Formosa	2,258,650	Straits Set'lem'ts	432,764
Hawaii	23,507	South Africa	5,000
Hongkong	314,390	Continental U.S.	61,639
Japan	17,700		
		Total	8,179,582

RELIGION AND EDUCATION.

Confucianism, Buddhism and Taoism are the religions of China, although there are also between 5,000,000 and 10,000,000 Moslems in the country, about 1,994,000 Catholics and 618,600 Protestant Christians.

In 1905 there began the new movement toward education of the masses, and since then progress has been marked. While the number of schools, 135,000, and pupils, 4,500,000, is small relative to the total population, the number is growing rapidly. There are seven universities and many technical institutions of learning.

James Y. C. Yen, a graduate of Yale in 1918 and a welfare worker in the Chinese Battalion in the World War, has selected 1,300 Chinese characters that occur most frequently in the vernacular and from them made four cheap text books. From these with a corps of teachers five million laborers and farmers by 1929 had learned to read and write and received the degree of "literate citizen." China is 60% illiterate and the aim of the Nationalist Government is to make literate at least 20,000,000 between the ages of 16 and 20.

AGRICULTURE AND INDUSTRY.

China is essentially agricultural, and intensively so. The average holdings are small, and the implements are crude, but there is much irrigation, crops are rotated, and fruit, cereal and vegetable production is regarded by scientists as relatively efficient, food values having for many years been replaced in the soils regularly. Deforestation of the mountain slopes and hills has resulted in great erosions. Large forests are rare. Bamboo is widely used. The amount of cultivated land is estimated at 341,163,500 acres. Cotton is produced chiefly in the Yangtse-Kiang Valley, the 1927 yield having been estimated by the China Cotton Association as 2,000,000 bales of 500 pounds each. Tea is produced exclusively in the west and south, the tea area being about 520,000 acres. Production is not officially indicated, but exportation declined from 248,757,333 pounds in 1895 to 116,290,133 in 1927, competition of Ceylon and Indian teas and the cessation of Russian purchases in late years being responsible.

The silk industry has flourished for 4,000 years. China is now producing 27 per cent. of the world's supply, having in this century yielded first place to Japan. In 1919 production was valued at $139,624,750. In 1926 China exported to the United States raw silk valued at $43,742,000, and 360,400,000 pounds of pongees, valued at $1'103,000. Wheat, barley, corn, millet, peas and beans are chiefly cultivated in the north, and sugar, indigo and several cereals in the south. Rice, the staple food of the Chinese, is grown in all but three provinces, the average annual production being 3,750,000 tons.

Cotton manufacturing, in the modern sense, began in 1895 when the treaty of Shimonoski gave foreigners the right to import machinery and engage in manufacturing at the treaty ports. China then had six native owned mills, with 133,000 spindles. In 1927 there were in China, 133 mills with 3,581,304 spindles and 25,980 looms; of this 77, with 2,007,094 spindles and 13,146 looms, were Chinese owned; 51 with 1,326,678 spindles and 10,524 looms Japanese owned; and 5 with 247,533 spindles and 2,310 looms British owned. Shanghai is the centre of the industry, having all the British, 32 of the Japanese and 22 of the Chinese mills, being 56 per cent. of the spindles and 72 per cent. of the looms. In 1927 China imported 750,000 bales of raw cotton from America. Besides the thousands of looms in private dwellings, there were 17 silk filatures, 4 woolen mills, 125 modern flour mills, 445 glass factories, and some iron and steel works.

China's 350,000,000 hens, it is estimated, lay 23,250,000,000 eggs annually, of which 1,182,000,000 are exported in the shell; 36,812,000 pounds of frozen eggs also are exported and 57,642,000 pounds of egg yolk and albumin; export value, $25,000,000.

Practically all of the 18 provinces of China Proper and 3 in Manchuria contain immense stores of coal, China being one of the world's chief coal countries. The known fields cover 133,500 acres, annual production running now at about 16,000,000 tons, of which 10,000,000 is from modern mines.

Iron ores are abundant near the anthracite coal fields of Shansi, where, it is asserted, is the oldest iron industry in the world; and in Chihli, Shantung and Manchuria. There is estimated to be in China 677,000,000 tons of the ore, annual production being about 1,500,000, of which nearly two-thirds are smelted in China.

Of tungsten ore 5,872 long tons were exported in 1925. Exports of antimony in 1926 amounted

to 15,739 long tons, and in 1927, 17,232 tons, of which the United States took over 80%.

Petroleum also is abundant, but the industry has not been developed. American oil interests have done much exploration there, and driven many wells, most of which are not active. Copper ore abounds, the Yunnan deposits being of the world's richest. Tin, antimony, gold, silver, lead, mercury, tungsten, bismuth and molybdenum are also present.

The chief exports of China are silk, beans and products, tea, skins and furs, cotton, sesame seed, tin, cereals, medicines, peanuts and peanut oil, animals, wool, antimony and copper.

The first railway was opened in 1876. At present there are nominally 7,500 miles, excluding 2,564 miles in Manchuria. Transportation has been much interrupted and interfered with by the demands of the military and the roadbeds and rolling stock have greatly deteriorated. The railroads in 1928 were practically useless for commercial transport. About 1,000 miles of highways were constructed in the four northern provinces under the auspices of the American Red Cross, as a means of finding useful employment for famine sufferers. The Nationalist Government has drawn up a very ambitious road build.ng program.

In 1927, 106,588 steamers of 112,000,000 tons entered and cleared Chinese ports in the carrying trade. The total value of the foreign trade in 1926 was 1,988,516,000 Haikwan taels (approximately $1,511,272,000).

THE REVOLUTION.

China was one of the most ancient monarchies in the world when revolution against the rule of the Manchu imperial line broke out on Oct. 10, 1911, drove the baby Emperor Pu Yi from the throne, and declared China a republic, under a provisional government and president and two-house legislative body was set up in Peking. The Central Government was not powerful enough to enforce its will on the military governors (Tuchuns) of the provinces. Parliament failed to function up to late in 1923 owing to the disturbed state of the country but did convene in Peking in October 1923 and on the 15th day of the month elected Gen. Tsao Kun president to succeed Li Yuan-hung who had resigned on June 14, 1923. A new constitution was promulgated that proved to be as lightly regarded as that discarded.

Civil war broke out anew in September 1924, in the south. As before, Dr. Sun Yat-sen, the Cantonese reformer, was the inspiring leader of the Nationalists. On Oct. 23, 1924, Gen. Tsao Kun the president was deposed and Marshal Tuan Chi-jiu assumed the office of Chief Executive. The powers recognized the provisional government in December, 1924. Dr. Sun Yat-sen went to Peking to join hands with the new government but he was very ill and died there March 12, 1925.

The rivalries of the military leaders persisted and unrest took a serious form. Trouble was fomented in the south by Bolshevist propaganda and aid, strikes and anti-foreign outbreaks, and boycotts became epidemic in Shantung, Shanghai, Canton and the interior cities. In Manchuria Gen. Chang Tso-lin maintained order.

The Kuomingtang (Nationalist political organization) built on the foundation Dr. Sun Yat-sen laid, strengthened its grip on Southern China in 1926-27, but the Communists of the party, led by the Russian adviser, Michael Borodin who was sent from Moscow and financed by that city, with Eugene Chen as foreign minister, set up a government frankly of the left in Hankow. If not fomented by them—a disputed matter—at least unrestrained mobs including uniformed soldiers raided the foreign concessions, notably at Nanking in March 24-27, 1927, but were beaten back at Shanghai. Missionaries and traders were evacuated from the entire Yangtse-Kiyang valley under cover of river gunboats. The powers sent troops and warships to protect their nationals. By April 10 there were 172 foreign naval vessels in Chinese waters and about 44,000 foreign soldiers on Chinese soil.

The *Army and Navy Journal* published on April 23, 1927, an estimate that there were 610,000 Chinese under arms. It credited Marshal Chang Tso-lin in the north with an army of 350,000 men at least half well trained; Gen. Feng Yu-hsiang in the west with 120,000; Gen. Chiang Kai-shek the Nationalist Commander-in-Chief in the south with 90,000, and Marshall Wu Pei-fu in the neutral Central China with 50,000.

The southern military leader, Gen. Chiang Kai-shek, who was Chief of Staff to Dr. Sun Yat-sen in February 1923, gained notable successes on the field until a split developed in the Kuomingtang over communism. He definitely defied the Bolshevist wing. The moderates set up a government at Nanking in April and by the end of July had forced out Euguene Chen, Borodin and the Bolshevics, but Gen. Chiang lost prestige after a defeat, resigned and retired to Japan, gaining time to plan his final coup.

The Chinese war lords got together in Peking for a conference but it was unproductive. Marshal Chang Tsao-lin, ruler of Manchuria, who had the strongest army, on June 18 declared himself Generalissimo of the Forces for the Suppression of Communism and set up a military government in Peking. Gen. Feng Yu-hsiang regarded as under the influence of Moscow, joined the southerners in July and so did Gen. Yan Hsi-shau of Chansi. The Southerners repulsed a raid by Marshal Chang's troops on Sept. 5, and fought a successful battle near Peking only to be in turn badly defeated in October by Marshal Chang who remained in possession of Peking.

A shift in the fortunes of war came when the Nationalist army started north in the spring of 1928 again under command of Gen. Chiang Kai-shek. The march was marred May 3 and 4 by a serious clash with the Japanese troops at Tsinan-fu where 6,000 were stationed with 4,000 more at Tsing-tao guarding Japanese Nationals and property. There was severe fighting with loss of life. The situation was finally gotten in hand and the Southern troops went on to Peking. After negotiations Marshal Chang evacuated the city—June 3-9—and removed his troops by rail to Manchuria. He was assassinated (June 4) on the way with his chief general by a bomb dropped on his car from a railroad bridge near Mukden. His son, Gen. Chang Hsueh-liang was chosen to succeed to the rule of Manchuria. He has shown a disposition to work in harmony with the Nationalists who left in undisputed possession there.

The Nationalists took possession of Peking with an orderly army and without looting. They proclaimed its abandonment as capital and renamed the city Peiping (Northern Peace). By the capture of Tientsin a few days later their control of North China was complete.

The Central Executive Committee of the Kuomingtang, numbering 35 of the leaders military and civil, held its fifth plenary session in Nanking Aug. 1-15, 1928. Holding that the military phase of the revolution had been accomplished by the capture of Peking, the committee turned to the work of reorganizing the government which had gone through many vicissitudes and changes in personnel. The committee adopted a budget system; plans for reorganizing the army, disbanding unneeded troops, carrying out a soldier labor policy and unifying the military system with compulsory service; plans for adopting and enforcing scientific taxation, unifying the national railroads, and encouraging roadbuilding; and the preparation of a new constitution. The Committee abolished the division of political councils, concentrated authority in a central government and divided the government into five departments: administrative, judicial, legislative, examina.n and supervisory. A new Central Political Council of 15 to direct all was set up which included Gen. Chiang Kai-shek, its president, Sun Fi, son of Dr. Sun Yat-sen, Marshal Feng Yu-hsiang, Gen. Yen Hsu-shan, Dr. C. T. Wang, head of the judicial department, Gen. Chang Hsueh-liang the ruler of Manchuria, Li Chung-seu, governor of Hankow, and Li Chai-san, commander of Canton.

Gen. Chiang Kai-shek was chosen President of the Chinese National Government and was inaugurated on Oct. 10, 1928, the 17th anniversary of the outbreak of the revolution and celebrated as Chinese Independence Day. The new Constitution was brought into legal force on Oct. 15 when a measure governing and defining the functions of the executive bodies was formally adopted by the Central Political Council. The measure set up ten ministries and various committees.

Regulations were promulgated establishing the National Bank of the Chinese Republic, capitalized at 20,000,000 Yuan dollars (approximately $9,200,000), and authorized to issue convertible bills, mint coins, and direct the flotation of foreign and domestic loans. Its head office will be at Shanghai, with the present Minister of Finance designated as director general of the bank. Announcement was also made of a proposed 30,000,000 Yuan dollar (approximately $13,800,000) 8% currency loan at 98, redeemable in seven years, and secured on the German Boxer indemnity.

The Nationalist Foreign Minister, Dr. C. T. Wang on Oct. 19 addressed a note to the Treaty Powers demanding their immediate relinquishment of extra-territorial rights. The earliest treaty stipulating this right was signed in 1689 by Russia and China. Subsequent treaties between Great Britain and China provided for consular jurisdiction over British subjects. In 1844 the principle of extraterritoriality was further laid down in a treaty between the United

States and China and this principle was inserted in the treaties of the other Powers. Mixed courts were established in consequence. Germany and Austria-Hungary lost their extraterritorial rights in 1917 subsequently, Bolivia, Chile and Persia renounced consular jurisdiction and in 1924 the Russian Soviet government also agreed to relinquish the rights of extraterritoriality. Italy, Belgium, Spain, Denmark and Portugal during 1929 also signed treaties for the abolishment of extraterritoriality on Jan. 1, 1930.

Commercial treaties concluded between China and Great Britain, the United States and Japan contain a clause declaring willingness to give every assistance to the reform of China's judicial system and to relinquish extra territorial rights when satisfied that the state of the Chinese laws and their administration and other considerations warrant it.

An agreement for the settlement of the Nanking incident of March, 1927, was arrived at March 30, 1928, between the United States Government represented by Minister J. V. A. MacMurray, and the Nanking Nationalist Government represented by Huang Fu, then Foreign Minister. An apology was given, and full compensation for personal injuries and material damage promised, this to be determined by a mixed commission. Similar settlements were later agreed to by China and Great Britain (Aug. 9); China and France (Oct. 16); and China and Japan (May 2, 1929). After signing, Japan began evacuation of Shantung.

A treaty was signed by the United States and China on July 25, 1928, granting China "complete national tariff autonomy."

The International Customs Conference appointed in connection with the two nine-power treaties negotiated at the Washington Arms Conference of 1921-22 (see The World Almanac for 1923) met in Peking Oct. 26, 1925, and began a survey of the subject, but the conference was a complete failure owing to the chaotic condition of public affairs in China.

The Nationalist Government has denounced the commercial treaties existing between China and France, Italy and Spain, and seeks to conclude new treaties. A similar denunciation of the commercial treaty with Japan was reported on July 20, the date on which the last extension of that treaty expired. This denunciation Japan refused to accept declaring it illegal under the terms of that treaty, though willing to negotiate a new treaty.

CLASH WITH SOVIET RUSSIA.

The year 1928 began with promise of stabilization of the Nationalist government. Manchuria had on Dec. 29, 1928 accepted the authority of Nanking without reserve. The personal rivalries of the military leaders, however, persisted. A rebellion in Hankow and Kwangsi was quelled in April. Marshal Feng, the so-called "Christian General," who had been made Minister of War and vice president of the council, broke with the government in May and went back to Honan where he was credited with having 200,000 troops loyal to him. He joined hands with Gen. Yen Hsi-shan tuchun of Shansi who was in opposition to the Nanking government. The report on Oct. 15 that Feng had been placed under arrest by Gen. Yen amazed the government and the situation had not been clarified by Oct. 20.

On May 27 the Chinese authorities raided the Soviet Consulate at Harbin in Manchuria and announced they had found documents proving that the consulate had been intriguing with and assisting Chinese communists seeking to overthrow the government.

Using this evidence the Nanking government "dismissed" the Russian officials of the jointly managed Chinese Eastern Railway on July 10 and replaced them with Chinese. The Soviet government protested and sent an ultimatum on July 13 and proposed a conference on that and on all relative questions. Diplomatic notes followed, the Soviet government on July 18 broke off diplomatic relations and suspended all railway communications. The situation for many days was very critical. War seemed inevitable and the powers individually made representations to the two governments based on the Pact of Paris urging a peaceful settlement. Both governments disclaimed war plans and ultimately accepted Germany's good offices.

Troops had been massed along the frontiers on both sides and many raids, some with heavy casualties, kept the situation tense. The presence of armed White Russians in Manchuria was a threat of grave danger.

The Chinese Eastern Railway, forms a short cut through Manchuria for the Trans Siberian Railway, saving 568 miles. It was a joint enterprise of Russia and China constructed by Russia under an agreement signed September 8, 1896 which placed Russians in charge of all technical and administrative departments and practically of the general management, though this was under a board of directors composed equally of Russians and Chinese. Following readjustments after the war and Russian revolution, this agreement was reestablished May 31, 1924. The railway was completed in June, 1903 at a cost in excess of $200,000,000. With the later extensions the mileage is about 1,078. Operating revenues in 1927 were approximately $29,897,898, other revenues, $89,250; operating expenses, $20,054,233, other expenses, $1,931,368.

(See chronology for developments).

(For the record of events of the Revolution, see the World Almanac for 1924, 1925, 1926, 1927, 1928 and 1929, articles on China.)

FINANCIAL.

There is "unparalleled currency confusion," says an authority. The customs unit is the Haikwan tael (= 1⅓ oz. of silver) which varies in gold par value from 67.08 cents in Shanghai to 74.86 in Takus average rate of exchange in 1928 was 70.74 cents, in 1927 69.18 cents, in 1926 76.24 cents, and in 1925 83.74 cents.

The rate of exchange for the Shanghai tael on Oct. 10, 1929 was 54.53 cents and the Tientsin tael 57.25 cents. The Mexican dollar (= $0.391 in Oct. 10, 1929), is used in all treaty ports.

The revised import tariff was made effective Feb. 1, 1929. It was drawn up in accordance with the agreement of the powers at the Washington Conference of 1921-22 and is designed to assure the Chinese Government an effective 5 per cent. revenue on the value of goods imported.

China's foreign trade is but one-fiftieth of that of the United States per capita. The United States furnished in 1926, 16.4% of her imports and took 17.4% of her exports; the percentage in 1925 was 14.8 and 18.4.

The chief sources of revenue are from customs, taxes and from the Salt Gabelle, both under foreign control. Maritime customs collections in 1928 amounted to 82,332,000 Haikwan taels; in 1927 to 68,781,876; and in 1926 to 80,435,962. The Salt Gabelle revenue in 1927 amounted to 57,907,000 silver dollars; and in 1926 to 64,287,000 silver dollars.

Finance Minister Soong on Jan. 13 estimated the revenues for 1928 at $457,000,000, and the expenditures at $507,000,000, with 41% of the gross revenues allotted to military expenditures.

Dr. Edwin W. Kemmerer of Princeton University, on invitation of the Chinese Minister of Finance, arrived in Shanghai on February 9, 1929 at the head of the American Commission of Financial Advisers to the Chinese Government, composed of thirty experts. Their task is to draft plans for reorganizing the finances, budget, debt, taxation, currency, banking, and railroad operations and finance. China is the eleventh country to call in Dr. Kemmerer to reorganize its financial problems. The task is expected to take a year and result in a new series of laws and new governmental systems of administration.

Interest and amortization of foreign loans are a first charge on the Maritime Customs and Salt revenues, and the surplus is turned over by the foreign administrator (the chief of each service is English and subordinate officials are of various nationalities, including Chinese) to the Chinese Government for service of domestic loans and administrative expenses.

Most of the revenue is retained by the local authorities and little gets to the Central Government. The Peking Government was bankrupt and made no effort in its later years to meet its outstanding unsecured foreign obligations or such of its internal debts as were not secured in the surplus of customs revenues.

The Boxer indemnity payments resulting from the uprising in 1900 amounted to 450,000,000 Haikwan taels. Payments on these were suspended upon China's entrance into the World War in 1917, and resumed on Dec. 1, 1922. By act of Congress on May 11, 1924, the balance due to the United States, amounting to $6,137,553, was remitted and was turned over by President Coolidge on July 20, 1925, to the China Foundation for the Promotion of Education and Culture, a board composed of nine Chinese and five Americans. The United States had previously returned (act of May 25, 1908) $10,785,281 to be used for educational purposes, and later, a further sum of $1,175,836.

China's national debt as compiled by the Government Bureau of Economic Information in 1922 was as follows, amounts being stated in Mexican dollars:

	Mex. Dollars
General foreign loans	268,979,252
Foreign railway loans	334,802,631
Foreign indemnities	482,841,744
Internal long-term loans	275,226,738
Internal short-term loans	69,101,978
Treasury notes, etc	18,640,000
Total	1,449,592,343

The last items do not contain all the short-term loans and treasury note issues, as the amounts of some of these cannot be ascertained. The floating foreign debt on Jan. 1, 1923, was $486,741,512 Mex.

China, it is estimated, is in default of interest or principal on foreign loans totaling some $200,000,000 gold. No estimate is possible of the internal debt.

Imports and exports for eight years valued in gold dollars are:

Year.	Imports.	Exports.
1921	$709,433,000	$477,582,000
1922	799,236,000	561,393,000
1923	780,821,000	640,494,000
1924	838,082,000	635,256,000
1925	793,742,100	650,117,950
1926	854,407,960	656,864,000
1927	698,923,080	633,847,000
1928	825,218,710	684,032,950

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$100,357,041	$134,609,105
1923	108,594,778	187,602,172
1924	109,188,791	117,885,965
1925	94,442,189	168,939,009
1926	110,205,014	143,203,840
1927	83,470,655	151,679,897
1928	136,960,010	140,031,241

MANCHURIA.

AREA, 363,610 square miles.
POPULATION, 1927, estimate of the Southern Manchurian railway, 27,490,000.
CAPITALS. Mukden, pop., 1928, 400,000, Fengtien Province, Kirin of Kirin Tsitsihar, of Heilungkiang.

Manchuria is the extreme northeast territory of China, with Siberia on the northwest, north and east, Korea on the southeast, and Mongolia on the west. The Amur River flows along the northern border, the Ussuri on the east, and the Yalu forms the boundary with Korea.

Its topography is extremely varied. Much of the eastern portion is intensively agricultural. The soya bean, cultivated on about 20,000,000 acres, is a source of enormous wealth. The Chamber of Commerce at Dairen estimates that 81,719,000 acres are cultivated for all crops. The forests cover 45,500,000 acres. Wheat, beans, millet, rice and products of the soya bean are the chief crops. There are 50 flouring mills. There are rich deposits of coal, iron, lead, gold, silver and asbestos.

The output of anthracite coal in 1927 was 6,000,000 tons, and of iron ore 200,000. The production of soya beans in 1928 was 5,241,090 tons.

The Trans-Siberian railroad runs through Manchuria to Vladivostok. From Harbin the railroad runs to Mukden and then branches to Peking on the west, Port Arthur and Dairen on the south, and through Korea to Mokpo, and Fusan on the southeast. Railway mileage in 1926 was: South Manchuria, 686; Chinese Eastern, 1,078; Chinese Government and Provincial railways, about 1,800. Railroad development has been followed by an enormous influx of Chinese immigrants, mostly farmers with families, driven out by famine and by hardships and suffering incident to civil war. In 1927, 1,500,000 entered Manchuria and as many more in 1928.

Direct foreign imports in 1927 were valued at $105,670,825; and exports at $150,924,835.

Japanese capital invested in Manchuria is estimated to amount to $750,000,000; and about 200,000 Japanese are settled there.

MONGOLIA.

AREA, estimated, 1,367,600 square miles.
POPULATION, estimated, 1,800,000.
CAPITAL, Urga.

Mongolia, although nominally of China, was somewhat shaken loose from Chinese adherence during the late war, the status of Outer Mongolia being now that its autonomy is recognized by China, and it is recognized by Russia as under Chinese suzerainty. It is bounded on the north by Siberia, on the south by Sinkiang, on the southwest by Turkestan, on the east by China Proper and Manchuria.

Inner Mongolia, early in 1928, declared its allegiance to Nationalist China.

There is little agriculture, the great plains between the Tarbagatai and Kinghan Mountains being desert, with camels, horses and sheep as principal interests. The religion of the people is Buddhist Lamaism.

Motor transportation from Kalgan on the Great Wall of China, northwest of Peking, and at the terminus of the Kalgan-Peking railroad, with Urga, the capital of Mongolia, a distance of 650 miles across the plains, was established in 1921. The trip takes three to four days.

Mongolia has its own legal currency, adopted in 1915, equal to the gold par of the Russian ruble—50 cents.

SINKIANG (Chinese Turkestan).

AREA, 550,340 square miles.
POPULATION, estimated, 2,000,000.
CAPITAL, Ili.

Sinkiang, known as the New Dominion, comprises Chinese Turkestan, Kulja and Kashgaria and includes all Chinese dependencies between Mongolia on the north and Thibet on the south There are Turki, Mohammedan and Chinese people resident there. Along the Kashgar and Yarkand Rivers there is much irrigation, and cereals, fruits and vegetables are grown, with wool, cotton and silk production.

It is from Sinkiang that much of the jade comes.

THIBET.

AREA, 463,200 square miles.
POPULATION, estimated, 2,000,000.
CAPITAL, Lhasa; pop. 15,000 to 20,000.

Thibet, in Western China, is a country little known, situated between the Himalaya and Kwenlun Mountains, and hitherto practically shut to strangers. The trade is with India mostly, being carried on through lofty passes, some of which are 14,000 to 18,000 feet high, which are impassable in winter. China's hold on Thibet was visibly loosened when the 1911 revolution broke in China. The Thibetans expelled the Chinese garrisons, and the status of that country is indeterminate, although nominally part of the Chinese Republic.

The head of the Government is the Dalai-Lama, regarded as the reincarnation of Buddha.

The religion is Lamaism, a modified form of Buddhism, and also a faith known as Shamanistic. All economic phases are affected by the non-progressive character of the people, who are immersed in their religious traditions. Some agriculture is carried on, and livestock husbandry.

The highest grade musk is obtained from the musk-deer, now becoming very scarce, in Tsarung mountains in Southeastern Thibet.

Exports to India, mostly raw wool, in 1924-25 were valued at £330,900; and imports from India, mainly cotton piece goods, were valued at £418,900.

COLOMBIA, REPUBLIC OF

AREA, estimated, 482,400 square miles.
POPULATION, 1928, official estimate, 8,000,000.
CAPITAL, Bogota, population, census, 1928, 220,000; chief cities, Medellin, pop., 1923, 79,146; Barranquilla, 64,543; Cartagena, 51,382; Cali, 45,825; Cucuta, 29,490; Bucaramanga, 24,919.
President, Dr. Miguel Abadia Mendez, (1867), Conservative 1926-30. Inaugurated Aug. 7, 1926.
Premier, Gabriel Rodriguez Diego (Interior, War).

The Republic of Colombia, situated in the extreme northwest of South America, extends up the Isthmus of Panama to the Republic of Panama—boundary line to be determined by treaty by a joint commission. It has a coast line of 465 miles on the Pacific Ocean, and 640 miles on the Caribbean Sea. It has as neighbors Venezuela and Brazil on the east, and Ecuador and Peru on the south. Its area is equal to that of California, Oregon, Washington and Montana combined.

About 13,000 square miles of the province of Putumoyo, a tropic forested upland on the eastern flank of the Andes, was ceded to Peru in 1928 in adjustment of boundaries; Colombia obtaining a clear title to land reaching to the Amazon.

Three great ranges of the Andes, the Western, Central and Eastern Cordilleras, run through the country from north to south. The eastern range consists mostly of high table lands, cool and healthy, the most densely populated part of the country. The Magdalena River, in the east, rises in the high Andes and flows north into the Caribbean Sea, 18 miles from Barranquilla. It is navigable for river steamers for 930 miles, as far as Jiradot. Steamers ascend to LaDorado, 590 miles. In 1928 down river cargo amounted to 209,181 metric tons, and up river cargo to 387,154 tons. Low water greatly impedes navigation. Railroads serve to transport freight and passengers around the rapids and from Jiradot to Bogota. The total mileage of railroads was 1,470 in 1928, with 400 under construction and the bulk of the transportation in the interior is on mule back.

The population is mainly whites and half-castes, only 158,428 Indians being returned. Bogota, the capital, situated 8,600 feet above the sea, has a university, founded in 1572, a large library, a

museum and observatory. The Roman Catholic is the prevailing religion, but all are tolerated. The standing army consists of about 6,000 men, with a reserve of 362,700. Military service is compulsory. There is no navy.

The country is divided into 14 departments, 2 intendencias and 7 comisarias, with Governors appointed by the President. The Federal Congress consists of a Senate of 34 members, elected for a term of 4 years, and a House of Representatives of 92, elected directly by the people every two years.

There were in 1925, 6,514 primary schools with 413,508 pupils. The appropriation for education that year was 4,782,950 pesos.

The forests are extensive, much mahogany, cedar and dyewood being exported. Colombia contains the great emerald mines of the world, the chief mines being owned by the state. The country is rich in minerals—gold, silver, platinum, copper, iron, lead and coal are mined. The Government-owned salt mines at Zipaquira are a great source of revenue. Coffee, cotton, bananas, cocoa, vegetables, ivory, tobacco, and wheat are the chief agricultural products. Cattle raising is extensive. Some woolen and cotton stuff is manufactured for home consumption, also iron.

The coffee crop in 1926 from 331,301,000 trees, was 2,760,848 bags of 138 pounds each. Export in 1926 was 147,255 metric tons, valued at $83,080,000; in 1927, 151,730 metric tons valued at $79,808,000, and in 1928, 174,888 tons. Exports of bananas in 1926 was 238,820 metric tons (11,000,000 bunches) valued at $5,211,000, in 1927 196,624 metric tons (8,464,000 bunches) valued at $5,587,000, and in 1928, 230,368 metric tons (10,221,426 bunches) valued at $8,884,862. Sugar production in 1924 was 125,000 sacks.

The production of crude petroleum in 1924 was 444,744 barrels; in 1925, 1,006,708 barrels; in 1926, 6,443,527 barrels; in 1927, 15,760,797 barrels; and in 1928, 19,896,797 barrels. The oil wells are at Barranca on the Magdalena River, 360 miles from Cartagena. A pipe line with a daily capacity of 30,000 barrels of crude oil was officially opened May 1, 1926. Its capacity has since been increased to 50,000 barrels a day.

Export of gold was $2,078,739 in 1924; $1,610,095 in 1925; and $1,521,929 in in 1926; and $2,000,000 in 1927. Export of platinum was $3,600,000 in 1923; $5,338,126 in 1924; and $4,681,489 in 1926; and $3,500,000 in 1927, about one-half the world's supply. The yearly emerald output, a government monopoly, is about $250,000.

The country, originally conquered by Spain and ruled by her for 300 years, won its freedom in the revolt of the Spanish-American colonies in 1811-24, the liberator, Simon Bolivar, establishing the Republic of Colombia in 1819. Venezuela and Ecuador withdrew in 1829-30, and there were frequent uprisings during the century, culminating in the secession of Panama in 1903, since which the republic has been tranquil. Under the treaty with the United States adjusting the loss of Panama (ratified by the United States Senate April 20, 1921, and by the Colombian Congress Dec. 24, 1921), Colombia has received in compensation $25,000,000 from the United States, which was chiefly applied to railroad construction. It is estimated that $220,000,000 American capital is (1928) invested in the country.

An advisory commission of North American financial experts visited Colombia on invitation of President Ospina, and Congress put into effect in 1923 the reforms they suggested. The gold standard was adopted, the Bank of the Republic, a central issue bank, created with an authorized capital of 10,000,000 pesos, which has the exclusive privilege of issuing bank notes, new laws on banking and negotiable instruments; and a new model for the budget. This was followed by a law on Dec. 12, 1923, for the conversion and unification of the national debt. The banks had on June 30, 1926, a gold reserve of 37,468,972 pesos, and note circulation was 75,814,118 pesos. A land bank was also set up. Political and commercial stability followed.

The peso remained stable at or about par (=97.3 cents) throughout 1926, 1927 and 1922. The financial condition was excellent.

The Bank of the Republic on June 30, 1928, had $50,977,312, with a cover of gold in its vaults of $23,410,000, and gold held in banks abroad, $39,008,234, or total reserve of 103.92 per cent.

A $35,000,000 6% 33-year bond issue was floated at 95 in New York on April 1, 1928, the proceeds to be devoted to railway and highway construction. With the completion of this financing, Colombia's national debt, both internal and external, is approximately, $80,440,000, less than $11 per capita, requiring $7,238,807 for annual services.

Recent ordinary budgets are:

	Revenues.	*Expenditures.*
1923	$32,425,591	$21,440,345
1924	32,576,680	23,179,928
1925	45,005,038	29,874,067
1926	54,163,088	46,372,006
1927	63,287,288	48,923,664
1928	51,944,000	45,158,000
1929	65,653,668	60,097,804
1930	70,034,000	70,034,000

Foreign trade was:

	Imports.	*Exports.*
1922	$42,969,272	$51,323,547
1923	59,475,343	58,648,305
1924	50,950,225	83,429,199
1925	83,538,054	82,110,879
1926	109,729,749	109,043,863
1927	125,765,863	128,514,397
1928	123,453,000	113,909,000

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$20,136,708	$36,064,459
1923	22,297,726	45,705,602
1924	28,671,838	57,728,893
1925	41,376,562	63,376,024
1926	49,282,028	90,241,676
1927	48,693,747	87,803,351
1928	58,595,919	94,619,472

COSTA RICA, REPUBLIC OF

AREA, 23,000 square miles.

POPULATION, census, May 1927, 471,524.

CAPITAL, San Jose, pop., census 1927, 50,580. Other cities, Limon, 15,624 Cartago, 14,883.

President, Sr. Don Cleto Gonzales Viquez, 1928-32. inaugurated May 8, 1928.

Premier, Sr. Don Tomas Soley Guell (Finance).

Costa Rica, the southern state of Central America, has Nicaragua for its neighbor on the north and Panama on the south. The lowlands by the Caribbean have a tropical climate. Bananas are cultivated, 8,561,000 bunches valued at $6,421,000 being exported in 1926, 7,852,490 bunches valued at $6,500,000 in 1927, and 7,307,858 bunches in 1928. The interior plateau, with an altitude of about 4,000 feet, has a temperate climate. Coffee is the chief crop; exports in 1928 amounted to 44,250,000 pounds. The export of cacao in 1928 was 43,005,172 kilos.

The forests are extensive, but little lumbering is done. Agriculture and stock raising are the chief industries. Gold and silver mining is an important industry on the Pacific slope. Port Limon is the center of the banana trade. In 1927, 696 vessels tonnage 1,321,637, entered the ports. There are 430 miles of railroads the line from Port Limon to San Jose, 103 miles, has unusual scenic charm. The Pacific railway is being electrified.

Congress passed Aug. 4, 1928, a law which nationalizes all electric power available to form a government electric service.

The Constitution, adopted Dec. 7, 1871, has been many times modified. The legislative power is vested in a Chamber of Deputies, 43 in number, with four-year terms, one-half elected directly every two years by manhood suffrage. The President, elected for four years, appoints a Ministry of six. The Roman Catholic is the religion of the state.

Primary education is compulsory and free. In the primary schools on March 1, 1926, 41,926 pupils were enrolled, and in the normal and secondary schools 518 women and 678 men. The Government spent 2,593,318 colones on education in 1923. Illiteracy in 1927 was 23.6%.

The National Police have taken over the duties of the army.

Budgets in colones, (equals 25.0 cents) were:

	Receipts.	Expenditures.
1924	23,259,050	20,433,661
1925	25,781,231	23,767,550
1926	27,417,348	22,611,489
1927	30,584,122	23,319,188
1928	33,318,699	28,406,444

The public debt on June 30, 1927 was: External, 68,993,444 colones; internal, 8,154,100 colones; floating, 12,785,100 colones.

The gold reserve of the International Bank, Feb. 26, 1928, was $1,494,643 (5,978,572 colones); notes in circulation Apr. 22, 1929, 22,025,450 colones.

Imports and exports, in dollars, were:

	Imports.	Exports.
1924	$12,003,017	$16,565,232
1925	13,820,944	16,416,095
1926	13,826,000	18,962,000
1927	16,310,781	18,058,332
1928	17,875,000	19,625,000

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$4,040,766	$5,495,430
1923	4,835,166	4,630,574
1924	5,975,384	4,688,519
1925	6,800,819	4,791,531
1926	6,312,416	7,052,187
1927	7,297,743	6,035,398
1928	8,087,118	5,569,734

CUBA, REPUBLIC OF

AREA, 41,634 square miles; including the Isle of Pines (1,180 square miles) and surrounding keys, about 44,164 square miles.

POPULATION, census of Dec. 31, 1925, 3,413,216 exclusive of the isle of Pines (4,817). White, 2,315,928; colored, 829,201; unclassified (includes Americans, Europeans, Chinese and all foreigners permanently resident), 268,087. By Provinces: Pinar del Rio, 276,206; Habana, 916,999; Matanzas, 332,277; Santa Clara, 713,882; Camaguey, 243,982; Oriente, 844,582; immigrants, 85,288. Census Bureau estimate, June 30, 1928, 3,579,507.

CAPITAL and chief port, Havana. Population, census of Dec. 31, 1925, 562,968; other cities, Santiago, 141,124; Camaguey, 82,042; Cienfuegos, 73,281; Guantanamo, 51,947; Santa Clara, 70,852; Matanzas, 66,767; Sancti Spiritus, 88,608; Manzanillo, 61,742; Pinar del Rio, 49,864; Trinidad, 45,229; Moron, 47,080.

President, Dr. Gerardo Machado (Liberal), born 1873, inaugurated May 20, 1925, for term of four years. Reelected, unopposed, Nov. 1, 1928 for a term of six years beginning May 20, 1929.

Premier, Dr. Rafael Martinez Ortiz (State).

Cuba, the "Pearl of the Antilles," largest island of the West Indies, lies between the Gulf of Mexico, the Strait of Florida and the Atlantic Ocean on the north and the Caribbean Sea on the south. Key West, Fla., is about 100 miles a little to the east of north of Havana. The Windward Passage, 50 miles wide, separates it from Haiti to the east, and Jamaica (British) lies 85 miles to the south. Yucatan is 130 miles to the west. From San Antonio, the western extremity, to Cape Maysi, the eastern, the length is 730 miles, and the breadth averages 50 miles, with a maximum of 160 miles. Its area nearly equals that of Pennsylvania. The coast line, including the larger keys, is about 2,500 miles in length. It has numerous safe and commodious harbors, notably that of Havana, one of the finest and safest in the world. Other first-class harbors are Bahia Honda, Matanzas, Cardenas, Nuevitas and Nipe on the north shore, and Santiago and Cienfuegos on the south; also Guantanamo, now a United States naval station.

Mountains rise in Pinar del Rio Province in the west, and in Camaguey and Oriente in the east, where they reach a general elevation of about 3,000 feet, with Monte Turquino (8,320 feet) as the highest point. Santa Clara is rough and broken, but Matanzas and Havana are flat and rolling. The uplands and mountains are covered with magnificent forests, the scenery is wild and very beautiful, and many points are inaccessible. Broad intervals of low upland are frequent. Near the coast runs a continuous belt of plantations. Grazing, tobacco and general farm lands cover the lower slopes of the hills. There are 13,000,000 acres of uncleared forest land.

The soil is alluvial, and under the tropical heat and humidity the vegetation is of rare richness. It is estimated officially that 8,628,434 acres are covered with dense forest, mostly primeval. The royal palm is the most characteristic tree, rising to 75 feet, sometimes 100 feet, in height, dominating every landscape. All tropical fruits and vegetables flourish. At Havana the mean temperature is 76° and the mean rainfall 40.6 inches. Hardly a decade passes without a destructive hurricane. The population is about 60 per cent. native white, 30 per cent. colored, and 10 per cent. foreign white.

In the winter of 1927-28, 62,547 tourists visited the Island and, it is estimated, spent $60,000,000.

Sugar has been the dominant crop for 150 years and its price is the barometer of prosperity for the island. Cuba exported raw sugar to the value of $724,150,000 in 1920; $276,062,549 in 1922, $368,497,830 in 1925; $254,393,000 in 1927; and $199,021,000 in 1928. The United States takes about 90 per cent. of the crop. The 1925-26 crop was 5,120,420 long tons; that of 1926-27, 4,508,920 tons; and that of 1927-28, 5,135,000 tons.

President Machado, on May 4, 1926, signed a sugar control law which provides a tax of $5 a bag upon sugar produced in excess of 90% of the crop of 1925, which was intended to limit production to 5,330,072 tons. To further control and restrict production the Sugar Defense Act passed Oct. 4, 1927 authorizes a commission of five to survey the situation on whose finding the President may act by decree, also the creation of the Cuban Sugar Export Corporation, to the stock of which every planter must subscribe, to market the crop.

Pres. Machado signed, Jan. 20, 1928, a decree fixing the Cuban sugar crop for 1927-28 at 4,000,000 long tons, of which 3,300,000 tons (with the 250,000 tons left over from the 1927 crop) is allotted to the United States, 150,000 tons to local consumption and the balance for export to other countries.

Rum, molasses and alcohol are important by products.

Tobacco raising and the manufacture of cigars and cigarets is the second industry of the island. The total value of the crop is between $70,000,000 and $80,000,000 annually; the tobacco manufactured in Cuba in 1925 was valued at $54,389,761. The total tobacco export trade was: 1925-26, $39,628,224; 1926-27, $38,341,547; 1927-28, $40,000,000.

The Cuban Chamber of Commerce in January 1928 estimated the investment of United States capital in Cuba as 90% of the total foreign investment and classifies it as follows:

Sugar industry	$800,000,000
Realty holdings	150,000,000
Railroads	120,000,000
Government bonds	110,000,000
Public utilities	110,000,000
Industrials	50,000,000
Tobacco	50,000,000
Commerce	40,000,000
Mines	35,000,000
Banks	25,000,000
Miscellaneous	15,000,000
Total	$1,505,000,000

Total of British investments in Cuba is officially estimated at £14,000,000.

From the Isle of Pines 220,000 cases of grapefruit valued at $554,800 were shipped to the United States in 1926, and 40,000 to England.

Stock raising is an important industry, the cattle Dec. 31, 1926, numbering 4,703,917. Mahogany and other valuable cabinet woods are produced and much cedar for the manufacture of cigar boxes. From the iron mines 50,000 tons of ore are exported monthly to the United States with reserves estimated at 3,221,000,000 tons. Copper is a valuable product, also asphalt.

Cuba had in 1927, 3,025 miles of railroads, excluding the private lines connecting the sugar plantations with the trunk lines.

The island has over 1,800 miles of automobile roads, and in October, 1926, was begun the building of an elaborate central highway system 705 miles long and 20.66 feet wide, the length of the island and without grade crossings to be completed by 1932 at a cost of $75,680,000, but including aqueducts and sewage systems for numerous towns, of $385,000,000. A $50,000,000 5% construction loan was negotiated with the Chase National bank of New York on June 22, 1928. President Machado on May 26, 1929 opened the Matanza section of the road 62 miles long. On June 30, 1927, 43,056 motor vehicles were registered.

In 1928, 6,500 vessels of 21,486,978 tonnage entered the ports in the foreign trade.

Cuba, discovered by Columbus in 1492 and first settled by the Spanish in 1511, attained independence of Spain by the Treaty of Paris, Dec. 1, 1898, which ended the Spanish-American War. A Constitution, modeled after that of the United States, was adopted Feb. 21, 1901. It provides for a President and Vice President, elected for four years by direct vote; a Senate of 24 members (four from each of the six provinces) and a House of Representatives of 115 members.

Amendments voted by Congress June 21, 1927, and approved by a Constitutional Convention May 9, 1928, provide that the president's term shall be six years and that he be ineligible for re-election; that the office of vice president is abolished with succession in case of death or disability devolving on the Secretary of State with a new election within 60 days; that the number of Senators is increased to 32 and their term of office to nine years; that the number of representatives is increased to 128 (one for each 25,000 inhabitants) and term increased to 6 years with national elections every 3 years and that the franchise is extended to all males over 21, a two-thirds vote in each house of Congress being empowered to grant the franchise to women. The provinces and municipalities have a large measure of home rule.

The Congress of the United States authorized the President to hand over the Government to the Cuban people on the condition that the so-called

Platt amendment, adopted by Congress March 2, 1901, be accepted. This provided that the Cuban Republic should never enter into any compact with a foreign power that would impair her independence; that she would contract no excessive debt; that the acts of the United States in Cuba during and after the war be validated; that the Cuban Government should carry out certain plans for the sanitation of the island; that certain lands necessary for coaling or naval stations be leased to the United States, and "that the Cuban Government consents that the United States may exercise the right to intervene for the preservation of Cuban independence and to maintain a Government capable of protecting life, property and individual liberty, and for discharging the obligations with respect to Cuba imposed by the treaty of peace on the United States, now to be assumed and undertaken by the Government of Cuba." This was made on June 12, 1901, a part of the Constitution. On Feb. 24, 1902, the election of President (Thomas Estrada Palma) took place and the United States formally transferred control of the island to the National Government. The coaling stations, Guantanamo Bay and Bahia Honda, were leased to the United States on July 2, 1903, at an annual rental of $2,000.

Notable work was accomplished by the United States Military Government under Gens. Brooks and Wood, especially the stamping out of yellow fever.

Political disturbances occasioned intervention by the United States in August, 1906, which continued until Jan. 28, 1909, when the National Government was resumed after the institution of electoral reforms, and the last American soldiers left the island April 1, 1909. A new electoral law, drawn with the assistance of Major Gen. Enoch H. Crowder, U. S. A., was passed in August, 1919. The election of Nov. 1, 1920, was very stormy, and interpretations put on the new laws brought about a deadlock. Gen. Crowder was sent to Cuba in January, 1921, again as personal representative of President Wilson, to straighten matters out, the result being the inauguration of Dr. Alfredo Zayas on May 20, 1921.

Under the influence of Gen. Crowder the Congress passed, during the summer session of 1922, five reform measures—the reorganization of the National system of accounting, the suspension of certain provisions of the civil service law to permit the President to shift the personnel of various Government departments in the interest of economy and efficiency, certain judiciary reforms, the clearing up of current indebtedness, and the flotation of a foreign loan of $50,000,000, the latter authorized Oct. 7. The issue in 30-year 5½ per cent. bonds was floated in New York in January, 1923, at 96.77.

The foreign debt on Feb. 28, 1929 was 93,720,674, all floated in New York; and the internal debt $10,064,200. The peso (equals $1.00) is the unit of currency. The country is on a gold basis.

Bank clearings in Havana amounted to $914,637,921 in 1926. Savings accounts on Dec. 31, 1926, amounted to $35,510,821 for 55,000 depositors.

Cuba is the sixth best customer of the United States, which sold her 62.1% of her imports in 1927 (61.4% in 1926). The United States took 79.1% of Cuba's exports in 1927 (80.4% in 1926).

Gen. Machado (Liberal) was elected President over Gen. Menocal (Conservative) Nov. 1, 1924, to succeed Dr. Zayas, the vote being: Liberal, 167,330; Conservative, 118,387; and Populars (thrown to Machado), 23,768. He was reelected, unopposed, Nov. 1, 1928, for a six-year term; and inaugurated May 20, 1929 in the handsome new $16,000,000 capitol.

The Isle of Pines treaty (Hay-Quesada), which had been before the United States Senate since 1904, was ratified by that body by a vote of 63 to 14 on March 13, 1925, and ratifications were exchanged on March 23. The treaty relinquishes in favor of Cuba all claim of the title by the United States to the Isle of Pines which might arise from the Spanish-American treaty of 1898, confirmed by grants of coaling and naval stations and protects the rights of American residents. American investments in the Isle of Pines amount to $21,000,000 and about 700 native Americans live there.

The army numbers 12,500 men; reserve, 300,000.

The Education Act of 1899 established a system of primary and secondary schools, with compulsory attendance, under which education has progressed greatly. A wide system of kindergartens and night schools has been added. In 1927 there were 6,952 primary schools with 449,478 pupils and 7,350 teachers. There were 525 private schools with 31,949 pupils and 1668 teachers. The University of Havana (founded 1721) in 1929 had 5,272 students. The Roman Catholic religion is dominant.

Recent budgets are:

Year.	Revenues.	Expenditures.
1921-22	$72,000,000	$64,422,665
1922-23	55,638,800	54,852,102
1923-24	68,500,000	61,672,169
1924-25	71,048,200	65,138,643
1925-26	84,791,649	83,787,590
1926-27	86,733,100	86,143,182
1927-28	80,988,000	80,929,540
1928-29	84,400,000	84,387,210
1929-30	85,450,000	85,392,151

Imports and exports were:

Year.	Imports.	Exports.
1921	$356,435,099	$278,130,740
1922	180,757,840	331,379,091
1923	268,951,106	421,097,643
1924	290,372,782	434,865,295
1925	297,324,477	353,984,156
1926	260,826,456	301,708,731
1927	257,384,062	324,367,706
1928	211,918,338	278,069,689

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$127,873,185	$267,836,803
1923	192,437,893	376,442,581
1924	199,779,279	361,720,542
1925	198,655,032	261,672,858
1926	160,487,680	250,600,076
1927	155,383,026	256,785,550
1928	127,859,693	202,677,889

CZECHOSLOVAKIA, REPUBLIC OF

AREA, 54,195 square miles; viz: Bohemia, 20,102; Moravia and Silesia, 10,336; Slovakia, 18,893; Carpathian Russinia, 4,864.

POPULATION, census of Feb. 15, 1921, 13,613,172; viz.: Czechoslovaks, 8,760,937; Germans, 3,123,568; Magyars, 745,431; Ruthenians, 461,849; Jews, 180,855; Poles, 75,853; others, 25,871; and 238,808 non-citizens. Est'd 1928; 14,523,186.

CAPITAL, Praha (Prague); pop., 676,657; other cities, Brno (Brunn), pop. 221,758; Plzen (Pilsen), 108,023; Bratislava (Pressburg), 93,189; Olomouc, 57,206; Kosice, 52,898; 78 others from 10,000 up.

President, Dr. Thomas G. Masaryk, born 1850; took office Nov. 14, 1918; re-elected May 28, 1920; reelected May 27, 1927.

Premier, Frantisek Udrzal (Agrarian), Feb. 1, 1929.

Minister for Foreign Affairs, Dr. Eduard Benes, National Socialist.

Czechoslovakia is a Central European republic, about the size of the State of Illinois, bounded on the north by Germany and Poland and on the south by Roumania, Hungary and Austria. Its extreme length from east to west is 600 miles and its width varies from 50 to 100 miles.

It comprises the territories of the ancient Bohemian kingdom (Bohemia, Moravia and a part of Silesia), and the upper parts of former Hungary known as Slovakia and Carpathian Russinia, the latter forming an autonomous part.

Czechoslovakia is one of Europe's richest countries agriculturally. It is becoming a land of peasant holdings, the number of farms being 3,791,621.

Immense quantities of foodstuffs are exported, the net food surplus being larger than for any other country in Europe. Agriculture has been restored to almost normal.

Sequestration of the land to be partitioned off began in earnest in 1923, when 465,000 acres, entirely agricultural, were partitioned; in 1924 350 estates were broken up and more than 500,000 acres distributed. In 1927 there were about 1,500,000 farms, 40% under 5 acres in size, 30% from 5 to 12 acres, and 25% from 12 to 50 acres.

Farming is unusually highly developed and is intensive, as indicated by the production in 1927 of 22,326,858 metric tons of wheat, oats, barley, rye, potatoes and sugar beets from about 3,960,885 hectares (9,783,384 acres). Beet sugar produced in 1926-27 was 1,045,819 metric tons, of which in 1927, 617,321 tons were exported; in 1927, 492 breweries' output was 9,997,213 hectolitres of beer, and in 1926-27, 875 distilleries, 515,858 hectolitres of spirits. Livestock Dec. 31, 1925 numbered: cattle 4,691,320; horses 740,202; pigs 2,539,201; sheep 861,128; and goats 1,244,701.

Forests cover 33 per cent. of the 34,685,248 acres of Czechoslovakia or 11,485,232 acres; the yield in 1926, 15,800,000 cubic metres (558,000,000 cubic feet.) They are so handled as to permit the use of only the annual increment, and produce at present more wood than the country can consume.

Mineral wealth is great, coal, iron, graphite, copper, lead, gold silver and garnets being abundant.

Coal production was anthracite, 1928, 15,171,403 metric tons; 1927, 14,669,977; 1926, 14,176,998; bituminous (lignite) 1928, 20,709,558 metric tons; 1927, 19,620,637; 1926, 18,515,666. There were, in 1928, 271 mines producing, employing 94,420 workers.

The production of iron ore was: in 1928, 1,779,000 metric tons; 1927, 1,590,527; 1926, 1,421,174; of pig iron in 1928, 1,592,000 metric tons; 1927, 1,260,363; of steel in 1928, 1,992,000 metric tons; 1927, 1,692,000; and of petroleum, 1928, 97,538 barrels; 1927, 115,318 barrels; 1926, 154,966 barrels.

Czechoslovakia joined the European Steel cartel in Jan. 1927. In July 1928 she was permitted unlimited domestic production but her export quota was fixed at 432,836 metric tons, which equals her exact export of 1927.

Unemployment reached its peak in January, 1923, with a total of 441,075. The situation steadily improved, the number on Dec 31, 1925, being 47,862; and on June 30, 1926, 68,044. It grew worse in the winter reaching 130,000 Nov. 1, but dropped to 80,000 May 1, 1927, 53,242 Jan. 1929. From 1918 to March 31, 1925, the state has paid out 1,201 million crowns in benefits to unemployed workers; payments in 1924 being 140 million crowns. State insurance against sickness and old age went into operation July 1, 1926. It applies to over 250,000 workers. Emigration was 39,429 in 1922; 32,341 in 1923, 54,373 in 1924, 19,350 in 1925, 26,129 in 1926, 23,596 in 1927.

Factories numbered in 1927, 11,738; textile, 1,996; glass and imitation prec ous stones, 2,155; foodstuffs, 1,849; furniture and wood, 1,383; machinery, 883; metal, 879; paper, 380; chemicals, 639.

The railroad mileage was in 1926, 8,530; 6,859 state owned. The railroads showed a surplus in 1926 of 65,128,161 crowns (about $1,930,000) of receipts over expenses. The peace treaty gave Czechoslovakia, which has no outlet to the sea, 200 miles distant, the right to certain wharves in Hamburg and Stettin. The Dunaj (Danube) is the principal waterway, its chief port being Bratislava (Pressburg). On the Labe (Elbe), which flows from Czechoslovakia through Germany the main ports are Usti (Aussig) and Decin (Tetschen).

The Czechoslovaks is a term for two branches of the same Slav nation. The beginning of the independent kingdom of Bohemia in Central Europe reaches to the fifth century. In 1526 the Habsburgs were elected to the throne of Bohemia, which thus became united through a common dynasty to Austria and Hungary. Religious persecution in the seventeenth century led to unsuccessful rebellions and to the loss of independence. The persecution of the Czechs by the Habsburgs left great bitterness. In its present form Czechoslovakia is a creation of the war coming into existence Oct. 28, 1918, on the break-up of the Austro-Hungarian Empire, of which it was the northwest portion bordering on Germany and Poland. The Constitution of the republic was adopted by the National Assembly on Feb. 29, 1920, providing for a National Assembly with legislative authority over the whole country, Carpathian Russinia to have autonomy. The Assembly, elected by universal suffrage, and with proportional representation, is composed of a Chamber of Deputies, six-year tenure, 300 members; and a Senate, eight-year tenure, 150 members; both in joint session to elect the President of the republic for a seven-year term; the President to be the head of the army, authorized to declare war with the consent of the Assembly, and appoint Ministers and officials. Freedom of speech and religion are guaranteed.

The election of Nov. 15, 1925, returned representatives of thirteen parties, the Government coalition, numbering 80 in the Senate and 159 in the Chamber. The composition of the Chamber was: Social-Democrats, 29; Agrarian, 45; Catholics, 54; National Socialists, 28; others, 32; German Social Democrats, 17; other German, 54; Communists, 41; and Senate, Social-Democrats, 14; Agrarian, 23; Catholics, 28; National Socialists, 14; others, 15; German Social Democrats, 9; other Germans, 27; Communists, 20. Nine women were elected to the Chamber and three to the Senate.

The religious distribution of the population by the census of 1921 was: Roman Catholics, 10,384,833; Protestants, 990,319; without confession, 724,507; Czechoslovak Church, 525,333; Jews, 354,342; Greek Catholics, 535,450; Russian Orthodox, 73,097; others, 25,291.

In 1920 the Reformed Clergy of Czechoslovakia decided to withdraw from the jurisdiction of the Pope and found a national church, called "Czechoslovak church," with a membership of over 500,000.

A modus vivendi was arranged with the Vatican in Jan. 1928 by which diocesan boundaries were rearranged to conform to National boundaries; it was agreed that bishops must be Czech, citizens and appointed only with consent of the Government; church dignitaries must take the oath of allegiance to the Czech state and free exercise of religious beliefs was guaranteed to all creeds.

Education is compulsory between the ages of six and fourteen. Literacy is almost universal, excepting in Slovakia and Carpathian Russinia.

There are 31 October, 1927, 14,333 elementary schools with 1 451,636 pupils, and 1 781 advanced schools with 277,541 pupils. Secondary Latin and technical schools (gymnasia and real-schools) were, in 1926-27, 356 with 102,366 students. There are four polytechnics with university rank, colleges of mining engineering, veterinary science, agriculture and fine arts. The Czech University of Prague is celebrated. Founded in 1348, students number 8,225; the German University at Prague having 3,651 and two other universities 3,524.

Universal military service for men between 20 and 50 was enacted in 1920, service to be for 14 months. When mobilization is decreed, all from 17 to 60 are liable for service. Peacetime army strength is according to the new law 140,000 men in the period from Oct. 1 to March 31, and only 100,000 men from April 1 to Sept. 30. Reserves number 1,524,000. The budget of the Ministry of National Defense for 1922 was fixed at 3,119,000,000 crowns; for 1923, 2,775,000,000; for 1924, 2,299,973 630; for 1925, 1,815,435,710; for 1926, 1,935,402,500; for 1927, 1,370,000,000; for 1928, 1,400,000,000, and for 1929, 1,400,000,000.

With Yugo-Slavia and Roumania, Czechoslovakia formed the "Little Entente," designed for protection against Magyar aggression, as a defense against Bolshevism should the Soviet armies pass the Russian frontier, and to promote trade on the Danube. These treaties were renewed at a conference in May 21, 1929. In February, 1924, France and Czechoslovakia signed a treaty to "safeguard their common interests in case they are threatened."

The public debt taken over from the former Austro-Hungarian bank under the treaty of peace amounted to 10,099 million Czechoslovakian crowns. This is being amortized by capital levies, which have so far brought in 4,048 million crowns. The total debt on Jan. 1, 1928 was 36,853,662,438 crowns of which 4,200,000,000 was the currency debt.

Czechoslovakia on Feb. 15, 1928 called the balance due, $21,700,000, of its 7½% loan which was floated on the New York Market in October 1925 at 96. Funds to meet the payment made in April were derived from revenues and the flotation of an internal 15 year 5% loan of 450 million crowns.

The new Czechoslovak National Bank began business on April 1, 1926, with a note circulation of 7,147,000,000 crowns and a metallic cover of 1,137,000,000 crowns, or 27 per cent. The note circulation on Aug. 31, 1929 was 7,500,000,000 crowns, and reserves 2,216,000,000.

The crown (=20.3 cents at par of exchange) is the unit of currency. It has been stabled at 2.96 cents since 1922, its gold value being fixed at 44.58 grams of pure gold or 33.75 crowns to the American gold dollar.

An agreement to fund Czechoslovakia's debt to the United States at $115,000,000 to be paid in instalments of about $3,000,000 annually representing interest of 3 per cent. for ten years and 3½ per cent. thereafter, was reached in Washington on Oct. 9, 1925.

The chief exports are sugar, lumber, wool, glass, and metal goods; the chief imports are foodstuffs, iron, rubber and dyes.

Recent budgets in thousands of Czech crowns are:

Year.	Revenues.	Expend.
1922	18,884,210	19,671,970
1923	18,812,391	19,377,881
1924	16,391,294	16,993,977
1925	9,301,334	9,573,386
1926	10,085,752	10,070,271
1927	9,723,914	9,703,505
1928	9,562,270	9,536,074
1929	9,569,908	9,534,383

Imports and exports in thousands of Czech crowns:

Year.	Imports.	Exports.
1921	22,432,293	29,311,386
1922	12,695,516	18,086,349
1923	10,222,288	12,573,315
1924	15,854,703	17,035,375
1925	17,594,246	18,798,953
1926	15,263,000	17,858,000
1927	17,961,632	20,135,438
1928	19,193,590	21,227,610

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$1,147,977	$16,606,242
1923	1,080,090	16,672,617
1924	1,950,685	22,423,210
1925	2,854,353	22,837,821
1926	2,967,516	28,301,826
1927	7,441,708	31,726,449
1928	5,340,709	36,800,185

DANZIG, FREE CITY OF

AREA, 754 square miles.

POPULATION, census Aug. 24, 1924, 386,000; 93 per cent. German, 6 per cent. Poles.

Senate President, Dr. Heinrich Sahm, elected 1920.

High Commissioner, Count Manfred Gravinas, appointed by the League of Nations, Sept. 22, 1928.

Diplomatic and consular representatives of Polano have charge of the interests of the Free City of Danzig in the United States.

The Free City of Danzig, the history of which goes back nine centuries, covers a territory of 729 square miles on the Baltic Sea, with the Polish corridor to the west, Poland to the south, and East Prussia, of which it was formerly a part, to the east. The River Vistula, coming from the extensive Polish hinterland, runs through the district to the Baltic. The bay is sheltered by a peninsula, and the port is of great importance because of its connection through waterways and railroads with the neighboring states. To the west the land is hilly and well wooded; to the east, flat and very fertile. The municipal part of Danzig, with its incorporated suburbs, had on July 1, 1925, a population of 226,000. The shipyards are important. There are 16,312 farms, with 47,375 farmers and agricultural workers.

The Free City of Danzig was established under the Treaty of Versailles (Article 102) to create a port for Poland, on Nov. 15, 1920. It is a sovereign and independent city and state, and in peace and in war is under the protection of the League of Nations, which guarantees her constitution that was proclaimed in its final form on July 12, 1922. This provides for a Volkstag of 120 members elected by proportional representation for four years. The vote is direct and secret, suffrage being exercised by all men and women over twenty. The Senate consists of twenty-two members elected from the Volkstag; the President and seven of these are Chief Senators, form the Ministry, and are elected for a four-year term. The Vice President and remaining Senators are elected for the life of the Volkstag. The Senate takes part in the passage of laws, but is at the same time the supreme authority and government of the Free City. It directs the policy of the state; is responsible to the Volkstag, and if a member should lose its confidence by an expressed resolution of the House, he must resign his office. Each administrative department is under a Senator.

In the election Nov. 13, 1927 the Socialists returned 42 deputies (vote 61,588), Centrists 15, (vote 26,090), Liberals 9 (vote 14,531). These combine to control the government. In the opposition are: German Nationalists, 25 (vote 35,820); German Racialists, extreme reactionaries, 2 (vote 4,671); Communists, 8 (vote 11,695), and minor parties, 19.

The Polish Republic has no sovereign rights in the Free City. The relations between the two states are determined by three treaties. Under the Treaty of Versailles Poland is charged with the conduct of the foreign affairs of the Free City; the two states have also formed, by treaty, a common customs and economic union under the Polish law; but the administration of the customs within the territory of the Free State is performed by Danzig authority. The management of the railways, save in purely local requirements, has also been undertaken by Poland, and is conducted by a special administration in which a Danzig delegate represents the city's requirements. The administration of the harbor and waterways is given over to a special board of Harbor Administration, consisting of an equal number of Danzig and Polish members, whose President is a Swiss subject.

The Polish Government has a diplomatic representative in Danzig to mediate between his country and the Free City. The League of Nations maintains a High Commissioner in Danzig, who, on appeal, decides all disputes which may arise between Danzig and the Polish Republic owing to their neighborly relationships or economic connections. Both parties have the right of appeal against his decisions to the Council of the League of Nations in Geneva.

Education is free and compulsory from 6 to 14 years. The Free City had 322 schools in 1927 with 51,177 pupils and 1,469 teachers.

Danzig suffered severely because of the collapse of the German mark and the disorganization in that country in 1923. In September, 1923, in agreement with Poland, the Free City adopted a new currency with a unit known as the gulden, to equal in value one-twenty-fifth of the English pound. A new bank of issue was established. On June 30, 1928 the bank had a reserve of 18,178,000 gulden in gold, 26,660,000 in foreign bills, etc., and a note circulation of 37,352,000. The year passed without incurring a deficit and the budget for 1924 was balanced at 86,054,570 gulden ($15,489,822 converted at one gulden = 18 cents); budget for 1925 balanced at 114,900,000 gulden, for 1926 at 117,857,180 gulden, for 1927, at 113,209,220 gulden, and for 1928 at 117,028,590 gulden.

A loan for $4,500,000 was floated in 1927 for port improvement. Traffic has grown from 2,453,000 metric tons of cargo in 1912 to 7,897,613 in 1927. The number of ships entered in 1927, was 6,950 vessels of 3,899,854 net tonnage.

The chief exports are now lumber, grain and sugar. Of grain 187,000 tons were shipped in 1925, 272,000 in 1926 and 56,000 in 1927. Sugar exports amounted to 185,000 metric tons in 1926; and 139,000 in 1927. Lumber exports in 1925 amounted to 901,916 tons; in 1926 to 1,391,000 tons, and in 1927, 1,749,000 tons.

DENMARK, KINGDOM OF

AREA, 16,570 square miles; including the Faroe Islands (540), 17,110 square miles.

POPULATION, census of Nov. 5, 1925, 3,434,555. Denmark gained 164,500 of population by the people of Schleswig voting in 1920 in the plebiscite to return from German rule to adherence to Denmark. Faroe Islands, population, 1925, 22,835.

CAPITAL, Copenhagen, 1925, pop. without suburbs, 587,150; with suburbs, 731,496.

King, Christian X., born Sept. 26, 1870; succeeded his father, Frederick VIII., May 14, 1912; married, April 26, 1898, Princess Alexandrine of Mecklenburg; *Heir*, Crown Prince Christian Frederick, born, March 11, 1899. The King of Denmark is also King of Iceland (which see).

Premier, Theodore Stanning, born 1873, (Socialist) April, 1929.

Denmark occupies the peninsula of Jutland, thrusting out to the north from Germany, which is its only land neighbor, between the North Sea and the Baltic Sea, with the adjacent islands. The Skagerrak separates it from Norway, and Cattegat from Sweden. It is a little smaller than the States of Massachusetts and New Hampshire together. The country consists of low, undulating plains.

The Faroe Islands in the North Atlantic, about 300 miles northwest of the Shetlands, belong to Denmark.

Denmark has attained great agricultural productivity. About 76% of its total area is under cultivation; from it, 35% of its population obtains a living and 92% of the farmers own the land they cultivate. Bumper crops brought prosperity in 1928. There were 6,871,540 acres under cultivation, 3,228,290 in grain, 1,267,110 in potatoes and roots, 79,040 in oil-seeds, 2,116,790 in green fodder and grazing and 180,310 fallow. The grain harvest yielded 3,500,000 metric tons (2,750,000 tons in 1927) an increase of 28%; potatoes double the 1927 crop. The export of bacon was 272,209 metric tons; of butter, 147,742 tons; of condensed milk, 23,858 tons; of cheese, 6,086 tons; and of fresh eggs, 31,195,000 score, all at greatly increased prices. The production of beet sugar was 165,000 tons.

The census of domestic animals in 1928 was 518,000 horses, 3,021,000 cattle and 3,360,000 pigs.

Since the first small-holdings act was passed in 1899, 13,800 small farms have been established (1929) aggregating 81,540 acres and loans and grants by the government amount to about 140,000,000 kronen ($37,380,000).

Normally there are about 82,000 industrial and shop plants, about 15,000 using power, employing 350,000 of whom 240,000 are skilled. The Danish fishing fleet of 15,350 boats took fish to the value of $11,500,000 in the same year.

There are 3,148 miles of railroads, of which 1,505 are state-owned. All showed a profit in 1923-24. In 1926 Denmark had 1,580 steam and motor vessels of 1,076,980 gross tons and 516 sailing vessels of 68,208 tons. There entered Danish ports in 1926 in foreign trade, 33,073 vessels of 10,431,000 tons.

The chief exports are dairy products, eggs, provisions and fodder, animals and animal products, fuels, metal and wood manufactures and textiles.

Danish activity of all kinds has been largely dependent on the purchasing power of the German people, whose normal purchases of 60 per cent. of their foodstuffs afforded Denmark a valuable market. Industry is normally stable in Denmark, attributed by many in part to the Permanent Court of Arbitration and the Public Mediation Institution. The first is representative of employers and employees and interprets agreements and legal points involved therein. The second anticipates industrial troubles, and when stoppage of work such as will affect the whole community is threatened takes steps to intervene and seeks to prevent it. The Court of Arbitration is national and no appeal lies against its findings to any superior court, being in themselves final and valid in law.

Unemployment, which had reached 48,000 June 1, 1926, rose to 92,000 in January and February, 1927,

but dropped to 54,000 July 1, 1927 and to 39,000 July 1, 1928. It rose to 61,000 Dec. 31, 1928, and to 76,000 March 31, 1929, but fell to 27,000 Aug. 31.

Denmark is a constitutional monarchy the succession being hereditary. The King and the Rigsdag (Diet) jointly hold legislative power. Executive authority vests in the King through his ten Ministers. The Rigsdag is of two bodies—the Folketing (House of Commons), with 149 members, and the Landsting (Senate), with 75 members. Men and women of 25 years of age and a fixed abode have the franchise.

The Evangelical Lutheran is the established religion. By the census of 1921 there were 3,221,843 Protestants, 22,137 Catholics and 5,947 Jews. The population is almost entirely Scandinavian.

Education is compulsory between seven and fourteen years of age. Intelligence is widely diffused. By the census of 1926 there were 4,493 lower schools, instruction mostly gratuitous, with 493,237 pupils, and 70,000 students in the higher institutions. The University of Copenhagen, founded 1479, has 4,400 men and women students.

Old age pensions are granted under the law of 1891, amended 1922, in effect April 1, 1923, to any person over 65 fulfilling certain conditions. It must be sufficient for maintenance and for medical attendance. It is paid by the commune of domicile and seven-twelfths is refunded by the State, in the fiscal year ending March 31, 1927, 106,000 persons were relieved. The total expenditure was 67,000,000 kroner.

The army is in the form of a national militia, every able-bodied male Dane being liable for service, excepting only those living in the Faroe Islands. Even clergymen must serve. In 1927, 8,625 recruits were called up for training. The permanent establishment is about 11,000, with 55,000 available on mobilization. The navy, for coast defense only, is mostly monitors.

The Socialist Cabinet in October, 1924, placed before the Rigsdag bills to abolish conscription, the army and navy and War Office and Admiralty. A corps of 7,000 trained frontier guards or constabulary enlisted for twelve years and a force of six armed vessels, three motor boats and twelve seaplanes, for policing Danish waters, was to be set up. The annual cost was estimated at 11,000,000 kroner, as against 60,000,000 now spent. The Lower House passed the Disarmament bill by a close vote on March 12, 1926. The Senate defeated it by a vote of 39 to 24 in June 1927.

Thomas Madsen-Mygdal's conservative government in power from Dec. 14, 1926, resigned after being defeated at the election on April 24 which returned a Folketing composed of 43 Agrarians, 25 Conservatives, 61 Social Democrats (Laborites), 16 Radicals, and 4 Independents. Theodore Stauning (Socialist), premier 1924-26, formed a Socialist-Radical Cabinet and again introduced the disarmament bill abolishing the army and navy and setting up a small land and coast patrol on a civilian basis. He served notice on the Landsthing, where the government is in a minority with but 36 supporters, not to block the radical reform measures lest a campaign be made to abolish it. The government plans to use the 40,000,000 kronen it expects to save on the military budget to finance increased social welfare legislation.

Denmark floated a loan of $55,000,000 4½% 34-year bonds at 95 on the New York market April 5, 1928. The total debt with this financing amounted to $358,628,200. A large part was contracted for the construction of revenue producing properties, railroads, telegraphs, telephones, harbors, etc. The government owns 48% of the railroad mileage. State assets were valued on March 31, 1927, at $415,400,000. The wealth of Denmark was officially estimated in 1927 at about $5,360,000,000.

The City of Copenhagen floated a loan of $12,000,000 4½% 25-year bonds at 94½ on the New York Market Apr. 25, 1928.

The kroner (=26.8 cents at par of exchange), averaged 21.13 cents in 1925 but has been stable at about par since 1926.

Gold redemption was restored Jan 1, 1927, the £3,000,000 stabilization credit was renewed but not the $40,000,000 American credit. A 50% gold cover was reestablished for the note issue which in December 1926 was 386,000,000 kroner, and on June 30, 1927, 368,000,000, with a gold reserve of 193,000,000 kroners. On July 23, 1929, circulation was 318,000,000 crowns with a gold cover of 57%.

Recent ordinary budgets in kroner are:

Year.	Rev.	Exp.
1923-24	389,709,000	402,285,000
1924-25	411,223,000	358,000,000
1925-26	455,500,000	455,000,000
1926-27	367,234,000	358,494,000
1927-28	341,600,000	340,200,000
1928-29	332,042,000	316,430,000

Imports and exports in kroner and in dollars are:

Year.	Imports.	Exports.
1923	2,030,975,000	1,693,974,000
	($371,668,000)	($309,997,000)
1924	2,360,675,000	2,151,701,000
	($394,233,000)	($359,334,000)
1925	2,082,000,000	1,959,278,000
1926	1,621,000,000	1,514,580,000
	($425,188,300)	($397,275,000)
1927	1,659,000,000	1,549,000,000
	($444,612,000)	($415,132,000)
1928	1,735,000,000	1,653,000,000
	($465,980,000)	($442,004,000)

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$35,639,373	$4,163,781
1923	38,768,318	6,629,770
1924	42,413,028	6,118,264
1925	55,746,756	4,327,503
1926	50,577,039	5,508,506
1927	58,605,052	4,144,642
1928	47,172,634	3,940,848

GREENLAND—COLONY.

AREA, 827,300 square miles; area of the Colony along the coast, 46,740 square miles. Interior a lofty plateau of 9,000 to 10,000 feet altitude, covered with glaciers.

POPULATION, census of 1923, 14,804, of which 248 were Europeans, the rest Eskimos.

CAPITAL, Godthaab, pop. 376, largest settlement; Sydproven; pop., 901.

Greenland, a huge island between the North Atlantic and the Polar Sea, separated from the North American continent by Davis Strait, Baffin Bay, etc. It extends from 60°-86° N. lat.

Greenland trade is a state monopoly for Denmark. Imports from Denmark in 1926 were valued at 1,865,000 kroner and exports at 8,301,000; chiefly fish, furs, whale oil and graphite. The deposits of cryollite are the largest in the world.

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$1,985	$194,000
1923	17,129	174,800
1924	....	311,300
1925	18,561	691,116
1926	7,561	518,885
1927	11,206	347,200
1928	8,386	448,898

DOMINICAN REPUBLIC

(SANTO DOMINGO.)

AREA, 19,325 square miles.

POPULATION, census of 1921, 897,405; estimated 1927, 1,022,485.

CAPITAL, Santo Domingo (founded 1496), pop census 1920, 45,007; Santiago de los Caballeros 17,152; Puerto Plata, 7,709.

President, Sr. Don Horacio Vasquez, 1924-30, inaugurated July 12, 1924.

The Dominican Republic occupies the eastern portion, about two-thirds, of the Island of Santo Domingo, the second largest of the Greater Antilles, situated between Cuba on the west and Porto Rico on the east. The boundary between it and the Republic of Haiti, which occupies the western part of the island, is 193 miles long. It has a coastline of 1,017 miles. The land is very fertile. about 15,500 square miles being cultivable; agriculture and stock raising are the principal industries. Sugar, cacao, and tobacco are the chief products.

The amount of sugar produced in 1926-27 was 347,649 short tons; in 1927-28, 412,380 tons; and in 1928-29, 383,000 tons; exported in 1927, 295,896 metric tons; and in 1928, 335,020 metric tons.

The country has gold, copper, iron, salt, coal and petroleum, but the mining industry is undeveloped.

Tobacco exports in 1927 were 44,750,000 pounds, valued at $2,582,000; and in 1928, 25,000,000 pounds The coffee exports in 1927 were 9,025,000 pounds; and in 1928, 9,993,456 pounds. The cacao exports in 1927 were 26,513 tons valued at $7,476,794; and in 1928, 19,301 tons valued at $4,250,415.

There are 153 miles of railroads, besides 255 of private lines on large estates. In 1928, 2,037 vessels of 2,739,784 tonnage, entered the ports.

The population is a race of mixed European, African and Indian blood. Spanish is spoken. The religion of the state is Roman Catholic, but religious toleration prevails. Education is free and compulsory, and great advance in methods of instruction has been made by the Military Government.

Continual internal disturbances from the "war of the restoration" (1863-65) to 1904, left the Do-

minican Republic under a crushing debt of $32,000,000. Her annual revenues were about $1,850,000 and her annual expenditures $3,900,000. Rumors were rife that European nations would intervene to collect debts due their citizens. To forestall armed and indefinite intervention Secretary of State John Hay, in February, 1905, negotiated a protocol with the republic, which provided that the United States should adjust her debts and administer her custom house receipts. Because a clause in the convention was interpreted as establishing a protectorate, the United States Senate refused to ratify the treaty. President Roosevelt, however, made an executive arrangement with the President of the bankrupt republic essentially on these lines, and on April 1, 1905, put that modus vivendi into force, and placed an agent of the United States in charge of her fiscal administration. Marked improvement followed; her debt was adjusted and credit restored.

A treaty was signed on Feb. 8, 1907, which provided that the United States Government should administer the customs of the Dominican Republic for the service of her debt, practically a receivership. Eight years of honest administration reduced the total debt to $21,500,000.

It was inevitable that the administration of the finances of the Dominican Republic by the United States could not proceed without friction and interference with the government of that country. Political troubles and serious disturbances followed, to suppress which the Dominican officials incurred fresh debts without the approval of the United States, which demanded a supplementary convention be arranged. The Dominicans refused to consent. A coup d'etat by Arias, deposing President Jimenez in April, 1916, was followed by disorders. The United States landed a detachment of marines and suppressed the insurrectionists; and on Nov. 29, 1916, Capt. Knapp, U. S. N., issued a proclamation announcing that the Dominican Republic was under the military administration of the United States, and declaring that his Government did not intend to destroy the sovereignty of the republic, but wished to enable her to restore internal order so that she might observe international obligations.

A Dominican commission, headed by Provisional President Henriques Carvaljal, in 1919 visited Paris and later Washington, seeking the restoration of individual liberty in the republic. Acting under orders from Washington, the Governor, Admiral Snowden, issued a proclamation outlining the plan of the United States Government for the conditional withdrawal of its military forces, the transfer of administrative responsibility to a native government duly elected, and the continuance of the fiscal arrangements of 1907 enlarged so as to include arrangements for a new loan.

Rear Admiral Samuel S. Robison, U. S. N., Military Governor of the Dominican Republic installed on Oct. 21, 1922, a provisional Government, headed by Provisional President J. B. Vicini Burgos, for the purpose of promulgating legislation, to regulate the holding of elections and to provide for the reorganizing of the provisional and municipal governments.

A Congress was elected which had a strong Nationalist majority; a convention recognizing the acts of the Military Government was ratified; and on March 19, 1924, Gen. Horacio Vasquez was elected President for four years. On July 12 he was inaugurated; and simultaneously the evacuation of the military forces of the United States followed.

A new convention superseding that of 1907 was signed at Washington, Dec. 27, 1924, and was promptly ratified by both countries. It provides for a loan up to $25,000,000 to refund and consolidate existing loans and provides $10,000,000 for public improvements. The customs receivership was extended until the amortization of the new loan.

A revised constitution was proclaimed June 16, 1927, which extends the term of office of President and Congress by two years,—from 1928 to 1930.

An advisory mission of American financial experts headed by former Vice President Charles G. Dawes, as private citizens and at the direct invitation of President Vasquez, after an intensive examination of the finances of the country (April 2-23, 1929) reported a budget law, a system of accounting, regulation of projected public improvements, and a modified law of finance. They suggested a reduction of the $4,127,000 deficit to $769,000 and estimated the internal debt at $2,650,000.

The military administration has built 500 miles of macadamized national highways, modernized the port of Santo Domingo, improved other ports, built schools, increased the enroiment of school children from 18,000 to more than 100,000. On highways alone from 1908 to Jan. 1927, $11,785,200 has been spent.

The customs receivership (William E. Pulliam, General Receiver) from its commencement April, 1905 to December 31, 1928, collected in all $96,294,734. The customs revenue for 1926 were $4,714,405; for 1927, $5 796,881; and for 1928, $5,191,481.

Final payment was made in 1926 on the service and liquidation of the $20,000,000 loan of 1908. In December, 1926, $5,000,000 5½% 14-year bonds were sold in the United States at 98.07 as part of the amount to be spent on public improvements. On Jan. 26, 1928, the second series, $5,000,000 5½% 14-year bonds were sold in New York for 99¼. With this the public debt amounted to $20,000,000.

The Dominican monetary standard is the United States gold dollar. Except for about $200,000 in Dominican coins (there is no Dominican gold or paper money) all currency in circulation is United States currency.

Recent budgets are:

Year.	Revenue.	Expenditure.
1922	$12,164,142	$11,353,686
1923	6,171,292	7,241,988
1924	5,804,941	5,617,485
1925	10,702,091	10,689,313
1926	11,968,110	10,700,000
1927	11,700,250	11,500,000
1928	15,477,723	15,933,514
1929	13,984,860	13,967,545

Imports and exports were:

Year.	Imports.	Exports.
1921	$24,285,327	$20,614,048
1922	14,317,497	15,231,355
1923	18,245,082	26,042,821
1924	21,580,571	30,262,896
1925	25,339,052	26,770,611
1926	23,677,553	24,895,871
1927	27,784,014	31,178,769
1928	26,787,940	28,754,528

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$10,234,276	$4,842,498
1923	13,427,440	8,350,254
1924	15,642,268	5,824,717
1925	17,763,577	7,258,277
1926	14,377,932	5,628,672
1927	18 871,337	11,026,032
1928	16,826,981	9,374,145

ECUADOR, REPUBLIC OF

AREA, estimated, 118,627 square miles; boundaries are in dispute and the extreme claim is 275,000 square miles.

POPULATION, between 1,500,000 and 2,000,000, of which about 600,000 are of pure European blood.

CAPITAL, Quito, pop., 80,700; chief port, Guayaquil; population, estimated, 105,000.

President, Dr. Isidro Ayora, born Aug. 31 1879, assumed control July, 1926. Elected President (1929-1934) by Congress March 27, 1929; inaugurated April 17, 1929.

Premier, Dr. Teofilo Fuentes Robles (Government and Social Welfare) May 7, 1929.

Ecuador, on the Pacific Coast of South America, extends from about 100 miles north of the Equator to 400 miles south of it. It is bounded by Colombia on the north and Peru on the south. The boundary in the east is in dispute, much territory being claimed by each of these three countries. Two cordillera of the Andes cross the country, with a dozen peaks above 16,000 feet in height, of which Chimborazo (alt. 21,424 feet), Cotopaxi (19,550 feet), Cayambe (19,534 feet), and Antisana (19,260 feet) are the highest.

Mining has been but little developed, though the country is known to be rich in minerals. Most of the land is covered with virgin forest. Rubber abounds in the upper reaches of the Amazon in the disputed eastern territory. Panama hats are manufactured: cacao, ivory, nuts, coffee, hats, hides and rubber are the chief exports. Textiles, foodstuffs, machinery and clothing are the chief imports.

Ecuador produces about one-fifth of the world's supply of cacao. Exports in 1928 were 22,390,810 kilos of cacao valued at 29,055,339 sucres (23,314,322 kilos valued at 36,623,024 sucres in 1927); 8,784,143 kilos of coffee valued at 16,691,440 sucres (5,237,013 kilos valued at 8,671,199 sucres in 1927); and 176,763 kilos of panama hats valued at 4,370,526 sucres (222,186 kilos valued at 5,786,075 sucres in 1927).

Petroleum production in 1928, 1,090,000 barrels; in 1927, 450,000 barrels; 1926, 214,000 barrels; and in 1925, 160,000 barrels.

Guayaquil, the seaport, was long a hotbed of yellow fever. After a survey made by the Rockefeller Foundation in 1916, a scientific fight was made under the direction of Gen. Gorgas, and May 27, 1920, the Director General of Public Health announced that the disease had been stamped out. Guayaquil is connected with Quito by a railroad

(290 miles), a two-day journey. In all, Ecuador has 530 miles of railroads, control of which was bought by the Government on May 28, 1925.

In 1925-26 there entered the port of Guayaquil 488 steam vessels of 1,178,010 tons.

Ecuador's independence dates from the Battle of Pichincha, May 29, 1822, and its history has been stormy even for a Latin-American republic. It is estimated that three-fourths of its population are Indians, one-fifth mixed and only a small fraction white. Education is very backward. In 1927-28 there were 1,771 schools with 2,399 teachers and 111,699 pupils. Congress in 1929 made education secular and free. Only adults who can read and write can vote.

The constitution now in force was promulgated Dec. 28, 1906, and provides for a President, elected by popular vote for four years, a Senate of 32 members, elected for four years, and a House of 48 members, elected for two years.

Sr. Dr. Don Gonzalo Cordova, elected President and inaugurated Sept. 1, 1924, was ousted July 9, 1925, by a bloodless military coup d'etat headed by Gen. Francisco Gomez de la Torre, who with two others formed a Government with Modesto Larrea Jijon as Premier. Dr. Isidore Ayora was made President of the Council of Government, assisted by a council under the supervision of the military triumvirate on April 7, 1926, to hold office until the election of a President.

Ecuador returned to a constitutional form of Government on Sept. 10, 1928, when a National Assembly of 54 members, elected by the people in August, began its session. The Assembly by unanimous vote continued President Ayora in office, and on March 27, 1929 elected him Constitutional President (without right of reelection) for five years. He assumed office April 12. The new constitution was proclaimed March 29, and on May 7 the Assembly established a cabinet of six ministers appointed by the President.

Ecuador issued a decree Sept. 24, 1927, forbidding the entry into the country of all foreign clergymen, irrespective of religious faith.

An eight-hour labor law and a model child labor law were put in effect Jan. 1, 1929.

Ecuador has not joined the League of Nations.

By invitation of the Government, Prof. Edwin W. Kemmerer of Princeton University, with a staff of American experts went, in October, 1926, to Ecuador, and after four months study presented plans for reorganizing the finances of the country. As a result the Central Bank was opened June 1, 1927, with a capital of 10,000,000 sucres, to which is given the exclusive privilege of issuing banknotes for 50 years. The bank on April 30, 1928, had a note circulation of 37,444,378 sucres with a gold cover of 28,986,459 sucres, legal reserve being 52.83%.

A budget law, new taxation and revised customs duties were among the 25 reforms recommended and adopted. Four American advisers remain for three years. About $30,000,000 of American capital is invested in the country.

The sucre (=48.6 cents) had fallen to 20.08 cents; in February, 1927, it was stabilized at 20 cents gold (=0.300933 grain fine gold).

The budget for 1925 balanced at 35,833,080 sucres, that for 1926 at 41,988,000 sucres, that for 1928 at 55,393,069 sucres, and that for 1929 at 59,900,000 sucres.

The internal debt on June 30, 1928 was 17,018,666 sucres. The external debt was $19,404,000.

Trade in dollars ($1 = 5 sucres) was:

Year.	Imports.	Exports.
1923	$9,201,185	$9,596,590
1924	13,000,735	15,316,975
1925	13,500,000	17,500,000
1926	9,414,600	12,714,200
1927		13,414,678
1928		15,493,360

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$4,428,814	$7,492,460
1923	4,335,606	6,146,277
1924	5,537,621	6,699,667
1925	6,807,624	8,700,627
1926	4,662,159	6,757,104
1927	5,531,467	5,193,466
1928	6,594,723	5,345,429

EGYPT, KINGDOM OF

MISR.

AREA, estimated, about 347,840 square miles, exclusive of the Soudan (which see). Cultivable land are, 12,226 square miles: Sinai desert, 11,614; Libyan and Arabian deserts, 324,000.

POPULATION, Census of February, 1927, 14,186,898.

CAPITAL, Cairo, pop. census of 1927, 1,064,567; other cities, Alexandria, pop. 573,063; Port Said and Ismailia, 133,677; Tanta, 90,014; Mansura, 63,676; Asyut, 57,132; Suez, 40,309; and Damietta, 34,907.

King, Fuad I., born March 26, 1868, son of the late Khedive Ismail Pasha, succeeded his brother Hussein Kamil on his death as Sultan Oct. 9, 1917, proclaimed King March 16, 1922, on termination of British protectorate and recognition of the independence of Egypt. He married Princess Nazli, May 24, 1919. *Heir*, his son Prince Farik, born Feb. 11, 1920.

Premier, Adly Yeghen Pasha (Interior) Oct. 4, 1929.
Minister of Foreign Affairs, Ndhat Pasha.
British High Commissioner for Egypt and the Soudan, Sir Percy Loraine, Bt., appointed Aug. 7, 1929.

Egypt occupies the northeast corner of Africa with the Mediterranean Sea on the north and the Red Sea on the east. Beyond that, between the Gulf of Suez and the Canal and the Gulf of Akabah, lies the Sinai peninsula, 150 miles long, flat and sandy, on the north, like the Egyptian coast line but with granitic mountains rising to an altitude of 8,680 feet in the southern third. Along the west coast of the Red Sea is the Eastern or Arabian desert, with a great backbone of rugged mountains (highest altitude 7,150 feet) reaching to Abyssinia. On the south is the Soudan, the parallel of the 22° north latitude forming the boundary. To the west is the vast Libyan desert, which begins a few miles west of Cairo, where stand the Pyramids of Giza, of which the great pyramid is 451 feet high, and the Sphinx. This desert stretches to Tripoli, a vast monotonous limestone plateau with a few depressions where wells and springs furnish water to irrigate small areas. These oases support a population of several thousands. Egypt is about the size of Arizona, New Mexico and Colorado, but its fertile territory is about the size of Massachusetts and Connecticut.

The Valley of the Nile and the delta are the real Egypt of sixty centuries. Here are 12,226 square miles of cultivated area; 1,900 square miles are taken up by canals, roads, date plantations, etc., and 2,850 by the surface of the Nile, its marshes and lakes. The great river runs between sandstone cliffs from Haifa to Esna, with a stretch of granite near Aswan, where the valley narrows to half a mile, and limestone from there through Luxor to Cairo, the valley widening to over 10 miles. The fertile lands occupy the floor of the valley between the river and the cliffs, and north of Cairo they spread out in a silt-created delta, forming the richest soil of the country. The Nile has a total length of 3,470 miles from the Victoria Nyanza to the Mediterranean. In the 960 miles of its course through Egypt it receives no tributary stream. The river has a regular yearly rise and fall, attaining its maximum the end of May. The average rise at Cairo is 13 feet.

The great dam at Aswan (Assouan) 590 miles above Cairo, completed Dec. 10, 1902, is a mile and a quarter long. The width at the bottom was about 82 feet and height about 130 feet. It cost about $12,000,000 and added 1,408,000 acres to the arable soil of Egypt. The dam was raised 16½ feet and its thickness increased in 1907-12 at a cost of $7,500,000, and the storage capacity is 2,423 million cubic metres. The dam regulates the flow of the Nile, a task shared by smaller barrages at Erna, Assiut, Zifta and at the head of the delta. Irrigation canals distribute the silt-laden water to the fields.

Following up the recommendations of an International Technical Commission after reaching an agreement with Great Britain regarding the distribution of Nile waters, the Egyptian Government in May, 1929, set aside about $32,000,000 to begin in 1930 additional irrigation works calculated to cost ultimately over $100,000,000. It is proposed to spend $12,000,000 in heightening again the Aswan Dam by 30 feet to increase its storage capacity to 5,400 million cubic metres and permit 700,000 additional acres of land in the Nile valley to be cultivated,—an increase of value estimated at $180,000,000. Four barrages are to be strengthened, 300,000 acres to be converted from basin to perennial irrigation and $39,000,000 expended on delta canals and drains. The Sennar dam on the Blue Nile was completed in 1925 (see the Anglo-Egyptian Soudan).

Sixty miles south of Cairo to the west of the river is the fertile province of Fayum, with an area of 500 square miles, watered by the canal Bahr Yusef (attributed by tradition to Joseph, the son of Jacob), over 100 miles long, which takes its water from the river at Delrut.

The Nile irrigates 5,400,000 acres and this number may be increased to 7,600,000 by engineering improvements. King Mena (circa 4000 B. C.) is

credited with being the founder of the first scientific system of using the water of the Nile for irrigation purposes, and that plan, the basin system, is still used for all the land south of Deirut in Upper Egypt.

By this system the land is divided into rectangular areas from 5,000 to 50,000 acres in size and surrounded by banks; water is admitted to these basins during the flood period (August) to an average depth of 3 feet and is left on the land for about forty days; it is then run off and the seed sown broadcast on the uncovered land. A system of perennial irrigation by digging deep canals was introduced in 1820 by Mohammed Ali Pasha; this was restored and greatly improved during the British occupation. Two million acres of cultivable land were added, and under the basin system, cereals, beans and lentils are grown; under the new perennial system cotton, cereals, beans, sugar cane, vegetables and fruit are the chief crops. Two and three crops a year are grown. The yield of cotton in 1920-28, acreage and value of exports were:

Year.	Acres.	Pounds.	Value of Exports.
1920-21	1,760,951	603,505,400	£E28,375,249
1921-22	1,244,598	435,295,800	39,714,845
1922-23	1,734,161	671,300,000	49,516,369
1923-24	1,780,461	646,921,000	56,554,499
1924-25	1,856,024	720,482,033	51,659,806
1925-26	1,853,900	788,898,087	34,370,891
1926-27	1,573,815	593,956,000	38,999,000
1927-28	1,573,815	712,698,000	45,137,823

The drop in the value of exports in 1926 was due to the low price of cotton of which 41,000,000 pounds more were exported in 1926 than in 1925 but the value was £E51,659,806 in 1925, and only £E34,370,891 in 1926. The government bought cotton in 1926 to stabilize the market amounting to £E3,193,228; and also loaned £E1,938,406 to small cultivators up to March 31, 1927. On Jan. 10, 1927, Parliament restricted the area under cotton for 1927, 1928, and 1929 to one-third of each man's holding. This reduced the acreage planted by 350,000 acres.

The agricultural population (Fellaheen) forms about 62 per cent. of the whole, a large proportion of them (1,884,534 in 1925) being small land owners holding up to 5 acres each; 6,774 were foreigners.

Petroleum has been found in both the Arabian desert, west of the Red Sea, and on the Mt. Sinai peninsula. To what extent, however, no announcement has been made. Drilling is going on. Production in 1927 was 1,270,000 barrels; in 1926, 1,188,000; and in 1925, 1,220,000. 150,194 metric tons of manganese iron ore was produced in 1924, 80,589 tons in 1925, 121,868 in 1926, and 152,845 tons in 1927. Output of phosphate rock was 87,869 metric tons in 1924, 106,808 in 1925, 232,008 in 1926, and 279,389 in 1927.

The chief imports are textiles and yarns, machinery and hardware, tobacco (none is allowed to be raised in Egypt), chemicals and perfumes, coal, oil, cereals and animal food products and leather.

Egypt on March 31, 1926, had 2,272 miles of railroads (exclusive of sidings) owned and operated by the state, and 723 miles of light agricultural railroads owned by private companies, mostly in the delta. Cairo was connected by railroad with the Palestine system by the opening of the swing bridge over the Suez Canal. The line from Luxor to Assouan (124 miles) was opened on standard gauge Dec. 3, 1926, permitting through trains from Cairo to Shellal.

Commercial steamers entering Egyptian ports in 1927 numbered 8,393, with a tonnage of 29,669,639. Commercial steamers passing through the Suez Canal (103 miles long) in 1928 numbered 6,084 or 31,906,000 net tonnage, a new record, paying 221,000,000 gold francs in tolls. Daily transits averaged 16.27.

Four-fifths of the people are of the ancient Egyptian stock, whose forbears by their labor built the pyramids for alien Kings, and whose physical characteristics were pictured in the mural paintings of the temples and tombs and on the papyrus scrolls six thousand years ago. The Copts embraced Christianity in the first century of the Christian era, and hold the orthodox Patriarch of Alexandria as the successor of St. Mark. They numbered 854,778 in 1917. There are 155,168 Christians of other sects, and 59,581 Jews. The far larger part of that ancient stock embraced Mohammedanism on the conquest in the seventh century, and speak Arabic to-day. With the 32,663 Bedouins and 107,360 Soudanese and Berberins (of whom one-seventh are nomads), and including also some Nubians, the Mohammedans numbered in 1917 11,658,148. They have a famous seat of Moslem learning in the University at El-Azhar, in Cairo, founded in 972. In 1914 it had 405 professors and 9,719 students, and affiliated with it were the Mosque of El-Ahmed; at Tanta with 2,860 students, the Mosque of Damietta with 411, and the Meshia Khat Olama at Alexandria with 1,854. The Cabinet on Sept. 30, 1929 voted to modernize the curriculum of the University and substitute the teaching of modern languages and modern sciences. Under a new rector, the Sheik Mustapha al Moraghi, who has studied at Columbia University.

The percentage of illiteracy, 92 in 1917, has been greatly lessened: in 1928 children in school numbered 670,000, of whom 500,000 were in elementary schools, and the education budget has been increased from less than £500,000 in 1917 to more than £2,500,000 in 1927. The local Maktab Schools care for about 200,000.

By the census of 1917 the foreign residents numbered 209,998, of whom 30,796 were Turks, 56,735 Greeks, 40,198 Italians, 24,356 British, and 21,270 French and Tunisians.

During the forty-two years of British rule the population has doubled (census of 1882, 6,831,131). The irrigation system has been enormously improved and another great dam (the Sennar, opened in January, 1926) has been built far up in the Blue Nile to impound water. In the last eight years land has trebled in value. Motor trucks crowd camels from historic caravan trails.

The present King of Egypt is the ninth of the line founded by Mohammed Ali, who was appointed Governor (Vali) of Egypt by the Sultan of Turkey in 1805, made himself absolute master of the country, and became hereditary Governor by force of arms in 1811. Under the rule of Khedive Ismail revenues were wasted and debts were heaped up until bankruptcy resulted. Great Britain and France in 1879 assumed dual control, forced Ismail (1863-1879) to abdicate and appointed his son Tewfik (1879-92) to succeed him. Reforms were instituted. In 1882 Arabi Pasha headed a military revolt, which was quelled by a British expedition, the French Government declining to intervene. The dual control was abolished by decree Jan. 18, 1883, and Great Britain carried on alone, the expeditionary force remaining as an army of occupation, Egypt being technically a semi-independent tributary state of the Ottoman Empire.

This period of British occupation lasted until the World War broke out. The Khedive, Abbas II, was absent and declared himself for Turkey. He was deposed and his brother, Hussein Kamil Pasha, made Khedive. With a Turkish army headed for Gaza on Nov. 18, 1914, Great Britain declared a protectorate over Egypt which was thereupon taken from the Suzerainty of Turkey, and Hussein assumed the title of Sultan. He died in 1917 and his brother Fuad succeeded him. In the unrest following the war disturbances were many and serious, the Nationalists demanding complete independence. Great Britain promised an increased measure of self government and sent Lord Milner there in 1919 to investigate. Premier Lloyd George in the House of Commons on Feb. 28, 1922, announced that arrangements had been made whereby the British Protectorate was abolished. The British Government reserved to its discretion four subjects: Safety of the British Empire communications: defense of Egypt against foreign aggression, direct or indirect; protection of foreign interests in Egypt and of minorities; and guarantee for British interests in the Soudan. The House sustained this policy by a vote of 203 to 70. On March 27, Marquis Curzon, the British Foreign Secretary, sent dispatches to all British Ambassadors saying that the termination of the Protectorate involved no change in Egypt's status toward other powers and the British Government would regard as unfriendly any attempted interference in the affairs of Egypt by another power and would repel any aggression upon Egyptian territory.

Sarwat Pasha formed a cabinet on Mar. 1 and Fuad was proclaimed King on March 16. The United States recognized the new government on April 27 but declined to accept the abolition of the capitulations. A new constitution declaring Egypt a sovereign state free and independent, was signed by King Fuad on April 19, 1923. A new electoral law in August, 1925, raised the voting age to 25 and provided for restricting the franchise to men who paid £E2 tax of property annually, or an annual rent of £E24, or members of a learned profession.

The assassination in the streets of Cairo of Sir Lee Stack, Governor General of the Soudan, and Sirdar of the Egyptian Army on Nov. 19, 1924, produced a grave crisis. Parliamentary troubles followed, marked by the growing power of the Wafd party (extreme nationalists), whose leader was Zaghoul Pasha until his death in 1927.

The British Government protested against two bills presented to the Parliament in 1928 which they held would weaken seriously the administrative authorities responsible for the maintenance of order and for the protection of life and property in Egypt. Under pressure of an ultimatum on April 29, backed by the order of five war ships to Egyptian waters,

the Government postponed the bills. A scandal arose regarding members of the Coalition Cabinet and Mohammad Pasha Mahmoud, a graduate of Oxford and member of the Wafd party, was made Prime Minister. The new Cabinet was far from commanding a majority in Parliament. By Royal decree on July 19, the King dissolved the Chamber of Deputies and the Senate, and suspended Parliament and elections for three years. Legislation was by decree. The Government throughout maintained complete control of the Egyptian Army and the police.

During the visit of King Fuad and Premier Mahmoud Pasha to England in the summer of 1929, a new treaty was negotiated with Foreign Secretary Henderson, the draft of which was made public Aug. 6. It provides for the termination of the British military occupation and withdrawal of the troops to the Suez Canal for its military protection solely as soon as Egypt builds barracks there. Great Britain pledges its support when Egypt applies for admission to the League of Nations. Mutual support in foreign policy is pledged by the two governments with automatic alliance in time of war. Egypt pledges herself to the protection of foreigners, to employ British instructors for her army and British financial and judicial advisers should she need any foreign officials. Great Britain yields capitulatory rights and agrees that her subjects shall come within the jurisdiction of the international mixed courts. Ambassadors will be exchanged. The Soudan question was untouched. The Foreign Secretary declared the proposals the "extreme limit" to which Great Britain could go and Mahmoud Pasha promised to urge their acceptance by an Egyptian Parliament to be newly elected. He resigned in October and Adly Pasha was made Premier and formed a cabinet Oct 4, undertaking to call for the election of a parliament to consider ratification of the Treaty.

Lord Lloyd, out of sympathy with the government, resigned the High Commissionership on July 24 and Sir Percy Loraine, Minister to Greece, was appointed to the post.

The debt, which has been handled by Caisse de la Dette, a body representing the creditors of the Treasury, was as follows in April, 1928:

Guaranteed loan, 3%	£4,449,100
Privileged debt, 3½%	30,633,980
Unified debt, 4%	55,652,560
Total	£90,735,640

Of this sum the Government and the Debt Commission held £E10,169,000 of the bonds.

Charges on debts of all kinds £E3,529,187.

The Egyptian pound is worth £1 0s. 6.15d., or $4.943 at par of exchange.

The surplus in the treasury, April 30, 1928, amounted to about £E36,965,140.

Recent budgets are:

Year.	Revenues.	Expenditures.
1920-21 (April 1)	£E46,446,921	£E62,051,182
1921-22	41,863,166	37,742,112
1922-23	35,763,766	28,247,171
1923-24	34,905,000	34,355,000
1924-25	34,400,000	34,400,000
1925-26	36,870,000	36,288,266
1926-27	38,000,000	41,000,000
1927-28 (May 1)	38,566,805	35,389,036
1928-29	37,532,000	40,170,052

Imports and exports were:

Year.	Imports.	Exports.
1921	£E55,507,984	£E36,356,062
1922	43,333,938	48,716,418
1923	45,276,941	58,387,327
1924	50,736,918	65,733,935
1925	58,225,000	59,199,000
1926	52,400,059	41,759,391
1927	48,658,128	48,340,503
1928	52,043,969	56,165,256

For the period 1919 to 1928 the net balance in Egypt's favor is £E40,838,000.

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$7,966,995	$35,397,408
1923	6,173,741	38,805,840
1924	5,865,625	30,095,404
1925	7,394,169	41,045,099
1926	10,248,972	35,214,506
1927	11,182,149	33,292,149
1928	11,058,894	28,421,850

ESTONIA, REPUBLIC OF

EESTI VABARIIK

AREA, 18,355 square miles.

POPULATION, Jan. 1, 1929, 1,116,474.

CAPITAL, Tallinn (formerly Reval), population 126,000. Tartu (Dorpat) has 57,362.

State Head, Otto Strandmann, born 1875, (Reformist Labor) July 9, 1929.

President of the State Assembly, Karl Einbund (Agrarian).

Foreign Minister, Jaan Lattik (Christian Peoples).

Estonia comprises the former Russian province of Estonia, the northern part of Livonia, and western parts of the Governments of Pskow and Petrograd. It is bounded by the U. S. S. R. (Russia) on the east, Latvia on the south, the Gulf of Riga and the Baltic Sea on the west, and the Gulf of Finland on the north. Estonia is about the size of the States of Vermont and New Hampshire. The Estonians are of Finnish-Ugrian origin.

The country is a low plain interspersed with a series of rolling hills running from north to south with an average altitude of 100 to 400 feet. The coast line is 725 miles long. Agriculture is the occupation of 70% of the people. There are 126,560 allotments; 2,532,800 acres are under cultivation; 2,602,270 in meadows and 1,836,400 in pastures.

The principal crops in 1928 were: Wheat, 28,200 metric tons from 72,536 acres; rye, 140,600 tons from 356,600 acres; barley, 91,700 tons from 282,422 acres; oats, 98,900 tons from 342,382 acres; potatoes, 501,100 tons from 174,506 acres; flax, 7,800 tons and linseed, 5,800 tons from 91,335 acres.

Peat bogs cover 500,000 acres and furnish much of the fuel. The state owns 1,835,361 of the 2,224,000 acres of forests which contain 42% spruce, 21% pine, 19% birch, and 10% poplar. Forest products to the value of $7,446,000 were exported in 1928.

In 1927 there were 628,880 cattle on the farms and 665,510 sheep. There were 399 dairy factories of which 81% were cooperative and in 1928, 11,222 metric tons of butter were exported, 26% of the total exports.

Estonia has oil shale deposits distributed over an area of 2,000 square miles and amounting to 5,625,000 metric tons. The shale is of very high quality and yields from 23% to 40% of crude oil. The government's own distillery has a capacity of 5,000 tons of crude oil from 280,000 tons of shale annually and a Swedish company has been turning out gasoline for local automobiles.

Until 1919, 58 per cent. of the total area of Esthonia was held by a few hundred families of large landowners pre-eminently by nobles of German origin, and only 42 per cent. of land was held by the bulk of Estonian farmers. By the Land Law of Oct. 10, 1919, all the large estates of large landowners of the former Russian Crown and of the church were proclaimed to be the property of the state. For the inventory, as cattle, machinery, etc., the former owners were compensated at once; for the land itself the principle of compensation was admitted and after many discussions solved by Land Compensation Law of March 5, 1926. The amount of compensation for the alienated lands being fixed at approximately market prices on land in 1918-1919 in Estonia. This will be paid off in Governmental bonds, redeemable in sixty years, bearing 2.66% interest. The land reserves thus obtained were parceled out and created 37,997 new farms and over 10,000 homesites. The limit of new farms is set at 185 acres, but the average size is fifty-four acres of suitable land for cultivation. The main purpose of the land reform was to give land to the peasants, parceled out into farms small enough to work without hired help by an average family owning two horses, preference being given to demobilized soldiers and to landless peasants who had actually lived on and cultivated the parcel themselves under the former owners. In most cases a former large landowner was allowed to retain his dwelling and land not exceeding 185 acres. The law of June 16, 1925, allows the new farmers to have the land in freehold or to acquire it by buying it from State.

There is no state religion; 78.6 per cent. of the population are Lutherans, 19 per cent. Greek Orthodox. Illiterates above 10 years of age number 3 per cent. Education is free and compulsory. The famous Tartu University had in 1925, 5,000 students.

An eight-hour working day has been adopted; also public insurance of workmen; nightwork for women and children is prohibited.

The chief exports are dairy products, paper, flax, potatoes, and timber. The chief imports are cotton, machinery and metals.

Estonia declared her independence on Feb. 24, 1918, after the Bolshevist coup d'etat. The republic on June 15, 1920, adopted its Constitution, by which power is vested in the State Assembly (Riigikogu) of 100 members chosen for three years, with proportional representation by universal, direct and equal suffrage. The initiative of the people in legislation is an important feature. The State Head and the Ministers forming the Gov-

ernment are chosen and confirmed by the State Assembly. The State Head has no power of veto. Military service is compulsory.

The Ministry headed by Jaan Teennison resigned and was succeded by one headed by August Rei, Socialist, Dec. 5, 1928. This in turn was succeeded by a conservative coalition ministry headed by Otto Strandmann on July 9, 1929, which is supported by 69 out of 100 members of the Assembly.

Tallinn has a fine harbor. It should be classified among the non-freezing ports of the Baltic Sea, and only in few winters the port is inaccessible for small ships without the aid of ice-breakers for a period of about three weeks (Jan.-Feb.). During 1928, 1,601 vessels of 753,421 tons entered Tallinn in the foreign trade.

The state owned railway mileage is 1,160. Operating revenues in 1926 were $3,984,000.

Estonia reorganized its currency on Jan. 1, 1928. The new monetary unit is the Estonian kroon (=0.403226 grams of pure gold) the same as the Swedish krone, divided in 100 sents each equalling one Estonian mark. The kroon at the rate of exchange stabilized since 1924 equals $0.268. A 7% 40-year loan was floated in June 1927, $4,000,000 in New York at 94, and £700,000 in Europe. From the proceeds a Government controlled Bank for Long Term Credits was set up which took over the assets of long maturity from the Eesti Pank amounting to about 17,670,000 kroons for which the latter received £1,000,000. The state bank has the sole power of note issue. The note circulation on July 31, 1929 was 34,300,000 kroons covered by a gold reserve of 6,300,000 kroons and net foreign exchange holdings of 20,800,000 kroons, a reserve in excess of 75%.

The foreign debt on Jan. 1, 1928, totalled $21,581,769; and the internal debt $1,367,292.

Recent budgets in millions of Esthonian marks:

Year.	Rev.	Exp.
1923-24	7,434,7	7,097,2
1924-25	7,475,5	7,407,8
1925-26	7,749,0	7,422,0
1926-27 (actual)	8,571,2	8,307,1
1927-28 (actual)	8,940,0	8,690,0
1928-29 (actual)	9,110,0	9,010,0
1929-30 (actual)	9,380,0	9,380,0

Imports and exports were:

Year.	Imports.	Exports.
1922	$16,438,000	$14,117,000
1923	27,050,000	16,560,000
1924	22,686,600	22,804,000
1925	25,953,293	25,980,153
1926	25,485,000	25,663000
1927	25,882,000	28,348000
1928	35,107,964	34,065,212

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$3,103,275	$767,174
1923	1,416,961	492,076
1924	1,388,754	388,231
1925	1,583,993	320,225
1926	826,178	1,234,553
1927	918,434	431,767
1928	960,323	1,080,080

ETHIOPIA, EMPIRE OF

ABYSSINIA

AREA, estimated, 350,000 square miles.
POPULATION, estimated, 10,000,000.
CAPITAL, Addis Ababa; pop., estimated, 70,000.
Empress, Waizeru Zauditu, daughter of the late Emperor Menelik, born in 1876; elected Empress Sept. 27, 1916, after her nephew Lij Yaser was deposed. *Heir and Regent*, Menelik's grand nephew, Ras Taffari, born July 17, 1891; crowned *King of Shoa*, the chief province of Ethiopia, Oct. 1928.

Ethiopia, (or Abyssinia), is a mountainous volcanic country in northeast Africa, bounded by Eritrea (Italian) on the north, British Somaliland (Berbera) and Italian Somaliland on the east, Kenya on the South, and the Soudan on the west. The agricultural and mineral resources of the country are comparatively undeveloped, and its wealth of water power is unused. In the lower country and deep valleys, which are very hot, sugar cane, cotton, coffee and rubber are produced, while grain, fruit tobacco, potatoes, etc., are grown in the higher temperate country. The upper slopes are given over to cattle raising. Hides, skins, coffee and beeswax are the chief exports, and cotton goods the chief imports. The total trade is estimated at about $12,000,000. A railroad 495 miles long, built under French auspices, runs from Jibuti, its port on the Red Sea, to the capital. This road in 1924 carried 18,693 metric tons of Imports and 23,885 tons of exports. Imports through the Soudan route in 1927 were valued at $247,550 and exports at $902,800. Trade exports $13,656; in 1927, imports $18,381, exports, $27,866; and in 1928, imports $21,070, exports, $26,157.

The religion is Christianity of the Coptic sect. Education is for the clergy alone and the people are generally illiterate.

German scientists describe the Abyssinians as "a mixed Hamito-Semitic people," and other ethnologists assert that the "true Abyssinian type contains no Negro blood whatever and none of the Negro qualities, either physical or mental." The royal family claims descent from Menelik, the son of King Solomon and the Queen of Sheba. Ethiopia (or Abyssinia) is the only country in Africa that was neutral in the World War. It applied for membership in the League of Nations in 1923. After an investigation into the existence of slavery in the kingdom and the promulgation of a decree in June, 1923, making slave trading punishable by death, the country was admitted to the League, Sept. 28, 1923.

By diplomatic agreement in 1926 between Ethiopia Great Britain and Italy, made after a protest by Ethiopia to the League of Nations, the British are empowered to build a dam at Lake Tsana, the source of the Blue Nile for the irrigation of the Soudan, and the Italians to build a railway between Eritrea and Italian Somaliland. Lake Tsana is at an altitude of about 6,000 feet, is about 40 miles long and 30 wide, and an area of about 1,200 square miles. The Blue Nile flows out a relatively broad stream and 21 miles from the lake makes a plunge of 80 feet into a narrow gorge. In the next 30 miles it descends 2,000 feet in a series of falls, and near the Sudan-Plains there is an additional fall of 2,000 feet. Possibilities of easy power development are great.

The United States, after a lapse of 20 years reestablished diplomatic relations with Ethiopia in 1928, Addison E. Southard being sent to Addis Ababa as Minister and Consul General.

FINLAND, REPUBLIC OF

SUOMEN TASAVALTA

AREA, 149,641 square miles, including the new Province of Petsamo.
POPULATION, estimated Dec. 31, 1927, 3,582,406. Of the total, 3,366,507, census of 1920, 2,754,228 spoke Finnish; 340,963, Swedish; 4,806, Russian; 2,378, German; and 1,603, Lapponic.
CAPITAL, Helsingfors; population, 1927, 220,904. Other cities: Abo, (or Turku, which in 1929 celebrated its 700th anniversary), 62,599; Tammerfors, 53,121; Viborg, 49,912; and five others of more than 10,000.
President, Dr. L. K. Relander, (born 1883), 1925-31. inaugurated March 1, 1925.
Premier, Kyosti Kallio (Agrarian) Aug. 16, 1929.
Foreign Minister, Hj. J. Procope.

Finland, formerly an autonomous Grand Duchy of the Russian Empire, is bounded on the north by Norway, a narrow strip of land separating it from the Arctic Ocean, on the east by Russia, on the south by the Gulf of Finland, an arm of the Baltic Sea, and on the west by the Gulf of Bothnia, Sweden, and Norway. In territory it is as large as New England, New York and New Jersey.

Of its area, 11.4 per cent. or 17,099 square miles, consists of lakes; and 62 per cent. is covered by forests. Lumbering is the most important industry and scientifically carried on. The annual cut is 1,143 million cubic feet, and the annual growth is 1,568 million cubic feet, while it is estimated with further improvement in forestation the annual cut may be increased 50 per cent. Lumber export was valued at 2,839,184,973 Finnish marks. The state owns 24,823,500 acres of forests, of which 17,561,700 are productive. The net revenue in 1928 was $7,918,940.

Although extending far north into very cold latitudes, with rugged climate and topography, Finland is an agricultural country. Its total cultivated area in 1927 was 5,337,860 acres, and the capital invested in agriculture was estimated at $491,000,000. The value of the harvest in 1925 was 5,086,358,000 F. marks ($128,176,220.)

Under the Land Purchase Act of 1918-19 every farmer tenant was given the opportunity to own land through the payment of a redemption price in Government guaranteed bonds to the land owners. In 1901 only 110,000 farms were cultivated by their owners; in 1920 the number was 182,500. The total number of farms was 280,000, of which 130,000 were of less than thirty acres.

Production in 1928 was, wheat 24,000 metric tons; rye, 278,000; barley, 128,000; oats, 510,000; potatoes, 659,000. Butter exports amounted to 13,370 metric tons, (15,070 in 1927); and cheese, 1,648 metric tons (2,949 in 1927). The animal census of 1927 returned 1,871,865 cattle, 1,368,113 sheep, 11,021 goats, 417,723 pigs and 395,968 horses.

In 1927 there were 3,789 large factories with 159,141 workers and an output valued at 12,382 million marks, of which wood industries furnished 3,490 million marks, paper 2,210 million marks, textiles 1,197 million marks, and iron work and machinery 1,246 million marks.

The export of paper in 1928 aggregated 243,807 metric tons, (of which 171,564 tons was newsprint), valued at 706 million marks and of wood pulp 709,516 metric tons valued at 1,068 million marks.

The Evangelical Lutheran Church is the state religion, although there is absolutely free worship. All but 2 per cent. of the people are Lutherans.

Three universities have 4,500 students, and about 42,500 are in secondary schools. Illiteracy is less than 1%. There were on Jan. 1, 1928, 3,141 miles of railroads, of which 2,955 are state owned. These showed a profit of 151,700,000 marks in 1927.

Canal transportation is highly developed.

Finland had on Jan. 1, 1929, 511 sailing vessels of 79,351 tons, 548 steam vessels of 109,863 tons, and 92 motor vessels of 11,095 tons. In 1928, 8,151 vessels of 4,823,397 tonnage in the foreign trade entered Finnish ports.

Finland, after the downfall of the Czar, had representative government restored to her by the Provisional Government. Following the Bolshevist coup d'etat the Diet and Senate on Dec. 6, 1917, proclaimed the independence of the republic. Civil war between the "Reds" and "Whites" followed, with German intervention. The "Reds" were defeated and driven back into Russia in two battles at the end of April, 1918, and the German troops went home in December of that year. On July 17, 1919, the Finnish Diet resolved to establish a republic, and a peace treaty acknowledging the independence of Finland was signed with Russia at Dorpat, Oct. 14, 1920.

Finland is governed under the constitutional law of 1906 by a Legislative Chamber of 200 members elected directly on a proportional representative basis. Men and women of 24 years of age have the suffrage. The President is chosen for six years by an Electoral College of 300 chosen by proportional representation by direct vote and appoints the Cabinet.

The Electoral College chosen Jan. 15 and 16 1925, was composed of: Swedish Peoples Party, 35; National Coalition, 68 (these two being the "Right"); National Progressive, 33; Farmers' League, 69 (these two the "Centre"); Socialists, 79; and Communists, 16 the ("Left"). On Feb. 16 the college elected Dr. L. K. Relander President by 172 to 109 for Risto Ryti (Progressive).

The diet, elected July 1 and 2, 1929, is controlled by the Agrarians.

The Supreme Appeal Court in June, 1925, declared illegal the activities of the Communist Party, and forced its dissolution.

A loan of $10,000,000 was floated in the United States in 1925, of which half was for agricultural credits. A further loan (30-year, 6½ per cent.) for $15,000,000 was floated in New York, Sept. 1, 1926, to be used for productive purposes. A $15,000,000 6½% 30-year refunding loan was floated in New York at 92½ on Feb. 15, 1928.

The Finnish mark ($.193 at par of exchange), has been revalorized at $.0252 (39.7 marks to $1) and stabilized at that point. Resumption of gold payments was effected on Jan. 1, 1926. The gold reserve of the Bank of Finland then equalled 43,000,000 gold marks representing 330,000,000 Finnish marks. The circulation on July 31, 1929 was 1,448,000,000 F. marks, with a gold reserve of 301,000,000 F. marks, and foreign credits of 843,000,000 F. marks.

The national debt, all funded, on July 31, 1929, was 2,925,076,500 F. marks ($73,711,928); of which 2,579,691,000 F. marks ($65,008,213) was foreign. The national wealth is estimated at about $3,250,000,000.

Recent budgets in Finnish marks are:

Year.	Revenues.	Expenditures.
1924 (actual)	3,217,000,000	3,149,400,000
1925 (actual)	3,330,400,000	3,952,600,000
1926 (actual)	3,434,600,000	4,076,700,000
1927 (actual)	3,986,100,000	3,988,500,000
1928 (estimated)	3,954,000,000	4,233,100,000
1929 (estimated)	4,222,800,000	4,272,300,000

Imports and exports in both Finnish marks and dollars were:

Year	Imports.	Exports.
1925.....F. marks	5,512,974,000 ($138,926,945)	5,569,591,000 ($140,353,693)
1926.....F. marks	5,659,642,000 ($142,622,978)	5,634,289,000 ($141,984,083)
1927.....F. marks	6,385,900,000 ($160,925,000)	6,324,400,000 ($159,375,000)
1928.....F. marks	8,011,844,000 ($201,894,000)	6,242,800,000 ($157,320,000)

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$9,644,870	$5,926,658
1923	11,213,852	10,252,934
1924	9,377,761	8,228,468
1925	12,800,575	7,159,388
1926	12,915,562	9,108,267
1927	16,487,522	8,670,066
1928	18,741,541	9,901,292

FRANCE, REPUBLIC OF

AREA, pre-war, 207,054 square miles; present area, including Alsace-Lorraine (5,605), 212,659 square miles. This included the Island of Corsica, 3,367 square miles. *Colonies*—In Asia, 325,206 square miles; in Africa, 5,290,268; in America 33,166; in Oceania, 9,170; total colonies, 5,657,804 Grand total, 5,870,461 square miles.

POPULATION, census March, 1926, 40,745,874, military and naval forces and seamen abroad 192,973. Total, 40,938,847. *Colonies*—In Asia, 23,117,262; in Africa, 35,830,976; in America, 522,398; in Oceania, 79,160; total colonies, 59,549,796. Grand total, 100,488,643.

CAPITAL, Paris, population, census 1926, 2,871,429 (in the metropolitan district, 5,766,161). Other cities, 1926, Marseilles, 647,705; Lyons, 564,566; Bordeaux, 254,386; Lille, 200,633; St. Etienne, 194,549; Nice, 191,304; Nantes, 182,225; Toulouse, 178,457; Strasbourg, 174,105; Le Havre, 156,788; Rouen, 121,340; Roubaix, 117,459; Toulon, 114,610; Nancy, 113,572; Clermont-Ferrand, 108,740; Rheims, 99,274; Mulhouse, 98,134; Limoges, 97,520; Amiens, 89,939.

President of the Republic, Gaston Doumergue, 1924.

President of the Council, and Minister of the Interior, Andre Tardieu, formed a Cabinet Nov 2, 1929. Raymond Poincare resigned because of l'Iness July 26, 1929. Aristide Briand, who succeeded as Premier, retained the Poincare Cabinet of Nov. 11, 1928, entire. Defeated in the Chamber, all resigned Oct. 22.

Minister of Foreign Affairs, Aristide Briand.

Minister of Justice, Lucien Barthou.

Minister of Finance, Henri Cheron.

Minister of War, Andre Maginot.

Minister of Public Instruction, Pierre Marraud.

Minister of Marine, Georges Leygues.

Minister of Public Works, Georges Pernot.

Minister of Commerce, Pierre Flandin.

Minister of Agriculture, Jean Hennessy.

Minister of Labor, Louis Loucheur.

Minister of Colonies, Francois Pietri.

Minister of Pensions, Senator Gallet.

Minister of Air, Laurent Eynac.

France, a republic in Western Europe, is slightly smaller in area than a group of five Middle West States—Illinois, Indiana, Ohio, Kentucky and Tennessee. Belgium and Luxemburg are its neighbors on the north. On the east Germany lies beyond the Rhine, the boundary; the Jura Mountains and Lake Geneva separate it from Switzerland, and the Graian Alps and the Maritime Alps from Italy. On the south is the Mediterranean Sea and Spain, with the crest of the Pyrenees for the boundary line. On the west lies the Bay of Biscay and the North Atlantic Ocean, and on the north again the English Channel and the Straits of Dover separate it from England. From north to south its length is about 600 miles, and from the western extremity near Brest to Strasbourg on the Rhine it is about 560 miles wide. The coastline on the north is 700 miles long; along the Atlantic and the Bay of Biscay, 865; on the Mediterranean 384 miles.

In the French Alps it has the highest mountain in Europe, Mont Blanc (alt. 15,781 ft.). On the French side of the Pyrenees are several peaks of over 10,000 feet in height. Forming the western border of the Rhone valley rise the Cevennes, highest point being Mont Lozere (alt. 5,584 ft.). The Massif Central continues north as the mountains of Auvergne, where the Plomb du Cantal attains a height of 6,096 feet, to the Cote d'Or, containing Puy de Sancy (alt. 6,188 ft.). Further north are the Vosges, which run parallel with the Rhine; their crest formed the boundary line between France and Alsace. Thence the wooded highlands of the Argonne and the Ardennes bear off to the frontier. The western and northwestern part of France consists of fertile plains save for the hills of Normandy and the picturesque cliffs of Brittany.

On the North Sea and the Channel are the seaports of Dunkirk, Calais and Boulogne, with the great port of Havre at the mouth of the Seine, and Cherbourg, between Cape Hague and Cape Barfleur. In the extreme northwestern projection, sheltered by Cape St. Mathieu, is the roadstead of

Brest, the great naval station. Further down the coast is Lorient, St. Nazaire, at the mouth of the Loire, with Nantes further up the river, Rochefort and La Rochelle. Up the estuary of the Garonne is the important port of Bordeaux, fourth city of the republic; and at the mouth of the Adour, in the extreme southwest corner, is Bayonne with its neighboring seaside resort of Biarritz. On the Mediterranean coast, which on the west is low, with lagoons and sand dunes, there is no great port till the mouths of the Rhone are passed and Marseilles, the second city of the country, is reached. Beyond is the great naval base, Toulon, and from there by Nice and Monaco to the Italian frontier and beyond runs the beautiful Riviera the Cote d'Azure.

France has four important rivers, the Seine, the Loire, the Garonne and the Rhone, the left bank of the Rhine from Basle, Switzerland, to Lauterbourg, and a dozen others, some with new fame from World War battles, but all of great value because of canalization, which binds them together. The waterways total 7,543 miles in length, of which canals cover 3,031. They are the property of the state and are free from tolls. Traffic in 1926 amounted to 39,069,000 metric tons, 36,440,000 in 1925; 36,257,910 in 1924; 33,883,848 in 1923; and 30,373,401 in 1922.

The southern section of the Marseilles-Rhone Canal was completed when the tunnel Du Rove was opened in April, 1927. Through this the canal passes beneath a rocky ridge for 4½ miles; its greatest width is 72½ feet, and the width of the channel is 60 feet; the roof is 37½ feet above the water. Two 1,500-ton barges can pass. This connects the port of Marseilles to the Etang-de-Berre, a lake 14 miles northwest. The entire canal from the Rhone River at Arles, 50 miles long, runs at sea level except for one lock at Arles, and will be completed in three or four years.

THE FRENCH RAILROADS

France has six great railway systems constructed under various concessions which expire at various dates from 1959 to 1960, when they revert to the state. They represent an instalment cost of 25,000,000,000 francs. These lines with their mileage in 1928 were: Nord, 2,380; Est, 3,124; Paris-Orleans (P. O.), 4,641; Paris-Lyons-Mediterrane (P. L. M.), 6,078; Midi, 2,560; Ouest-Etat, 5,599; total, 24,382. The Alsace-Lorraine system of railway has a mileage of 1,384, making the grand total of the mileage 25,766. The Ouest-Etat and the Alsace-Lorraine system are operated by the state, through the Ministry of Public Works. There were in 1928, in addition, the Paris Belt Line, 20 miles; the Grand Belt Line, 78 miles; secondary lines, 839 miles, and non-concessionary road, 20 miles.

Electrification of the Paris-Orleans, the P. L. M. and the Midi is under way, the plants providing for completion in five to ten years. Part of the Midi is now electrically operated, the Soulom plant now furnishing 22,000 H. P., with an additional instalment of 35,000 already available in the same region. Electrification of the Paris-Vierzon section of the Orleans railroad, 127 miles, was completed Dec. 22, 1926. In all in 1928, 716 miles had been electrified which includes 56 miles of Ouest-Etat in the suburbs of Paris and about 500 miles of the Midi.

The deficit of the six great railway systems in 1920 was estimated as not less than 3,300,000,000 francs. Legislation consolidating the French railroads was passed on June 21, 1921, became operative Jan. 1, 1922. The financial reports for 1922 show that the operating deficits of 1912 and of 1920-21 had given place to a net surplus of 400,000,000 francs. Gross receipts increased 1,028,806,000 francs in 1925, but the operating deficit was estimated at 700,000,000 francs, to which should be added 215,000,000, representing capital charges for the payment of interest on foreign loans in the currency of creditor nations. An increase in both freight and passenger rates went into effect in March 1928 and improved the situation.

The 1927 budget carried an appropriation of 598,015,000 francs for the construction and maintenance of roads and bridges, and that of 1928 carried 566,515,000. The taxes paid on automobiles and gasoline amounted to 1,223,214,000 francs in 1926, and 1,511,810,000 francs in 1927. The road budgets of the departments, and of the communes, totalled each about 700 million francs. France has 25,000 miles of national roads, 11,400 of departmental roads, and 400,000 miles of local-interest roads. There are 32,000 grade crossings. France at the end of 1926 registered about 900,000 automobiles (721,306 in 1925 and 572,243 in 1924). There were also 7,112,818 bicycles registered in 1926, each paying an annual tax of 18 francs.

The city of Paris has two subways connecting with transfers at many points, constructed by the city and leased to the operating companies. The Metropolitan ("Metro") is 94.8 kilometers (60.8 miles) long and carried 689,000,000 passengers in 1927; the Nord-Sud 16 kilometers (10.4 miles) long carried 86,000,000. The Paris Tramway and Autobus Co. carried approximately 1,000,000,000.

The French merchant marine on July 1, 1929, included 1,422 steamers of 3,234,270 gross tons, and 56 motor ships of 68,414 gross tons.

There entered French ports with cargoes in 1928, 28,299 vessels of 52,361,757 tonnage, of which 9,058 of 13,412,813 tonnage were French. Marseilles held her place as the first of the Mediterranean ports, as 4,271 vessels of 11,574,657 tonnage entered in 1928. At Havre, 2,586 vessels of 6,249,237 tonnage entered; at Cherbourg, 1,163 of 11,298,112 tonnage; and at Rouen, 2,725 of 2,440,690 tonnage.

INDUSTRIAL CAPACITY.

France has made great advances in industrial power since the war. The industrial reconstruction of the devasted areas is virtually completed; 22,000 factories having been reconstructed, new and larger scale factories are everywhere gradually replacing those destroyed, with technical equipment of the latest type.

The industrial population is fully employed and output in most fields of production is limited only by the dearth of man power. Agricultural reconstruction has been great, although France suffers from an acute lack of agricultural labor, which has been partially met by the introduction of a considerable number of foreign workers and the extensive application of machinery.

Output of coal, iron ore, pig iron and steel, in thousands of metric tons for four years was:

	1925.	1926.	1927.	1928.
Coal	48,033	52,478	52,847	51,360
Iron Ore	35,740	39,480	44,678	48,100
Pig Iron	8,500	9,395	9,297	10,097
Steel	7,400	8,386	8,275	9,387

Since the war the machine tool industry has been greatly expanded and is producing a better grade of equipment over pre-war days.

In 1927, 190,000 automobiles and auto trucks were turned out.

France has extensive bauxite deposits estimated at 60 million metric tons. In 1927, 539,000 tons (409,000 in 1926) were mined.

The textile industry was very prosperous during 1924, 1925, 1926, and 1927. In the cotton trade 9,850,000 spindles and 185,000 power looms were busy with 250,000 workers and a shortage of labor. Pre-war figures were 7,600,000 spindles and 141,000 looms. Less than one per cent of the raw cotton (3,443 metric tons in 1925) comes from the French colonies. Persistent effort is being made to increase the cultivation which aims at the supply of 175,000 tons when development is completed. The woolen industry has been equally prosperous. The linen industry has not wholly recovered from the war when 310,000 of the 600,000 spindles in its 58 mills were destroyed. In 1926 there were about 500,000 spindles in 30 factories, nearly all in or near Lille, together with 20,000 power looms and 12,000 hand looms. The silk industry which escaped the havoc of war has enjoyed unprecedented prosperity.

Unemployment which reached 90,000 in March, 1921, was non-existent throughout 1922-26. The influx of foreign labor was large. It became serious, however, when curtailment of production, sales and expenses followed deflation and in the winter of 1926-27 it suddenly jumped, reaching 27,000 on Jan 13, 45,000 on Jan. 31, and 73,000 on Feb. 18, and touching 95,000 for a high mark. By Sept. 3 it had fallen to 28,000 with 15,000 of these on the dole. On Mar. 1, 1928, the number was 15,294. On Aug. 15 less than 1,300 were on the dole; and on Aug. 15, 1929 only 419.

The Social Insurance law which passed the Chamber on March 14, 1928, will apply to about half the population. Worker, employer and State will contribute to the insurance fund to the extent of about $200,000,000 annually. Benefits are provided for death, disability, old age, loss of employment and sickness; there are also maturity benefits.

Available water power is estimated at 5,098,000 kilowatts, without considering sites at which less than 500 kilowatts can be developed. Of this 2,500,000 kilowatts is available in the Alps and Rhone regions; 996,000 in the Pyrenees region; 700,000 in Massif Central; 506,000 in Vosges and Rhine, and 100,000 in the Jura region.

The equipment now in operation produces 683,000 kilowatts, 56 plants with a capacity of 461,000 kilowatts having been brought into operation since the war. By 1930 it is estimated that France will have equipment available with a capacity of 2,000,000 kilowatts, over 21% of the available water power. The government plans to install electric equipment

for railroads which will also supply light and power to cities and villages along the right-of-way. On July 1, 1928, only 18,000 communes out of 37,944 were electrified.

AGRICULTURE.

The returns of 1920 show that of the total area of France, including Alsace-Lorraine, 136,101,760 acres, 99,095,049 (of which 55,821,029 are arable) were under crops, fallow or grass; 25,521,108 were under forests, and 11,485,603 moorland or uncultivated.

Food requirements are estimated at 9.4 million tons of cereals. The acreage is about 13,750,000. Cereal crops for four years in thousands of metric tons were:

	1925.	1926.	1927.	1928.
Wheat	8,990	6,308	7,739	7,557
Mixed Corn	124	99	105	79
Rye	1,109	766	935	898
Barley	1,027	998	1,210	1,156
Oats	4,756	5,285	5,507	4,881
Potatoes	15,195	11,136	17,145	.....
Sugar Beets	5,371	4,860	5,573	.....

Wine production from 3,351,695 acres of vineyards in 1927 was 892,410,000 gallons (1,473,042,000 gallons in 1926), and cider, 270,534,000 gallons (217,338,000 in 1926).

The output of apples and pears other than for cider making, 308,560 metric tons; plums, 77,226 tons; peaches, 21,762 tons; apricots, 8,225 tons; chestnuts 218,984 tons; walnuts, 51,045.

Engaged in silk culture are about 65,000 producers and the output of cocoons 2,671 metric tons in 1928; 3,612 in 1927; 3,015 in 1926; 3,368 in 1925; 4,200 in 1924; and 4,180 in 1923.

There were on Jan. 1, 1928, of farm animals: Horses, 2,927,230; mules, 182,720: asses, 259,800; cattle, 14,940,960; sheep, 10,693,120; goats, 1,405,050; and pigs, 6,019,450.

RECONSTRUCTION.

A few figures will set forth the burden the war laid upon France. Her pre-war population, census of 1911, was 39,601,509. During the war the birth rate was less than one-half the normal, and in 1919 deaths (736,541) exceeded births (503,606) by 232,935.

The figures for the last nine years in contrast with 1913 are (population 1913, 41,486,272; for other years, 39,209,518):

Year.	Marriages.	Living Births.	B'th R'te	Deaths.	D'th R'te	Exc's of Births.
1913	312,036	790,355	19.1	731,441	17.6	58,914
1920	623,869	834,411	21.3	674,621	17.2	159,790
1921	456,221	813,396	20.7	696,373	17.7	117,023
1922	383,220	759,846	19.3	689,267	17.6	70,579
1923	356,501	761,861	19.4	666,990	17.0	94,871
1924	355,923	752,307	19.2	680,027	17.3	72,280
1925	353,167	768,983	19.6	708,919	18.0	60,064
1926	346,126	766,226	18.8	713,458	17.5	52,768
1927	337,864	741,707	18.9	676,666	17.2	65,042
1928	339,000	745,315	19.0	675,110	17.2	70,205

The number of men from nineteen to fifty mobilized for the defense of France was 8,501,045; the number of men killed, 1,364,000; the number mutilated, 740,000; the number wounded, 3,000,000. Of the killed 669,000 were farmers, 235,000 industrial workers, 159,000 in commercial pursuits, 21,000 were civil service employees, and 40,000 were members of the professions. One man in every 28 in France was killed, 1 in every 35 in Germany and 1 in every 67 in England.

Over 700,000 men are on the pension rolls because of permanent disabilities, of which 404,606 are either legless, or armless, or have but one leg or arm, 235,884 have consumption or lung trouble, and 14,502 are mentally deranged.

Alsace-Lorraine, redeemed, brought back to the tri-color, as shown by the census of 1921, 1,709,749. Yet this census of 1921 returned the total population of enlarged France as 39,209,766, a loss of 391,743. Moreover, France, always a most attractive country to foreigners, counted as residents in 1911, by 1,152,096 foreigners, and in 1921, 1,550,449, an increase of 398,353 (in Paris and its suburbs, 620,865). This would indicate a net loss of French citizens amounting to 790,696. Moreover, the loss to France was almost wholly of her workers.

In 1926 there was returned a foreign population of 2,845,000, of which 807,000 were Italians, 477,000 Spaniards, 460,000 Belgians, 310,000 Poles, 100,000 Russians, 84,000 British, 60,000 Germans, 50,000 Americans, and 11,000 South Americans.

The invading German Army for nearly five years occupied the ten departments of the Aisne, Ardennes, Marne, Meurthe-et-Moselle, Meuse, Nord, Oise, Pas-de-Calais, Somme and Vosges, a region bounded roughly by a line south from Dunkirk to Senlis, east to St. Die, thence north to the Belgian frontier. These departments were the most populous part of France, where industrial plants were most numerous, mines highly important and fields intensely cultivated. All were wrecked. Forests on 410,200 acres were totally destroyed, and on 1,200,300 acres, 25 per cent. of the trees were destroyed.

Immediately after the armistice France went steadfastly and courageously to work to clear the ruins and rebuild. (The progress of the enormous undertaking is told in The World Almanac for 1923, 1924, 1925, 1926, 1927, 1928 and 1929.)

By 1928 reconstruction was practically complete. The population, 4,690,000 in 1914, which had fallen to 2,075,000 in 1918, had increased to 4,645,000 in 1928. Out of 1,258,053 dwellings and farm buildings, 866,844 had been destroyed; 641,011 have been reconstructed, the difference being due to concentration in building. For the same reason 8,296 factories only have been reconstructed, and on most modern lines, to replace the 9,322 destroyed out of the 11,189 plants employing at least 10 workmen. Of the 17,616 public edifices destroyed out of the 20,824 which existed in 1914, 14,756 have been rebuilt. Summing up 663,053 buildings of much superior construction now replace 893,792 which were destroyed of the 1,290,066 in use in 1914.

In 1914 this war area had 2,236,227 hectares (5,523,470) acres of which 1,922,479 hectares (4,748,523 acres) were damaged; 1,862,252 hectares (4,601,264 acres) all that can be profitably restored are again fit for cultivation. The number of livestock, reduced almost to nothing, exceeds pre-war figures.

Of the railroads, 1,030 miles were destroyed in the war. All had been rebuilt by May 1, 1921. Of the local lines, 1,400 miles were destroyed; 1,262 were rebuilt by May 1, 1921; and now all have been restored.

Of 120,000 kilometers (81,920 miles) of roads one half were made unfit for use; all have been repaired. So too with the canals which have been lengthened also.

In 1914 the coal mines comprised 271 pits, 3,399 kilometers of galleries, 1,233 kilometers of track, and 220 machines for extraction of coal; the monthly production averaged 2,260,000 tons. Though all the pits were destroyed in 1918, the coal-mining facilities in 1928 comprised 295 pits, 3,788 kilometers of galleries, 1,321 kilometers of track, and 236 machines for extraction- the average production had increased to 2,706,000 tons per month. In the iron mines of the Briey and Longwy Basins, which were also destroyed, the facilities are now better than formerly and the output has increased much beyond the pre-war figure.

The work of restoration included the filling in of 310,675,000 cubic meters of trenches, the clearing of 379,000,000 square meters of barbed wire, the destruction of 22,134,000 tons of munitions found underground, and the pumping out of 107,000,000 cubic meters of water in the coal mines and 10,218,000 cubic meters in the iron mines.

The commissions for the evaluation of war damages have examined 3,092,884 demands and have rendered decisions covering indemnities totaling 77,752,750,000 francs. Of this amount the payments made cover 73,525,870,000 francs. It is estimated that the total indemnities due will reach 85,766,000,000 and that they will be entirely paid in 1930.

The Cathedral of Rheims, nearly destroyed by bombardment and fire, Sept. 19, 1914, has had a new roof put on by the generosity of John D. Rockefeller, Jr., and restoration of towers, walls and windows had proceeded so far that the edifice was rededicated May 26, 1927, though much remains to be done.

ALSACE-LORRAINE.

Alsace has rich potash fields, discovered in 1904, which gave Germany a monopoly of this product. The output under French hands for 1926 was 2,318,000 metric tons.

Petroleum output near Woerth n 1927 was 504,000 barrels, 478,000 in 1926. The state acquired these deposits in 1921 and turned them over to a private company for exploitation. The beds are estimated to contain 1,800 million tons of crude salts or about 300 million tons of pure potash, and will last for seven centuries at the present rate of production.

Lorraine is rich in iron ore, the reserves being estimated at over two billion tons. The production of pig iron in metric tons was: (1913) 3,863,000; (1921) 1,442,000; (1922) 2,261,000; (1923) 1,889,000; (1924) 2,984,000; (1925) 3,287,000; (1926) 3,574,000; (1927) 3,381,000; (1928) no report.

The production of steel ingots and castings in metric tons was: (1913) 2,286,000; (1921) 1,154,000; (1922) 1,673,000; (1923) 1,592,000; (1924) 2,379,000; (1925) 2,629,000; (1926) 2,800,000; (1927) 2,734,000.

Coal production which was 3,795,262 tons in 1913, in 1924 was 5,244,000 tons.

The exclusive rights of exploitation of the coal mines of the Saar Basin were given to France by the Treaty of Versailles as a compensation for the destruction of the coal mines in the north of France.

The Saar Basin lies north of Lorraine and contains about 738 square miles and 770,000 population (1926). For fifteen years it is to be governed by a commission of five, appointed yearly by the League of Nations, to whom as trustee Germany in the treaty renounced government of the territory. Then a plebiscite will decide whether it will have a continuance of that rule in a semi-autonomous form, union with France, or union with Germany. Free trade with Germany was given the district until Jan. 10, 1925. France becomes the sole owner of the coal fields and mining concessions and the value of the mines thus ceded was credited to Germany in the reparation account. The average pre-war production of the basin was 12,000,000 tons a year. The basin, it is estimated, will yield 16,250,000,000 tons.

The production of pig iron in metric tons was: (1913) 1,371,389; (1920) 643,715; (1925) 1,453,056; (1926) 1,638,051; (1927) 1,770,718; (1928) 1,936,184. The production of steel ingots and castings in metric tons was: (1913) 2,079,825; (1920) 740,978; (1925) 1,578,760; (1926) 1,736,762; (1927) 1,894,629; (1928) 2,073,051.

The coal output was: (1928) 13,106,718 metric tons; (1927) 13,595,824; and (1926) 13,680,874. The figures are for the mines operated by the French State and Frankenholz mine as well, which has an output of 1,000 tons daily. The average number of miners employed was 48,500.

The French took possession on Jan. 18, 1920, the Treasury advancing 39,325,000 francs as a working capital, which was paid back in March, 1922. The value of the property to be credited to Germany on the reparation account is likely to be put at about 350,000,000 gold marks, and on that estimate the experts figure that the mines have paid 7.25 per cent. in 1920; 6.68 per cent. in 1921, and 10.9 per cent. in 1922—the French Government having made about 250,000,000 francs in three years.

The French troops were withdrawn in 1927 and a railroad police force installed under direction of the Saar commission.

WELFARE AND EDUCATION.

France has an act passed in 1905 for the relief of the aged, poor, infirm, and incurable. The age limit, first placed at seventy, was five years later reduced to sixty-five. This act was supplemented by the Old Age Pensions Act of April 5, 1910, which provides a system by which both employers and workers contribute. On July 1, 1920, 8,349,744 persons were registered under it and on Jan. 1, 1925, 7,735,000.

The school system of France is highly developed. Primary instruction is free since 1881 and compulsory since 1882 for all children from six to thirteen. The teachers are, by the law of 1886, lay. The public schools, primary, secondary and superior, form the University of France, and are administered by the Ministry of Public Instruction, with the aid of a Superior Council and a force of seven Inspectors-General and Inspectors. There are seventeen circumscriptions called academies, each with a council to deal with instruction. Each department has a council, presided over by the Prefect, for primary school matters, with large powers regarding inspection, management and maintenance, and each department must maintain two primary normal schools, one for men and one for women.

The seventeen universities in France had, in 1927, 60,069 students; the largest, that of Paris (founded in 1150), had 26,108, 4,000 being foreigners.

John D. Rockefeller, Jr., in July, 1928, gave $2,000,000 to build a Central hall in the Cite Universitaire, Paris, also $170,000 for its upkeep. A $400,000 fund has been raised for an American dormitory to house 260 American students there.

The expenditure on the public schools and for technical schools, not including those under the Ministry des Beaux-Arts, was:

	Francs.
For public schools, 1921	1,261,620,729
1922	1,337,000,000
1923	1,403,000,000
1924	1,587,979,000
1925	1,850,007,000
1926 (est'd)	1,613,973,330
1927 (est'd)	2,056,514,080
1928 (est'd)	2,584,953,059
1929 (est'd)	3,091,516,850

For the third time since the war the Chamber of Deputies passed a bill granting a measure of women's suffrage; the last on April 7, 1925, was for municipal elections only. The vote was 390 to 183. This bill went to the Senate, which had killed the other two and (April, 1927) killed this also.

No religion is recognized by the state.

GOVERNMENT OF FRANCE.

The constitutional law under which France is governed was adopted in 1875 and was partially modified in 1879, 1884, 1885, and 1889. Legislative power rests in a Senate and a Chamber of Deputies. The 612 Deputies are elected by direct vote by manhood suffrage every four years. The 314 Senators are elected for nine years, one-third retiring every three years; the election is indirect and made by an electoral body in each district, made up of delegates chosen by the municipal councils of each commune, and of the Deputies, councillor-generals and district councillors of the department. The two Houses meet yearly on the second Tuesday in January and must remain in session at least five months out of the twelve.

The two Houses, united as a National Assembly, elect a President of the republic to serve seven years, meeting immediately whenever a vacancy occurs. The President selects a Ministry, generally from the two Chambers, but may go outside the membership. In practice the President summons a leader who can obtain a majority in the Chambers in support of his policies as President of the Council (Premier) and he makes up his list of Ministers and submits it for approval. The number of portfolios varies, numbering fourteen in the present Ministry. Each Minister is responsible to the Chambers for his acts and the Ministry as a whole is responsible for the general policy of the Government.

The unit of local government is the commune, of which the ninety departments (excluding the three in Algeria) had, in 1926, in all 37,944. Of these 22,024 have less than 500 inhabitants; 11,962 have between 500 and 1,500; 140 only have more than 20,000. Each commune elects by universal suffrage a municipal council which in turn elects a Mayor, who is both the representative of the commune, the agent of the central government, and the head of the police. Each department has representatives of all the Ministries and is placed under a Prefect nominated by the Government and having wide functions. The elected Consells d'arrondissement (385 in France) are charged with allotting the direct taxes.

The proportional representation system in use in 1924 was very complicated and an analysis of the popular votes indicates that candidates on the National Bloc tickets received 30,419,847 votes, while those of the Left Bloc received 28,139,831, and the Communists, 8,584,007.

The new election bill passed July 12, 1927, provides for a division of the country into 612 electoral districts of approximately 100,000 voters each. Each party may have but one candidate, and the one having a clear majority wins. If there is no choice a second election must be held within 8 days, when the candidate having a plurality wins.

Under this bill elections for a new Chamber of Deputies were held April 22 and 29, 1928. There were 3,687 candidates for the 612 seats. Many men new to the Chamber were elected and the group affiliations were difficult to determine. A reasonable estimate of the strength of the groups running from the extreme Right to the extreme Left is:

Conservatives (mainly Royalists)	18
Republican-Democratic (Marin's Nationalists)	153
Radicals of the Left (Moderate Nationalists)	98
Radicals (mainly independent voters)	63
Republican Socialists (party of Briand and Painleve)	47
Radical Socialists	111
Socialists	101
Communists	14
Communist Socialists	2
Alsatian Regionalists	3

On the first test vote of confidence, on the release of three Communist deputies from prison, Premier Poincare was supported, 342 to 167, and later votes showed about 430 deputies standing by him.

FINANCIAL RECONSTRUCTION.

The Poincare National Union Government took office July 23, 1926, when the franc was at its lowest (47.07 to the dollar on July 18). The cabinet lasted until Nov. 6, 1928, when the four Radical ministers were compelled, because of a trick vote of their party, to withdraw and in consequence Premier Poincare sent the President the resignation of the entire cabinet. He remade his cabinet on Nov. 11, without the Radicals, giving up the Treasury portfolio, to devote his special attention to the reparations problem.

During these two years and three months the cabinet had by resolute financial measures restored confidence. The franc regained all the ground it had lost in 1926 and was pegged by the Bank of France at 25.19 by Christmas. The budget for 1927 was balanced.

The final step in restoring the gold standard was

taken on June 24, 1928, when the Chamber by a vote of 450 to 32, and the Senate by a vote of 256 to 3 passed Premier Poincare's bill defining the new franc as 65.5 milligrams of gold nine-tenths fine which equals 3.92 cents or 25.52 francs to the dollar and 124.21 francs to the pound sterling.

The Bank of France is obligated to redeem its notes on sight and to keep a metallic gold reserve of 35% of the combined note circulation and deposits. On that day it held over 40%. The revaluation of its gold holdings completed the amortization of temporary advances to the State. The Bank granted the Treasury a loan of 3,000 million francs, without interest, maturing Dec. 31, 1945. The silver holdings were revalued at the current market price. All old coins of gold and silver lost their legal status and the Bank bought all horded gold presented amounting to 1,700 million francs by October, 1928.

The Treasury's indebtedness to the Bank for advances to Russia were transferred to the Autonomous Sinking Fund office. These pre-war bonds have a face value of 5,930 million francs and are non-recoverable.

The Bank of France had been accumulating gold and the reserves in its vaults which had been kept fairly constant since the end of the war, amounted to 5,542,861,000 gold francs on June 15, 1928. After complying with the law the Bank issued its first weekly statement in a new form on June 28, 1928. It showed a gold reserve of 28,935 million gold francs on the new valuation; gold balances held abroad amounting to 36,308 million; notes in circulation 58,772 million; the gold reserve in the vaults being 49.2% against the circulation, and 40,45% against the circulation and current liabilities. (For details see The World Almanac for 1929, page 613.)

On August 31, 1929, the Bank of France had gold in its vaults 389,30 million francs, gold abroad available at sight, 7,248 million francs; foreign exchange, 18.554 million francs as against note circulation amounting to 66,468 million francs.

THE WAR DEBTS.

Ambassador Berenger, Apr. 20, 1926, signed an agreement with the United States Debt Commission for settlement of the French war debt, which was adjusted at $4,025,000,000 ($3,340,000,000 principal and $685,000,000 accrued interest). The schedule provides for annuities commencing with $30,000,000 for the first two years increasing to $125,000,000 in the seventeenth year and continuing at that figure until the last payment in the sixty-second year, which is $117,675,000. The principal is thus to be paid in full. Interest to be paid after the first five years and for the next ten is 1%; for the next ten years, 2%; for the next eight, 2½%; for the next seven, 3%; and for the remaining twenty-two years 3½%. The total payments contemplated are $6,847,674,104.17, the present value of which on a 4½% basis is $2,008,122,624, or practically 50% of the debt funded as compared with the Italian settlement of 26%. The so-called safeguard clause was not included. The settlement was approved by the French Cabinet, and signed by President Coolidge on April 30.

Minister of Finance Caillaux and Chancellor Churchill July 12, 1928 in London signed an agreement on the French war debt to Great Britain amounting to £653,127,900. It provides that France shall pay annually £4,000,000, £6,000,000, £8,000,000 and £10,000,000 for the first four years, thereafter £12,000,000 annually for twenty-six years, and £14,000,000 annually for the remaining thirty-one years.

Both agreements were ratified by the Chamber of Deputies on July 21, 1929, and the Senate on July 26. Congress has not (Nov. 1, 1929) as yet ratified the agreements.

Besides these war debts to the United States and Great Britain the public debt of France on July 31, 1928 was: Internal, 275,205 million francs (of which Perpetual was 101,745 million francs, Amortizable, 105,751 million francs; Medium and Short Term, 22,029 million francs; and Floating, 45,680 million francs); Foreign commercial, 17,695 million francs, (of which loans floated in the United States are 17,280 million francs; loans floated in Great Britain, 124 million francs; Argentine bank credit, 251 million francs; and Uruguay bank credit, 40 million francs). The grand total of these debts is 292,900 million francs (approximately $11,481,000,000) and is about 7,160 ($280) per capita.

THE BUDGETS.

The normal budgets for nine years were:

	Revenues.	Expenditures.
	Francs.	*Francs.*
1921	29,160,155,234	29,120,541,626
1922	28,362,328,929	28,348,952,965
1923	23,437,954,832	23,402,487,556
1924	29,835,000,000	29,659,000,000
1925	33,150,844,678	33,137,180,618
1926	41,337,000,000	40,690,000,000
1927	43,297,000,000	42,491,000,000
1928 (provisional)	42,497,000,000	42,446,000,000
1929 "	45,431,000,000	45,336,000,000

To these figures there must be added the extraordinary expenses due to war, military pensions, and reconstruction to be repaid from receipts from Germany on the reparation account, which are provisionally covered in part by loans. The amounts were:

	Francs.
1921—Extraordinary expenditures	15,317,184,792
1922— " "	10,558,534,377
1923— " "	13,581,000,000
1924— " "	7,493,000,000

Direct taxation in 1927 brought in 10,024 million francs; customs, 2,618 million francs; business turnover, 8,620 million francs; and other indirect taxes and monopolies, 18,468 million francs.

In 1927, 348 persons had incomes of 1,000,000 francs ($39,200) or more; 1,484, from 500,000 to 1,000,000 francs; the number increased until the report showed 318,187 had incomes between 7,000 and 10,000 francs.

Estimates of pre-war French national income put the total for 1913 at about 35,870 million francs; and for 1924 at about 125,500 million paper francs. The tax burden in 1913 represented 11.6 per cent. of the national revenue; and in 1924 about 20 per cent.; the per capita tax then was for 1913, 104 francs gold, and for 1924, 650 paper francs or 177 francs gold. For 1926 the tax burden was about 1,240 paper francs (about $52) per capita.

Savings bank deposits in 558 savings banks on June 30, 1929, were 10,037,000,000 million francs. The number of depositors exceeded 9,000,000.

ARMY AND NAVY.

The cost to France of her army and navy in the last ten budgets was:

	Army.	Navy.
	Francs.	*Francs.*
1920	4,236,599,884	868,224,082
1921	4,462,003,675	951,542,607
1922	3,426,284,959	797,804,914
1923	3,939,000,000	977,804,914
1924	3,566,765,327	1,028,237,008
1925	3,466,900,000	1,252,000,000
1926	4,296,400,000	1,423,100,000
1927	5,299,619,645	1,915,432,377
1928	6,210,751,790	2,552,094,748
1929	5,746,000,000	2,485,000,000

The French Army, home and colonial, in 1926, numbered 31,028 officers and 647,434 men, of which about 390,000 were French conscripts. Under the reorganization law of 1928 to come into operation Nov. 1, 1930, the army was reduced to 523,769 men. The French conscripts whose term of service is reduced from eighteen months to one year number 240,000, the permanent army (seven-year enlistments) will be kept at 106,000 of which 38,000 will be employed for construction; the North African contingent will number 95,000 and the Colonial 84,000.

The Aviation Corps is to consist of 132 combat squadrons, 76 observation squadrons and 34 auxiliary service squadrons, with a personnel of about 32,866 in 1928. The French Air Force in August, 1926, had 3,500 planes, of which 1,542 were of first line type, all post-war models. The budget estimate for 1929 was 1,770 million francs.

The French Navy, under the allotment as to capital ships agreed to at the Washington Conference, is in proportion of 1.75 as against 5-5-3 for England, the United States and Japan.

The fleet in 1927 consisted of 6 first-class battleships, 3 second-class, 5 armored cruisers, 4 new fast cruisers, 4 old cruisers formerly German, 1 aircraft carrier, 48 dispatch boats, 64 destroyers and 58 submarines. Three 10,000-ton cruisers were under construction. The Redoubtable Vengeur, one of the most powerful submarines in the world was completed in 1928. It is 276 feet long with an underneath tonnage of 3,250, has a steaming radius of 8,000 miles and can remain at sea for 30 days. A sister submarine the Surcouf and 28 smaller ones were under construction in 1928. The program for 1929 includes one cruiser, six destroyers, seven cruising and four coast defense submarines, to cost over 1,000 million francs.

The Chamber, Mar. 7, 1928, by vote of 500 to 32, adopted a bill providing for the nationalization of all needful industry in time of war, a complete mobilization of every French citizen, man, woman and child into the national defense force, and authority to take over by decree all railways, factories, mines, electrical plants, and other industries, and all inventions useful for the conduct of the war without compensation. The Senate on Feb. 17, 1928, passed the bill

but struck the clause providing for the requisition of the services of women. The Government announced that each ministry would prepare, in peace time, complete plans for such mobilization.

France put into effect on Sept. 6, 1927, a new tariff superseding that of 1892 increasing the rates on over 400 items.

The French National Touring office estimated that 220,000 American tourists in 1925 spent 4,975,520,000 francs ($226,160,000 at average exchange for that year). The number in 1926 was even larger and their expenditures reckoned at between 8,000 and 9,000 million francs. During 1925, 759,000 left Great Britain, Ireland and the Channel Islands for France; 684,148 entered via the Spanish border; 38,588 came from Holland; and 13,545 from Switzerland.

FOREIGN TRADE.

The foreign trade of France, compared with that of 1913, the last year before the war, expressed both in francs and in dollars at the average exchange rate for the year, was:

Imports.	*Francs.*	*Equivalent in Dollars.*	*Exchange Rate.*
1928	53,448,265,000	2,094,367,750	25.52
1927	52,852,760,000	2,071,828,192	25.51
1926	59,514,725,000	2,361,933,000	25.19
1925	43,980,506,000	2,096,550,721	20.9
1924	40,132,574,000	2,076,180,000	19.53
1923	32,608,012,000	1,989,089,000	16.39
1922	23,930,328,000	1,962,287,000	12.20
1921	22,068,000,000	1,634,667,000	13.50
1920	49,904,897,000	3,441,717,000	14.50
1913	8,421,332,000	1,625,317,000	5.18

Exports.	*Francs.*	*Equivalent in Dollars.*	*Exchange Rate.*
1928	51,346,799,000	2,012,021,900	25.52
1927	55,224,717,000	2,197,943,737	25.51
1926	59,534,649,000	2,362,200,000	25.19
1925	45,413,555,000	2,162,864,167	20.9
1924	41,454,137,000	2,144,550,000	19.33
1923	30,431,510,000	1,856,322,000	16.39
1922	21,378,943,000	1,753,073,200	12.20
1921	19,772,000,000	1,461,639,600	13.50
1920	26,894,332,000	1,854,823,300	14.50
1913	6,880,217,000	1,327,881,900	5.18

The United States for six years has been France's principal source of supply, with Great Britain a close second, and Belgium and Germany alternating third and fourth. In 1924 and 1926 Great Britain was France's best customer, followed by Belgium, Germany and the United States in that order. France's trade by countries for the last four years in millions of francs was:

IMPORTS

Countries of Origin.	1925.	1926.	1927.	1928.
United States	6,382.9	7,913.1	7,051.3	6,200.3
Great Britain	5,893.3	6,516.7	6,463.9	5,447.4
Belgium	3,082.3	4,466.5	3,735.7	3,826.5
Germany	2,372.6	4,903.9	4,213.3	4,961.3
Argentina	1,651.3	2,149.1	2,339.6	2,046.9
Italy	1,729.4	2,324.9	1,457.6	1,575.6
Holland	1,278.0	1,783.3	1,331.6	.....
Brazil	1,370.2	1,552.1	1,068.7	1,162.0
Spain	834.3	1,050.5	1,402.1	1,623.3
Switzerland	785.7	1,035.1	780.3	964.8
Other	18,601.5	26,019.5	23,008.6	25,640.8
Total	45,413.6	59,534.6	52,852.7	53,448.3

EXPORTS

Countries of Destination	1925.	1926.	1927.	1928.
United States	3,059.1	3,901.6	3,605.1	3,331.5
Great Britain	8,957.3	10,674.9	10,178.6	8,165.7
Belgium	7,596.5	9,391.4	7,572.4	7,246.8
Germany	3,751.1	4,427.8	6,475.1	5,669.2
Argentina	836.9	1,129.5	1,136.2	1,146.2
Italy	2,209.0	2,599.1	2,043.8	2,150.5
Holland	1,219.9	1,808.1	1,194.9	.....
Brazil	460.9	638.2	539.4	563.1
Spain	1,423.5	1,826.6	1,714.2	1,753.0
Switzerland	2,921.5	3,636.0	3,412.1	2,378.3
Other	29,994.9	19,401.4	17,352.9	17,947.5
Total	45,413.6	59,534.6	55,352.9	51,346.8

The value of exports to the French Colonies and Protectorates in 1927 was 8,165 million francs, and of imports 6,046 million francs.

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$266,964,931	$142,808,898
1923	272,131,786	149,612,587
1924	281,663,972	147,636,972
1925	280,299,493	157,432,561
1926	264,003,674	152,030,483
1927	228,780,778	167,799,661
1928	240,690,853	158,656,233

French Colonial Possessions.

	Square Miles.	Population.
IN ASIA		
Syria (Mandate)	60,000	3,000,000
India	196	273,081
French Indo-China	265,004	19,844,181
Total in Asia	325,200	23,117,262
IN AFRICA		
Morocco (Protectorate)	223,000	4,229,146
Algeria	222,180	5,992,770
Tunisia	50,000	2,159,758
Sahara	1,544,000	800,000
French West Africa	1,844,400	13,541,611
Togo	21,893	672,837
Cameroon	166,489	1,500,000
French Equatorial Africa	982,049	2,845,936
Reunion	970	172,190
Madagascar	228,707	3,598,728
Comoros	790	110,000
Somali Coast	5,790	208,000
Total in Africa	5,290,268	35,830,976
IN AMERICA		
St. Pierre and Miquelon	93	3,918
Guadeloupe, etc.	688	229,829
Martinique	385	244,439
French Guiana	32,000	44,202
Total in America	33,166	522,398
IN OCEANIA		
New Caledonia, etc.	7,650	47,505
Tahiti, etc.	1,520	31,655
Total in Oceania	9,170	79,160
Grand total all colonies	5,657,804	59,549,796

ALGERIA.

AREA, Northern Territory, 222,180 square miles; Southern or Saharan Territory, about 849,000 square miles (included in Sahara in table printed above).

POPULATION, census of 1926: northern territory, 5,455,408; southern territory, 537,362; total, 5,992,770; of which 864,331 were Europeans, mostly French and Spaniards.

CAPITAL, Algiers, population, 1926, 226,218. Other cities: Oran, population, 150,301; Constantine, and seven other cities above 25,000.

Governor General, Pierre Louis Bordes, Nov. 20, 1927.

Algeria is in the northern part of Africa, extending for 650 miles along the Mediterranean Sea, between Tunis on the east and Morocco on the west. Both neighbors are French protectorates (see following). The northern territory extends inland approximately 350 miles; beyond, the four southern territories extend southward indefinitely into the Sahara Desert, merging into French West Africa. The boundaries have not been fixed but the 20° of north latitude may be considered as an approximate divisional line. These four southern territories form a separate colony, are sparsely peopled by nomads, and each is under a military commander.

Living quarters according to the census of 1926 comprise 378,605 houses, 372,188 native huts, and 151,625 tents.

The country is governed by a Governor General with the aid of a consultive council and a supreme council and three financial delegations (French colonists, French taxpayers other than colonists, and Mohammedan natives), whose especial care is the budget and the taxes. The Governor prepares the budget, which for seven years was:

	Revenues.	Expenditures.
1922-23	francs, 489,948,141	francs, 489,808,492
1923-24	francs, 595,523,431	francs, 595,262,638
1924-25	francs, 577,000,000	francs, 576,800,000
1925-26	francs, 642,526,262	francs, 642,374,842
1926-27	francs, 785,492,888	francs, 785,481,679
1927-28	francs, 997,778,028	francs, 997,600,458
1928-29	francs, 1,235,300,626	francs, 1,234,827,220

The debt is about 110,000,000 francs.

Algeria has prospered greatly under peace and French rule. The country has four marked divisions. On the coast is an area, the Tell, from 50 to 100 miles wide, of very fertile plains with valleys running out from the hills, mainly owned by Europeans, which is cultivated scientifically. Behind the Tell is the tableland of the Shat with an elevation of 3,000 feet, arid, or covered with salt lakes and swamp. The two chains of the Atlas Mountains, reaching to altitudes of 7,000 feet, divide the country from the Sahara.

The French have driven artesian wells and brought scientific irrigation and fertilizer to the land of the Tell. Agriculture has made great strides.

The chief crops in 1927 were wheat 767,877 metric tons from 3,513,158 acres; barley, 766,451 tons from

3,399,822 acres; oats, 158,947 tons from 530,790 acres; and tobacco, 26,550 tons from 87,024 acres. From 530,790 acres the yield of wine was 176,908,072 gallons; and of olive oil 3,457,762 gallons from 7,803,700 trees. Cotton was grown on 10,000 acres; 17,600 pounds of cocoons were produced. Cork trees cover 1,125,000 acres; Aleppo pines, 1,690,000 acres; and evergreen oak, 1,625,000 acres of the 5,590,000 acres of forests.

Algeria is rich in minerals as yet very little exploited. The mineral output in 1928 was as follows: Iron ore, 2,110,547 metric tons (2,382 242 tons in 1927); lead ore in 1927, 17,599 tons; zinc ore 44,797 tons; coal, 29,000 tons; phosphate of lime, 847,163 tons; copper ore, 1,455 tons; petroleum, 8,000 barrels; antimony, 131 tons.

The French have improved the ports, built 3,325 miles of excellent roads, and there were, in 1928, 2,716 miles of railroads. The three ports have also been improved. In 1928, 4,585 vessels of 8,283,606 tons entered the ports.

Imports and exports in francs were:

Year	Imports.	Exports.
1923	2,236,942,000	1,674,393,000
1924	2,793,725,000	1,990,475,000
1925	3,275,486,000	2,403,838,000
1926	4,119,000,000	4,015,000,000
1927	4,836,000,000	3,521,000,000
1928	4,968,146,000	3,995,682,000

The trade of Algeria and Tunis with the United States was:

Cal. Year	Imports.	Exports.
1922	$6,709,362	$1,789,408
1923	5,588,164	2,372,390
1924	5,525,362	1,974,036
1925	5,562,061	2,932,887
1926	6,669,165	3,154,148
1927	6,854,803	4,650,456
1928	8,723,859	4,932,199

TUNIS.

AFRIKIYA

(French Protectorate.)

AREA, about 50,000 square miles.

POPULATION, census of 1926, 2,159,758, of which 173,281 were Europeans (71,020 French, 89,216 Italians), and 1,986,427 natives (1,932,184 Arabs and Bedouins, 54,243 Jews).

CAPITAL, Tunis, population, 1926, 185,996, of which 27,922 were French and 44,076 Italians.

Bey, Sidi Ahmed, succeeded his cousin Sidi Mohammed el Habib, who died in February, 1929.

French Resident General, M. Manceron, appointed June 2, 1929.

Tunis, one of the former Barbary states under the suzerainty of Turkey, is situate on the northern coast of Africa, with the Mediterranean Sea on the north and east, on the southeast Italian Libya, on the south the Sahara Desert and on the west Algeria.

The French were obliged to send a military force into the country in 1881 to protect Algeria from the raids of the Khroumer tribes, which resulted in a treaty signed May 12, 1881, placing Tunis under the protectorate of France. Most of the tribes have settled down to agriculture and stock raising. Difficulties of administration which followed the old Turkish system have been great, but the French have met them admirably and have made the country properous.

There are large fertile valleys in the mountainous north, excellent land for fruit culture in the northeast peninsula, high tablelands and pastures in the centre, and famous oases and gardens in the south, where dates grow in profusion. The chief industry is agriculture; over 5,000,000 acres are devoted to cereals and vegetables; 420,000 to 16 million olive trees; 47,000 to 2,600,000 date palms; 75,392 to vineyards, 2,725,000 to cork and pine forests, and 11,535,000 acres to pasturage.

The output from the rich phosphate deposits in 1927 was 3,075,000 metric tons, (2,723,000 tons in 1926). Iron, zinc and lead mines are being developed, the output in 1927 of iron ore being 915,000 metric tons. Of lead ore, 40,000 tons; and zinc ore, 18,000 tons are produced annually. Of high qualities marine salt, 300,000 tons are produced annually.

The railway mileage in 1928 was 1,280. Motor transport is increasing rapidly and in 1928, 9,435 vessels entered the twenty-one ports, of which Sfax is the most important.

Recent budgets in francs are:

Year.	Rev.	Exp.
1924	285,304,087	336,624,389
1925	256,842,216	263,430,847
1926 (est'd)	262,139,600	262,055,579
1927 (est'd)	363,779,600	363,729,645
1928 (est'd)	439,542,956	439,430,489

The public debt, 1926, was 478,845,780 francs.

The foreign trade of Tunis in francs was:

Year.	Imports.	Exports.
1922	856,377,102	444,679,644
1923	817,459,200	554,014,384
1924	927,943,882	582,353,545
1925	1,086,271,000	846,226,000
1926	1,360,337,000	1,269,725,000
1927	1,772,000,000	1,027,000,000
1928	1,957,328,000	1,336,987,000

Tunis bou, ht from the United States, machinery kerosene and gasoline in 1927 to the value of $3,213,000 and sold olive oil, iron ore, cork, hides, etc., to the value of $776,000; and in 1928. $669,000.

FRENCH WEST AFRICA.

AREA, about 1,844,400 square miles, exclusive of the Sahara Desert, about 1,500,000 square miles.

POPULATION, census of 1926, 13,541,611, of which 15,399 are Europeans.

CAPITAL, Dakar, in Senegal; population, 1926, 40,152, of which 2,939 are Europeans.

Governor General, Jules Carde, Feb. 20, 1923.

French West Africa reaches from the Atlantic Ocean at about 17° west longitude across Africa to the Soudan at about 24° east longitude and from the southern desert boundaries of Morocco, Algeria, Tunis and Italian Libya to the Gulf of Guinea and the indeterminate boundary of French Equatorial Africa. It has been formed by consolidation of existing colonies as follows:

Colony.	Square miles.	Population.
Senegal	74,112	1,358,439
French Guinea	95,218	2,095,988
Ivory Coast	121,976	1,724,545
Dahomey	42,460	979,609
French Soudan	648,480	2,634,982
Upper Volta	154,400	3,240,147
Mauritania	345,400	289,184
Territory of Niger	404,914	1,218,717
	1,844,400	13,541,611

Of Togoland, the only German colony that was self-supporting, France received 20,200 square miles, about two-thirds. It is attached to French Dahomey.

The colonies are each under a Lieutenant Governor. There is a general budget for all, that for 1928 including local and supplementary budgets being: Revenues, 749,730,000 francs, and expenditures, 709,730,000 francs; and that for 1929 being: Revenue, 801,197,000 francs; expenditures, 771,879,000 francs.

The colonies export fruits, palm nuts and oil, rubber, cotton, cacao, timber, and most important, peanuts, of which 413,327 metric tons were shipped out through Senegal The chief imports are foodstuffs, textiles, machinery and hardware, and spirits.

Trade for seven years in francs was:

Year.	Imports.	Exports.
1922	351,508,480	311,353,650
1923	533,357,802	419,004,128
1924	764,370,275	653,740,634
1925	1,114,970,591	899,063,628
1926	1,550,729,015	1,412,028,809
1927	1,407,620,740	1,230,700,180
1928	1,485,376,000	1,184,645,000

The railroad mileage in 1928 was 2,300. There entered and cleared the ports 20,229 vessels of 16,466,259 tons in 1927.

FRENCH EQUATORIAL AFRICA.

French Congo.

AREA, 982,049 square miles.

POPULATION, census of 1926, 3,127,707, of which 2,502 were Europeans.

CAPITAL, Brazzaville, on the Congo.

Governor General, R. Antonetti, appointed 1924.

French Equatorial Africa extends from Spanish Guinea, just south of the Cameroon, to Belgian Congo. Its eastern boundary is the Ubangi and Congo Rivers and the Soudan. On the west is the Cameroon. French acquisition began in 1841 and its territory has since been extended by exploration and occupation, and the limits defined by international convention. That part (107,270 square miles) ceded to Germany as compensation for acknowledgment of the Morocco protectorate in 1911 was restored to France in the Treaty of Versailles and incorporated in this territory. France, on Jan. 15, 1910, renamed the French Congo French Equatorial Africa and subdivided it into three colonies under one administration, subsequently adding Chad as a colony. The four colonies are:

Colony.	Sq. M.	Pop. (1926)
Gabun	121,862	388,899
Middle Congo	150,292	688,753
Ubangi-Shari	208,219	1,066,444
Chad	501,676	973,611
Total	982,049	3,127,707

There are 30,000 square miles of tropical forest, rich in timber, but the output as yet is only wild rubber, of which 1,434 tons were exported in 1921. Palm oil output for export was 5,345 tons. Copper, lead and zinc are found. The import figures for 1927 were 172,819,683 francs; exports, 136,747,844 francs. A railroad to connect Brazzaville with Pointe Novie should be completed in 1930.

The general budget for 1929 was 54,500,000 francs; local budgets were: Gabon, 16,250,000; Middle Congo, 17,250,000; Ubangi-Shari, 14,240,000; Chad, 11,000,000.

CAMEROON.

(French Mandate.)

AREA, 166,489 square miles.

POPULATION, estimated, 1921, 1,500,000.

CAPITAL, Yaounde.

That part of the former German colony Cameroon not returned to France (see French Equatorial Africa) was by the Treaty of Versailles placed under a French mandate and by decree of March 28, 1921 has been constituted an autonomous territory. It has 369 miles of railroad. The products are tobacco, palm oil, coffee, and ivory. The budget for 1927 was balanced at 41,768,350 francs with a special railway budget of 16,000,000 francs and a special medical budget of 3,579,000 francs.

Imports 1926 were 192,000,000 francs, and 1925, 126,036,353 francs; Exports 1926, 155,000,000 francs, and 1925, 113,088,014 francs.

In 1925, 217 vessels entered the port of Douala.

FRENCH SOMALILAND.

AREA, 5,790 square miles.

POPULATION, 1921, estimated, 208,000.

CAPITAL, Jibuti; population, 1928, 9,414 (317 French).

French Somaliland lies between Eritrea (Italian) Abyssinia and British Somaliland and is separated by the Straits of Bab-el-Mandeb from Aden (British). Its port, Jibuti, is on the Gulf of Aden. A port was acquired by France in 1862, but active occupation did not begin until 1884. It is administered by a Governor. The colony has few industries; hides, coffee and ivory are exported, and textiles, food products, sugar and coal imported. The figures in 1926 were: Imports, 457,751,424 francs; exports, 401,543,750 francs, partly Abyssinian goods brought down to Jibuti by the railroad (485 miles long) from Addis Abeba. In 1926, 1,423 steam vessels of 1,145,271 tons entered Jibuti.

The budget for 1928 balanced at 13,002,000 francs.

Trade of French Africa with the United States not elsewhere specified was:

Cal. Year.	Imports.	Exports.
1922	$1,659,085	$364,783
1923	1,884,797	524,068
1924	2,599,523	928,690
1925	3,255,990	1,283,100
1926	4,066,310	1,199,001
1927	2,928,237	1,630,672
1928	3,297,028	1,061,745

MADAGASCAR.

AREA, estimated, 228,707 square miles.

POPULATION, census of 1925, 3,598,728, of whom 20,000 were French.

CAPITAL, Tananarive; population, 70,081. Forts: Tamatave, Diego-Suarez, Majunga and Tulear.

Governor-General, Marcel Achille Henri Raymond Olivier, appointed Jan. 31, 1924.

Madagascar, an island off the east coast of Africa, from which it is separated by the Mozambique Channel (240 miles wide at its narrowest part), is about 980 miles long and 360 miles wide at its greatest breadth. It is therefore nearly as large as the State of Texas. To it is attached for government the prosperous archipelago of the Comoro Islands with an area in all of about 838 square miles, and with in 1925, 119,305 inhabitants; also Nossi-Be (113 square miles).

Tamatave (population, 13,395), which has endured 100 cyclones during the last century, was destroyed by one in 1927.

Madagascar came under a French protectorate in 1885. Together with its dependencies, it was declared a French colony on Aug. 6, 1896. It is administered by a Governor-General with a Council of Administration. Over 3,000,000 acres are under cultivation, the chief crops being rice, manioc, beans, vanilla, corn, coffee, cloves, tobacco, sugar cane and cocoa. The forests are rich in cabinet and tanning wood, raffia, resins, gums and beeswax.

Agriculture and stock-raising are the chief industries. Graphite shipments in 1926 amounted to 15,903 metric tons as compared with 13,005 tons in 1925. The gold production amounted to 306 kilos in 1926, and 419 in 1925. Radium has also been found.

The railroad mileage in 1928 was 430 miles all state owned and operated. In 1927, 5,914 vessels of 2,554,619 tons entered the ports.

The 1927 budget balances at 289,991,138 francs. The public debt amounted to 145,224,591 francs on Jan. 1, 1928.

Trade for eight years was:

	Imports.	Exports.
1921 francs	225,921,791	108,308,097
1922 "	173,831,641	132,472,491
1923 "	209,818,297	191,840,791
1924 "	259,033,753	387,571,444
1925 "	491,854,000	443,923,818
1926 "	592,611,944	535,856,989
1927 "	579,860,066	375,035,956
1928 "	686,445,000	483,396,000

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$137,409	$19,811
1923	79,652	156,040
1924	138,658	231,172
1925	168,086	525,125
1926	286,449	271,072
1927	360,473	107 965
1928	313 106	216,627

REUNION.

AREA, 970 square miles; 48 miles long, 24 wide.

POPULATION, census of 1926, 186,637, of which 180,694 were of French European origin.

Reunion is in fact an integral part of France, as it is represented in Parliament at Paris by a Senator and two Deputies. It is an island in the Indian Ocean, about 420 miles east of Madagascar, and has belonged to France since 1643. It is administered by a Governor and an Elective Council. The chief products are sugar, rum, coffee, manioc, tapioca, vanilla, and spices. The chief imports, rice and cereals.

Imports were: 1927, 173,640,000; 1926, 164,883,000 francs; 1925, 147,291,000 francs; exports, 1927, 146,991,000; 1926, 164,896,000 francs; 1925, 111,557,000 francs; mostly sugar (63,000 tons, valued at 98,769,000 francs in 1926). There are eighty miles of railroad, state owned. In 1927, 143 vessels entered the ports. The budget for 1927 was: Revenue, 51,799,299 francs; expenditures, 48,759,085 francs. The debt was 566,000 francs in 1925.

FRENCH INDIA.

AREA, 196 square miles.

POPULATION, census of 1926, 273,081.

CAPITAL, Pondicherry; population, 47,087.

The French possessions in India lie along the Coromandel coast, on the Bay of Bengal, in the southeastern part, to the north of the island of Ceylon. The most important is Pondicherry, established by the French East Indian Company in 1674, and after changing hands eight times finally rested in the control of France in 1814. The colonies are divided in five dependencies: Pondicherry, population, 1924, 175,168; Karikal, 56,091; Chandernager, 26,506; Mahe, 10,321; and Yanson, 4,995. The administration is in the hands of a Governor, and there is a General Elective Council. The colonies send one Senator and one Deputy to Parliament at Paris. Agriculture is the chief industry and oil seed the chief export. Pondicherry has five cotton mills; 71,213 spindles. There are forty-three miles of railroad, and in 1926, 336 vessels entered the porte. The imports in 1926 were valued at 10,137,752 rupees, and the exports at 26,285,194 rupees.

FRENCH INDO-CHINA.

AREA, Cochin-China, estimated, 26,476 square miles; Annam, 39,758; Cambodia, 62,550; Tonkin, 40,530; Laos, 96,500; Kwangchow, 190; total 265,004.

POPULATION, Cochin-China, census of 1924, 4,001,093; Annam, 1924, 5,171,986; Cambodia, 1924, 2,465,581; Tonkin, 1924, 7,160,113; Laos, 1924, 837,364; Kwangchow, 208,044; total, 19,844,181. Of these about 25,770 were Europeans.

CAPITAL, Hanoi (Tonkin), population, 1924, 115,000. Chief port, Saigon (Cochin-China), population, 108,566, of which 8,444 were Europeans.

Governor-General, Pierre Pasquier, Aug. 22, 1928.

French Indo-China, situate in the southeastern part of Asia with China on the north, Siam on the west and the Gulf of Tonkin and the South China Sea on the east and south, comprises five states: The colony of Cochin-China, the protectorates of Annam, Cambodia, Tonkin and Laos, and also Kwangchow, leased from China (1898) and Battambang, ceded by Siam (1907). It is as large as Texas.

The whole country is under a Governor-General with a Secretary-General and a superior Council, and each state has a head, that of the colony being a Governor, and those of the protectorates being called Residents Superieur. There is a common budget for Indo-China, which in 1927, balanced at 78,850,000 piastres (par of exchange, 55 cents). The government reserve on Jan. 1, 1925, amounted to 21,950,000 piastres. The debt on Jan. 1, 1926, was about 500,000,000 piastres.

Annam has a King, Bao Dai (Than Thai), (born 1913, succeeded to the throne Nov. 6, 1925), who governs the country with the assistance of his Ministers under the guidance of the French Resident Superieur.

Cambodia has a King, Moniwong, who succeeded his father, Sisowath, on his death in 1927. The land is very fertile but only a part is cultivated. Some cotton is grown. Fishing is the principal native industry. The ruins of a former civilization which had developed a striking distinctive art, are very extensive; those of Angkor being especially famous.

Tonkin became a French protectorate in 1884. Its chief town, Hanoi, which was made the capital of Indo-China in 1902 instead of Saigon, is a fine, large, well-built modern city. Though its wealth is in agriculture, like the other provinces, it has valuable hard coal deposits, producing in 1925 1,363,000 tons. From the rich limestone quarries in 1925, 150,000 tons of cement were produced. There are also valuable zinc mines.

Exports of plantation rubber from Indo-China in 1923 amounted to 4,970 tons; there were 8,300,600 trees on 75,000 acres of plantations. Output in 1926 exceeded 7,000 tons.

Laos, a protectorate since 1893, has extensive teak forests, and gold, tin and lead are being worked. The Mekong River is its great highway.

Kwangchow, leased from China in 1899, has a free port.

The provinces have been a customs union since 1887, and in 1885, when France forced China to give entirely her sovereignty over Annam, agreements were made for a reduction in tariff rates for goods entering China from Tonkin. France in 1895 obtained special privileges for railroads in southern China.

The railroad mileage in 1925 was 1,292, two-thirds of which is Government-owned. The French have built 27,000 miles of remarkable roads through the jungles and rice fields. In 1926 there entered to port of Saigon 878 vessels of 1,959,577 tons. In 1926 imports were 1,835,375,255 francs; exports 3,067,682,872 francs.

Indo-China ranks second to Burma as the greatest rice exporting country in the world; 1,797,690 metric tons in 1928, a record.

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$827,679	$460,233
1923	2,041,050	365,923
1924	786,846	171,412
1925	1,371,232	99,684
1926	2,189,840	197,064
1927	1,429,361	141,939
1928	1,737,920	36,820

GUADELOUPE.

AREA, entire group of islands, 688 square miles.
POPULATION, census of 1926, 243,243.
CAPITAL, Basse-Terre; population, 1926, 8,379; Port Pointe-a-Pitre, 26,452.
Governor, L. Gerbinis, 1926.

Guadeloupe, consisting of two large islands, Basse-Terre and Grande-Terre, separated by a narrow channel, and five smaller islands, is a group of the Windward Islands in the West Indies, between Antigua and Dominica. They have been in the possession of France since 1634 and are represented in Parliament at Paris by a Senator and two Deputies. The Government consists of a Governor and an elected Council. The soil is very productive.

The hurricane of Sept., 1928, the worst in the history of the island, took a toll of 660 lives and damage to property was between 300 and 500 million francs.

The chief exports in 1926 were sugar, 33,847 metric tons; coffee, 593.5 tons; rum, 12,009,494 litres; cacao, 610 tons; vanilla, 34,888 kilograms; and bananas, 1,431,340 kilograms. Imports were valued at 144,849,469 francs, and exports at 167,663,138 francs.

The budget for 1927 balanced at 29,018,596 francs. The debt, Jan. 1, 1927 was 499,078 francs.

The trade of Guadeloupe and Martinique with the United States was:

Cal. Year.	Imports.	Exports
1922	$2,610,631	$82,068
1923	2,460,867	55,645
1924	2,528,967	217,779
1925	$2,664,794	$387,400
1926	1,958,073	162,446
1927	2,703,645	104,665
1928	2,597,766	161,991

MARTINIQUE.

AREA, 385 square miles.
POPULATION, census of 1927, 234,695.
CAPITAL, Fort-de-France, population, 43,358.
Governor, R. de Guise, 1926.

Martinique, one of the Windward Islands, in the West Indies, has been a possession of France since 1635. It is represented in the French Parliament by a Senator and two Deputies. It is administered by a Governor, a General Council, and elective Municipal Councils. It has the famous volcano, Mt. Pelee, which in eruption in May 8, 1902, destroyed the city of St. Pierre with all its 40,000 inhabitants. The island is the birthplace of the Empress Josephine.

Rum, sugar and cacao are the chief productions.

In 1928, 39,035 metric tons of sugar were produced; in 1927, 40,397; also in 1927, 5,224,021 gallons of rum. The foreign trade in 1927 was: Imports, $8,333,000; exports, $8,991,000; and in 1926, imports, $7,237,000; exports, $7,197,000. In 1927, 550 vessels of 1,040,764 tons entered the port. The budget for 1927 was balanced at 66,103,756 francs.

ST. PIERRE AND MIQUELON.

AREA, St. Pierre, 10 square miles; Miquelon, 83.
POPULATION, census of 1921, St. Pierre, 3,419; Miquelon, 499; total, 3,918.
CAPITAL, St. Pierre.
Governor, J. H. E. Bensch.

St. Pierre and Miquelon are two groups of rocky, barren islands close to the southwestern coast of Newfoundland, inhabited by fishermen. The Government is headed by an Administrator. The exports, cod, fresh and salt, and fish products in 1927 were valued at 127,409,172 francs, and the imports at 165,801,030 francs. The local budget for 1928 was balanced at 10,011,500 francs.

Trade with the United States was:

Cal. Year.	Imports	Exports.
1922	$155,186	$3,358
1923	194,196	2,488
1924	147,568	19,388
1925	230,681	151,832
1926	257,680	63,754
1927	280,409	57,878
1928	246,426	319,123

FRENCH GUIANA.

AREA, estimated, 32,000 square miles.
POPULATION, census of 1926, 47,341, excluding Indians.
CAPITAL, Cayenne; population, 1926, 13,936.
Governor, M. Juvanon.

French Guiana is on the north coast of South America on the Atlantic Ocean, with Dutch Guiana on the west and Brazil on the east and south. The country has lost heavily in population in the last decade, the census of 1911 returning 49,009 inhabitants. It sends one Deputy to the Chamber at Paris. The colony has a Governor and a Council General of sixteen elected members. France has had a penal colony there since 1885 and in 1926 it cared for 6,500 convicts. Only 8,800 acres are cultivated. Placer gold mining is the most important industry. The product in 1910 was 123,168 ounces, and in 1918, 80,477 ounces. The forests are large and rich in cabinet timber. Imports in 1927 were valued at 61,641,424 francs and exports at 29,769,728 francs. The budget for 1927 showed: Revenue, 11,000,000 francs; expenditures, 10,500,000 francs.

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$398,249	$334,988
1923	350,169	178,963
1924	245,708	150,677
1925	254,346	103,124
1926	150,622	65,635
1927	139,234	45,984
1928	157,551	66,347

OCEANIA—TAHITI, ETC.

AREA, estimated, 1,520 square miles.
POPULATION, census 1921, 31,655, of which 25,569 were natives, 2,656 French, 2,686 other Europeans, and 743 Chinese.
CAPITAL, Papeete, Island of Tahiti; population, 4,601, of whom 2,126 are French.
Governor, M. B. J. V. Siadous, 1928.

The French possessions, widely scattered in the southern Pacific Ocean, were grouped together in 1903 as one homogeneous colony under one Governor, with headquarters at Papeete, Tahiti, one of the Society Islands. The other groups are the Marquesas, the Tuamoti Group, the Leeward Islands, the Gambier, the Tubual, and Rapa Islands.

The chief exports are copra, mother of pearl, vanilla, cocoanuts and oranges.

The budget for 1927 was balanced at 15,167,573 francs. There is no debt but a reserve of 7,000,000 francs.

Imports in 1927 were valued at 50,596,237 francs, and exports at 49,032,248 francs.

Trade of French Oceania with the United States was:

Cal. Year.	Imports.	Exports.
1922	$792,032	$1,407,566
1923	1,044,214	1,456,591
1924	1,214,709	1,745,334
1925	1,215,273	1,870,700
1926	1,011,215	2,337,465
1927	917,150	2,164,202
1928	1,259,436	1,483,482

OCEANIA—NEW CALEDONIA, ETC.

AREA, 7,650 square miles.

POPULATION, census of 1921, 47,505.

CAPITAL, Noumea; population, census of 1921, 10,053.

Governor, M. Guyon, 1925.

France acquired New Caledonia in 1854. Its dependencies are: The Isle of Pines, the Wallis Archipelago, the Loyalty Islands, the Huon Islands, Fortuna and Alofi. A Governor administers the colony, assisted by an elective Council General. France has maintained a penal colony on Nou Island, but no convicts have been sent there since 1896.

Mining is becoming the chief industry, the export of nickel from the blast furnaces in 1925 was 4,400 metric tons, and the export of chrome ore, 20,715 tons, and of manganese, 3,574 tons.

Imports, 1926, 141,746,983 francs; 1927, 154,771,189 francs; exports, 1926, 90,652,759 francs, 1927, 87,195,849 francs. In 1927, 129 vessels of 198,019 tons entered the ports. The local budget for 1927 was balanced at 28,080,437 francs.

The New Hebrides since 1906 have been jointly administered by High Commissioners of Great Britain and France. Their area is about 5,500 square miles and population about 60,000.

GERMANY, REPUBLIC OF

DAS DEUTSCHE REICH

AREA; 185,889 square miles; land area, 180,976 square miles (excluding the Saar, 738).

POPULATION, census of June 16, 1925, 62,348,782 (excluding the Saar, 770,000).

CAPITAL, Berlin; area, 339 square miles (216,891 acres); population, census of 1925, 3,931,071 (with suburbs, 4,013,588).

President, Field Marshal Paul von Hindenburg, born 1847; elected April 26, 1925, for seven years.

Chancellor. Dr. Hermann Mueller, Socialist, June 28, 1928.

Minister of Foreign Affairs, (following death of Gustav Stresemann) Dr. Julius Curtius, People's Party.

Minister of Finance, Dr. Rudolf Hilferding, Socialist.

Minister of Defense, Gen. Wilhelm Groener, Non-partisan.

Minister of the Interior, Dr. Karl Severing, Socialist.

Minister of Justice, Theodore von Guerard, Centrist.

Minister of Communications and Transportation, Adam Stegerwald, Centrist.

Minister of Commerce, Dr. Paul Moldenhauer, People's Party.

Minister of Labor, Rudolf Wissel, Socialist.

Minister for Agriculture, Dr. Hermann Dietrich, Democrat.

Minister of Posts, Dr. G. Schaetzel, Bavarian People's party.

Minister of the Occupied Areas, Joseph Wirth, Centrist.

President of Reichstag, Paul Loebe.

The German Empire, on July 1, 1914, consisted of the Kingdoms of Prussia, Bavaria, Saxony and Wurttemberg; the Grand Duchies of Baden, Hesse, Meeklenburg-Schwerin, Mecklenburg-Strelitz, Saxony and Oldenburg; the Duchies of Brunswick, Saxe-Meiningen, Saxe-Altenburg, Saxe-Coburg, Gotha and Anhalt; the Principalities of Schwarzburg-Sondershausen, Schwarzburg-Rudolstadt, Waldeck, Reuss (Elder line), Reuss (Younger line), Schaumburg-Lippe and Lippe, the Free Cities of Hamburg, Bremen and Lubeck and the Reichsland of Alsace-Lorraine. Its total area was 208,780 square miles and its population, estimated on that date, was 67,812,000. The war cost Germany 27,275 square miles and 6,471,581 in population.

It lost Alsace-Lorraine, returned to France, 5,604 square miles, and 1,874,014 population; Eupen and Malmedy, ceded to Belgium, 386 square miles, and 60,924 population; part of Eastern and Upper Silesia, ceded to Poland, 17,787 square miles, and 3,853,354 population; Memel, ceded to the Allies, 1,057 square miles, and 140,746 population; Danzig, made a free city, 794 square miles, and 330,252 population; Schleswig northern zone, ceded to Denmark by the plebiscite, 1,537 square miles, and 166,895 population; part of Upper Silesia, ceded to Czechoslovakia, 110 square miles, and 45,395 population.

In addition, the Saar Valley, area 738 square miles, population, 1922, 713,100, is under the League of Nations and to be exploited by France for fifteen years, then submitted to plebiscite.

The plebiscite in Upper Silesia, March, 1921, resulted in a majority for retention in the Reich, but, notwithstanding, that territory of 1,255 square miles with a population of 891,669 was annexed to Poland.

The Ruhr, seized and held by France and Belgium under the "sanctions" of the Treaty of Versailles on Jan. 11, 1923, and extended subsequently, is a territory of approximately 965 square miles with 4,000,000 inhabitants. It was evacuated Oct. 14, 1925.

The Conference of Ambassadors, on Nov. 11, 1925, received a satisfactory reply from the German Government on the question of disarmament, and on Nov. 14 announced that the evacuation of the Cologne zone would begin at once. The British troops left Jan. 30, 1926, their soldiers accompanied by 800 German wives. The French evacuated Bonn soon after, and the Belgians Krefield, restoring the north Rhineland zone to Germany. Baron Langwerth von Simmern was appointed Reich Commissioner for the Rhineland.

The Inter-Allied Commission of Military Control, numbering 150 officers, left Berlin on Jan. 31, 1927, leaving the matter of oversight to the League of Nations. During the seven years of its control, 33,000 inspection trips were made and the Commission had ordered the destruction of 54,000 guns, 100,000 machine-guns, 14,000 airplanes, 27,000 aircraft engines, 174,000 gas-masks, 588,000,000 rounds of small ammunition, 39,000,000 shells and mines, 36,700 tons of gunpowder, 6,000,000 small arms, 28,469 mine-throwers, and 59,000,000 fuses.

An agreement had been reached on "regulation of the manufacture and export of munitions by the Reich," and for the destruction of 34 of the 88 concrete gun emplacements built around Koenigsburg and Custrin which was completed in May.

STATES AND PROVINCES.

Germany (Deutsches Reich), now a federation of republics in Central Europe, is bounded on the north by the North Sea, Denmark and the Baltic Sea, on the east by Poland, Czechoslovakia and Austria, on the south by Czechoslovakia, Austria and Switzerland, and on the west by France, Luxemburg, Belgium, Holland and the North Sea.

The states of the Reich, with the Provinces of Prussia and Bavaria enumerated under each, with their land area and populations as returned by the census of June 16, 1925, are:

States of the Reich.	*Land Area Sq. Miles.*	*Pop. in 1925.*
Prussia (Free State)	113,033	38,109,922
East Prussia	14,804	2,258,324
Greater Berlin	339	4,013,583
Brandenburg	15,072	2,538,688
Pomerania	11,663	1,877,324
Border Province (Grenzmark, Posen, West Prussia)	2,971	332,443
Lower Silesia	10,276	3,126,273
Upper Silesia	3,746	1,377,330
Saxony	9,753	3,279,145
Schleswig-Holstein	5,815	1,518,164
Hanover	14,897	3,188,086
Westphalia	7,806	4,319,061
Hesse-Nassau	6,063	2,383,799
Rhineland (excluding Saar)	9,474	7,221,675
Waldeck	503	55,750
Hohenzollern	441	71,773
Bavaria (Free State)	29,334	7,379,594
Upper Bavaria	6,437	1,684,766
Lower Bavaria	4,148	755,769
Palatinate (Exc. Saar)	2,124	931,775
Upper Palatinate (Oberpfalz)	3,726	629,262

Upper Franconia	2,898	757,515
Middle Franconia	2,935	998,386
Lower Franconia	3,260	762,744
Suabia	3,307	859,397
Saxony (Free State)	5,789	4,990,138
Wurttemberg (People's State)	7,532	2,579,453
Baden (Republic)	5,819	2,312,462
Thuringia (Federated State)	4,527	1,609,300
Hesse (People's State)	2,970	1,347,295
Hamburg (Free & Hanse State)	160	1,152,489
Mecklenburg-Schwerin (Fr. St.)	5,069	674,411
Oldenburg (Free State)	2,480	545,749
Brunswick (Free State)	1,418	501,675
Anhalt (Free State)	888	351,485
Bremen (Free Hanse State)	99	338,846
Lippe (Free State)	469	163,577
Lubeck (Free and Hanse State)	115	127,971
Mecklenburg-Strelitz (Fr. St.)	1,131	110,371
Schaumberg-Lippe (Free State)	131	48,044
Total—German Reich	180,976	62,348,782
German territory occupied by the Allies:		
Saar Basin	738	770,000
Complete total	181,714	63,118,782

The Free State of Waldeck was annexed to Prussia April 1, 1929.

GERMAN CITIES.

Germany has forty-six cities with over 100,000 inhabitants and forty-six between 50,000 and 100,000. The population of those over 100,000, by the census of June 16, 1925, was:

Berlin	4,013,588	Barmen	187,239
Hamburg	1,079,092	Altona	185,135
Cologne	698,064	Cassel	171,483
Munich	680,704	Elberfeld	167,025
Leipzig	679,159	Augsburg	165,522
Dresden	619,157	Bochum	156,762
Breslau	554,801	Aachen	155,222
Essen	468,696	Braunschweig	146,654
Frankfort-A-M.	461,849	Karlsruhe	145,694
Dusseldorf	431,096	Erfurt	134,973
Hanover	422,435	Crefeld	130,425
Nurnberg	392,494	Mulheim-A.-R.	127,195
Stuttgart	341,461	Hamborn	126,043
Chemnitz	333,851	Lubeck	120,788
Dortmund	320,256	Munchen Gladbach	115,066
Bremen	294,966	Plauen	111,398
Magdeburg	292,296	Mainz	108,552
Konigsberg	279,880	Munster	105,889
Duisburg	271,790	Oberhausen	105,121
Stettin	253,727	Wiesbaden	102,557
Mannheim	247,486	Ludwigshafen	101,869
Kiel	213,587		
Gelsenkirchen	207,153		
Halle-on-Saale	193,722	Saarbrucken	125,800

The climate of Germany is quite mild in summer and rather cold in winter, as in all western Europe. Its soil is not naturally fertile, being largely a glacial plain over which the action of the ice moved much sand; it has always demanded unusual artificial fertilization. The land naturally was heavily wooded, there being in the country about 112,000,000 acres, of which 31,769,686 acres were forested in 1922. Forestry is far advanced, perhaps more perfected as a science than in any other country. The Black Forest of Germany is famed for its timber and as a resort. The highest mountains are the Bavarian Alps in the south. The northern part is a plane sloping to the north and west.

NATIONAL WEALTH.

The national wealth of Germany on July 1, 1924, is estimated by the Bankers' Trust Company as approximately $55,000,000,000; the accepted pre-war estimate of Dr. Karl Helfferich was $73,000,000,000. The German Statistical Bureau in May 30, 1926, estimated the national wealth as between 52 and 60 billion marks.

Just before the World War there were, it is estimated, 15,547 mark millionaires in Germany. After deflation in 1923, the number was 3,917, but in 1928 that figure had been doubled. The former Emperor William is still the richest man, his wealth being placed at 430 million marks (about $103,200,000) of which roughly 200 million marks is in landed property including 81 castles. Frau Bertha Krupp von Bohlen is credited with more than $72,000,000, and Fritz Thyssen with an income of $720,000.

A correspondent of the London Economist figures that Germany lost 2,000,000 men in the World War, of which 25 per cent. were between the ages of 19 and 22, and 60 per cent. between the ages of 19 and 29; that 800,000 civilians died for lack of food; and that there was a decrease in births amounting to 3,500,000. The birth rate per thousand was 28.3 in 1913; 14.4 in 1917; 25.4 in 1922; 20.4 in 1925, 21.5 in 1926; and 18.3 in 1927. The death rate in 1925 was 11.9; 12.6 in 1926; and 11.9 in 1927. In the large cities in 1926 the birth rate was 14.7 and the death rate 10.8. The average duration of life is now 60 years, or 10 years more than before the war, according to the Statistical Bureau.

Pensions of one kind or another amount to $425,000,000 out of a budget of ab ut $2,000,000,000. The pension load is 70 per cent of all payments, including reparations, which Germany is making for losing the war. Of those pensioned, 768,660 are disabled soldiers, 370,981 war widows, 917,000 war orphans, 256,126 parents of war dead; also on the pension list are 31,000 widows of government officials, and 8,700 orphans; and in addition 36,900 army and navy officers of the old regime are drawing pensions and over 57,000 former civilian officials. The maximum amount of a pension was reduced to 12,000 marks a year by a law passed Feb. 19, 1929.

Germany has freedom of religious worship, and there is no state church. The census of 1925 returned Lutherans, 40,014,677 (64%); other Protestants, 87,580; Catholics, 20,193,334 (32%); Jews, 564,379 (.9%); other unclassified, 1,550,649.

The 1927 school census returned 52,320 public elementary schools, with 137,124 male and 43,149 female teachers, and 6,629,879 pupils. There were also 675 private schools with 35,584 pupils. There were 1,342 secondary schools for boys with 25,128 teachers and 453,229 pupils, and 823 high schools for girls with 14,831 teachers and 299,190 pupils. There were ten technical high schools with 1,923 teachers and 20,927 pupils in 1927.

There were, in 1927, 46 professional schools with about 15,000 students. There are 23 universities, with 5,175 professors and teachers in 1927, and 72,139 students; 65,024 in 1926.

Before the war Germany had a virtual monopoly of potash for the world. The return to France of Alsace-Lorraine divided the potash territory. Production in 1928 was 1,421,400 metric tons; in 1927, 1,239,406 tons; 1926, 1,099,872 tons; 1925, 1,202,957 tons; 1924, 809,112 tons; and 1923, 1,130,761 tons.

Industrial development in Germany is not only far advanced but also extremely diversified. The necessity of buying about half of the food consumed compelled large development of industry and mining, with effort to sell products in all foreign markets. Germany's pre-war foreign trade assumed large proportions and was growing rapidly.

At the end of October, 1926, there were in Germany 12,392 stock companies with an aggregate capital of 20,354,000,000 marks. Of that number, 1,967 companies with total capital resources of 13,242,000,000 marks were amalgamated in large concerns, which now includes 65% of all stock capital in Germany.

FOUNDING OF THE REPUBLIC.

Two days before the armistice, that is, on Nov. 9, 1918, the abdication of the German Emperor, William II., was announced. He had fled to Holland, where he has since been living under Dutch surveillance at Doorn. The self-constituted Council of People's Commissioners took over the Government and declared the existing Imperial Parliament dissolved and proclaimed the republic. The reigning Princes of the Federal states were either deposed or abdicated. A call was issued for the election of a National Assembly. Elections, at which all Germans, men and women over twenty years of age, voted, were held in January, 1919. The composition of the National Assembly thus chosen was: Majority Socialists, 165; Centre (Catholic) Party, 90; Democrats, 75; Conservatives, 42; Independent Socialists, 22; German People's Party, 22; scattering, 7; total 423. It met at Weimar, Feb. 6, 1919, and elected Friedrich Ebert President of the republic on February 11. His term was extended to June 30, 1925.

The National Assembly adopted a Constitution July 31, 1919. It was promulgated Aug. 11, celebrated as Constitution Day. Foreign relations defense, customs, taxation, and railway service are declared Federal matters; each component state must have a republican Constitution; universal suffrage, secret ballot, and proportional representation are provided for. Freedom of speech, of the press and of assembly is guaranteed. The Cabinet, appointed by the President, must have the confidence of the Reichstag. The Reichsrat consists of 66 members (Prussia 26, Bavaria 10, Saxony 7, Wurttemberg 4, Baden 3, and other states 16.)

In 1920 the German states surrendered to the Berlin Central Government the right to control direct taxes, hitherto held jealously by the several states. Increases of the direct tax rates followed, income taxes rising 50 per cent.

The President of the Republic is Field Marshal Paul von Hindenburg. Friedrich Ebert, the first President of the Reich, who was elected on Feb. 11, 1919, died following an operation for appendicitis on Feb. 28, 1925. Dr. Walter Simons was elected President ad interim by the Reichstag and a general election called for Mar. 29. This election was inconclusive, no candidate receiving a majority of the 26,856,002 votes cast, about 69 per cent of the qualified electorate. More than 21,000,000 German women have the right to vote and a little less than

19,000,000 men. The second election, held on April 26, resulted as follows: Field Marshal Paul von Hindenburg, 14,655,766; Dr. Karl Marx (Centre), 13,751,615; Ernst Thaelmann (Communist), 1,931,151; scattering, 13,146; total, 30,351,948. Hindenburg's plurality, 904,151.

The present Reichstag was elected for four years on May 20, 1928. The composition is: Socialists, 152; Nationalists, 73; Centrists (Catholic), 61; Communists, 54; People's Party, 45; Democrats, 25; Economic League, 23; Bavarian People's Party, 17; Christian Nationalist Peasants, 13; Fascists, 12; German Peasants, 8; Land League; 3; People's Rights, 2; Saxon Peasants, 2; Total 490. The total vote was about 30,500,000 of which the Socialists polled over 9,000,000, gaining 21 seats, and the Communists about 3,500,000, chiefly in Berlin, gaining 9 seats. The Nationalists lost 38 seats. In Berlin 1,310,011 women voted and 1,171,127 men. Thirty parties took the hazard of the polls. Chancellor Marx resigned on the opening of the Reichstag, June 12, 1928. Dr. Hermann Mueller, leader of the Socialist and a former Chancellor, was made Chancellor and completed his "Ministry of Personages" on June 28.

A commercial treaty with France went into effect Sept. 7, 1927. It is expected to greatly improve trade as the Germany exports to France were then only 34% of pre-war figures, and French exports to Germany only 63%. A commercial treaty with Japan was signed July 30, 1927.

The Tariff law of August, 1925, which put duties on food and heavily increased the duties on automobiles, typewriters, cash registers, calculating machines, and other similar products, expired on July 31, 1927, and was prolonged until January, 1930, with an increase of the duty on sugar of 150%, on potatoes, 100%, and on pork, 50%. German postal rates were increased by an average of 50% on Aug. 1, 1927.

A bill for local option in control of the liquor trade was introduced in the Reichstag in 1923. It came to a vote in 1925 and was rejected by 200 to 168; again introduced it was rejected by 191 to 164, again introduced and was rejected on May 11, 1926, by a vote of 24 to 163. The Socialists and Communists gave it their united party support.

FINANCIAL TROUBLES.

The financial, economic and industrial catastrophe that Germany faced with the occupation of the Ruhr, in January, 1923, reached its ultimate crisis in September, 1923, with the utter collapse of the mark, widespread unemployment and despair, producing a state bordering on social revolution. The paper mark reached an incredible depth and the output of paper currency reached its peak in December at this figure—496,507,424,771,973,774,000 paper marks.

The provisional gold mark budget for 1924-25, following the inflation period, as prepared for the London Conference where the Dawes's plan was worked out, was balanced at 5,274 million gold marks but with a special expenditure of 640 million marks for execution of the Versailles Treaty.

The revenue for 1924-25 was 7,713 million marks, the estimate having been 5,243 million; expenditures reached 6,664 million marks as compared with the budget's estimate of 5,710 million. Federal expenditures amounted to 3,057 million out of the total; provincial expenditures to 2,629 million; indemnities to Ruhr industrialists on account of the occupation of the Ruhr, to 518 million, and for reparation account to 460 million marks. The gross surplus remaining over expenditures amounted to 1,049 million marks.

The budget for 1925-26 was: Revenue, Rm.7,348,689,187; expenditures, Rm.7,419,538,859. The actual receipts were Rm.7,178,271,705 and actual expenditures, Rm.7,641,602,096. The deficit of Rm.462,000,000 is deceptive as certain items in fact belonged to the previous year and were paid out of that year's surplus of Rm.659,000,000. Reparation payments were Rm.299,000,000.

The total Federal, State and Municipal tax collections in the fiscal year 1925-26 were 10,101,000,000 marks, or 161.85 marks per capita. Corresponding figures in 1913 were 4,059,000,000 marks, and 70.21 marks per capita.

The ordinary budget for 1926-27 was balanced at Rm.7,326,081,455. There was also an extraordinary budget balanced at Rm.300,696,957, of which Rm.293,824,650 on the revenue side was from loans; and of the expenditure Rm.69,859,000 was a contribution of reparation, and Rm.104,166,667 was also for reparation payments; there was also an item of Rm.496,166,666 in the ordinary budget for reparations.

Final figures for the budget of 1927-28 showed: Ordinary—Revenue, Rm.10,277,600,000; expenditures, Rm.10,231,100,000; Extraordinary—Revenue, Rm.216,300,000; expenditures, R1,121,300,000.

The budget estimate for 1928-29 was: Ordinary—Revenue, Rm.9,563,331,000; expenditures, Rm.9,563,331,000. Extraordinary—Revenues, Rm.146,295,000; expenditures, Rm.142,595,000. The total receipts from taxation during the fiscal year amounted to Rm.9,023,000,000.

The budget for 1929-30 was balanced at Rm.10,079,148,000 ($2,398,837,000).

The National Debt as of March 31, 1929 was: Foreign, Rm.877,100,000; internal Rm.8,072,000,000, total, Rm.8,949,900,000 ($2,130,100,000).

The Union of German Cities (those whose population exceeds 25,000) had a total debt on June 30 1928 of Rm.2,466.8 million.

The Reichsmark (=23.82 cents) has fluctuated but slightly since 1924.

The Reichsbank on July 31, 1929 had gold reserves at home amounting to Rm.2,148 million, and gold reserves abroad amounting to Rm.334 million; its note circulation was Rm.4,727 million and rentenmarks, Rm.432 million, having a gold cover of about 48%. Its capital is Rm.300 million of which Rm.122,788,100 are paid in. The total turnover in 1928 was Rm.819,900 million.

The merger on Sept. 25, 1929 of the Deutsche Bank and the Disconto Gesellschaft with a combined capital of Rm.285 million, total resources of Rm.445 million and total deposits of Rm.4,300 million brought the new bank with its 300 branches the leadership in the German banking world.

Savings banks deposits rose from Rm.1,629 million Dec. 31, 1925 to Rm.3,381 million in Jan., 1927, to Rm.5,094 million in Jan., 1928, and to Rm.8,500 million, Sept. 30, 1929.

From 1914 to June 30, 1929, a study issued by the United States Department of Commerce says, reveals 168 bond and stock issues were publicly offered in the United States, the new nominal capital obtained from the sale of these securities amounting to $1,179,000,000. Of these, only seven, totaling about $20,500,000, were sold prior to October, 1924. During the earlier period, many more millions of American capital were invested in German securities and properties but these investments were not publicly offered.

German borrowings in the United States during 1924 amounted to $118,000,000, while for the four calendar years following they ranged from $220,000,000 to $295,000,000 annually.

German governmental loans amounting to about $383,000,000 account for slightly less than one-third of the total German borrowing in the American market during that period. The Central Government, with only three loans, including the $110,000,000 Dawes Loan of 1924 and two $10,000,000 issues of 1915 and 1916, respectively, received the largest portion obtained by any governmental entity. Seven different German States and Provinces obtained funds in the American market to a total of $121,000,000. Bavaria, with three loans totaling $43,000,000, was the heaviest borrower. German municipal loans had a total par value of about $132,000,000, representing loans to 13 individual cities and to four groups of cities.

The par value of publicly offered German corporate loans purchased in the American market to June, 1929 amounted to about $813,000,000, or over two-thirds the total German financing in this market. Of this total, $796,000,000 was no capital. Banking and credit companies were the heaviest borrowers among German corporations, receiving a total of about $251,000,000. German public utilities were a close second, obtaining a total of new capital of about $231,000,000. The iron and steel industry and the electrical equipment manufacturers also borrowed heavily, their respective totals being $113,000,000 and $61,000,000.

The fifth year of the Dawes' Reparation Plan ended on August 31, 1929, with the German obligations again promptly met. (For the Dawes' Plan see The World Almanac for 1925, pages 173-75; the Almanac for 1926, pages 169-70; the Almanac for 1927, page 181; the Almanac for 1928, page 183; and the Almanac for 1929, page 158. For the financial rehabilitation of Germany see The World Almanac for 1927, pages 622-24; for 1928, pages 621-22; and for 1929, pages 620-21. For the Young Reparation Plan consult Index.)

The German Railways Company (Deutsche Reichsbahn) organized by the Dawes's Commission, is the largest railroad system in the world, comprising 30,000 miles of track, and employs more than 700,000 men. It has Rm.881,000,000 preferred stock followed by Rm.13,000,000,000 common stock owned by the German Government. Prior obligations consist of Rm.11,000,000,000 5 per cent. Bonds held in trust for the Allied Governments, and an obligation imposed by the Dawes Commission to set aside annually out of the gross income a reserve of 2 per cent. until this fund totals Rm.500,000,000. The balance sheet of the company for 1927 showed operating revenue 5,039,269,222 marks, operating expenditure, 3,437,837,013; replacements, 720,926,556; surplus, 880,505,654; net profit, 234,830,875. Passengers carried

numbered 1,923,700,000 in 1927 (1,819,400,000 in 1926). The railroad by permission of the Arbitration Board raised freight rates 11% on Oct. 1, 1928, as was recommended by Reparations Agent Gilbert, though refused by the Cabinet. Dr. Julius Dorpmueller was elected Director General in June 1926.

According to the Treaty of Versailles, the strength of the German Army after March 1, 1920, was reduced to seven divisions of infantry and six divisions of cavalry, total strength, 100,000. Germany received permission from the Allies in January, 1921, to organize a "security police" (called Schupo) of 150,000 men. Conscription was forbidden and the men enlist for a period of 12 years. Lt. Gen. Wilhelm Heye commands the Reichswehr.

The navy under the Versailles treaty is purely a coast defense force and recruited on a volunteer basis. The fleet consists of 8 pre-war dreadnoughts of about 13,000 tons and all over 20 years old; 7 old light cruisers and one new one, the Emden, completed in 1925; 26 old destroyers, and 6 launched in 1926 to replace worn out vessels. No submarines are allowed. The personnel may not exceed 15,000 men. The construction of a 9,000-ton cruiser at a cost of 80 million marks was authorized by the Reichstag in April, 1928, and ordered by the Cabinet. It will have Diesel motors of 50,000 horsepower and 6 11-inch guns with a range of 15 miles. The speed is 26 knots.

IRON, STEEL AND COAL.

Previous to the disorganization of the German iron and steel industry by the occupation of the Ruhr, the manufacturers had profited from the inflation boom, which gave them extremely low production costs. In 1923 they were cut off from unoccupied Germany as well as from their foreign markets. Production of pig iron was; 1928, 11,804,330 metric tons; 1927, 13,102,582 tons; 1926, 9,643,519 tons; 1925, 10,177,000 tons; 1924, 7,812,000 tons; ingot steel, 1928, 13,310,000 tons; 1927, 16,305,000 tons; 1926, 12,342,000 tons; 1925, 12,193,000 tons; 1924, 19,835,000 tons; finished steel, 1928, 11,562,590 tons; 1927, 12,866,773 tons; 1926, 10,276,000 tons; 1925, 10,246,000 tons; 1924, 8,174,000 tons.

Germany lost 75.4 per cent. of the Upper Silesia output to Poland in May, 1922. The Saar Basin is forfeited to France for fifteen years more; the Lorraine fields are absolutely lost to France, Aix-la-Chapelle is in the territory occupied by Belgium.

Germany was forced to import 12,500,000 tons of coal in 1922 and 25,000,000 in 1923. In 1927, imports totaled 5,334,000 tons of which Great Britain furnished 3,267,000 and the Saar 1,167,000.

The output of coal was: 1928, 150,875,814 metric tons; and 1927, 153,595,443 tons; lignite, 1928, 166,224,159 tons; and 1927, 150,852,985 tons. The Ruhr mines employ an average of 880,000 miners and produce about 80% of the coal. Exports of hard coal and lignite (converted in terms of hard coal) amounted to 157,400,000 metric tons in 1928 and reparation deliveries to 10,263,000 tons of coal 72 000 tons of coal briquets, 3,926,000 tons of coke, and 437,000 tons of lignite briquets. Some petroleum is produced in Hanover, 96,883 metric tons in 1927.

To avoid the bitter competition which threatened ruin to the new steel industry of France and the reorganized steel interests of Germany, an international steel combine was formed by the big industrialists in September, 1926. By agreement, the annual output of the steel syndicate will have a minimum of 26,000,000 tons and a maximum of 30,000,000, to be apportioned among the members according to the following percentages: Germany, 43.50; France, 31.19; Belgium, 11.56; Luxemburg, 8.55; and Saar Valley, 5.20. These percentages are to be observed as closely as possible. For every ton of steel manufactured within the allotted quota each country is to deposit $1.00 in a common fund. In case a country fails in any one year to produce its alloted percentage of the total minimum of 26,000,000 tons, $2.00 per ton will be refunded of it. Invitation was extended to the British steel industry but it was unwilling to join.

Production in 1928 was: Germany, 14,500,000 metric tons (1,700,000 tons more than her allotment); France, 9,387,000 tons; Belgium, 3,821,000 tons; and Luxemburg, 2,571,000 tons. Production for 1929 was fixed on March 14 at 29,587,000 tons.

The Czechoslovakian, Austrian and Hungarian steel makers joined the Combine Dec. 11, on an annual quota of 2,000,000 metric tons of steel on a basis of 70%, 20% and 10% respectively. The Yugo-Slavian interests joined in 1927.

The United Steel Works, Germany's largest trust, began operations on May 14. The Thyssen, Phoenix, Rheinstahl and Deutsch Luxemburg steel works were joined to form the combine, which controls sixty-five furnaces and which can produce annually 3,700,000 tons of steel, 2,500,000 tons of pig-iron, 3,000,000 tons of coke and 30,000,000 tons of coal. Its capital is Rm.800,000,000 (about $200,000,000). Dr. Fritz Thyssen, son of the late August Thyssen, is Chairman of the Board of Directors.

Even larger, and the largest corporation in Europe is the "chemical syndicate," the I. G. Farbenindustrie A. G., which has just raised its capital to Rm. 1,100,000,000 (about $262,000,000). This covers practically the whole field of chemical industries and contemplates great development in fertilizers, motor fuels and other new lines. Net profits in 1926 were Rm.68,718,000. Germany's chemical exports in 1927 were valued at $310,664,970, and in 1928, $331,000,000.

The German textile industry according to the official census of 1926 had 10,417,000 spindles with an addition of 1,131,000 twisting spindles. Imports of all classes of cotton was 2,103,613 bales in 1927 and 1,466,000 bales in 1926. Shipments from America were 1,769,413 bales in 1927 and 1,243,887 in 1926. Germany in 1927 had 4,293 textile establishments employing over 50 hands; the total number of employees was 913,149 and the amount of primary horsepower used was 1,168,483.

UNEMPLOYMENT.

According to the industrial census of June 16, 1925, there were in Germany 1,842,913 industrial establishments, employing 12,482,442 workpeople, (9,609,629 males, being 77% of the total, and 2,872,813 females, being 23% of the total).

Although Germany lost in the World War 2,000,000 men, that loss has now (1928) been made up, says the Statistical Bureau which estimated that in 1927 the number of wage earners was 14,400,000 (of which 4,800,000 are women), an increase of 3,000,000 over 1807, the last labor census of this kind.

When the Ruhr was cut off unemployment increased greatly. The number of unemployed in unoccupied Germany in receipt of doles, April 1, 1923 was 222,410. By Oct. 1, with the collapse of the mark, the number had risen to 534,360, with 1,158,061 short time workers also receiving doles. On Nov. 1, the numbers were 954,664 and 1,719,738 respectively, and the highest figures were reached Dec. 1, with a total of unemployed and short time workers of 3,264,285, and the number of dependents of unemployed in receipt of doles was 1,449,738. At the same time there were estimated to be not less than 2,500,000 unemployed and short time workers in the occupied territories, making a total for Germany of 5,700,000, with about 2,400,000 dependents for the whole of Germany, so that the number receiving doles was 8,100,000 throughout the winter.

With improved conditions the number unemployed receiving doles was 475,000 on April 15, 1924, 588,000 on Aug. 1, 426,000 on Nov. 15, 591,667 on Feb. 1, 1925; 321,000 on May 1. Low mark was reached in midsummer, Aug. 1, 197,248; Nov. 1, 363,961; Feb. 1, 1926, 2,031,000; May 1, 1,782,000, July 1, 1,743,000; Nov. 1, 1,340,000; March 15, 1927, 1,438,000; July 1, 493,000; Oct. 15, 329,000; Jan. 1, 1928, 1,446,000; June 15, 598,000; Aug. 1, 564,000; Dec. 1, 1,030,000;aMay 1, 1929, 1,136,000; Aug. 1, 710,000. The cost of the dole in 1927 was 906,300,000 marks, and in 1926, 1,226,900,000 marks.

A new unemployment insurance law went into effect Oct. 1, 1927. By Jan. 1, 1928, the average number of workers contributing was 15,810,000 and the average number in receipt of unemployment relief or employed in relief work was 780,000. The average monthly payment per insured person was 4.02 marks. The receipts from insured persons and their employers during the first three months was 190 million marks, and emergency relief contributed by state and local authorities 33 million marks; expenditure was 146 million marks. In 1928 receipts amounted to 852 million marks, and expenditures totaled 914.4 million marks.

The cost of living during 1927 increased from an index average of 144.6 in January to 151.3 in December (1913 equals 100). The December index was the highest of the year; the average general index for 1926 was 141.2.

Emigration figures are: In 1913, 25,800; 1921, 23,451; 1922, 36,527; 1923, 115,416; 1924, 58,328; 1925, 62,828; 1926, 65,281; and 1927, 60,789.

The eight-hour day established by the so-called demobilizadecres of Nov. 22 and Dec. 1, 1918, and March 18, 1919, lapsed on Nov. 17, 1923, and were replaced by a decree of Dec. 21, in force Jan. 1, 1924, which re-established the eight-hour day, but with many exceptions. Many industrial battles had been fought, but all were short and ended in the defeat of labor. Government employees were put on a nine-hour day.

The Reichstag in 1926 created Labor Courts with jurisdiction for all disputes, individual or collective.

which were placed under State jurisdiction in each State. One employer and one employee will sit as assessors with the judges who may be non-professional.

The trades unions have made great strides since the war. The membership of the 35 national unions affiliated with the German Federation of Labor on Jan. 1, 1929 was 4,869,782, as compared with 8,068,935 on Sept. 1, 1922, and 3,500,000 in 1924. Receipts for 1928 were estimated at 200 million marks.

AGRICULTURE.

The areas under cultivation are still considerably less than in 1913. Production per acre decreased, due, it is believed, to a lessened use of fertilizers owing to the high prices. The census for farm stock in Dec. 1927, returned: Horses, 3,805,500; cattle, 17,989,900; pigs, 22,880,300; sheep, 3,813,400; goats, 3,217,800; geese, 5,481,300; ducks, 2,563,000; chickens, 71,033,100; and beehives, 1,630,400.

The harvest in 1928 was: Wheat, 3,464,000 metric tons from 4,326 800 acres; rye 7,935,000 tons from 11,613,272 acres; barley, 3,347,000 tons from 3,793,795 acres; oats, 6,996,500 tons from 8,783,595 acres; sugar beets, 11,011,000 tons from 1,058,160 acres; potatoes, 41,269,000 tons; and hay, all kinds, about 35,000,000 tons.

The output of beet sugar from the 250 factories in 1928 was 1,354,017 metric tons; and in 1927, 1,675,279 tons.

There were in 1928, 51,556,972 acres of arable land, 20,165,876 acres of grass, meadows and pastures, and 204,575 acres of vineyards. Production of wine in 1927 was 31,407,618 gallons.

The number of farms or agricultural inclosures of all kinds and acreage was:

Size of Farms.	No.	Acreage.
Under 5 acres	3,378,509	4,276,338
5 to 12.5 acres	1,006,277	8,163,049
12.5 to 100 acres	1,065,539	25,741,263
100 to 250 acres	262,191	23,025,549
250 to 1,250 acres	20,068	11,122,813
1,250 to 2,500 acres	3,129	5,073,039
Over 2,500 acres	369	1,229,993

The farms gave employment to 13,191,480.

Germany's agricultural co-operative societies had, on July 1, 1923, a total strength of 37,430, with a membership of 4,652,125 farmers. Although agricultural co-operation in Germany has had no phenomenal growth, it has increased since 1895 at a healthy and fairly constant rate. German agricultural co-operatives are united in thirteen major associations, the most important of which is the Federal Association of German Agricultural Co-operatives, with a membership of thirty-three state and provincial associations composed of 19,863 co-operatives with a turnover in 1921 of 181,000,000,000 marks.

Beer brewed in 1925 by 2,511 breweries with capacity exceeding 500 hectolitres, amounted to 47,560,000 hectolitres (1,255,584,000 U. S. gallons).

Germany's merchant marine has grown from the 600,000 tons, to which it was reduced, by the execution of the Versailles Treaty, to 4,057,657 gross tons, as of July 1, 1929, and of its ships 40% are less than six years old; of these 1,704 of 3,457,878 tons are steamships, and 401 of 589,799 tons are motorships. The Hamburg-American Line which before the war had 1,001,865 gross tonnage, now has 879,000, and the North German Lloyd which had in 1913, 815,535, now has 613,000 (1927).

The North German Lloyd Steamship Co. in 1928 launched sister ocean liners, at Hamburg on August 15 the Europa christened by the American Ambassador Dr. J. G. Schurman, and at Bremen on August 16 the Bremen christened by President von Hindenburg. Each is of 46,000 tonnage, 938 feet long, exceeding by 25 any steamship now afloat, and has accommodations for 2,200 passengers and a crew of 1,000. They are oil burners with four turbines. The Bremen, on her maiden voyage, clipped 9 hours off the Atlantic record.

In 1927 there entered German ports 85,971 vessels of 39,912,470 tonnage.

The port of Hamburg set a new record in 1927 when 16,332 ocean going vessels of 19,749,000 net tonnage entered the port as against 14,778 vessels of 17,428,000 tons in 1926. Hamburg passed Rotterdam and became the second port in the world in 1928, when 17,268 vessels of 21,448,203 gross tons entered. Through the Kiel Canal there passed in transit in 1928, 54,102 vessels of 20,308,000 net tons of which 27,171 were steamers and motor ships of 18,533,000 net tons.

FOREIGN TRADE.

In 1913 Germany's foreign trade formed 13.3% of the world's commerce; and in 1927 it had so far recovered as to reach 10.8%.

Trade for the last six years, in gold marks, including gold and silver, was:

	Imports.	Exports.
1923	6,081,391,000	6,079,154,000
1924	9,316,841,000	6,586,854,000
1925	13,146,000,000	8,838,000,000
1926	10,566,200,000	9,854,000,000
1927	14,142,900,000	10,797,100,000
1928	14,045,400,000	12,052,900,000

Trade with the United States was:

	Imports.	Exports.
1922	$316,113,877	$117,497,692
1923	272,131,786	149,612,687
1924	281,663,972	147,636,972
1925	470,344,233	164,250,508
1926	364,161,630	198,494,641
1927	481,680,921	200,554,291
1928	467,205,408	221,978,785

GREECE, REPUBLIC OF

THE HELLENIC STATE.

AREA, 49,022 square miles—Old Greece (1912), 25,223 square miles; territory added by the Balkan wars—Macedonia, Epirus, and the Aegean Islands—20,617 square miles; territory added by Lausanne Treaty, 3,182 square miles.

POPULATION, census of 1920, 5,447,077; divided, Old Greece, 2,800,164; new territories—Macedonia, 1,144,310; Epirus, 213,276; Crete and six other Aegean Islands, 619,630—total, 2,646,913. Official estimate May 16, 1928, 6,204,684.

CAPITAL, Athens; population, May 16, 1928, estimate, 452,919; Salonica (1925) 236,524; The Piraeus, 251,328; Patras, 61,278.

President (*Provisional*), Admiral Paul Koundouriotis.

Premier, Elentherios Venizelos, (Liberal) July 3, 1928.

Minister for Foreign Affairs, Andrew Michalakopoulos.

Greece occupies the southern peninsula of the Balkans, stretching down into the Mediterranean Sea, with the Ionian Sea on the west and the Aegean Sea on the east. On the northwest lies Albania, on the north Yugo-Slavia and Bulgaria, and on the northeast Turkey. It is about the size of New York State. The Indus Mountains, with many spurs, a continuation of the Balkans, runs through the country from north to south. Gulfs and bays are many, the Gulf of Corinth, connected by four mile canal (opened Nov. 9, 1893) with the Gulf of Aegina, practically cuts off the Peloponnesus from Attica and the northern part of the country.

The authentic history of Greece begins in 776 B. C. and it obtained its greatest glory and power in the fifth century B. C. It became a province of the Roman Empire in 46 B. C., of the Byzantine Empire 395 A. D., and was conquered by the Turks in 1456. Greece won its war of independence in 1821-29 and became a kingdom under the guarantee of Great Britain, France and Russia.

In 1912 Greece consisted of continental Greece and Peloponnesus, the island of Euboea, the Cyclades in the Aegean Sea (about 220 in number), the Sporades in the Aegean, and the islands in the Ionian Sea (Corfu, Zante, and others). The area was 25,223 square miles and the population of this territory in 1920 was 2,800,164. The Balkan wars (with Turkey, Oct. 17, 1912, to May 30, 1913, and with Bulgaria, June 30, to Aug. 10, 1913), added 20,617 square miles to her territory and 2,646,913 people, making the total area of Greece 41,933 square miles and the total population 5,447,077. This new territory consisted of Macedonia (pop., 1920, 1,144,310); Epirus (213,276); the Aegean Islands—Crete (345,149); Mytilene (146,852); Samos (65,756); and Chios (61,873).

By the Lausanne Treaty (1923) 3,182 square miles were added. In the exchange of nationals with Turkey it is estimated the population of Greece increased 1,136,000 by refugees who were largely settled in Macedonia and Thessaly.

As a result of the great war under the ill-fated and never ratified Treaty of Sevres, 1920, Greece obtained Western and Eastern Thrace, which stretched along the northwestern shore of the Dardanelles and the Sea of Marmora as far as the Bosphorus, Turkey being expelled from all except Constantinople and a triangular district, thirty by forty miles, about it. The Straits were placed under Allied control, the European shore to be under Greek sovereignty, but a neutral zone being established nine miles inland.

Part of the west coast of Asia Minor, of which Smyrna was the chief city and port, was also given by the treaty to Greece for administration, though under Turkish sovereignty. Greece also received the whole coastline of the Aegean Sea and the land back to the crest of the Rhodopian Mountains on the Bulgarian frontier.

As a result of the defeat of the Greek Army by

Mustapha Kemal in September, 1922, Greece was driven out of Asia Minor and Thrace. This was confirmed by the Treaty of Lausanne, which gave back to Turkey Eastern Thrace and Adrianople as far as the Maritza River from Adrianople to Enos on the Aegean. The Greek inhabitants were driven out of Turkey and for five months in 1922-23 the American Red Cross alone cared for 868,000 refugees, and the Near East Relief for thousands of others. Refugees from Constantinople alone in 1924 numbered 36,625. It is estimated that 1,500,000 Greeks were expelled from Turkey, the care of most of these refugees—largely penniless—was taken up by the League of Nations Settlement Committee, headed by ex-United States Ambassador Henry Morgenthau.

The Dodecanese Islands, off the Asia Minor coast (population, 100,187 in 1917), had been seized by Italy during her war with Turkey over Tripoli in 1912, though then claimed by Greece, whose claim was recognized by the powers. Italy has spent much money in developing the port of Rhodes.

Imbros and Tenedos, which commanded the entrance to the Dardanelles, had been occupied by Great Britain during the Gallipoli campaign and had been ceded to Greece, but these were turned over to Turkey on Sept. 21, 1923, under the provisions of the Treaty of Lausanne.

Greece, by treaty, 1923, formally ceded for fifty years to Yugo-Slavia a free zone in the magnificent harbor of Salonica, thus giving the Serbs an outlet to the Aegean, and free transit for her commerce. This was confirmed by three treaties signed Aug. 17, 1926, which enlarged the zone, gave Greece all Serbian rights in the railroad from the boundary in exchange for 20,000,000 French francs and provided for arbitral powers in a resident official of the League of Nations who will be a Frenchman. An agreement putting the Free Zone into effect was signed March 17, 1929 in Geneva.

Bulgaria was, by agreement in June, 1924, allowed a commercial outlet to the Aegean in the port of Kavala, joined to her frontier by a narrow corridor under the supervision of the League of Nations. But she has not been allowed possession (1929). The incident of the invasion of Bulgarian territory in October, 1925, by Greek troops was settled in December by the League of Nations which imposed an indemnity of 30,000,000 levas (about $219,000) which Greece paid in February, 1926

Following the Smyrna debacle a military revolution headed by Col. Plastiras forced out the Triantafyllakos Ministry and compelled the abdication of King Constantine on Sept. 27, 1922. He died in exile of heart disease in Palermo, Sicily, on Jan. 11, 1923.

His son and successor King George II was compelled by the National Assembly to quit the county Dec. 17, 1923, and on March 25, 1925 the National Assembly voted the overthrow of the monarchy and the establishment of a republic which was indorsed on April 13 by a plebiscite, 758,742 for to 325,322 against. The republic was proclaimed May 1, the regent Admiral Koundouriotis becoming temporary head of the state. He held this position through the viscissitudes of political turmoil until March 19, 1926, when Gen. Pangalos forced him out to be overturned himself Aug. 22 when Koundouriotis was again installed as president.

Former Premier Elentherios Venizelos emerged from his voluntary retirement in Crete to head the Liberal party—in May 1928—Premier Zalmis and his cabinet resigned and Venizelos was made Premier on July 3. He dissolved Parliament and the President by decree changed the electoral system so that each district elected its deputy or senator on the majority system instead of by proportional representation.

At the election on Aug. 19 the Venezelists won 227 of the 250 seats and the Royalists 22. The election for a new Senate of 92 members on April 21, 1929 returned 72 government supporters and 20 royalists. Alexander Laimis, eight times Premier, was chosen president of the Senate. The Senate and the Chamber on June 3 reelected Admiral Paul Kondouriotis, President of Greece, he receiving 259 votes out of a total of 309.

(See The World Almanac for 1925, page 629 for the Corfu incident; for 1926, page 630; for 1927, page 626; for 1928, page 624; and for 1929, page 623, for details of political happenings).

Greece proper is chiefly agricultural, with little manufacturing. Only one-fifth of the total area is arable; 13,350,000 of the total of 16,074,000 acres are covered by mountains and lakes and rivers. The forests have been seriously destroyed, but efforts are making to reforest.

The cereal harvest in 1928 was 865,000 metric tons as against 643,000 in 1927. The tobacco crop was 135,456,000 pounds (134,000,000 in 1927); figs, 16,000 tons (15,700 in 1927); currants, 283,000,000 pounds (296,000,000 in 1927); raisins, 22,600 tons (21,500 in 1927); olives, 50,000 tons (15,000 in 1927); olive oil, 107,000 tons (74,400 in 1927); and wine 225,000 tons (227,000 in 1927). About 865,000 acres are given over to ollves. The nut and fruit crops are large. The production of silk cocoons is increasing.

Mineral wealth is great. Production in 1927 was, iron ore, 123,310 metric tons; chromite, 17,314; iron pyrites, 100,050; magnecite, 84,484; zinc, 30,597; lead ore, 89,893; lignites, 143,346; and salt, 105,000.

Industrial output in 1928 was valued at 6,727,182,000 drachmas (6,115,620,000 in 1927).

An American engineering corporation began in 1926 the reclamation of the Vardar River marshes beyond Salonica which is estimated to cost $25,000,000 and will bring 326,000 acres under cultivation, and provide settlement for 25,000 families of refugees from Anatolia.

American engineers in 1928 patched up the aqueduct built by Emperor Hadrian 2,000 years ago to bring water from the plains of Marathon to Athens.

It is planned to convert Mount Olympus, the mythical home of the gods, into a National Park modeled on American lines. The region is wild and largely uninhabited. Olympus is a precipitous, broken mass fronting on the sea, in part forested, rising from the water's edge to an altitude of 9,800 feet.

Railway mileage in 1928 was 1770 miles, of which the state owned 885. The state railways showed a deficit in 1927 of $257,695.

The merchant marine in 1928 had 533 steamers of 1,298,000 tonnage. In 1927 20,885 steamers of 13,079,888 tons, and 4,937 sailing vessels of 267,464 tons entered Grecian ports, and in 1927 5,210 steamers of 2,700,657 tons and 3,288 sailing vessels of 91,729 tons passed through the canal across the Isthmus of Corinth.

The Greek Orthodox Church claims the great majority of the people, that being the state religion.

The bold rocky promontory of Mount Athos (121 square miles), is occupied by 20 monasteries of the Greek Orthodox Church, each a sort of little republic in itself. The monks number 5,140 (census of 1920). No females are allowed to enter the territory. The territory had a new constitution granted by the Greek Government received autonomous powers as a monastic republic under Greek sovereignty, but with an appointed Greek Governor. The lands are inalienable and all the property exempt from taxation. A council of 500 bishops of the Greek Orthodox Church has been called to meet there in 1930 to consider all outstanding questions of the church.

Instruction between ages of six and twelve is compulsory, but the law is not well enforced in rural regions.

Greece in 1927 funded her war debt to Great Britain at £21,411,500, and that to the United States at $19,659,836, each payable in 62 years. The United States agreed to advance a loan of $12,167,000 at par bearing 4% interest and to be repaid in 40 years; this being the balance of the war loan of $48,226,629 to complete the agreement of Feb. 10, 1918, and is now called for to care for the needs of the Greek refugees. Congress passed the authorization bill Feb. 9, 1929 and the money was paid to Greece on May 10.

Under approval of the Council of the League of Nations, Sept. 15, 1927, a $15,000,000 6% 40-year loan was floated (at 91) in New York; $2,000,000 in Switzerland; and £4,070,960 in England, Italy and Sweden, in addition to the American loan above. With the proceeds Greece was able to stabilize the drachma (= 0.01952634 grams of pure gold = 1.2977 cents). The Bank of Greece was organized in November, 1927, and started its operations May 14, 1928, with the sole privilege of issuing bank notes. On July 31, 1928, the note circulation was 5,131,000,000 drachmas with a gold reserve of 531,000,000, and net foreign exchange of 3,261,000,000 as a cover which by law must not be less than 50%.

The public debt on Jan. 31, 1929 amounted to 38,139,124,100 drachmas.

Recent budgets in drachmas are:

Year.	Revenues.	Expenditures.
1923-24	3,941,197,501	6,924,572,063
1924-25	4,780,475,698	5,771,066,306
1925-26—ordinary	6,452,723,318	4,861,656,943
extraordinary	557,677,550	2,158,743,925
1926-27—ordinary	6,462,723,318	4,861,656,943
extraordinary	557,677,550	2,158,743,925
1927-28	8,837,370.000	9,121,346,000
1928-29	11,114,652,300	11,114,652,300
1929-30	9,665,613,000	9,657,613,400

Imports and exports in drachmas (000 omitted) were:

Year.	Imports.	Exports.
1923	6,035,346	2,545,110
1924	8,053,783	3,276,972
1925	9,834,049	4,310,066
1926	10,004,939	5,429,751
	($126,062,000)	($68,415,000)
1927	12,601,948	6,037,411
	($166,346,000)	($79,694,000)
1928	12,488,122	6,282,075
	($162,346,000)	($81,667,000

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$11,132,947	$21,232,269
1923	11,899,763	14,388,294
1924	16,721,827	27,728,750
1925	16,633,212	26,186,500
1926	10,352,509	16,908,301
1927	15,028,376	29,645,573
1928	13,853,041	14,604,772

GUATEMALA, REPUBLIC OF

AREA, estimated 42,353 square miles.

POPULATION, census of October, 1921, 2,119,165; estimated, 1927, 2,454,000.

CAPITAL, Guatemala, pop., census 1921, 115,938. It was completely destroyed by earthquakes Jan. 3 and 4, 1917, and rebuilding has been slow.

President, Gen. Lazaro Chacon, 1927-1932, elected Dec. 5, 1926.

Premier, Senor Don Eduard Aguirre Velasquez. (Foreign).

Guatemala, the northern state of Central America, has Mexico for its neighbor on the north and west, British Honduras on the east, Honduras and Salvador on the east and south and the Pacific on the southwest. A range of mountains containing many volcanic peaks runs from northwest to southeast near the Pacific. The narrow west slope is well watered, fertile and the most densely settled part. It is about the size of New York State.

The Honduran boundary is in dispute.

The broad eastern slope is sparsely settled and its chief commercial importance is the production of bananas and timber and chicle (gum) in the Peten district. Coffee and sugar are the chief crops. Stock raising is an important industry. Though rich in mineral resources little is mined owing to lack of transport.

Over the five-year period 1921-25, the United States took 63.78% of the exports, and supplied 58.24% of the imports.

Principal exports in 1928 were: Sugar, 18,976,900 lbs. valued at $378,296 (13,900,000 lbs. valued at $413,000 in 1927); coffee, 966,122 lbs. valued at $23,048,385 (112,757,000 lbs. valued at $28,568,000 in 1927); bananas, 6,124,646 stems valued at $3,096,333 (6,354,419 stems valued at $3,011,000 in 1927); and chicle, 1,409,359 lbs. valued at $444,772 (1,535,000 lbs. valued at $484,000 in 1927). Lumber exports were valued at $328,603, and hides at $257,847.

Chief imports are textiles, machinery and petroleum.

Guatemala has over 700 miles of railroads, privately owned but subsidized by the Government. The new 80-mile link of the International Railways of Central America connecting Puerto Barrios on the East Coast with San Salvador on the West Coast was completed in 1929. A vast amount of construction is being done on the roads. In 1927 there entered into her ports 1,122 vessels of 1,889,992 tonnage.

Guatemala has a Constitution proclaimed in December, 1879, modified last on Jan. 1, 1928, that now provides for universal suffrage, a President elected for six years, who cannot be re-elected until 12 years have passed, a National Assembly elected for four years and a Council of State of thirteen members, partly elected by the Assembly and partly appointed by the President. The Roman Catholic is the prevailing religion. There is complete freedom of worship. Education is free and compulsory from 7 to 14. In 1927 there were 3,297 schools with 3,430 teachers and 113,308 pupils.

About 60 per cent. of the population is pure Indian and most of the remainder are half castes. Many are held on plantations under a system of peonage. The army numbers 6,200, with a reserve of 126,000.

Manuel Estrada Cabrera ruled the country as a dictator for twenty-two years. He was turned out in April, 1920, by a revolution which put Carlos Herrera in the President's chair. The latter was overthrown by a coup d'etat Dec. 6, 1921, and Gen. Orellana made Provisional President, being inaugurated for a six-year term March, 1922. He died Sept. 26 1926, and was succeeded by the first designate, Gen. Lazaro Chacon, who was elected for a full term on Dec. 5, 1926.

On Nov. 26, 1924, President Orellana issued a decree providing a new monetary system based on a gold standard with the quetzal as the unit representing 1.504665 grams of pure gold, to be equal to 60 pesos ($1).

A central bank with a capital of 10,000,000 quetzals was authorized on Dec. 23, 1925, and established July 1, 1926. It has the sole right to issue banknotes, and must carry a circulation reserve of 40% gold. Circulation Dec. 31, 1928, was 9,199,959 quetzals.

The public debt on Dec. 31, 1928 was $16,836,802

Recent budgets are:

Year.	Rev.	Exp.
1925-26	quetzals 11,555,352	11,715,949
1926-27	quetzals 12,411,182	12,259,067
1927-28 (actual)	quetzals 14,265,751	14,128,979
1928-29 (estimated)	quetzals 12,959,430	12,959,430

Imports and exports were:

Year.	Imports.	Exports.
1920	$18,344,463	$18,102,906
1921	13,616,438	12,140,826
1922	10,751,660	12,065,949
1923	13,763,499	14,743,323
1924	18,271,258	24,491,536
1925	23,393,876	29,661,959
1926	26,601,588	28,978,087
1927	19,785,332	33,915,225
1928	24,145,181	28,211,572

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$5,459,720	$8,783,650
1923	6,314,254	11,267,005
1924	8,823,542	10,089,156
1925	9,382,196	11,337,683
1926	11,088,204	14,491,461
1927	10,632,215	10,179,303
1928	13,317,431	9,563,778

HAITI, REPUBLIC OF

AREA, approximately 10,204 square miles.

POPULATION (estd.), January 1, 1927, 2,300,200.

CAPITAL, Port au Prince, population, census of 1929, 79,797.

President, Louis Borno, 1926-30, assumed office for second term, May 15, 1926.

Premier, Charles Fombrun (Interior).

Financial Adviser, Arthur C. Millspaugh.

American High Commissioner, Brig. Gen., John H Russell, U.S.M.C.

Haiti occupies the western third of the Island of Haiti or Santo Domingo, the second largest of the Greater Antilles, lying between Cuba on the west and Porto Rico on the east. The boundary which separates it from the Dominican Republic to the east is about 193 miles long. Copper is found, but is not worked commercially, and there are few other mineral resources. Certain parts of the island are very fertile. Coffee is the most important crop and the production of cotton, sugar and logwood are increasing. Sisal, tobacco, cattle, tropical fruits and cashew nuts are promising new industries. Haiti is nearly the size of Massachusetts and Connecticut together.

The majority of the population are Negroes, the remainder being mulattoes descended from former French settlers. There are about 3,000 white foreigners. Roman Catholicism is the state religion. Education is nominally compulsory. There were in 1927 1,060 schools with 71,503 pupils enrolled. Illiteracy is about 85%. French is the official language of the country, but a dialect known as French Creole is the language of the majority of the population.

Haiti, discovered by Columbus in 1492, and a French colony from 1677, attained its independence in 1804, following the revolution headed by Toussaint l'Ouverture in 1791. Revolutions and bloodshed characterized its early political history. From 1910 to 1915 there were seven presidents; the last, Gen. Sam, assumed office March 4, 1915, took refuge in the French Legation, July 26, 1915, after 167 political prisoners had been massacred in jail, and at the funeral of the victims he was dragged out and killed. Two hours later a United States cruiser landed marines at Port Au Prince. United States forces occupied the country and restored order.

Sudre Dartiguenave was elected President on August 12, 1915, by the National Assembly, which in November ratified a treaty with the United States (which ratified it May 3, 1916), by which the United States agreed to assist Haiti in the establishment of a responsible, orderly government, and Haiti agreed not to increase the public debt without consent of the United States.

The treaty provides for five American treaty

officers, appointed by the President of Haiti on nomination of the President of the United States who under supervision of the American High Commissioner (representing the President of the United States) have charge of the constabulary, finances, Public Works, Public Health and Agriculture. Under their supervision over 1,000 miles of roads have been constructed, trails have been improved, bridges built, public buildings erected, hospitals and rural clinics established, and during the year 1927 over 480,000 persons were treated by the Public Health Service.

The Agricultural Department is building up new crops for Haiti, and obtaining new markets, and in addition is in charge of the public educational system which consists of instruction given by rural farm schools and by urban industrial schools. Teachers for these schools are all trained at a center school near Port au Prince.

Railway mileage in 1928 was 158.

In 1927, 366 steamers of 882,532 tonnage in the foreign trade entered Port au Prince.

The Constitution of 1918 provides that until such time as a Senate and Chamber of Deputies are created, the legislative power shall be exercised by a Council of State composed of 21 members appointed by the President. The external debt consists of two 6%, 30-year loans floated in New York and payable in 1952 and 1953; the former, issued in 1922, amounted to $16,000,000 and was for the purpose of refunding two French loans, for making cash settlement of foreign and internal claims and for public works. The loan payable in 1953 amounted to $2,660,000 and was issued in exchange for the bonds of the National Railroad of Haiti, which were in default and bore a government guarantee. The internal debt comprises a 6% 30-year loan, due in 1953, and the portion of the fiduciary currency of the government uncovered by reserves. The loan was authorized in the amount of $5,000,000 and was to refund internal bonds and to make settlement in bond awards of foreign and internal claims. The public debt Dec. 31, 1928 was $17,990,800.

The average annual income for the past five years has been $8,321,487.51 and revenues for 1927-28 were $10,084,203. with expenditures of $8,195,593. The budget for 1928-29 provides for expenditures of $7,579,697.19. Total cash assets on Sept. 30, 1928 were $6,831,981.

Exports for 1927-28 include coffee, 90,712,000 pounds; valued at $8,229,361; cacao, 5,277,000 pounds; cotton lint 9,761,000 pounds; cotton seed 1,736,000 pounds; lignum vitae 1,331,000 pounds; logwood 80,163,000 pounds and sugar 26,500,000 pounds.

The unit of currency is the gourde (=20 cents), by law exchangeable for United States dollars at the fixed ratio of five to one.

Trade for seven years:

Fiscal Years.	Imports.	Exports.
1921-22	$12,350,271	$10,712,210
1922-23	14,157,963	14,591,012
1923-24	14,696,128	14,176,322
1924-25	20,237,565	19,403,762
1925-26	18,851,406	20,184,005
1926-27	15,751,320	15,299,088
1927-28	20,248,257	22,667,246

Trade with the United States was:

Fiscal Years.	Imports.	Exports.
1921-22	$10,359,613	$1,438,755
1922-23	11,524,566	1,976,572
1923-24	11,817,376	1,329,251
1924-25	15,567,869	2,318,619
1926-27	10,162,290	1,230,273
1927-28	12,716,338	1,643,521
1928-29	11,098,998	1,477,554

HONDURAS, REPUBLIC OF

AREA, 46,332 square miles.

POPULATION, census of Jan. 1, 1923, 773,408.

CAPITAL, Tegucigalpa, pop., 1926, 38,950.

President, Dr. Vicente Mejia Colindres, Liberal, 1929-33, inaugurated Feb. 3, 1929.

Premier, Fausto Davila (Foreign).

Honduras is an agricultural and cattle raising state of Central America, bounded on the north by the Caribbean Sea, on the east and south by Nicaragua, on the south and west by Salvador and on the west by Guatemala. The latter boundary is now being determined by a scientific party administered by the American Geographical Society. The coast line on the Caribbean is 400 miles long, the chief ports being Truxillo, Tela, Puerto Cortez, Omon, Roatal and La Ceiba. On the Pacific side it has a coast line of 40 miles on the Gulf of Fonseca, with a port, Amapala, on Tiger Island, three hours by motor boat from San Lorenzo on the mainland, connected with the capital, 82 miles by a good automobile road. The country is mountainous, very fertile, though mostly uncultivated, and covered with rich forests. It is about the size of Pennsylvania.

Mineral resources are abundant but undeveloped. The chief export is bananas, grown on the Caribbean coast, 27,462,142 bunches being exported in 1928; raw sugar 50,000,000 pounds; and coffee 5,000,000 pounds. Cattle and hides are also exported. Transport is very backward but is being improved. The country has 934 miles of railroads, laid mostly to provide for the fruit trade. The inhabitants are chiefly Indians with an admixture of Spanish blood.

By the 1926 census there were 11,497 land owners (671 foreign), having 4,112,616 acres (foreigners holding 1,712,891 acres). In coffee were about 98,000 acres; in sugar cane, 78,000 acres; in bananas, 19,000 acres; in other crops, 350,000 acres; and the rest in forest.

The country is governed under a Constitution, proclaimed Oct. 3, 1924, which provides for the direct election by the people of a President for a four year term, and a Chamber of Deputies of 43 members, chosen for four years. The President appoints a Cabinet of five Ministers. It provides for an eight-hour day and one day of rest a week; for state regulation of savings funds; and for an Institute of social reforms to promote co-operative associations, housing, insurance, public health, and protect women and children at work. The Roman Catholic is the prevailing religion.

Education is free and compulsory. There were in 1928, 2,909 primary schools, with 1,355 teachers and 38,725 pupils. A campaign against illiteracy was begun in 1927. There is a university at the capital. Military service is compulsory, with 2,900 in the regular army and 43,577 in the first line of the reserve. Of the export and import trade 95 per cent. is with the United States.

Constitutional government in Honduras ceased on Jan. 31, 1924, none of the three candidates for President having received a majority at the polls or in Congress. President Guiterrez held on as dictator, civil war followed involving property damage to foreigners amounting to $3,000,000. Disorder was not suppressed until November. At the elections held Dec. 28-30, 1924, Dr. Miguel Paz Barahona was elected President over Gen. Carias by 72,021 votes out of 78,491. His inauguration on Feb. 1, 1925, was marked by outbreaks and for the remainder of the year the country was under martial law.

Honduras sent a delegate to the Assembly of the League of Nations in September, 1929, after an absence of six years.

The budget for 1925-26 was balanced at 10,832,439 pesos; that for 1926-27 at 11,354,175 pesos; that for 1927-28 at 9,662,993 pesos; that for 1928-29 at 10,705,620; and that for 1929-30 at 13,101,923 pesos. Revenues in 1927-28 were 12,029,870 pesos and expenditures, 11,365,262 pesos. The peso is approximately 50 cents.

The foreign debt, of fifty years' standing, held in England with accrued interest (unpaid since 1872), amounts to approximately £30,000,000. An agreement was concluded with the Council for Foreign Bondholders in Washington, Oct. 29, 1925, and ratified by the Honduran Congress on March 8, 1926, for the liquidation of the debt by the payment of a total of £1,200,000 in semi-annual installments without interest over a period of 30 years. Honduras also floated a loan of $500,000 in the United States in 1926. The internal debt, Aug. 1, 1926, amounted to 19,166,355 pesos. On Sept. 1, 1926, 3% bonds to the amount of 10,000,000 pesos were issued to amortize the floating debt.

The Congress on April, 1926, adopted a law establishing the gold standard for the currency, which had been on a silver basis and fluctuated with the price of silver. The new unit will be called the lempira (=$0.50 gold). A law was passed providing for the establishment of a National bank, with a capital of 2,000,000 lempira; one-half to be subscribed by the state.

Imports and exports for eight fiscal years:

Year.	Imports.	Exports.
1921	$16,722,700	$5,428,587
1922	12,804,000	5,386,000
1923	14,342,000	10,016,000
1924	11,137,917	7,897,047
1925	12,752,761	11,983,051
1926	9,899,949	13,456,000
1927	10,630,000	17,546,000
1928	12,573,598	23,242,728

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$9,959,284	$5,249,268
1923	11,256,928	4,936,915
1924	9,100,974	5,959,626
1925	9,569,937	8,718,969
1926	7,540,286	8,719,834
1927	8,486,848	9,310,642
1928	9,728,645	12,288,574

HUNGARY, KINGDOM OF

AREA, 35,911 square miles. (Some boundaries to be determined.)

POPULATION, census of December, 1924, 8,160,000; estimated, Dec. 31, 1926, 8,454,500, of which 90% are Magyars and 7% German.

CAPITAL, Budapest. Population census 1920, 928,996 (with suburbs, 1,217,325), estimated 1927, 971,169; other cities, Szeged, 124,347; Debreczen, 107,796; and 10 others exceeding 40,000.

Regent, Admiral Nicholas von Horthy, born 1867 elected March 1, 1920.

Premier, Count Stephen Bethlen, born 1873, took office Apr. 14, 1921.

Hungary for a thousand years has been the abode of the Magyars. Formerly a kingdom forming an integral part of the Austro-Hungarian Empire, becoming an independent republic after the war, it was much reduced in size by the Treaty of the Trianon, June 4, 1920, losing Transylvania to Roumania, Croatia and Slavonia to Jugo-Slavia. Prewar it had 25,000,000 population on 125,608 square miles of territory, or about the size of the States of Ohio, Kentucky and Tennessee; now it is slightly smaller than Indiana. Hungary lost 68 per cent. of its territory and 59 per cent. of its population. The Yugo-Slavia and Roumania boundaries are to be determined by a mixed commission.

A treaty of friendship with Italy was negotiated in 1927 (ratified May 19). Hungary secured an outlet to the sea in free port privileges at Fiume, transit across Serbian territory having been agreed to by that government.

Hungary had the best harvest in a decade in 1923, a bad one in 1924, and good ones in 1925 and 1926. In 1927 wheat production was 76,333,000 bushels (74,908,000 in 1926); maize, 68,347,000 bushels (76,545,000 in 1926); sugar, 12,840,000 quintals (14,440,000 in 1926); and potatoes, 1,807,000 metric tons (1,874,000 in 1926).

In Hungary 60 per cent. is ploughed land and 23 per cent. forest and pasture.

Over 4,000,000 are directly or indirectly engaged in cultivating the soil. Under the land distribution law (No. 36), between June, 1921, and July, 1923, 33,000 building sites of about 2,809 square yards each, with a total area of 9,145 acres, were distributed in 886 villages. An area totaling 189,406 acres was also divided into agricultural "dwarf holdings" of 3.5 acres each, and "small estates" of 17.5 acres each. Similar proceedings were also carried out in 2,456 villages. The number of individual holdings under 11.5 acres is now estimated to be 331,882; of those between 11.5 and 115 acres to be 176,930; of those between 115 and 1,150 acres to be 9,264; and over 1,150 acres to be 1,458; and that a total of over 18,600,000 acres has been divided up. By Dec. 31, 1925, when the law lapsed, 901,193 acres had been distributed, 306,365 petitioners receiving land and 168,263 building sites.

The textile industry has made great progress, the number of establishments increasing from 125 in 1913 to 228 in 1927; operatives from 16,092 to 42,000, cotton spindles from 33,000 to 148,000, and cotton looms from 4,100 to 11,200. The total value of the product during 1927 of textile semi-manufactures was $73,615,000, and of finished textiles, $62,119,000.

Production of coal was 7,027,538 metric tons in 1927; and 6,649,210 tons in 1926. Production of pig iron in 1928 was 280,000 metric tons (in 1927 299,332); and of steel ingots in 1928, 450,000 metric tons (in 1927, 471,679).

Unemployment was 15,000 on Jan. 1, 1924, 30,918 on March 1, 1926, and 19,654 on March 1, 1927; and 17,244 on March 1, 1928.

There were 5,324 miles of railroads in 1927, of which 1,899 were state owned. Hungary has 687 miles of navigable rivers.

FINANCIAL REHABILITATION.

Hungary's financial position was most desperate in 1923. She appealed to the League of Nations, which, after investigation offered a 20-year 7½% loan of 250,000,000 gold crowns (about $50,000,000), and placed Jeremiah Smith, Jr., of Boston, Mass., in charge of her finances. He took up his duties at Budapest May 1, 1924. Rehabilitation proceeded so successfully that Hungary was released from supervision by the League June 30, 1926, and he went home, refusing to accept the proffered fee of $100,000. (See The World Almanac for 1927, page 629).

Allied military control was abolished on March 29, 1927 by the Conference of Ambassadors.

The Hungarian Parliament, by act of Nov. 21, 1925, established a new monetary unit of gold, the pengo (meaning "jingler") complete transition to be effected by Jan. 1, 1927. One pengo = $0.1748985 = 0.8631578 Hungarian gold crown = 12,500 paper crowns. It is divided into 100 fillers. Gold, silver and copper coins are to be minted. Banknotes are issued by the Hungarian National Bank only. The note circulation, July 31, 1929, was 480,000,000 pengos, with a gold cover of 163,000,000 pengos, and 40,000,000 pengos in foreign bills.

Saving deposits on July 1, 1927, totalled 308,500,000 pengos, about 30% of pre-war deposits, and in July 1, 1928, were 429,000,000 pengoes, about 43%.

Hungary completed the funding of her debt to the United States for relief supplies furnished just after the armistice by delivering to the Treasury on May 29, 1926, bonds for $1,939,000, which are to run sixty-two years. The public debt, 1928 was 1,577,300,000 pengoes ($274,932,000).

Hungary's national wealth is estimated at 15,676,000,000 gold crowns ($3,135,200,000) and her national income at 2,752,000,000 gold crowns ($550,400,000), two-thirds of which is from agriculture.

Recent budgets in thousands of pengoes are:

	State Administration		State Expend.	
Year.	Rev.	Exp.	Rev.	Exp.
1926-27.....	954,835	806,547	1,401,184	1,250,083
1927-28.....	753,655	753,490	438,766	438,767
1928-29.....	870,306	867,849	489,955	489,955
1929-30.....	923,000	920,800	509,200	507,200

THE GOVERNMENT.

On the breakup of the Dual Empire, Oct. 31, 1918, a revolution began the movement for a republic, King Charles abdicating Nov. 13. Three days later the republic was proclaimed with Count Michael Karolyi as Provisional President. Disorder followed; a Bolshevik government with Bela Kun dominant was set up March 22, 1919, but was swept away with assistance of the Roumanian army. A national government was re-established on Aug. 7, 1919. Elections, with manhood suffrage, were held in January and February, 1920, a bloc of parties of the Right succeeding in control of a Provisional National Assembly which elected Admiral Horthy Governor of Hungary. On March 23, 1920, a Government order declared Hungary a monarchy. Horthy was styled Regent. However, two attempts of the late King-Emperor Charles to regain the throne in 1921 failed dismally.

The three possible Hapsburg claimants for the throne are Archduke Otto, born Nov. 20, 1912, son of the late Emperor-King Charles, and Empress Zita, Archduke Joseph Francis, born March 28, 1895, son of Archduke Joseph, and Archduke Albert, born July 24, 1897, son of the enormously wealthy Archduke Frederick. Premier Bethlen, on May 23, 1927, declared that he would not allow the question to be discussed, and that a king was "not possible in the next few years."

The lower house of the National Assembly has 245 members elected by a restrictive franchise extended to men over 24 and literate, and to women over 30, who had three children or earned an independent livelihood or had a diploma from an institution of higher education or were wives of secondary school or college graduates. The elections of Dec. 20, 1926, returned: National Unity Party (Bethlen's), 171; Christian Social Union, 35; Socialist, 14; other parties, 25.

The old House of Magnates, in abeyance since the war, was reconstituted by law of Nov. 11, 1926, with about 240 members as an Upper House. The nobles (151 voting of the 187 who sat in the previous House of Magnates), elected 38 members from their number (overwhelmingly for the government), 40 were named for life by the executive; 76 were elected for a five-year term, by county councils and municipalities; 40 elected for a ten-year term by Chambers of Commerce, industry and agriculture and academic institutions; 31 representative of the Catholic, Protestant and Jewish Churches; and 6 high dignitaries of the State. Parliament was opened in medieval state on Jan. 29, 1927. In case of disagreement a bill passed a second time by the Lower House becomes a law without assent by the Upper Chamber.

Freedom of religion is a fundamental tenet of the new state, with equality between the many divergent sects. Four state universities had 9,570 students in 1927. Education is compulsory for children from 6 to 12 and illiteracy is decreasing. The national army under the treaty is limited to 35,000 men and officers, all volunteers; other forces numbering 31,500 being police, gendarmerie and custom guards. Hungary has no air force and no navy.

A government decree on July 20, 1928, ordered all the gypsies (about 50,000) to forsake their nomadic life, settle down in fixed abodes, abandon their ancestral costumes, speak Hungarian and pay taxes. They are granted full suffrage, and the right to own

property. Foreign gypsies were given one month in which to leave Hungary.

Hungary became a member of the League of Nations in September, 1922.

Imports and exports were:

Year.	Imports.	Exports.
1923...Gold crowns....	423,000,000	338,100,000
1924...Gold crowns....	702,800,000	575,000,000
1925...Gold crowns....	739,700,000	700,100,100
1926...pengos.....	952,061,000	869,729,000
1927...pengos.....	1,146,797,000	800,473,000
1928...pengos.....	1,189,976,000	818,711,000

Trade with the United States was:

Calendar Year.	Imports.	Exports.
1922.....	$136,958	$263,845
1923.....	127,701	1,312,674
1924.....	370,468	588,247
1925.....	819,283	719,458
1926.....	986,842	873,113
1927.....	1,753,257	940,985
1928.....	2,733,948	1,228,425

ICELAND, KINGDOM OF

AREA, 39,709 square miles.

POPULATION, census of 1927, 103,317.

CAPITAL, Reykjavik: population, 1927, 24,304.

King, Christian X. (See Denmark.)

President of the Council, Jon Thorlaksson (Finance), March 22, 1924.

Iceland is an island in the North Atlantic Ocean with an area nearly equal to that of Kentucky. It is of volcanic origin and has many geysers and hot springs. It is treeless. Agriculture engages 43,411 of the people, who produce hay, potatoes and turnips mostly. Domestic animals number 693,500, including 590,000 sheep (census of 1927), and furnish five-sixths of the exports. The fisheries exports in 1927 was valued at 50,000,000 krone, 87% of the total exports. Imports include all necessaries. There are no railways, but 379 miles of roads. Its mercantile marine in 1927 was 316 vessels, of 29,818 tons. Total fish catch, 1928, was estimated at 80,000 tons.

Rich discoveries of aluminum clay and of iron ore in Mt. Sodarnaes were made in 1927.

The winter climate is much modified by the Gulf Stream.

Iceland was an independent republic from 930 to 1263, when it joined with Norway. The two came under Danish rule in 1381. When Norway separated from Denmark in 1814, Iceland remained under Denmark. In 1918 Denmark acknowledged Iceland as a sovereign state, united with Denmark only in that the Danish King, Christian X., was also to be King of Iceland. Its permanent neutrality was guaranteed. Provisionally until 1940 Denmark has charge of its foreign affairs, and a joint committee of six reviews bills of importance to both states.

Iceland has evolved strange social customs and traditions; is admitted to have attained approximately absolute justice of the sterner sort, and in its constitutional monarchy to have developed an excellent democracy. Iceland has neither army nor navy, nor fortifications.

The Althing (Parliament) is composed of an Upper House of 14 and a Lower House of 28. Men and women over 25 enjoy the suffrage. The Althing was instituted in 930. Its millenium will be elaborately celebrated in June, 1930. Illiteracy is very low. The Icelandic language has maintained its puracy, as in Eddas and Sagas, for 1,000 years. Danish is also widely spoken.

Leif Ericson, the Norseman, sailed from Iceland in the year 1000 and discovered the American mainland, starting a colony called Vinland, probably at New Bedford, Mass.

The unit of currency is the krona—$0.268 at par of exchange, average value 1928, $0.215.

The budget for 1928 was Revenue, 10,452,000 krone; expenditures, 10,454,000 krone; and that for 1929 was: Revenue, 10,883,600 krone; expenditures, 10,850,958 krone. The national debt, which was 18,200,000 krone on Jan. 1, 1924, was 10,501,373 on Jan. 1, 1927.

Imports, 1922, krone, 52,032,438; 1923, krone, 50,738,690; 1924, krone, 63,781,000; 1925, krone, 70,190,913; 1926, krone, 50,500,000; 1927, krone, 48,000,000; 1928, krone 56,000,000.

Exports, 1922, krone, 50,698,968; 1923, krone, 58,005,206; 1924, krone, 86,340,000; 1925, krone, 78,640,218; 1926, 48,000,000; 1927, krone 57,500,000; 1928, krone, 74,300,000.

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922.....	$383,052	$296,794
1923.....	127,699	56,263
1924.....	120,369	32,492
1925.....	248,529	97,270
1926.....	246,875	177,877
1927.....	202,151	92,218
1928.....	296,715	327,140

IRAQ, KINGDOM OF

MESOPOTAMIA.

(British Mandate.)

AREA, 143,240 square miles.

POPULATION, census of 1920, 2,849,282; divided. Sunni Mohammedans, 1,146,685; Shi'ah Mohammedans, 1,494,015; Jews, 87,488; Christians, 78,792; of other religions, 43,302. By vilayets, Bagdad, 1,360,304; Basra, 785,600; Mosul, 2,-849,282. Estimated, 1923, 3,000,000.

CAPITAL, Bagdad, population, 1920, 145,000, port, Basra, population, 50,000, Mosul (on the site of Nineveh), 60,000.

King, Feisal (born 1887), third son of El Husein ibn Ali, King of the Hejaz, crowned Aug. 23, 1921.

Premier, Taufiq Beg Suwaidi (Foreign and Religious Foundations) April, 1929.

High Commissioner of Great Britain, the Mandatory Power, Sir Francis H. Humphrys, G.C.V.O.

Mesopotamia (in classical days "the country from Mosul and Tikrit on the Tigris to the borders of Syria)" is the name now applied to the whole Euphrates country in southwest Asia—the former Turkish Vilayets of Basra, Bagdad and Mosul. The Arab name for this territory is Iraq. It is bounded on the north by Kurdistan, Turkey; on the east by Persia; on the south by the Persian Gulf and Kuwait and on the west by the Arabian and Syrian deserts. The boundary lines are indeterminate. It is as large as the States of New York, New Jersey, Pennsylvania and Ohio.

The country is a great alluvial plain stretching from the Persian Gulf 400 miles north, rising in rolling hills in Mosul and beyond to the limestone mountains of Kurdistan. The climate is subtropical and the rainfall (all in the winter months) is scanty, Bagdad averaging 6.64 inches in 29 years. The temperature varies widely; 120° in the shade is not uncommon, and severe frosts in the winter. The country is unhealthy, demanding extreme care. Mosquitoes and sand flies are pests, and malaria and "Bagdad boils" are common. Dysentery and fever are prevalent; cholera, the bubonic plague and typhus fever have frequently scourged the country.

The soil is of extraordinary fertility, and engineers estimate that the Tigris-Euphrates Rivers could irrigate 7,000,000 acres in winter and 3,000,000 of varied crops in summer. Half of this area, the report of Sir William Willcocks, engineer, says, could be immediately reclaimed if the ancient system of canals and drains were restored. Only regulatory work is attempted at present and about 1,500,000 acres are under water and improvements in methods of cultivation are urged. Wheat, barley, rice and millet are the chief crops, with tobacco in the Kurdish hills. Cotton growing is on the increase, 5,400 bales being produced in 1928. Dates are grown in the tidal stretches of the Shatt el Arab and the hundred miles from Fao to Qurna on both sides of the river is a continuous date grove. Dates are a staple food of the Arabs; in 1926, 151,020 tons, and in 1925, 147,853 tons, valued at about $6,000,000, were exported.

Large flocks of sheep (over 5,000,000 in 1924) are raised in the north, and wool and skins form a considerable export. In 1925, 12,750 tons of wool (9,844 tons in 1926), and 3,500 bales of cotton was exported. Industries, weaving, silk spinning, leather working, etc., are for the local market only.

The chief port is Basra, 70 miles up the Shatt el Arab from the Persian Gulf. A railroad runs from Kalat just south of Mosul to Bagdad (designed to be part of the Berlin to Bagdad railroad) and the English have connected Bagdad and Basra by rail (opened Jan. 13, 1920). The control of the Bagdad railroad passed into British hands in 1923. The railroad mileage on March 31, 1926, was 811.

The great value of the country to Great Britain is its petroleum. In southeastern Mesopotamia, Great Britain has built great refineries to handle the product of the country and of Persia, which is now comparatively small, but the reserve is great. The Government has awarded concessions in the Bagdad and Mosul Vilayets to the Turkish Petroleum Co. and test drilling began April 5, 1927 to explore 96 square miles. In this company the Anglo-Persian (British), the Royal Dutch Shell, a

French group and an American group (the Standard Oil Co. of N. J., the Standard Oil Co. of N. Y., the Pan-American, the Gulf Refining Co. and the American Refinery Co.) each has a one-quarter interest.

The mandate under the Treaty of Peace with Turkey, 1920, for Mesopotamia as an independent state was intrusted to Great Britain by the Allies, British and Indian forces having conquered the country during the World War, occupying Basra on Nov. 22, 1914, and Bagdad March 11, 1917. A British High Commissioner set up a provisional Arab Government with the Naqib of Bagdad at the head, in November, 1920. Emir Feisal, third son of the Grand Sherif of Mecca, then King of the Hejaz, who made a notable reputation as a soldier during the war and as a diplomat at the Paris Peace Conference, presented himself as a candidate for the throne. He was chosen ruler by acclamation as a constitutional democratic sovereign, a choice subsequently ratified by a referendum, and was crowned at Bagdad Aug. 23, 1921. Since then the British garrison was gradually reduced; in March, 1927, the last English battalion was withdrawn, leaving one Indian battalion and five air squadrons, each of 12 planes.

The Iraq army numbers about 10,000 men.

A treaty of alliance between Iraq and Great Britain was signed on Oct. 10, 1922. Under it King Feisal agreed to be guided by the advice of King George on international and financial obligations and interests for the whole period—twenty years—of the treaty. Great Britain agreed to give such support and assistance to the armed forces of the King of Iraq as may be necessary.

By a protocol announced May 3, 1923, it was provided that the treaty would terminate upon Iraq becoming a member of the League of Nations, and in any case not later than four years from the ratification of peace with Turkey. A supplemental treaty extending the duration of the treaty for twenty-five years from Dec. 16, 1925, with the same proviso, was signed Jan. 13, 1926, and ratified by Parliament, 260 to 114, on Feb. 19.

The Mosul question was placed before the League of Nations by Great Britain in agreement with Turkey and a status quo agreed to in October, 1924. Following an exhaustive report by the League Commission on the boundary, Great Britain, Iraq and Turkey signed at Angora June 5, 1926 a treaty fixing the boundary line running approximately due east from Kamik in Syria on the Tigris to the Persian frontier (see The World Almanac for 1929, p. 628, for details).

A revised treaty between Great Britain and Iraq was signed Dec. 14, 1927. In it Iraq is recognized as an independent sovereign state and Great Britain promises to support its candidature for admission to the League of Nations in 1932 if all goes well.

It met with much opposition in Iraq where nationalist sentiment demanded entire withdrawal of the British force and objected to its cost of maintenance.

The first Iraq Parliament which met July 16, 1925 was dissolved Jan. 19, 1928, a fortnight after Jafar Pasha had given way as Premier to Abdul Aziz Beg al Sa'dun. The general election for the second Parliament in May gave the Government about 66 seats of the total of 88.

Finally the Sa'dun cabinet resigned Jan. 22, 1929, and Taufiq Beg Suwaidi formed a new one in April, 1929.

During the year a certain measure of autonomy was granted to the Kurdish and to the Assyrian communities; also the British government recommended to the League of Nations in September that Iraq be admitted to membership in 1932. The council of the League approved on March 9 a proposal from Great Britain to establish a judicial system in Iraq which would place foreigners and natives on the same legal basis.

Frontier fighting over Arab raids that had caused much friction in 1928 continued in 1929. A severe Wahabi raid in March was beaten off by the bombing of the British Royal Air Force with heavy casualties.

Sir Gilbert Clayton, the British High Commissioner who had negotiated successfully with Ibn Saud, King of Nejd, died Sept. 11; and Sir Francis Humphrys, late Minister to Afghanistan, was appointed on Oct 3 to succeed him.

Revenues and expenditures in lakhs of rupees were:

Year.	Rev.	Exp.	Surp.	Def.
1921-22..	528.25	572.13	.....	43.88
1922-23..	474.67	485.81	.....	11.14
1923-24..	509.41	424.27	85.14	.....
1924-25..	527.33	464.86	62.47	.....
1925-26..	576.72	508.14	68.58	.....
1926-27..	551.72	549.63	2.09	.....
1927-28..	590.97	553.22	37.75	.....
1928-29..	579.65	575.29	4.36	.....

The share of the Ottoman public debt claimed from the Iraq is £T6,791,151, plus £T1,596,975 arrears, payable in 20 yearly installments. The surplus is about 145 lakhs of rupees.

The rupee is stable at $0.363 which is par of exchange.

Foreign trade in rupees and dollars, excluding goods in transit, was: Imports, 1925-26, 10,12,00,000 ($36,938,000); 1926-27, 9,87,00,000 ($36,025,500); 1927-28, 10,58,00,000 ($38,617,000); 1928-29, 9,50,06,000 ($34,500,000). Exports, 1925-26, 5,03,00,000 ($18,359,500); 1926-27, 4,61,00,000 ($16,826,500); 1927-28, 6,15,00,000 ($22,387,500); 1928-29, 5,57,41,000 ($20,300,000).

Trade with the United States was:

	Imports.	Exports.
1926	$982,836	$2,483,486
1927	637,571	4,308,462
1928	703,685	5,746,036

ITALY, KINGDOM OF

AREA, Pre-war Italy, 110,660 square miles; territory added by the war, 9,084 sq. m.; present total, 119,744 sq. m. Colonial possessions, Eritrea, 45,534 sq. m.; Italian Somaliland, estimated 245,000 sq. m.; Libya, estimated (southern boundaries undetermined) 580,000 sq. m.; the Dodecanese Islands, 981 sq. m.; total, 871,416 sq. m. Grand total, 991,160 sq. m.

POPULATION, census of December, 1921, pre-war boundaries 37,142,886; present boundaries 38,.710-576. Official estimate, present boundaries, Dec. 31, 1927, 40,796,000. Population Colonial possessions, Eritrea, census of 1920, 402,893; Somaliland, estimated 650,000; Libya, estimated, 1,000,000. Dodecanese Islands, 104,523; total in colonies, 2,157,416. Grand total, estimate of Dec. 31, 1927, 42,953,416. The number of departments was increased in 1927 from 76 to 92 and some boundaries changed; these are grouped in 18 provinces of which by the official estimate of 1927 was: Piedmont, 3,527,847; Liguria, 1,338,023; Lombardy, 5,184,763; Veneto, 4,133,837; Venezia Guilia and Zara, 949,045; Venezia Tridentina, 663,545; Emilia, 3,077,292; Tuscany, 2,805,959; The Marches, 1,197,580; Umbria, 664,371; Latium, 1,989,482; Abruzzi and Molise, 1,523,752; Campania, 3,352,701; Apulia, 2,353,312; Basilicata, 492,132; Calabria, 1,627,117; Sicily, 4,223,160; Sardinia, 885,467.

CAPITAL, Rome, population, official estimate of June 30, 1928, 877,289. Other cities, Naples, 966,423; Milan, 941,070; Genoa, 624,659; Turin, 570,173; Palermo, 444,861; Catania, 285,644; Florence, 277,688; Venice, 253,608; Trieste, 252,517; Bologna, 240,020; Messina, 203,609; Bari-delle Puglia, 174,619; Verona, 151,707; Reggio de Calabria, 129,294; Leghorn, 129,098; Padua, 125,159; Tarentum, 120,881; Ferrara, 117,221; Brescia, 113,489; Spezia, 110,401. There are also 37 cities with between 50,000 and 100,000 population.

King, Victor Emmanuel III., born Nov. 11, 1869, succeeded his father, King Humbert I., July 29, 1900; married Helena, daughter of Nicholas, King of Montenegro, Oct. 24, 1896; children, Crown Prince Humbert, Prince of Piedmont, born Sept. 15, 1904; Princess Yolande, born June 1, 1901, married April 9, 1923, Capt. Count Carlo Calvi di Bergolo (has one daughter and one son); Princess Mafalda, born Nov. 19, 1902, married Prince Philip of Hesse, Sept. 23, 1925 (has two sons); Princess Giovanna, born Nov. 13, 1907, and Princess Maria, born Dec. 26, 1914. The betrothal of the Crown Prince to Princess Marie Jose of Belgium was announced Oct. 24, 1929, the wedding to take place in January, 1930.

Premier, Benito Mussolini (Interior) took office Oct. 30, 1922.

Minister of Foreign Affairs, Dino Grandi, (1929).

The Kingdom of Italy occupies the entire Italian peninsula, stretching from the Alps southeast into the Mediterranean, with the islands of Sicily, Sardinia, Elba and about seventy smaller ones. On the east is the Adriatic Sea, which it dominates; on the south, the Mediterranean, on the west between the mainland, Sicily and Sardinia is the Tyrrhenian Sea, and further north the Ligurian Sea. The Maritime Alps on the west separate it from France, the Swiss Alps in the north from Switzerland, and the Dolomites Alps from Austria, and the Carnac and Julian Alps on the east from Jugo-Slavia. The great plain shut in by these huge mountains, and the Ligurian Apennines, and watered by the Po (220 miles long) and the Adige, shared by the provinces of Piedmont, Lombardy, Emilia and Venetia, stretches across the top from the Maritime Alps to the head of the Adriatic. Its maximum length is 360 miles. The Ligurian Mountains, circling the Gulf of Genoa,

run down the middle of the peninsula as the Apennines, with many summits like Monte Cimone (altitude 7,103 feet) in the northern part, and the Gran Sasso d'Italia (9,560 feet) in Central Italy, nearing the western coastline in Campagna and running down (with altitudes of about 6,000 feet), through the southern province, Calabria, to the "toe of the boot" at Cap Spartivento. Across the narrow Strait of Messina the mountain range continues through the Island of Sicily with its famous volcano, Mt. Etna (altitude 10,755 feet), having a record of more than 120 eruptions. The active volcano Mt. Vesuvius, with a record of 50 known eruptions, rises to the altitude of about 4,000 feet on the Bay of Naples, and north of the Strait of Messina is the island volcano of Stromboli (3,040 feet).

The length of the peninsula is 760 miles, while its breadth nowhere exceeds 150 miles and does not generally measure more than 100 miles. Italy is slightly larger than New England and New York together, and has more than twice their population.

Two rivers, having the greatest historic importance, rise in the Apennines, and flow west to the sea—the Tiber, which flows through Rome, and the Arno, which waters the Florentine plain. The rivers in the south are unimportant. Between the spurs of the Alps lie seven beautiful Italian lakes, especially noteworthy being Como, Lugano, Maggiore and Garda, the largest, and the last two over thirty miles long. All are of great depth.

The Adriatic coastline from Rimini to Otranto is flat with but one indentation, and with no harbors worthy of the name save Brindisi. The silt brought down by the Po, the Adige and the eastern streams, also rising in the Alps, has built out the land from Ravenna to the Gulf of Trieste, with marshes and lagoons so marked a feature of the mouths of the Po and of Venice. Trieste on the western side of the Istrian peninsula, and Fiume on the eastern side, were Austro-Hungary's seaports on the Adriatic. Trieste has been joined to Italy as a prize of war, and Fiume, after a bitter quarrel, occupation by d'Annunzio's troops and much negotiation, was annexed to Italy in the presence of the King on March 16, 1924, in accordance with the treaty with Yugo-Slavia signed Jan. 27, 1924. Port Barros (the Slav part of Fiume) and the Delta remain in Yugo-Slavia, which has the Basin Thaon de Revel for its shipping and lumber trade, though subject to Italian supervision.

By treaty signed April 5, 1925, Hungary obtained free port rights in Fiume. On the same day the Cabinet authorized the Government to declare 14 free ports, in whole or in part, for 30 years beginning Jan. 1, 1928 at Ancona, Bari, Brindisi, Catania, Cagliari (Sardinia), Fiume, Genoa, Leghorn, Messina, Naples, Palermo, Savona, Trieste, and Venice.

The climate of Italy is sunny, although northern Italy has a cold winter; snow is rarely seen in Naples, and olives, oranges, lemons, figs, sugar cane, cotton and pomegranates flourish in Calabria. The soil is fertile and the people industrious and frugal. Italy, though drained before the war by emigration, is one of the most densely populated states in Europe, having 341.1 people to the square mile.

The population is unusually homogeneous. In pre-war Italy there were about 85,000 of French origin, 10,000 Teutonic in the Val d'Aosta, 81,000 Albanian in Calabria and Sicily, 29,000 Greek, 43,000 Slav, mostly in Cividale, and 12,000 Spanish (Catalans) in Sardinia. In the "redeemed" provinces, formerly Austrian, annexed after the war, there are 215,345 Germans, 326,715 Slovenes, and 141,663 Croats.

The legal age for marriage was reduced May 1, 1929, from 18 to 16 for boys and from 15 to 14 for girls. Under the new concordant with the Vatican, in effect August 8, 1929, a church marriage is sufficient and a civil though permitted is no longer complusory.

The birthrate for 1927 was 26.9; 1926, 27.0: 1925 27.46; 1924, 28.18; 1923, 29.27. The death rate for 1927 was 15.7; 1926, 16.68; 1925, 16.58; 1924, 16.61; 1923, 16.56.

The per capita meat consumption in 1925 was 18.12 kilos (40 pounds).

The religion of the great majority is Roman Catholic, the census of 1921 reporting 123,253 Protestants; 34,324 Jews, and 847,532 of no religion.

Emigration has been very heavy. The United States census of 1920 reported 1,610,109 Italian-born in the United States alone. In the decade before the war about 650,000 emigrants left Italy annually, and about 500,000 returned each year, being a net loss to Italy of 1,500,000 in that period. In 1914 there were about 1,500,000 residing in Brazil, 1,000,000 in Argentina, 450,000 in France, 220,000 in Switzerland, 120,000 in Germany, and 150,000 in Northern Africa. The war checked emigration greatly, but it reached 230,000 in 1919, 412,000 in 1920, 279,000 in 1921, 277,000 in 1922, 395,000 in 1923, 364,614 in 1924, 312,038 in 1925, 283,442 in 1926, and 228,052 in 1927.

The Government statistical bureau in June, 1928, estimated the number of Italians residing outside the Kingdom at 9,250,000.

Tourist trade has fallen off greatly from pre-war figures and tourist expenditures in 1928 were estimated at about 2,700 million lire.

Unemployment has been severe. On Jan. 1, 1922, the number of persons out of work was 541,775; on July 30, 1923, 213,590; on Dec. 31, 1923, 258,000; on Aug. 31, 1924, 118,000; on Nov. 30, 1924, 136,000; on May 31, 1925, 101,000; on Aug. 31, 1925, 74,517; on Oct. 31, 1915, 85,770; on May 31, 1926, 98,000; on Aug. 31, 1926, 78,300; on Nov. 30, 1926, 149,000; on Jan. 31, 1927, 225,000; March 31, 228,000; June 30, 214,600; Dec. 31, 414,283; June 30, 1928, 297,000; Sept. 30, 268,000; Dec. 31, 363,000; March 31, 1929, 294,000; June 30, 192,000.

Italy has ten universities dating from the thirteenth century or the first years of the fourteenth. Famous among these are Bologna (founded 1200), with 2,408 students; Genoa (1243), 1,696 students; Naples (1224) 5,920 students; Padua (1222), 2,679 students; Pavia (1300), 1,580 students; Pisa (1338), 1,400 students; Rome (1303), 5,790 students; and Turin (1404), 2,250 students. The total number of students at the twenty-five universities in 1927 was 37,175.

Much progress has been made in combating illiteracy, which has been very great, especially in Calabria and other southern provinces. The percentage has been reduced in 50 years from 69% in 1871 to 27% in 1921. The census of 1871 returned but 31 out of 100 above the age of six that knew how to read. In 1881 the number had increased to 38; in 1901 to 51; in 1911 to 62; and in 1921 to 73 (76 among males and 70 among females).

Primary grade education is compulsory. Primary schools in 1927 numbered 7,076 with 12,715 teachers and 607,091 pupils; public and private elementary schools, 35,420, with 98,679 teachers and 3,821,539 pupils; secondary schools, Government, 1,024, with 12,607 teachers and 181,066 pupils, private 641 ,with 5,573 teachers and 46,517 pupils.

Agriculture is the chief industry. The total land area now comprises 76,617,691 acres, of which in 1928 but 8.3% were unproductive. Of the cultivated area, 17,559,971 acres are given over to cereals; 5,273,191 to temporary grass and forage; 10,032,526 to other arable and fallow; 16,792,295 to meadows and permanent pastures; 3,686,969 to horticulture; 13,790,504 to forests, including chestnuts; and 3,089,970 productive, but uncultivated. The number of peasant proprietors is about 4,000,000, mostly in Northern Italy. The Government is speeding land reclamation schemes and intensifying technical training and has created an agricultural credit bank.

The wheat acreage in 1928 was 12,262,911 (production 6,221,480 metric tons); maize, 3,854,400 (2,219,500 tons); oats, 1,286,138 (702,710 tons); rye, 310,600 (166,000 tons); barley, 560,168 (240,020 tons); rice, 351,322 (696,100 tons); beans, 1,356,931 (470,940 tons); potatoes, 874,228 (1,945,300 tons); and sugar beets, 218,606 (2,015,400 tons). There were 5,631,480 acres given over to olives (production 1927, 35,240,000 gallons of olive oil), and 10,581,400 to vineyards (production 1927, 784,206,000 gallons of wine).

Silk culture flourishes; the production of cocoons in 1928 was 155,716,000 pounds and about 111,778,000 in 1927. Dairy farming and cheese making is important in Northern Italy. Livestock in 1926 numbered, horses, 1,000,000; asses, 952,000; mules, 503,000; cattle, 7,100,000; pigs, 2,750,000; sheep, 11,000,000; and goats, 3,000,000. The total value is estimated at 23,000,000 lire.

Italy has suffered greatly from deforestation, but a determined effort has of late been made to reafforest the country. The chestnut crop is of great value. There are about 30,000 vessels and boats and about 110,000 men engaged in fishing.

Italy is not rich in mineral deposits and is especially lacking in coal. Much hydroelectric power is going to waste in the mountains, but in 1925 over 2,000 generating stations produced 3,200,000 h. p. (2,860,000 h. p. in 1924). The total consumption of energy in 1926 is estimated at 9,000 million k. w. h. The total investment was about $254,800,000. Italy is a large producer of sulphur, chiefly in the volcanic regions of Sicily. The output of sulphur ore (refined and ground) in 1927 being 338,000 metric tons.

Italy is now equipped with nine powerful coke blast furnaces, 113 electric steel furnaces of large and medium capacity and sixty small ones. Production was 467,000 metric tons of pig iron in 1925; 522,000 tons in 1926; 596,100 tons in 1927; and 396,000 tons in 1928; and 1,685,000 tons of raw steel in 1925, 1,712,000 tons in 1926; 1,530,600 tons in 1927; and 1,756,000 tons in 1928.

Zinc ore production in 1927 was 178,790 metric tons and of lead ore 52,330 metric tons. The posses-

sion of the quicksilver mines of Idria in the territory taken from Austria, north of Fiume, makes Italy the foremost producer in the world, the output being 1990 metric tons in 1927. The quarry industry is important. Bauxite production in 1927 was 90,000 metric tons, and of aluminum 2,300 tons.

Italy had in 1928, 123 cotton spinning mills with 5,300,000 spindles, and 381 mills with 150,000 looms. Employees numbered 65,000. The artificial silk (rayon) industry is increasing rapidly. Production was 10,000,000 pounds in 1923; 32,297,000 in 1925; 37,478,000 in 1926; and 50,265,000 in 1927.

The economic census taken October, 1927, returned 731,447 industrial establishments employing 3,939,960 persons, and 821,666 commercial establishments employing 1,640,290 persons.

The deficit in operation of the state railroads (mileage 9,794), which was nearly 1,000 million lire in 1922-23 and nearly 500 million lire in 1923-24, was wiped out in 1924-25 by rigid economics and 175,800,000 lire earned. The surplus reached 378,000,000 lire in 1925-26. Traffic has increased 30% since the war. The railroad staff, which on June 30, 1923, numbered 205,470, was reduced to 171,937 on June 30, 1926. The government has electrified 531 miles and will electrify 4,000 miles in all. The deficits in the postal and telegraphic service which was 500 million lire in 1920-21, 448.2 million in 1921-22, 340 million in 1922-23, and 66.5 million in 1923-24, was also wiped out and 29,879,549 lire earned in 1924-25, and 65,500,000 lire in 1925-26.

The telephone system was handed over on July 1, 1925, to five private enterprises, the country being zoned and the government retaining the interurban and grand trunk lines. The government receives from 3% to 4% of the gross receipts and a proportion of net profits above 7%.

The number of steamships in the Italian merchant marine July 1, 1929, was 948, with a gross tonnage of 2,742,594; and of motor ships, 157, with a gross tonnage of 472,733. In 1928 there entered her ports 245,106 ships of 72,747,963 net tons, of which 235,429 of 56,270,529 net tons were Italian. The chief ports in order of tonnage entered were Genoa, Naples, Palermo, Leghorn, Venice, Messina and Catania. Genoa was the first port in the Mediterranean in 1924 and 1925, but yielded place to Marseilles again in 1926 when 5,058 vessels of 8,982,539 net tons entered and discharged 6,192,142 tons of cargo. The amount of ship subsidies payable from 1926 to 1946 on 20-year "indispensable" service contracts is 2,600,050,000 lire; on 10-year "useful" service contracts, 507,300,000 lire; and on 5-year "useful" service contracts, 97,429,500 lire.

Italy has 111,613 miles of highways of which 12,640 are first class. An extensive program of modern reconstruction that may ultimately reach 5,000 million lire was undertaken on October 1, 1928, with an initial appropriation of 300 million lire. Italy had, in 1927, 216,710 automobiles, the ratio being one car to 245 persons.

For a public works program chiefly for farm land reclamation or improvement $24,670,000 is to be spent from July 1, 1929 to June 30, 1930. The Pontine Marshes and the Campagna will be the first to be drained.

WORLD WAR LOSSES.

Italy, divided, dismembered even for centuries, began to take shape as a unity when, following the war of 1859, Lombardy, by the peace of Zurich, came under the crown of King Victor Emmanuel II. of Sardinia of the house of Savoy. By plebiscite in 1860 Parma, Modena, the Romagna and Tuscany joined, to be followed at once by Sicily and Naples, and by The Marches and Umbria. The first Italian Parliament assembled in February, 1861, and on March 17, 1861, declared Victor Emmanuel King of Italy. Mantua and Venetia were added in 1866, an outcome of the Austro-Prussian war. The Papal States were taken possession of by Italian troops on Sept. 20, 1870, after the withdrawal of the French garrison in the Franco-Prussian war (see Vatican State), and by plebiscite on Oct. 2 were annexed to the kingdom, thereby rounding out United Italy. Italy suffered heavily in the World War, her northeast provinces having been overrun by the Austrians and Germans after a crushing defeat at Caporetto. Her loss in men was 650,000 killed and missing, and the total expenditure arising from the war, according to the report of the Parliamentary Commission of Inquiry, issued in March, 1925, was approximately 144,000,000,000 lire ($27,792,000,000 at par of exchange).

The total expenditures to July 1, 1923, for reconstruction of the devastated provinces was 12,148 million lire, out of a total requirement of 18,718 million lire.

The air force June 1926, consisted of 89 squadrons with about 150 airplanes. By royal decree of May, 1925, is to be expanded during the next five years to 182 squadrons with a personnel of 31,566.

The appropriations for the navy for five years from 1926 amounted to 3,392 million lire, with 1,219 million in the budget for 1927-28, and 1,152 million for that of 1928-29. The avowed purpose is complete naval equality with France. The Trento, a swift 10,000-ton cruiser and sister to the Trieste, was begun at Leghorn on Feb. 9, 1925. A new navy building program was adopted on Jan. 25, 1929. It calls for two 10,000-ton cruisers of the Trento class, two 5,000-ton scout cruisers in addition to four already authorized, five destroyers and five submarines. The cost is about 1,828 million lire.

The army numbered 17,684 officers and 283,200 men in 1927. The reserve numbers 2,350,000. Service is compulsory and universal.

GOVERNMENT UNDER FASCISM.

The country was governed under an expansion of the Constitution granted to Sardinia in 1848. The executive authority is exercised by the King, acting through a Minister. The legislative power rests with the King and a Parliament of two Houses. The Senate is composed of nine Princes of the Blood and eminent men nominated for life by the King; the number in 1926 was 393. The electoral law of 1920 provided for universal suffrage of all men and women 21 years old, and the electoral reform of 1919 provided for proportional representation.

Fascism has been in power since the march to Rome, Oct. 22, 1922.

Partial municipal suffrage was granted to women in a law passed May 16, 1925. It was restricted to women over twenty-five who had been decorated, or were mothers or widows of war dead, guardians over children, literate and paying annual taxes of not less than forty lire.

The duration of Parliament is five years, but the King has power to dissolve the Lower House at any time; a new election must follow within four months. All money bills must originate in the Lower House. Premier Mussolini forced through a bill, Nov. 18, 1923, reforming the electoral law so as to assign two-thirds of the seats in the Chamber of Deputies to the party obtaining the largest number of votes in the elections, the remaining third being distributed proportionately among the minority lists. In the election of April 6, 1924, the Fascista therefore won 356 seats in a bloc; the Catholic Party won 39 seats; other constitutionalists, 45; Socialists, 46; Communists, 19; Republicans, 7; Slavs and Germans, 6.

Municipal self-government was taken away from Rome in October, 1925, and the city administration placed in the hands of a Governor appointed by the Government by royal decree. Don Francesco Boncompagni, Prince of Piombino, was appointed mayor Sept. 9, 1928. He has full powers hitherto possessed by the mayor, aldermen and council.

There are 9,148 Communes. All had been self-governing. By the law of Feb. 4, 1926, the administration of all with less than 5,000 inhabitants (over 7,000 in number), was vested in a "podesta," appointed by the Government for five years. By decree of Aug. 30 this was extended to all Communes.

A drastic press censorship law, passed in July, 1924, was put vigorously into effect on Jan. 1, 1925.

In five years Premier Mussolini has concluded treaties of conciliation and arbitration with these nations: Great Britain, Yugo-Slavia, Switzerland, Austria, Germany, Spain, Roumania, Albania, Turkey and Hungary.

The obligatory eight-hour day and forty-eight hour week established by decree in April, 1923, gave way on June 29, 1926, to another decree extending the working day to nine hours. Further decrees (which by act of Parliament in December, 1925, have the force of laws), on that day restricted daily newspapers, already under extreme Fascist censorship or control, to six pages, only one newspaper to be permitted to each province; prohibited the opening of new bars, cabarets, cafes, hotels, pastry shops and all-night resorts; prohibited construction of houses of a luxurious type, and indefinitely suspended all provincial, communal and municipal elections. By laws approved May 18, only Fascist labor unions are recognized and all labor disputes must be submitted to compulsory arbitration.

Premier Mussolini before the Fascist Grand Council at Rome, April 21, 1927, promulgated the "Fascist Charter of Labor," which asserts the State's undisputed right directly to control all forces of production, acting as guardian of both capital and labor, establishing equalities of rights and duties between them, compelling both to carry out their tasks for the common good, punishing infractions, and maintaining peace between them at any cost. Capital and labor are organized in legally reorganized units called associations or syndicates, all relations (including social welfare), between them being carried out through broad collective contracts. Strikes, lockouts, sabotage, etc., are absolutely forbidden and

especially created labor courts are given final authority to settle disputes. The charter guarantees a six-day week, holidays on pay, indemnity on discharge, but does not fix hours and declares against the minimum wage.

NEW FASCIST ELECTORAL LAW.

Premier Mussolini, Il Duce, condemned and rejected popular sovereignty and representative government in a report presenting to the Chamber of Deputies on March 2, 1928, the new Fascisti electoral bill. This bill was passed on May 12 by the Senate by a vote of 161 to 45 with over 100 absentees; and by the Deputies almost unanimously May 16; and received royal approval May 21. The law abolished the principle of geographical representation. It provides that a list of 800 candidates for the Chamber of Deputies shall be chosen by certain Fascist syndicates and trade unions selected by a committee of 10 and from these the Fascist Grand Council will select 350 and add 50 of their own choosing to form the list of 400 which will then be submitted to the voters. The electorate must accept or reject the list as a whole. The age limit for deputies was abolished and so was universal suffrage. The franchise was revised. It was granted to all men between the age of 18 and 21, provided they are married and have sons; to men over 21 who pay at least 100 lire yearly in taxation or are owners of at least 500 lire of state bonds; to civil servants; and to the Catholic clergy and ministers of other cults admitted by the State.

The Fascist Grand Council by this law is elevated to the dignity of an integral part of the government, a move to perpetuate the Fascist regime. The Grand Council is composed of the presidents of the Senate and the Chamber, all the ministers, and the chief leaders of the Fascist organization. The premier names the members who are responsible to him alone; they in their turn will name his successor when his post becomes vacant. To the Grand Council Mussolini announced in February the political program for 1928-1929; the Chamber to be dissolved in December, the new list of deputies to be submitted to the electorate on March 24, 1929, and the new Chamber to convene April 21; the November, 1928, sitting is to formally approve the law laying down the functions and prerogatives of the Fascist Grand Council, the promulgation of the Charter of Labor, the law on the new administrative system of the provinces, and the law for the integral reclamation of the national territory. It was carried out.

The list containing the names of the 400 deputies to the first "Corporative Parliament" was submitted to the electorate March 24, 1929. Of the 9,650,570 qualified voters 8,506,576 voted "yes", 136,198 voted "no", and 999,830 (10.37%) abstained. Of those who voted 98.22% voted affirmatively. In the 1924 election only 63% of the electors voted. The active membership of the Fascist party was 1,051,708. In the chamber are 191 former deputies and 209 new men. Every region is represented. The largest group is the professional and artistic confederation with 82 deputies.

Premier Mussolini reorganized his cabinet on September 12, 1929, retaining for himself the Interior portfolio. He turned over five of the eight portfolios he had held,—foreign, war, marine, aviation and corporations,—to the men who had been serving as the under-secretaries, and made General de Bono, former Governor of Tripolitania, his successor as governor for the colonies, and Michele Bianche his successor as Minister of Public Works. Giacomo Acerbo was made Minister of Agriculture and Forests, and Balbino Giuliano Minister of Public Education.

(For the treaty with the Vatican see article on the Vatican State).

The thirteen National Fascist Organizations are divided into two groups, Employers—subdivided into six National Confederations, Industry, Agriculture, Merchants, Maritime and Aerial Transport, Land Transport and Inland Navigation, and Bankers; and Labor—subdivided into seven National Syndicates—Industry, Agriculture, Commerce, Maritime and Aerial Transport, Land Transport and Inland Navigation, Banks, and Intellectuals.

The various Fascist organization had 6,814,703 enrolled members on Oct. 31, 1928. In the party proper there are 1,027,010 men and 88,006 women, 66,253 "Young Italians," 365,781 "Little Italians," and 16,965 members of the university group, a total for the party of 1,564,015. Nearly 30,000 were expelled during the year. The Avanguardisti, or youth's organization on military lines, has 325,127 members and the Balilla or boys' organization has 780,937 members. There are 3,577,128 members of the syndicate confederations group and 567,496 members in other associations.

The Fascist Militia numbers 23,326 officers, 252,902 rifles and 16,313 revolvers, under command of General Bazan. Premier Mussolini announced Feb. 21, 1928, that the Fascist Militia would be incorporated in the regular army as an independent unit in case of war. Eighty thousand youths on reaching the age of 18 took the Fascist oath on March 25.

Under orders from Premier Mussolini, Prefect Mori of Palermo, Sicily, given a free hand, succeeded in 1927-28 in breaking up the notorious Mafia, which had for years terrified the island. After a trial that lasted three months, 147 members of the band were convicted of various crimes from larceny to murder in January, 1928. The second great trial lasted nine months and ended may 1, 1929, with a conviction of 150 of the 161 prisoners of crimes ranging from murder to cattle maiming.

The Fascist Government reduced the number of wine shops from 20,000 to 11,000 in 1927.

There has been much friction in Alte Adige (South Tyrol) owing to laws prohibiting the use of the German language, etc., by the inhabitants of this former Austrian province. On Oct. 1, 1929 Premier Mussolini announced that its Italianization was completed.

STABILIZATION OF THE LIRA.

Italian currency was reestablished on a gold basis by royal decree, Dec. 22, 1927, on a basis of 5.26315 cents, 19 lire to the dollar, 92.46 lire to the pound sterling, and 3.66 lire to the former gold lire, which had a value of 19.3 cents. (See The World Almanac for 1929, page 631, for details.)

The note circulation of the Bank of Italy on Aug. 31, 1929 was 16.701 million lire, with a cover of 5,159 million lire gold, and 6,794 million lire credits and balances abroad. The Bank of Italy increased its capital on May, 1928, from 240 million lire to 500 million lire (about $26,250,000).

The public debt on July 31, 1928, was 86,382 million lire. The chief items are: Pre-war debt, 12,352 million lire; national loans, 35,938 million lire; Lictorial national loan, 27,500 million lire; and 9-year treasury bonds, 7,640 million lire.

Recent budgets in million lire are:

	Effective Revenue.	Capital Receipts.	Effective Expenditure.	Capital Expenditures.
1926–27	21,450	5,168	21,014	3,578
1927–28	19,513	21,269	18,747	6,989
1928–29	17,643	547	17,372	866
1929-30	18,539	884	18,201	1,133

Foreign trade figures are (lira = $0.046 in 1923 $0.0436 in 1924, $0.0398 in 1925, and $0.0389 in 1926):

Imports,	1922... lire	15,764,764,872	($709,414,419)
"	1923... "	17,225,041,858	($790,977,000)
"	1924... "	19,388,445,000	($884,566,000)
"	1925... "	26,157,437,186	($1,041,066,000)
"	1926... "	25,871,360,000	($1,006,395,570)
"	1927... "	20,374,100,000	($1,075,752,480)
"	1928... "	22,103,853,000	($1,163,325,780)
Exports,	1922... "	9,302,367,061	($418,600,517)
"	1923... "	11,058,888,807	($510,456,000)
"	1924... "	14,318,299,000	($626,283,000)
"	1925... "	18,265,427,135	($726,964,000)
"	1926... "	18,670,600,000	($726,286,340)
"	1927... "	15,815,400,000	($824,493,120)
"	1928... "	14,529,132,000	($763,468,220)

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$150,894,442	$63,930,031
1923	167,531,956	92,268,339
1924	187,040,152	75,004,095
1925	205,150,463	102,240,930
1926	157,401,862	102,525,888
1927	131,650,544	108,970,260
1928	162,135,329	101,811,061

Italian Colonial Possessions

ERITREA.

AREA, 45,435 square miles.
POPULATION, census of 1921, 405,681; of which 3,900 are Italians.
CAPITAL, Asmara; population, 14,711.
Governor, Corrado Zoli (1928),

Italy's colonial venture in Africa began in 1870 when the port of Assab, in the extreme southern part of Eritrea was purchased. Lagging interest was revived in 1885, when the colonial project was vigorously pushed. An effort to establish a protectorate over Abyssinia was made in 1889, but was upset by King Menelek, who, with an army of 80,000, annihilated a force of 12,000 Italians at the Battle of Adowa in 1896. Eritrea was constituted a colony in 1890.

Eritrea stretches for 620 miles along the African coast of the Red Sea from Cape Kasar to Cape Dumeireh. To the west it is bordered by the Soudan and on the south by Abyssinia. The lowlands along the coast are very hot, but the uplands are cool, sometimes cold. Irrigation is necessary to supplement rainfall for the crops, and the soil is poor. Agriculture and stock raising are the chief industries. There is a railroad 75 miles long connecting the seaport Massawa (population, 2,275) with the capital, Asmara (altitude 7,765 feet), which

is being extended via Keren to Agordat (109 miles) to open up a cotton-growing district. Gold is mined in Hamassen and petroleum is found, but there has been as yet no development.

Italy in 1928 gave Ethiopia free port facilities at Assat at the extreme southern end in return for a concession to an Italian syndicate for the immediate construction of a 500-mile motor road from Assat via Dessia to Addis Ababa, the capital of Ethiopia. It will open up a rich territory.

Efforts to settle large numbers of Italians in the uplands, the only part of the country where Europeans can live permanently, have been abandoned.

The budget for 1927–28 balanced at 42,455,250 lire; and that for 1928–29 at 42,482,300 lire. Military expenditure is about 16,000,000 lire yearly.

Imports, 1927, were 201,360,446 lire, and exports, 80,198,371 lire.

ITALIAN SOMALILAND.

AREA, estimated 254,000 square miles.

POPULATION, about 1,000,000.

CAPITAL and port, Mogadishu; population, estimated, 14,000.

Governor, De Guido Corri (1928).

Italy's African colony, the Italian Somaliland, extends along the Indian Ocean from the Gulf of Aden to the Juba River. The coast line runs in a northeast-southwest direction, is 1,100 miles long, with no indentation of importance. Jubaland, the valley of the Juba River, was taken from Kenya (German East Africa) and added to the colony to balance British and French acquisitions of former German possessions. This is called Transjuba and has an area of about 33,000 square miles and a population officially estimated at 12,000. Agriculture and cattle and camel raising are the chief industries. In 1927, 363 vessels entered the ports.

The budget for 1927-28 balances at 80,505,250 lire; this includes a state contribution to the receipts of 55,515,250 lire; the budget for 1928–29 balances at 76,255,250 lire.

The imports for 1927 were 156,246,673 lire, and exports 25,300,950 lire.

TRIPOLITANIA AND CYRENAICA.
(Italian Libya.)

AREA, Tripolitania, est., 350,000 square miles; Cyrenaica, 230,000 square miles.

POPULATION, estimated, Tripolitania, 570,700, including 20,716 Europeans, of which 18,093 were Italians; Cyrenaica, 229,700, including 9,719 Europeans, of which 9,402 were Italians. In all Italian Libya the population is 30 per cent. Arabs, 40 per cent. Negroes, 23 per cent. Jews, 7 per cent. Europeans.

CAPITALS, Tripoli, pop. 55,243, of whom 11,651 are Italians and Benghazi, pop., 30,056.

Governor, Marshal Pietro Badoglio (Dec. 1928.)

Tripolitania and Cyrenaica, or Italian Libya in North Africa, extend along the Mediterranean Sea from Egypt on the east to Tunis (French) on the west. On the south they extend into the desert, to French West Africa, and the Sudan, the 22° parallel being the boundary line. The boundary on the east begins at El Sollum, Egypt, a somewhat irregular line south to a point 30 miles west of Siwa Oasis, thence due south on the 25° east meridian, as arranged with Egypt in 1925.

Tripoli, formerly one of the Barbary States and independent since 1714, was reconquered by Turkey in 1835. During the Turko-Italian war of 1911-12, Italy proclaimed the annexation of Tripoli, which was recognized in the Treaty of Ouchy, Oct. 18, 1912.

The territory was divided into two independent districts for administrative purposes May 17, 1919. In both provinces natives had equal rights with Italians and there was a certain amount of local autonomy by elected local Parliaments, but on March 9, 1927, the organic law of 1919 was repealed. The legislative power is reserved to Rome, and the governors have purely administrative functions. Italian courts have full jurisdiction.

The prevailing religion is Mohammedan, and Arabic is generally spoken.

The country is rather barren, but has date palm orchards, olive groves, lemon, almond and fig trees, and vineyards. Some cereals, chiefly barley, are grown. Pasturage is abundant in Cyrenaica. Sponge fishing is important; the value of the product in 1926 was 11,965,335 lire. There is considerable caravan trade to the south. The total railroad mileage is 132.

Tripolitania budget for 1928-29 was: Revenue, 73,300,000 lire; State contribution, 150,419,250 lire; total, 223,719,250 lire; expenditure, civil, 56,163,000 lire; military, 167,556,250 lire.

Cyrenaica budget for 1928-29 was: Revenue, 46,400,000 lire; State contribution, 159,096,250 lire; total, 205,096,250 lire; expenditure, civil, 59,237,000 lire; military, 146,259,250 lire.

The trade of Tripolitania in 1927 was: Imports, 246,056,377 lire; exports, 24,259,201 lire. The trade of Cyrenaica in 1927 was: imports, 178,238,196 lire; exports, 14,908,800 lire.

Trade of Italian Africa with the United States was:

Cal. Year.	Imports.	Exports.
1922	$41,109	$7,869
1923	47,324	83,047
1924	30,687	917
1925	95,384	1,697
1926	14,998	1,443
1927	54,597	10,595
1928	80,746	22,010

Fourteen Aegean Isles were occupied by Italy during the war of 1912 with Turkey and though claimed by Greece have been retained by Italy. Rhodes has been fortified. The other islands just off Asia Minor are Egeo and the Dodecanese. The area is 981 square miles, and population (1922), 104,523.

Tientsin—The Italian concession (June 7, 1902) lies on the left bank of Hai-Ho and is about 130 acres with a population of 4,675 Chinese, sixty Italians, and 413 other Europeans in 1925.

JAPAN, EMPIRE OF

AREA, Japan proper, 148,756 square miles, Korea (Chosen), 84,738 square miles; Formosa (Taiwan), 13,944 square miles; Pescadores (Hokoto), 47 square miles; Japanese Sakhalin (Karafuto), 13,253 square miles. Total, 260,738 square miles.

POPULATION, census of Oct. 1, 1925, Japan proper, 59,736,822; Korea (chosen), 19,522,945; Formosa, (Taiwan), 3,994,884; Japanese Sakhalin (Karafuto), 203,754; total, 83,458,405. Kwantung (leased territory in Manchuria), 1,054,074; Mandate territory (Islands in the South Seas, 26,294; grand total, 84,568,773). Japanese subjects residing abroad, June 30, 1925: Asia, 263,690; Europe, 2,934; America, 221,444; Oceania, 137,298; Africa, 64; total, 625,430. Foreigners residing in Japan, Dec. 31, 1925, 28,598, of which 319 are attached to diplomatic and consular corps.

CAPITAL, Tokio, pop. of city proper (1925 census): 1,995,303 (metropolitan district, 3,359,674). Other cities with population over 100,000 (1925 census): Osaka, 2,333,800; Nagoya, 768,560; Kyoto, 679,976; Kobe, 644,212; Yokohama, 405,888 (enlarged to 518,902 on April 1, 1927, by addition of nine towns with 112,204 pop.); Hiroshima, 195,731; Nagasaki, 189,071; Hakodate, 163,972; Kanazawa, 147,420; Kumamoto, 147,174; Fukuoka, 146,005; Sapporo, 145,060; Sendai, 142,894; Kure, 139,380; Otaru, 134,470; Kagoshima, 124,734; Okayama, 124,511; Yawata, 118,376; Nigata, 108,941; Sasai, 105,009; Yokosuka, 101,792.

Emperor, Hirohito (the 123th of his line), born Apr. 29, 1901; succeeded his father, Yoshihito, Dec. 26, 1926; and crowned in Kyoto November 10-14, 1928. He was constituted Regent Nov. 25, 1921, because of his father's ill health; married to Princess Nagako Uni, Jan. 26, 1924; children; Princess Shigeko, born Dec. 6, 1925; Princess Tachiko Hisa, born Sept. 10, 1927, died March 7, 1928; a Princess, born Sept. 30, 1929. *Heir presumptive*, his brother, Prince Yasuhito Chichibu, born June 25, 1902, married Miss Setsu Matsudaira, Sept. 28, 1928.

Premier, Yuko Hamaguchi, July 2, 1929.

Finance Minister, Junnosuke Inofye.

Foreign Minister, Baron Kijuro Shidehara.

The island empire of Japan lies in the north Pacific Ocean off the coast of China and Siberia from 21° 45′ north latitude, the southern point of Formosa (Taiwan), due east of Hong Kong, to 50° 56′ north latitude, the last of the Kurile Islands, a few miles south of Kamchatka. It includes also the southern half of the island of Sakhalin, and the ancient Kingdom of Korea, annexed May 25, 1915, on the mainland. Japan also holds the Kwangtung peninsula (Port Arthur and Dairen) on a 99-year lease, and has the mandate for the Marshall, Caroline, Ladrone and Pelew Islands, former German possessions in the Pacific.

The southernmost island is subtropical; the northernmost subarctic. Were the empire stretched out in the Atlantic off the coast of the United States at the same latitudes, Formosa would lie across Cuba and Southern Florida. Tokio would be due east of Norfolk, Hakodate due east of New York, and Sakhalin would lie athwart Newfoundland with the northernmost island, Paramushir, off Labrador. In area Japan proper is about the size of New York, New Jersey, Pennsylvania and Ohio combined.

Japan proper, the ancient empire, bears a strong likeness to the British Isles, similarly separated from the continent of Europe; its 148,756 square miles compares with Great Britain and Ireland's 121,633, and its 59,736,822 inhabitants with the United Kingdom's 47,307,601. The Japanese coast is even more deeply indented, its coast line measuring 17,150 miles. Few places in Japan are far removed from the mountains or really distant from the sea. The northern islands are a continuation of the Russian Karafuto chain running down through Yezo and the mainland. The continuation of the Kuentun mountain range of China appears in the southern islands, the ranges meeting in the grand Japanese Alps. In the vast transverse fissure crossing the mainland from the Sea of Japan to the Pacific rises the group of volcanoes, mostly extinct or dormant, with the majestic sacred mountain Fujisan lifting its white cone 60 miles west of Tokio to an altitude of 12,425 feet. The earthquake zone—where the average is said to be four slight ones a day, with very serious ones only every six or seven years—has its greatest centre along the Pacific Coast near the Bay of Tokio.

A severe eathquake on March 9, 1927, destroyed or wrecked 10,000 houses, killed 2,275 persons, and injured 3,440, about 50 miles north of Kyoto.

THE GREAT EARTHQUAKE.

Japan suffered the worst disaster in its history on Sept. 1, 1923, when a great earthquake shock, followed by a tidal wave and fire, destroyed the capital city, Tokio, the third largest city in the world, Yokohama, the chief port, and many other towns and health resorts.

The total number of casualties was 246,540, of which 103,733 were wounded, 99,331 killed and 43,476 missing and probably all killed. Houses destroyed by fire numbered 447,128; completely destroyed by collapse, 128,266; washed away by tidal wave, 868; in addition, 126,233 houses half collapsed. The property loss is placed officially at 5,500,000,000 yen. The government spent approximately 400,000,000 yen on reconstruction work.

The vast reconstruction work was near completion on the sixth anniversary of the earthquake, 90% so in Yokohama. Under the supervision of the Municipal Reconstruction Bureau Tokio has been zoned and broad paved streets suitable to modern traffic have been constructed, requiring the moving of 203,000 houses. The road budget calls for 257,458,000 yen.

A new canal is being constructed, an old one filled, and eleven repaired. Of the 583 bridges in Tokio, 69 were shaken down by earthquake shocks, and 289 destroyed by fire; 97 main bridges are being built, and 329 others.

Tokio plans the construction of electrically operated subway systems, the first section 1.5 miles, has been built and the program calls for 41 miles of subways at a total cost of 187,000,000 yen.

The reconstruction of the sewer system requiring about 43.5 million yen, is about 75 per cent. completed.

Building construction has been in keeping with the dignity befitting a modern imperial capital, with a great reduction of fire hazzards, and the creation of wide streets and parks.

Reconstruction work in Yokonama has been slower. On Oct. 1, 1924, the city had 389,700 inhabitants, which increased to 405,888 on the 1925 census. On Apr. 1, 1927, nine towns and villages were incorporated with the city, making its population 518,902, and trebling its area. Port conditions have been greatly improved.

Separating the islands of Shikoku and Kiushiu from the mainland is the wonderfully beautiful Inland Sea, opening both into the Sea of Japan and the Pacific. It is 255 miles long and 56 wide, with a coast line of 700 miles and a surface expanse of 1,325 square miles.

Heavy snowfalls are frequent on the Japan Sea slopes of the mountains of Yezo, while the Pacific side, by which flows the Japan Current, enjoys delightful winter weather. There is an abundant rainfall. The streams are short, swift and often unruly, of little value for transportation, yet offering a vast but as yet little developed supply of hydroelectric power, estimated at 10,000,000 kilowatts. Myriads of waterfalls add their charm to the magnificent scenery. The "Splendor of the Sun" at Nikko makes an unbroken plunge of 350 feet. There are a thousand mineral springs.

Three-fourths of the mountain land is uncultivatable, and the soil of the rest is only moderately fertile, yet by intensive cultivation, hard work and great frugality more than half the people wrest their living from the soil. There is a rich supply of fish of many kinds in the sea, and fish is a staple diet, so a hardy, daring, self-reliant race of fishermen has been developed.

About three-fifths of the arable land is owned by small peasant proprietors, with holdings of an acre, more or less, each. More than half the land is used for growing rice, the staple food of the country. The number of acres planted in 1928 was 7,282,480. The crop in 1926 was 284,572,925 U. S. bushels, and in 1927, 317,893,483 bushels, the largest since 1920, yet it was necessary to import 21,607,000 bushels in 1927 to the value of $37,481,000.

Large crops are raised of wheat, barley, rye, millet, buckwheat, maize, beans and potatoes, also tobacco and tea. Mulberry trees are widely grown and in 1926 the number of families engaged in silk culture was 2,060,351, with an output of 867,688,830 pounds of cocoons valued at 661,404,737 yen. There were 259,842 boilers used in the silk industry employing 23,822 men and 286,096 women. Production in 1928 was 764,515,837 pounds.

Raw silk was exported in 1927 to the value of $352,675,000 ($345,005,000 in 1926) and silk textiles to the value of $66,317,000 ($62,543,000 in 1926).

INDUSTRIES.

In the decade 1908-18 the number of industrial establishments doubled, increasing from 11,390 to 22,391, with horsepower increased from 379,556 to 2,006,098; men operatives increased from 248,751 to 646,115, and women operatives from 400,925 to 763,081. By the end of 1924 the number of factories had again doubled—48,394—with 1,977,000 employees.

The government census returned on Dec. 31, 1924, 4,245,616 industrial workers; 1,835,991 in privately owned factories; 151,304 in government factories; 308,178 in mines; and 1,950,146 in other factories. Of these male operatives numbered 2,882,983 and female, 1,362,636. The largest number were in the Osaka district, 499,636; in Tokio, 381,583; in Fukuoka-Ken, 340,048; in Kobe, 229,706.

The cotton mills also prospered greatly during the war; the capital was increased 288 per cent. by June, 1920, over the pre-war figure, with 3,689,000 spindles as compared with 2,409,900 in 1914. At the end of 1918 there were 6,710 factories with 65,316 men and 218,041 women operatives. The loss in the earthquake was about 15 per cent. (680,000 spindles). Production had recovered in 1928, when the spindles numbered 6,289,174, and the looms 79,777; the mill consumption of cotton was 2,083,905 bales of 500 pounds, of which were American.

The new factory law in effect July 1, 1929 abolished late night work by women and children, and put in effect two 8½-hour shifts from 5 a.m. to 2 p.m. and 2 p.m. to 11 p.m.

In 1928, 1,418,450,000 square yards of cotton textiles were exported, and 70,309 bales of cotton yarn.

Export of toys in 1925 amounted to 10,788,702 yen.

Japan has become a heavy producer of coal, 31,271,000 metric tons were mined in 1919; 29,245,384 in 1920; 26,220,517 in 1921; 27,701,711 in 1922; 28,948,820 in 1923; 30,287,590 in 1924; 31,459,415 in 1925; 31,426,549 in 1926; and 33,400,000 in 1927. Export in 1927 was 2,173,000 tons. Her total resources are estimated at 9,259 million tons, of which the workable resources are 1,238 million tons. With the exception of one field of sixty million tons of anthracite, all the coal is bituminous. Of petroleum, 1,789,000 barrels were produced in 1923, 1,959,000 in 1924; 2,000,000 in 1925; 1,760,000 in 1926; and 1,700,000 in 1927. The value of Japan's chief mining products in recent years will be found in a large table accompanying this article.

The difficulty of getting iron during the war compelled Japan to increase its foundries from twenty to 250, and in 1919 these produced 219,537 tons of pig iron and 299,437 tons of steel. Pig iron production in 1927 was 1,254,550 metric tons, and 1,507,764 tons in 1928. Steel kept up better in tonnage, rising to 790,735 in 1926; 1,613,733 in 1927; and 1,867,053 in 1928. Imports of steel and steel products in 1920 were 1,024,743 metric tons; in 1926, 923,028; and in 1927, 817,647. About 4,033 factories were engaged in machine making, etc., in 1925.

Shipbuilding enjoyed an enormous boom during the war. The number of shipyards increased from 6 to 57, with over six times the amount of capital, and in 1914-18 the twelve leading yards built 233 steamers of a gross tonnage of 972,807. In 1919, Japan's boom year in shipbuilding, 136 vessels with a gross tonnage of 619,000 were launched. In 1922 only 16 vessels of over 1,000 with a total tonnage of 59,000 were launched. This slump was the cause of extensive unemployment, 100,000 being out of work. General distress was avoided by a grant of liberal bonuses to workmen on dismissal.

Japan in 1927 had 7,837 miles of state owned railroads and 3,047 privately owned, a total of 10,884. Announcement has been made of plans to make the standard guage 4.85 feet and to complete

VALUE OF JAPAN'S MINERAL PRODUCTS.

Year.	Gold.	Silver.	Copper.	Lead.	Pig Iron.	Coal.	Petroleum.
	Yen.	*Yen.*	*Yen.*	*Yen.*	*Yen.*	*Yen.*	*Yen.*
1910.....	5,671,806	4,896,188	25,819,259	488,528	2,197,169	51,076,398	6,880,471
1915.....	10,804,546	5,287,624	53,731,798	976,389	2,497,130	65,068,894	9,873,413
1920.....	10,352,701	9,865,435	47,577,402	1,384,772	20,384,123	418,073,754	35,356,655
1921.....	9,719,563	5,501,299	32,578,236	652,993	9,880,176	227,674,056	34,149,264
1922.....	10,012,660	5,636,903	37,427,163	702,970	26,556,324	250,915,845	25,151,176
1923.....	10,209,068	4,862,401	44,345,682	691,713	27,223,819	256,694,363	18,042,592
1924.....	10,559,262	5,700,205	48,541,691	969,862	25,461,426	241,614,059	19,455,114
1925.....	13,154,961	6,823,629	53,467,966	1,370,006	26,890,406	236,828,364	16,835,930
1926.....	12,767,161	6,023,301	50,766,711	1,238,440	4,581,293	231,042,269	14,971,914
1927.....	13,170,699	5,452,844	47,888,858	904,729	3,736,166	257,280,705	12,466,489

Total value of all mineral production, in yen, (1920), 635,391,637; (1921), 339,379,072; (1922), 416,187,030; (1923), 439,694,104; (1924) 452,924,863; (1925), 450,926,393; (1926,) 425,954,356; (1927), 476,138,438.

the work of rebuilding in 20 years. Comprehensive plans have been made for the electrification of the Government railroads, the first section to be the Tokaido line, 408 miles, from Tokio to Kobe. A railway tunnel 7 miles long is under construction between the islands of Kiushu and Honshu under the Moji Shimonoseki Straits. It is expected that it will be completed in 1933 at a cost of 20,000,000 yen.

The Japanese in continental United States, by the census of 1920, numbered 111,010 (in 1910 there were 72,157). Of these there were 71,952 in California (an increase of 30,000), 17,387 in Washington, 4,151 in Oregon, and 2,686 in New York. In Hawaii they number 109,274, of which about 17,000, in Honolulu, are tradesmen and the rest labor on the sugar and pineapple plantations or are farmers. In the Philippines there are 10,000. There are about 16,000 in Canada, 3,000 in Mexico, 7,000 in Peru, 30,000 in Brazil, 3,000 in Argentina, 18,000 in Malaysia, 12,000 in Australasia. In Manchuria, according to the official reports, there were 181,206 in 1919, and in China proper, 31,987. Total number of Japanese subjects residing abroad, Oct., 1926, was 640,099. The foreign visitors to Japan number about 30,000 yearly. Foreign residents in 1926 were 31,140.

Of 12,000,000 families 93.1% in 1926 lived on a monthly income not exceeding 100 yen each. The birthrate in 1927 was 33.61, and the death rate 19.80.

The Government subsidizes five shipping companies for foreign trade. In the fiscal year 1922-23 the total subsidy was 6,668,605 yen, for 1923-24, 6,825,787 yen; for 1925-26, 6,787,726 yen, for 1926-27, 6,902,243 yen; for 1927-28, 6,838,639 yen; and for 1928-29, 6,832,731 yen.

The merchant marine July 1, 1929, included 1,826 steamers of 3,958,317 gross tons and 233 motor ships of 228,335.

There entered Japanese ports in 1927, 16,899 steamers of 49,294,455 tonnage.

From the sea in 1927 came 2,750,000 metric tons of marine products valued at 350,953,000 yen, of which 75,001,000 yen were exported. Fishing boats number 350,000.

There are 41 ports open to foreign trade, the most important being Yokohama, Kobe and Osaka on the Pacific Coast of the main island, and Niigata on the Japan Sea Coast, the port of transshipment for Vladivostok. Nagasaki, on Kiushu island, Tamsui, in Formosa, and Fusan, in Korea, are the important ports.

Dual nationality was abolished by the Diet July 15, 1924, by an act providing that Japanese born in foreign countries, where birth gives nationality, shall lose their Japanese nationality from birth, unless formal action be taken to preserve their rights to Japanese citizenship.

An alien land law passed March 23, 1926, went into effect on Nov. 10, 1926; it liberalizes conditions under which foreigners may obtain land in Japan, and bars from land ownership citizens of countries in which Japanese are prohibited from owning land.

Japan adopted the metric system as the official standard by imperial ordinance, effective July 1, 1924.

FOREIGN TRADE.

The chief exports are raw silk, silk waste and silk tissues, cotton yarns and tissue, coal, earthenware and glassware, matches, refined sugar, machinery, copper, tea, toys and camphor. The chief imports are raw cotton and textiles, machinery and iron products, oilcake, wool and woolen tissues sugar, rice, beans and peas, petroleum, crude rubber coal, flax, hemp and dyes.

The United States is Japan's best customer, taking between 40 and 45 per cent. of her exports, chiefly raw silk, and supplying from 25 to 30 per cent. of her imports. China is second, taking 25 per cent. of the exports.

A luxury tax of 100% was placed on about 250 articles in 1924.

The foreign trade of Japan not including Chosen (Korea) and Taiwan (Formosa) was:

Year.	Exports.	Imports.	Total.
	Yen.	*Yen.*	*Yen.*
1870.....	14,543,013	33,741,637	48,184,650
1880.....	28,395,387	36,626,601	65,021,488
1890.....	56,663,506	81,728,581	138,332,087
1900.....	204,429,994	287,261,846	491,691,841
1910.....	458,428,996	464,233,808	922,662,804
1920.....	1,948,394,611	2,336,174,781	4,284,569,397
1921.....	1,252,837,715	1,614,154,832	2,866,992,542
1922.....	1,637,451,818	1,890,308,232	3,527,760,057
1923.....	1,447,750,720	1,982,230,570	3,429,981,290
1924.....	1,800,233,000	2,453,390,000	4,260,623,000
1925.....	2,305,587,000	2,572,653,000	4,878,240,000
1926.....	2,044,727,891	2,377,484,493	4,422,212,384
1927.....	1,992,000,000	2,177,000,000	4,169,000,000
1928.....	1,909,140,000	2,133,504,000	4,042,644,000

The "invisible" trade balance for 1925 is estimated at 179,000,000 yen by the Government, at 211,000,000 yen in 1925, at 420,000,000 yen in 1924, and at 384,000,000 yen in 1923. The cumulative import balance for fifty-six years (including 1923) was 1,123,000,000 yen. In forty-two years Japan's exports to the United States aggregated 7,164,514,000 yen; with imports from the United States of 5,939,378,000 yen the balance in favor of Japan being 1,225,136,000.

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922.....	$218,403,482	$354,298,198
1923.....	264,228,134	346,939,531
1924.....	250,320,008	340,061,299
1925.....	229,642,212	384,155,998
1926.....	260,754,079	400,692,948
1927.....	257,569,702	402,105,134
1928.....	288,054,175	384,346,123

PUBLIC FINANCES.

Japan faced a financial crisis in March, 1927, caused by some 30 bank failures. It brought about the fall of the Watasuki government. The situation was strongly handled by the Tanaka cabinet with Baron Takahashi as Minister of Finance. New laws to strengthen banking conditions were passed, going into effect Jan. 1, 1928, and the crisis safely weathered as the public finances of Japan which are fundamentally sound were unaffected.

The yen (par of exchange 49.84 cents) averaged 47.41 cents in 1927, 47.12 cents in 1926, 41.04 cents in 1925 and 41.19 cents in 1924. In March 1929 it averaged 44.52 cents and in June 43.88 cents, but it stiffened and was 47.75 on Oct. 22nd.

Recent budgets in yen are:

Fiscal Year Apr. 1 to Mar. 31.	Revenue.	Expenditure.
1920-21 (actual).....	2,000,652,322	1,359,978,255
1921-22 (actual).....	2,065,711,186	1,489,855,613
1922-23 (actual).....	2,087,345,435	1,429,689,622
1923-24 (actual).....	2,045,298,267	1,521,050,305
1924-25 (actual).....	2,127,391,324	1,625,024,073
1925-26 (actual).....	2,071,369,312	1,561,272,295
1926-27 (actual).....	2,056,361,361	1,678,826,425
1927-28 (actual).....	2,062,755,337	1,765,713,120
1928-29 (estimated)....	1,709,126,249	1,709,126,249
1929-30 (estimated)...	1,671,000,000	1,752,000,000

(For budgets from 1886-87 see The World Almanac for 1929, page 634.)

The national debt on June 30, 1929, was 5,661 million yen, an increase of 116 million yen in the year. Of this amount 1,453 million yen are for foreign obligations.

The note issue of the Bank of Japan on June 30, 1929, amounted to 1,585 million yen, with a gold cover of 1,063 million yen.

Postal savings deposits were 1,918 million yen, June 30, 1929, with 36,000,000 depositors.

The national wealth of Japan as estimated by a government bureau and made public July 7, 1928, is approximately 102,300 million yen, of which land is valued at 33,000 million yen and buildings at 16,000 million yen. This makes the per capita wealth 1,731 yen.

The per capita tax is about 13 yen, and the per capita debt is about 80 yen.

A treaty was signed with Soviet Russia in Peking on Jan. 20, 1925, restoring Northern Sakhalin to Russia and dividing the oil territory half and half on a checkerboard basis. The output of petroleum in 1927 was 200,000 barrels, and in 1926, 181,000 barrels. Japan retains the oil fields as a naval reserve. The last Japanese troops evacuated Northern Sakhalin on May 20, 1925. It is believed that a rich coal and oil shale field of twenty-four square miles with a coal seam 130 feet thick has been discovered about twenty-five miles from Mukden, on the Manchurian railway. Development began in October, 1929.

(For the development of the Japanese Empire see The World Almanac for 1925, page 638).

GOVERNMENT.

Japan, previously an absolute monarchy, is now governed under a constitution promulgated Feb. 11, 1889. The Emperor, who is declared to be "sacred and inviolable," exercises the whole of the executive powers with the advice and assistance of the Cabinet Ministers, whom he appoints and who are responsible to him. He declares war, makes peace and concludes treaties; he "exercises the legislative powers with the consent of the Imperial Diet;" he has supreme command of the army and navy; and he "determines the organization and peace standing of the army and navy." The Emperor has a privy council to consult with on important affairs of state and which interprets the Constitution.

Every law requires the consent of the Imperial Diet, which consists of two Chambers. The House of Peers numbers (1929) 402 members—15 Princes of the Blood, 13 Princes, 31 Marquises, 18 Counts, 64 Viscounts, 66 Barons, 125 Imperial nominees, 4 Imperial academy members, and 66 representatives of the largest taxpayers. The House of Representatives has 466 members, elected for four years. The Cabinet has an entirely free hand to formulate policies of state quite independent of the political parties and of the House, and has often been organized independent of it. When it can't control the House it dissolves the Diet. Every law requires consent of the Diet.

The power of the Diet is growing steadily, and it has now become an absolute necessity for the Cabinet to control a majority of the Diet, for without its approval no important matter of state can be carried out. The power and influence of the military men, it is said, are declining.

An extra-constitutional but hitherto most influential body was the Genro or Elder Statesmen, consulted on grave matters of policy by the Emperor. Death has reduced their number to one—Prince Saionji, now about eighty years old, who was consulted by the Emperor at the last Cabinet crisis.

A bill removing property qualifications, enfranchising all males over twenty-five years and broadening the office holding qualifications was enacted on March 26, 1925, and proclaimed on May 5. It raised the former electoral body of about 3,500,000 to about 14,000,000.

In the first election under the new franchise, Feb. 20, 1928, 9,711,000 (81% of the 11,987,000 registered) cast their ballots. The government party, the Seiyukai, filled but 221 seats, 16 independents holding the balance of power, but allowing the Premier Baron Tanaka, to carry on. The membership of the House includes 318 professional men of whom 243 are university graduates.

Governors and sheriffs of prefectures are appointed by the Government. The Mayor is that one of three candidates elected by the municipal assembly who obtains the Emperor's approval. The elected Chief Magistrates of towns and villages must obtain the Governor's approval.

Japan on October 1, 1928 had its first trial by jury, the government bill setting up the system in criminal cases only having been passed in April, 1923. Every jury must consist of 12 jurymen who must be citizens, about 30, taxpayers and literate. Certain officials, and professional men, army and navy officers, and religious workers are exempt.

There is absolute religious freedom. The chief forms of religion in Japan are Shintoism and Buddhism. Neither has state support.

Japan has twelve sects of Buddhism, 71,750 Buddhist temples, 181,100 Buddhist priests and 51,511,100 believers. The thirteen sects of Shintoism, which originated in the combined spirit of Japanese ancestor worship and Imperial veneration, centre in the shrines, which number 171,725, but the Shinto priests number only 14,900. There are twelve forms of Christianity in the empire. The Greek communicants number 65,615, with 131 churches; the Roman Catholics, 14,200, with 189 churches; the Anglican and American Episcopalian Mission, 16,215, with 213 churches; the Methodist Mission, 13,356, with 181 churches, and the Congregational Mission, 15,847, with 151 churches.

Elementary education is compulsory. In 1924 there were 801 kindergartens with 66,687 pupils, and 25,462 elementary schools with 198,663 teachers and 9,137,160 pupils. Japan had in 1924 five imperial universities, and eleven other institutions of university rank; the total number of teachers was 1,868 and 32,434 students. The most influential is the Tokio Imperial University, established in 1877, which has 417 teachers, and 5,283 students.

The language of commerce is English, and it is a required study in the secondary schools.

The budget estimates of both ordinary and extraordinary expenditures in the Ministry of Public Instruction are: 1926-27, 134,838,000 yen; in 1927-28, 140,300,000 yen; and in 1928-29, 118,648,000 yen.

ARMY AND NAVY.

Service in the army is universal and compulsory; actual service begins at twenty and is to be for sixteen months. The peace strength of the active army in 1928 was 15,540 officers and 198,800 other ranks, with a reserve of 2,350,000.

The air personnel for the army in 1927 was 5,325 in eight flying regiments and a balloon corps. The four flying corps of the navy had about 200 planes.

The Japanese naval program under the Washington Naval Treaty provided for this fleet:

Class.	*Completed at the End of* 1921.	1926.	1928.
Dreadnoughts	11	10	10
Pre-dreadnoughts	8	..	..
Armored cruisers	12	7	7
Light cruisers	11	24	27
Torpedo gunboats, etc	4	4	8
Destroyers (60 modern in 1923)	95	100	106
Torpedo boats	20		
Submarines	37	68	71
Aircraft carriers	..	1	3

The existing building program will be completed in 1929, when the Japanese will have 8 scout cruisers, 21 light cruisers, 100 destroyers, and 77 submarines in full commission. Of these, 4 cruisers, 20 destroyers and 8 submarines will then be due for replacement. Between 1929 and 1935, 91 vessels of all classes will fall due for replacement.

Japan has carried out the scrapping of warships called for under the Washington Naval Treaty and reduced the personnel of the navy, which was 74,200, by about 12,000. The shipyards discharged 6,000 workmen and the naval arsenals about the same number.

The Japanese Cabinet in November, 1926, approved of a 5-year naval shipbuilding program calling for the expenditure of 261,308,000 yen for the construction of 4 cruisers, 15 destroyers, 4 submarines, 3 river gunboats, one aerial depot ship, and one mine layer. The appropriation was apportioned by years as follows: 1927-28, 4,725,000 yen; 1928-29, 11,926,000 yen; 1929-30, 88,000,000, yen; 1930-31, 88,000,000 yen; 1931-32, 68,557,000 yen. Two 10,000 ton cruisers armed with ten 8-inch guns, the Nachi and the Myono, were commissioned in 1927, and a third, the Haguro, was launched March 24, 1928.

Expenditures for the army and navy for five years with the budget estimates for two years (in 1,000 yen):

	Army.		Navy.	
	Ord.	Ext.	Ord.	Ext.
1921-22	169,070	77,907	140,718	342,870
1922-23	178,713	52,194	130,379	243,512
1923-24	176,223	47,403	124,834	150,309
1924-25	179,331	27,403	124,628	123,829
1925-26	170,875	28,514	122,349	105,016
1926-27	168,116	31,716	126,673	112,356
1927-28	173,614	38,741	135,978	120,428
1928-29	224,300		262,400	
1929-30	232,000		268,000	

KOREA (CHOSEN).

AREA, 84,738 square miles (including islands).

POPULATION, census of 1925, 19,522,945, including about 337,000 Japanese and about 46,000 Chinese.

CAPITAL, Seoul; population, 1925, 302,711 (77,811 Japanese); other cities, Fusan, pop., 1925, 103,522 (39,756 Japanese); Pingyang, 109,285 (22,527 Japanese); Taiku, 72,127 (22,143 Japanese).

Governor General, Admiral Saito, 1929.

Korea is an ancient kingdom with a history extending back to the twelfth century B. C. but dur-

ing recent centuries the "Hermit Kingdom." It occupies a peninsula in northeastern Asia dividing the Yellow Sea from the Sea of Japan. The boundaries on the mainland are the Yalu River and the Tamean River. The mainland is as large as the State of Minnesota. Its coastline is over 6,000 miles long. Southern Manchuria lies along its northwest frontier for 500 miles and it touches Siberia for a few miles, a scant 100 miles from Vladivostok, in the extreme northeast. Situated between that Russian port and Port Arthur, then a Russian leasehold and subject to diplomatic control and penetration by Russia, Korea became to Japan "a dagger pointed at her heart"—the chief immediate cause of the Russo-Japanese War of 1904-1905. After this war the "complete independence" of Korea that had been recognized in the treaty following the Chino-Japanese War of 1894-1895 (which also was for the control of Korea) gave way to a recognition by Russia of Japan's paramount interest in Korea. Japan continued her military occupation of the country, and in 1910 annexed Korea outright.

The administration of the country has been in the hands of a Military Governor of high rank directly responsible only to the throne.

Recent reforms, following nationalist disturbances, make the Governor General responsible to the Premier of Japan, open the office to civilians, and promise steadily increasing measures of local autonomy and reduction of military rule.

Korea had no system of education when brought under Japanese control. Only about 10 per cent. of the children of school age, and these all of the upper classes, attended school, where they learned something of the Chinese classics.

At the end of 1926 there were 1,767 public common schools, with 446,911 pupils. Besides, there were 67 vocational schools with 7,364 attendants; 14 teachers' schools with 2,031 students; 9 colleges with 1,714 students. The Japanese Government completed the establishment of the new Imperial University in Seoul which has (1927) 149 Korean students and 318 Japanese.

Confucianism and Buddhism are the chief religions and Christianity has gained a great vogue among all classes. The mission force numbers about 2,500 with about 300,000 Korean converts.

The country is mountainous, especially in the north, where the forests are of great value, and there is much mineral wealth awaiting development. There are extensive fertile plains well watered by good rivers in the south and west, where are the five excellent harbors of Fusan, Mokpo, Chemulpo and Chinnampo. The larger rivers in the west can at full tide float boats far up the streams. At Ninsen is a tide of 33 feet.

The climate is dry and bracing. The mulberry tree thrives, 60,000 acres being planted with them. Silkworm culture has been much encouraged by the Japanese and the quality of the cocoons improved. Some 400,000 families are engaged in the industry. The cultivation of tobacco is also fostered. Stock raising is everywhere an important industry. Afforestation and irrigation are being systematically carried on by the Government. The cultivated area in 1926 was 11,276,115 acres.

Mining concessions covering 270,000 acres, mostly gold-bearing, which had been in the hands of about fifteen foreign corporations (four American) and individuals (four Americans) before annexation are respected, but a new law (April 1, 1916) prohibits foreigners from acquiring mining rights. Gold, silver, zinc, copper, lead, iron, tungsten, graphite, anthracite coal and kaolin are present. In 1926 the value of gold produced was 7,485,811 yen. The output of Pyongyang coal, anthracite (Government owned), in 1923 was 115,249 tons; of pig iron, 81,779 tons were produced.

The trade of Korea is almost entirely in the hands of the Japanese, who also have provided 85 per cent. of the capital for the 1,500 factories already established.

The total value of the principal agricultural crops in 1925 was about 600,000,000 yen, of which 31,400,000 yen was for cotton, and 10,000,000 yen for silk. The value of the industrial output was 200,298,000 yen, and mineral, 25,000,000 yen.

The mileage of the Government owned railroads in 1928 was 1,456. The chief line is the trans-peninsula line (585 miles), from Fusan, where the Fusan-Shimonoseki ferry service connects with the Imperial Japanese railroads, to Antung, at the mouth of the Yalu River, across the Manchurian boundary, where it connects with the Antung-Mukden line of the South Manchurian Railway, thus forming part of the two international through traffic lines—Japan to China, and Japan to Europe via the Trans-Siberian Railway. The latter's regular (twice-a-week) service from Tokio to Paris, which had been suspended since the Russian revolution, was resumed in May, 1927, the trip takes about two weeks. The total investments in the Government railroads amount to over 150,000,000 yen, and the annual profit is over 10,000,000 yen.

Vessels entering Korean ports in 1927, in the foreign trade, had a tonnage of 6,421,752, 85 per cent. being Japanese.

Korea was a drain on the Japanese Imperial Government, with an exception of 1919 when they received no grant from the central government of Japan, of over 10,000,000 yen annually. In 1925-26 revenues were 184,901,080 yen and expenditures 171,763,081 yen. The budget for 1928-29 balanced at 222,674,042 yen and that for 1927-28 (actual) was: Revenues, 234,243,270 yen; Expenditures, 210,852,949 yen. The debt March 31, 1927 was 298,619,147 yen.

Imports and exports in yen, about 80 per cent. of which is with Japan, were:

Year.	Imports.	Exports.
1921	232,381,584	218,277,223
1922	256,044,807	215,404,403
1923	265,790,727	261,665,732
1924	309,593,336	329,339,094
1925	340,011,781	341,630,533
1926	372,169,783	362,954,800
1927	383,417,000	358,925,000
1928	413,991,000	365,978,000

Trade with the United States was:

Year.	Imports.	Exports.
1920-21	$2,417,677	$84,112
1921-22	2,858,032	29,112
1922-23	2,924,763	60,297
1923-24	2,606,299	47,651
1924-25	2,175,900	70,039
1925-26	3,951,626	72,341

KWANGTUNG.

(Leased for 99 years from China.)

AREA, 1,304 square miles.

POPULATION, census of Oct. 1, 1925, 1,054,074, of which 846,543 are Chinese, and 241,248 Japanese.

CAPITAL, Dairen (formerly called Dalny); population, 1922, 137,354; Port Arthur, population, 22,649; Kinchow, 92,128.

Governor General, Count H. Kodama.

Kwangtung is the southern part of the Liaotung peninsula, the southernmost portion of Manchuria, which has the Bay of Korea on the east, the Yellow Sea to the south and the Liaotung Gulf on the west. Japan had taken it as spoils of war from China by the Treaty of Shimonoseki but was forced to turn it back by diplomatic pressure from Russia, Germany and France. Russia then leased it for 25 years from China, and constructed the strongly fortified city of Port Arthur and the nearby commercial ice-free post of Dalny (now Dairen).

Japan took Port Arthur by siege ending with a brilliant assault in 1905, and at the conclusion of the Russo-Japanese War took over the lease in the Treaty of Portsmouth, 1905. In May, 1915, the lease was extended to 99 years by China. Kwangtung by Imperial Ordinance of April 12, 1919, was given a civil government superseding the former military government.

Dairen is a free port, the chief seaport of Manchuria and the southern terminus of the South Manchurian Railroad, which connects with the Peking and Korean lines at Mukden and with the Trans-Siberian at Changchun. It is a well-built well-governed modern city with varied industries.

The railway zone comprises 55,895 acres or 87.3 square miles, and is highly developed. The railway mileage, 1927, was 694 and its net earnings, 68,008,345 yen.

The budget for 1928-29 balanced at 20,874,254 yen and included a grant from the National Treasury of 4,000,000 yen.

The number of steamships that entered and cleared the port in 1925 was 6,465 with a tonnage of 10,361,560. Beans, bean cake and cereals furnished the bulk of the exports.

Imports and exports in yen were:

Year.	Imports.	Exports.
1921	83,076,104	100,930,840
1922	76,231,419	112,235,143
1923	95,742,008	131,421,703
1924	110,770,893	112,183,553
1925	114,503,398	168,364,631
1927	131,143,126	203,298,434

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$5,716,630	$2,062,315
1923	8,759,653	4,386,017
1924	3,614,316	2,441,114
1925	5,266,838	3,527,182
1926	6,465,742	3,465,692
1927	6,697,760	2,687,589
1928	6,244,989	3,020,369

FORMOSA (TAIWAN).

AREA, 13,944 square miles.

POPULATION, census of Dec. 31, 1923, 3,757,838 Japanese, 166,621; natives, 3,481,833; aborigines 84,548; foreigners, 24,836. Census 1925, 3,994,884

CAPITAL, Taihoku, pop., 1922, 180,362; Tainan, pop., 77,026.

Governor General, Mitsunoshin Yamakami.

Formosa is an island the size of Massachusetts and Connecticut, lying between the Philippines on the south and Japan to the north, with the China Sea on the west and the Pacific Ocean on the east. A range of mountains from north to south forms the backbone of the island (highest peak, Mt. Niitaka, 14,500 feet); the eastern half is exceedingly steep and craggy, but the western slope is flat, fertile and well cultivated, yielding two rice crops a year. The temperature rarely falls below 96° F. Rain is abundant. Production of rice in 1927 was 12,444,614 hectoliters; tea, 11,880,524 kilos; sugar, 411,140 metric tons; salt, 113,400 metric tons; coal, 1,800,440 metric tons; petroleum, 228,270 hectoliters. Gold, silver and copper are also mined. Ramie and jute are exported.

Formosa has been the world's chief source of camphor, the high mark of product being in the war years. In 1915, 2,772,110 kilos of camphor and 4,128,745 kilos of camphor oil were produced; in 1925 production declined to 837,750 kilos of camphor and 4,413,080 kilos of oil. Camphor since 1899 has been a monopoly of the Government, which, keenly alive to reckless destruction of the trees, began an extensive planting in 1917, and in Opium is another Government monopoly, handled with the policy of suppressing the smoking by gradual prohibition. The number of licensed smokers, which in 1900 was 169,064, by Jan. 1, 1928 had been reduced to 29,043.

Formosa was ceded by China in 1895 after the China-Japanese War and Japan has made it a source of profit. Japanese colonists were encouraged, schools established, 396 miles of railroads built, telegraph and telephone lines laid, harbors improved, industries encouraged and much done in public works. The aborigines, who in the north are savage head-hunters, gave much trouble, and in 1910 the Government began a thorough subjugation program with an appropriation of 9,750,000 yen to extend over five years. Out of a total of 697 tribes of 160,000 persons, 551 tribes of 116,744 have vowed allegiance.

The budget for 1928-29 is balanced at 109,246,305 yen; the actual budget for 1927-28 was: Revenue, 138,626,830 yen, and Expenditure, 101,533,286 yen. The public debt July 1, 1928 was about 111,000,000 yen.

Trade with Japan and foreign countries in yen, largely in favor of Formosa, was:

	Japan.		Other Countries.	
Year.	Imports.	Exports.	Imports.	Exports.
1924.	86,602,060	211,098,223	46,424,036	42,575,953
1925.	129,906,280	215,248,807	56,489,060	47,965,844
1926.	121,404,784	202,109,583	62,007,666	49,315,487
1927.	121,107,991	202,078,577	65,840,396	44,597,707

The Pescadores, twelve islands with an area of fifty square miles, stretching northward toward Japan, are under the Formosan Government.

Japanese Sakhalin (Karafuto) is the southern half of the island of that name, below the 50th parallel, which was ceded by Russia in October, 1905, in the Treaty of Portsmouth. The area is 13,253 square miles, and the population, Dec. 31, 1925, was 203,504. The country is mountainous, and primeval forests cover 70 per cent. of the land. Coal output in 1927 was 357,046 tons and in 1926, 275,823 tons. The fisheries are important, the product in 1927 being valued at 15,704,310 yen. In an effort to colonize the island, 9,988 families, numbering 42,683 persons, have been placed on the land. The cultivated area amounts to 59,515 acres, with 65,000 acres of pasture. The budget for 1928-29 balanced at 27,340,205 yen, and includes a grant of 2,027,635 yen from the National Treasury. The budget for 1927-28 (actual) was: Revenue, 26,877,316 yen; Expenditure, 19,982,341 yen.

Japanese Mandates in the Pacific extend for 1,200 miles north from the equator and for about 2,500 miles from east to west. The total area of land in this immense expanse of sea is only 833 square miles. The islands, formerly German possessions, number 1,450; the groups are the Marianne, or Ladrone (except Guam, U. S.), pop. 3,300 (Chamorros), in 1922; the Marshall Islands, pop. 9,700 (Kanakas); and the Caroline Islands, pop. 36,328 (Kanakas). There are also 3,338 Japanese and 59 foreigners (June 30, 1924), chiefly in the Marianne Islands. The native population is increasing. Each group has a language of its own. The principal resources are phosphorus ores (chiefly in the Carolines), cocoanut and copra. The seat of government is in Parao in the Carolines.

LATVIA, REPUBLIC OF

AREA, 40,856 square miles.

POPULATION, census of 1927, 1,870,520; of which 1,779,593 were citizens.

CAPITAL, Riga; population, 1925, 337,700; other cities, Libau, population 60,700; Dvinsk, 40,600; and five with more than 10,000.

President, Gustav Zemgals, born 1871, elected April, 1927, for three years.

Premier, H. Celmins, (Agrarian) Nov. 30, 1928.

Latvia, formerly a Russian province, became a republic Nov. 17, 1917, final elections being held on April 17, 1920, and the Legislative Assembly meeting first on May 1, 1920. It is bounded on the north by the Gulf of Riga and Estonia, on the east by Russia, on the south by Lithuania and Poland, and on the west by the Baltic Sea. It is one of the three Baltic states of North Central Europe. It is about the size of Virginia.

About half the people engage in agriculture, dairying, livestock and other food producing industries. Flax is the important product. Pre-war flax acreage was 275,000, and annual crops were 35,000 tons of fibre and 25,000 tons of seed, exported mostly to Germany, Holland, Belgium and England. War devastation reduced the flax acreage to 70,000, and another cause was the flight of 500,000 farmers as refugees. Production in 1927, however, approached normal. Principal crops were: Flax, 41,013,000 pounds (and 654,000 bushels of linseed) from 158,060 acres; rye, 258,800 tons from 640,750 acres; barley, 130,080 tons from 463,250 acres; oats, 177,160 tons from 763,000 acres; and potatoes 717,350 tons from 213,750 acres.

The census of 1927 returned: horses, 369,300; cattle, 996,600; sheep, 1,127,500; pigs, 534,500.

Forests cover 4,399,000 acres of the total in the country of 16,000,000. Lumber is the chief export and in 1928 amounted to 1,032,754 metric tons valued at $17,940,000.

By the land reform law of 1919, amended 1922; the estates of both the noble and the wealthy non-noble landlords were declared state property in Latvia. The principle of compensation was admitted, but neither terms nor payment had been arranged by 1925. The large estate owners were allowed to retain their dwellings and about 125 acres of their property. They could lease from the state, but not own, their former sub-estates when the units were less than 250 acres. The peasants to whom the farms were given under the lease from the government, could quite easily acquire freehold rights. By October, 1925, over 3,385,900 acres had been allotted, and 889,200 acres remained as the state land. In addition to the 87,634 farms, that had been established plans were under consideration for 19,400 more.

Industry is beginning to count in the national wealth, the paper, match, wood distilleries and woodwork output having already attained large proportions. On Jan. 1, 1926, there were 2,839 industrial establishments with 49,900 employes.

Latvia's importance is enhanced by the fact that it is the natural route for through international trade between Russia and western nations—pre-war, 20.6% of all Russian imports and 28% of all exports passed through Latvian territory. Three Russian main railway lines converge at Riga, Windau and Libau, Latvia's ports, all with excellent harbors. Riga has 5 ice breakers that keep the port open during the winter.

In January, 1928, Latavia's merchant marine numbered 119 vessels of 62,045 net tons. In 1928, 4,335 vessels of 2,014,962 tons entered the ports.

The 1,736 miles of railroads are state owned, and made a net profit of 4,932,565 lats in 1927.

Latvia is Protestant by 76.54 per cent., Roman Catholic by 18.49 per cent., and there are Baptists, Moravians and other faiths.

In 1910 only 3.2 per cent of the people were illiterate, and the native Letts form 80.41 per cent. of the total population.

The Latvia constitution was adopted on Feb. 15, 1922, by the Constituent Assembly. It provides for a Parliament (Saeima) of 100 elected for three years by citizens of both sexes over 20 years old, by direct vote on proportional representation. It elects the president for a three-year term. He selects

the Prime Minister who appoints a Cabinet responsible to Parliament. After the election of the third parliament of many parties in October, 1928, H. Celmins, leader of the Agrarians, formed a coalition cabinet from seven party with 54 votes in Parliament.

The unit of currency is now the lat (= 50 Latvian roubles = one gold franc = $0.193 at par of exchange).

The Latvian rouble was stabilized at that point, and on Nov. 1, 1922, the Bank of Latvia, the chief shareholder of which is the Latvian Government, began operations; now only this bank has the right to issue currency notes. The amount outstanding July 31, 1929, was 45,000,000 lats, with a gold cover of 24,000,000 lats, and 46 000,000 lats of foreign exchange.

The internal debt amounted on Jan. 1, 1928, to 580,816 lats. The war debt due the United States was funded by agreement signed Sept. 24, 1925, at $5,775,500. Latvia owes Great Britain £2,150,000.

Recent budgets in lats are:

Year.	Rev.	Exp.
1923-24	208,900,000	173,200,000
1924-25	223,000,000	211,888,863
1925-26	152,909,000	151,400,000
1926-27	165,129,000	160,547,000
1927-28	159,097,000	159,097,000
1928-29	164,110,000	164,110,000

Imports and exports in lats were:

Year.	Imports.	Exports.
1922	170,449,459	101,992,000
1923	211,857,296	161,978,356
1924	256,364,731	170,523,762
1925	280,324,400	179,598,010
1926	260,263,510	188,444,207
1927	249,600,000	220,200,000
1928	308,071,000	258,714,000

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$6,804,049	$853,781
1923	5,285,134	3,714,297
1924	1,126,162	4,562,915
1925	1,304,920	3,708,600
1926	726,927	5,982,256
1927	1,028,697	4,469,412
1928	1,070,889	3,847,488

LIBERIA, REPUBLIC OF

AREA, estimated 45,000 square miles.

POPULATION, estimated 1,500,000 to 2,000,000.

Capital, Monrovia, population, estimated, 1925, 6,000.

President, Charles D. B. King, 1928-32 (third term).

Receiver of Customs and Financial Adviser (designated by the United States Government), John Loomis.

Liberia lies on the southwest (Guinea) coast of Africa between Sierra Leone (British) on the west and the French colony of the Ivory Coast on the east, with a coast line on the South Atlantic of about 350 miles. It extends inland 75 to 150 miles. Beyond 25 miles there is no civilized settlement. Most of the country is covered with tropical forests, rich in timber and oil nuts but lacking in transportation. There is one motor road, 20 miles long.

Harvey Firestone of Akron, Ohio, announced on Oct. 14, 1925, that the Firestone Tire and Rubber Company, of which he is President, had leased from the Liberian Government 1,000,000 acres of land for an elaborate plantation for raising rubber, planning to produce ultimately 250,000 tons a year. By 1929 30,000 acres had been planted with 6,000,000. 10,000 of the finest bud-grafted rubber stumps having been brought 12,000 miles from Sumatra. On the payroll were 10,000 Liberians under a white staff of 90, and eight modern plantations built up and connected by motor roads.

The population is entirely of the African race; about 100,000 of the dwellers along the coast may be considered civilized. The number of American Negroes is estimated at 20,000. Liberia was founded in 1822, when a settlement was made at Monrovia by Negro freedmen from the United States with the assistance of American colonization societies. It was declared a free and independent republic on July 26, 1847. Its Constitution is modelled on that of the United States. Electors must be of Negro blood and owners of land. The Government rests with a President elected for four years, a Senate of eight, elected for six years, and a House of Representatives of fifteen, elected for four years.

The control of customs since 1912 has been in the hands of General Receiver and Financial Adviser, designated by the United States.

Government schools are supplemented by mission schools, mostly of Protestant denomination. In 1928, $100,000 was expended on schools. The Methodists maintain a college at Monrovia. There is an organized militia of 650 men, with reserves of 2,500.

Liberia was a signatory of the Versailles Treaty and is a member of the League of Nations.

Coffee, rubber, oil, nuts, raffia, ivory and ginger are the chief exports; and textiles, hardware, glass and earthenware, tobacco, spirits, rice and foodstuffs are the principal imports. In 1925 there entered and cleared at Monrovia 904 vessels of 2,062,852 tons.

Liberia was the second nation to pay its entire war debt, with interest, to the United States—$35,610, which it paid on July 6, 1927. Liberia negotiated a loan of $5,000,000 in New York in 1927, and paid off its 1912 bonds and its floating debt.

Recent budgets are:

Year.	Revenues.	Expenditures.
1922-23	$493,889	$381,258
1923-24	699,728	681,000
1924-25	943,208	943,208
1925-26	962,570	939,978

Imports and exports were:

Year.	Imports.	Exports.
1922	$1,501,515	$1,645,382
1923	1,361,700	1,166,735
1924	1,319,719	1,303,722
1925	2,115,021	1,715,060

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$157,745	$31,248
1923	175,032	17,790
1924	209,167	4,751
1925	328,446	77,074
1926	389,281	280,040
1927	755,615	362,117
1928	597,316	103,521

LIECHTENSTEIN

(Principality).

AREA, 65 square miles.

POPULATION, 1921, 11,500.

CAPITAL, Vaduz; population, 1,405.

Prince, Francis I., born Aug. 28, 1853, succeeded, Feb. 11, 1929, on the death of his brother, the 89 year old Prince John II., who had ruled for seventy-one years. He married on July 22, Frau Elsa von Eroes, nee Baroness Guttman of Vienna.

Administrator, appointed by the Prince, Gustav Schaedler (1922).

Liechtenstein is on the Upper Rhine between Austria and Switzerland. It was a member of the German Confederation until 1866. Since that time it had practically been a dependency of Austria, but on Nov. 7, 1918, the Diet declared its complete independence. By treaty with Switzerland in 1921 that country administers its posts and telegraphs and it is included in the Swiss customs union.

The principality is but little larger than Staten Island; and for five miles the Orient express from Zurich to Vienna passes through it.

The population is agricultural, stock raising is highly developed. The monarchy is hereditary. By the Constitution, October, 1921, legislative powers rest in a Diet of 15 members, elected for four years by direct vote, on a basis of universal suffrage and proportional representation. The budget for 1927 was: Revenue, 859,033 Swiss francs; expenditures, 859,871 francs; debt, 1,956,319 francs.

LITHUANIA, REPUBLIC OF

LIETUVA

AREA, about 20,550 square miles, exclusive of Memel and the Vilna district. Polish boundary undetermined.

POPULATION, census of Sept. 1923 (exclusive of Memel and Vilna) 2,011,173; of which 1,696,158 are Lithuanians; 153,332 Jews; 64,015 Poles; 48,392 Russians; 23,973 Germans; 14,318 Letts; and 4,656 other racial groups. Estimate, Jan. 1, 1928, 2,286,368.

CAPITAL, Kovno, temporarily; population, 94,405.

President, Antona Smetona, 1926-33, put in office Dec. 17, 1926, by an army coup d'etat.

Premier, Jonas Tubelis (Finance) Nationalist, Sept. 25, 1929.

Lithuania, a Baltic state, is bounded on the north by Latvia, on the east by Russia, on the south by Poland and East Prussia and on the west by East Prussia and the Baltic Sea.

Lithuania was a Grand Duchy under the Russian Empire, having shared the fate of Poland. After the Bolshevists captured the Russian Government, the republic proclaimed its independence on Feb. 16, 1918. It was recognized by most of the powers and by Russia in the Treaty of Moscow, July 12,

1920. The dispute with Poland, relative to whetner or not certain Lithuanian areas were to be left as a part of the country or become part of Poland, was under consideration by the League of Nations when on Oct. 9, 1920, General Zeligowski, with 15,000 Polish troops, occupied Vilna, historic Lithuanian capital, and declared it annexed to Poland. The Polish Government proclaimed Zeligowski a rebel, but he remained there many months. Vilna, by a decision of the League of Nations in 1923, with its strip of territory was awarded to Poland.

Lithuania and Poland remained technically at war for seven years. A crisis brought the situation before the League of Nations in December, 1927. After a dramatic session when the Lithuanian foreign minister and Marshal Pilsudski both declared for peace, the matter was referred back to the two nations for settlement by diplomatic negotiations. These were without success and brought a warning from the League in September, 1928. No agreement so far (November, 1929) has been reached.

Memel and its territory (area 1,520 square miles, population 145,000), a seaport on the Baltic between Lithuania and East Prussia, was detached from Germany under the Treaty of Versailles and placed under the control of the Council of Ambassadors. Irregular bands of Lithuanians rushed the city in 1923. The city and territory was on Feb. 16, 1923, handed over to Lithuania subject to certain conditions to regulate the use of the port by both Lithuania and Poland. Under the sovereignty of Lithuania the Memel territory is a unit enjoying legislative, judicial, administrative and financial autonomy according to convention signed with the great powers. Ratification was secured May 17, 1924, by a commission headed by an American, Norman H. Davis appointed by the League of Nations.

At the Memel Parliamentary elections in October, 1925, the parties favoring autonomy and a plebiscite to decide the sovereignty of the territory polled 47,466 votes, winning twenty-nine seats, to the pro-Lithuanians' 3,677 votes, winning one seat.

Lithuanian elections of May, 1926, gave Populists and Socialists a parliamentary majority.

The Socialist government of President Grinius and Premier Slezevicius was overthrown by a military-nationalist coup d'etat on Dec. 17, 1926 at Kovno. Parliament was summoned to meet that night and receive their resignations. It then elected former President Smetona president for a three-year term.

Much unrest marked the year 1929. Plotting had been met by martial law. An attempt to assassinate Premier Valdemaras May 6 caused the death of an aide and wounding two others. In September he gave way to Jonas Tubelis.

Legislative power is vested in a constituent Assembly of 112 members, elected directly on a basis of proportional representation by universal equal suffrage. The Assembly elects the President.

A new constitution, proclaimed May 26, 1928, fixed the age of the electors at 24 years, the term of the President at seven years, and the term of Parliament at five years. It also declared Vilna the capital.

Eighty per cent. of the people engage in agriculture, cultivating in 1926, 6,527,654 acres, of which 208,000 were in flax. Rye and potatoes are the chief crops. Chief exports are flax and linseed, wood pulp, lumber, and butter.

About half of the total area of Lithuania consisted of estates exceeding 500 acres, but the landlords had unusual popularity and in 1919, when land reform was uppermost, there was practically no agitating in favor of expropriation without fair compensation. Before the passage of the Land Reform Act on April 3, 1922, a large number of the larger estates had been broken up by purely economic causes under mutually satisfactory arrangements. Under the act all private holdings exceeding 197 acres were declared subject to expropriation and all holdings exceeding 375 acres were declared the property of the state. The price fixed for the land and equipment was determined by the average prices during 1910-14 and compensation made by 3 per cent. 36-year Treasury certificates. The land was parceled out to peasants in plots not exceeding fifty acres, and payment extending over thirty-six years was to be made in rye. In three years private holdings increased from 168,000 to 214,000. Of this number 31 per cent. comprised less than 28 acres; 50 per cent. from 20 to 25 acres, and 15 per cent. from 50 to 110 acres.

Forest wealth also gives export of timber. Forests cover a fourth of the total area, pine, fir and hardwood. By the peace treaty with Soviet Russia 250,000 acres of timber land, largely on the Nieman river, was given to Lithuania for exploitation. Exports of lumber in 1928 were valued at $7,073,120.

Lithuania is on the through railway route from Paris, Berlin, Warsaw to Riga, Dvinsk and Leningrad, and regards the international rail traffic as one of the principal points of importance, it being the intention to develop facilities for its proper care.

There were 1,213 miles of railroads in 1926, all state owned. In 1927, 826 steamers of 426,634 tons entered Memel, the only port. The Niemen is navigable for nine months.

A state university was opened in Kovno, Feb. 16, 1922. It had in 1928, a faculty of 258, and 3,580 students; there were 2,401 primary schools with 124,578 pupils and 159 secondary schools with 23,112 pupils.

The unit of currency is the lit (= 10 cents at par of exchange). The Bank of Lithuania, established 1922, has the sole right to issue banknotes. The note circulation July 31, 1929, was 87,000,000 lits with a gold cover of 34,000,000 lits and foreign currency of 42,000,000 lits.

Lithuania on Oct. 8, 1925, gave the United States $6,030,000 in bonds in final settlement of her war debt. Other debts, Dec. 31, 1927, consist of $1,846,350 5% Liberty Loan subscribed by Lithuanian-Americans, and £150,000 due Great Britain.

Remittances from the United States sent by emigrants were 26,008,000 lits in 1928; 26,175,100 lits in 1927; and 28,908,700 lits in 1926.

Recent budgets in lits are:

Year.	Rev.	Exp.
1923	199,276,346	199,276,346
1924	201,297,163	201,337,154
1925	258,625,300	254,837,100
1926	235,160,000	228,160,000
1927	270,528,800	230,903,400
1928	253,000,000	253,000,000

Imports and exports in lits were:

Year.	Imports.	Exports.
1922	74,884,600	76,892,400
1923	156,627,000	146,794,700
1924	206,530,000	266,580,000
1925	252,703,000	342,715,000
1926	240,760,000	253,300,000
1927	265,694,000	245,929,000
1928	291,091,400	256,881,300

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$35,272	$79,576
1923	105,113	160,849
1924	102,427	313,584
1925	43,094	767,171
1926	88,455	946,593
1927	218,220	520,397
1928	334,525	410,772

LUXEMBURG, GRAND DUCHY OF

AREA, 999 square miles.

POPULATION, Dec. 1927, 285,524.

CAPITAL, Luxemburg, population, 1927, 52,440.

Grand Duchess, Charlotte, born Jan. 23, 1896; succeeded on the abdication of her sister, Marie Adelaide, Jan. 9, 1919; married Prince Felix of Bourbon-Parma on Nov. 6, 1919; *Heir*, their son, Prince Jean, born Jan. 5, 1921. They have four daughters and another son.

President of Government, Joseph Bech, July 16, 1926.

Luxemburg is a European Grand Duchy fourfifths the size of Rhode Island, situated between Germany on the east, Belgium on the west, and France on the south. Its integrity and neutrality were guaranteed by the Treaty of London, May 11, 1867, having been previously, since 1815, a part of the Germanic Confederation. It, however, remained in the German Customs Union, formed in 1842. German capital built its railroads, and its iron and steel furnished material before and during the war to the Germans, who occupied the country throughout the war.

A referendum (under universal suffrage) taken Sept. 28, 1919, to settle some of the problems brought to the front by the World War resulted in the following vote out of a total of 90,984: For the reigning Grand Duchess, 66,811; for a continuation of the dynasty under another Grand Duchess, 1,286; for another dynasty, 889; for a republic, 16,885; for an economic union with France, 60,133; for an economic union with Belgium, 22,242. France declined the union in favor of Belgium. A treaty was then negotiated between Luxemburg and Belgium eliminating the customs barrier and providing for the use of Belgian money in the Grand Duchy. The agreement came in force April 1, 1922, and is for fifty years.

The Grand Duchy is governed under the Constitution of 1868 as amended in 1919. Legislative power rests with a Chamber of forty-eight Deputies, elected by universal suffrage (men and women over twenty-one). Executive power rests with a Minister of State and President of Government

and a Cabinet of four Directors-Generals. The population is almost entirely Catholic. Education is compulsory for children between the ages of six and thirteen.

Luxemburg is a country of small landowners; 430,000 of the 500,000 acres devoted to agriculture are farmed by resident owners. Individual farms number about 40,000, of which 15,000 are less than 1¼ acres; 9,800 from 1¼ to 6 acres, and 7,000 from 6 to 12 acres.

The output of iron ore from 55 mines in 1928 was 6,998,252 metric tons; in 1927, 7,244,278 tons; and in 1926, 7,756,240 tons; of pig iron in 1928, 2,770,061 tons; in 1927, 2,732,495 tons; of steel ingots in 1928, 2,567,080 tons; in 1927, 2,407,128 tons.

There were in 1928, 330 miles of railroads.

On Jan. 1928, the Luxemburg State Savings Bank reported 146,796 depositors (more than half the Duchy's population) with deposits of 253,841,000 francs.

Luxemburg's trade with the United States is included in that of Belgium. Exports to the United States in 1927 amounted to $3,717,708.

The Belgian franc is the unit of currency (rate of exchange Oct. 15, 1929, 2.789 cents). Recent budgets in francs are:

	Revenues.	Expenditures.
1924-25	fr. 127,398,513	fr. 124,525,967
1925-26	168,477,347	165,804,434
1926-27	204,821,891	193,104,482
1927-28	270,249,172	261,335,689
1928-29	313,388,414	294,071,796

The consolidated debt, 1929, was 361 million francs; the floating debt, 53.6 million francs.

MEXICO, REPUBLIC OF

AREA, 760,290 square miles.

POPULATION, census of 1921, 14,308,753; Indians, 4,179,499; mestizos, 8,504,561; White, 1,404,718; foreigners, 246,052.

CAPITAL, Mexico City, population, census of 1923, 632,367 (of which 12,063 are Spanish, 2,382 Americans, 1,652 French, 1,223 Germans, 803 chief cities, Guadalajara, pop. 150,000; Puebla, Cubans, 610 English, 6,322 other nationalities); 110,000; Vera Cruz, 48,633; Tampico, 80,000; San Luis Potosi, 85,000; and Monterey, 85,000.

President (*Provisional*) Dr. Emilio Portes Gil, born 1891, elected by Congress, Sept. 25, 1928, inaugurated Dec. 11, 1928, to serve until Feb. 5, 1930.

Mexico is bounded on the north by the United States, on the east by the United States (Texas), the Rio Grande forming the boundary line, and the Gulf of Mexico; on the south by Guatemala and on the southwest and west by the Pacific Ocean. The Gulf of California, 739 miles long with a maximum width of 190 miles, makes a huge indentation in the western coast, completely separating the narrow, mountainous, sterile and sparsely inhabited peninsula of Lower California, 760 miles long, from the mainland. On the east the province Yucatan juts out into the Gulf of Mexico, connected with the main territory of the country by a narrow strip northwest of the Guatemala frontier. The coast line on the Pacific is 4,574 miles long and 1,727 on the Caribbean. The northern boundary is 1,600 miles long.

The Sierra Madre range runs north and south near the western coast, turning near Colina and continuing nearly due east, paralleling the coast into the Central American countries. Near the Gulf Coast a range of mountains—a continuation of the eastern range of the Rocky Mountains—runs down nearly to Vera Cruz. Loftiest of the dormant volcanoes are Popocatepetl, altitude, 17,888 feet; Ixtaccihuatl, altitude, 17,343 feet, and Orizaba, altitude, 18,209 feet.

Between the two ranges lies the vast tableland of Mexico, altitude from 5,000 feet to 8,000 feet with a delightful climate (like New York in September) and with the vegetation and products of the temperate zone varying with the altitude. The lowlands along the coast are tropical, rising to sub-tropical in the foothills; hot and unhealthy with a heavy rainfall on the Gulf side. Along the Pacific slope and in the interior irrigation is needed and natural streams from the mountains are put to use with increasing zeal.

Agriculture and stock-raising are the chief industries. The country is marvelously rich, but the land is barely scratched except on the larger ranches; primitive methods of cultivation prevail. The cultivable lands are estimated at one-fourth of the total area, or 120,417,760 acres, of which only 30,000,000 acres are cultivated, much of which require irrigation. The grazing lands cover about 120,500,000 acres and forests 44,000,000 acres, of which 25,000,000 are estimated to be rich in pine, spruce, cedar, mahogany, rosewood and logwood. The principal products are corn, cotton, henequen (sisal), wheat, coffee, beans, tobacco, and sugar.

In 1926 corn was grown on 7,480,684 acres; wheat on 1,166,724; garbanzos (chick-peas), 370,500; beans (frijoles), 2,210,729; alfalfa, 109,836; potatoes, 35,906; coffee, 135,858; sugar cane, 227,734; cotton, 566,818; tobacco, 36,487; and rice, 118,293. The yield was: Corn, 2,077,002 tons; wheat, 278,8811, garbanzos (chick-peas), 81,190; beans (frijoles); 173,920; alfalfa, 1,620,490; potatoes, 42,971; coffee, 27,349; sugar cane, 4,640,439; cotton, 85,869; tobacco, 9,188; and rice, 38,125.

Cotton production in 1928 was 60,375 metric tons, wheat, 300,211 metric tons; and corn, 2,132,000 metric tons.

The 1926 census returned 5,121,000 cattle, 2,693,000 swine, 2,381,000 sheep, 4,899,000 goats, 964,000 horses, 622,000 mules and 732,000 asses.

President Obregon in August, 1923, issued a new land decree opening to all Mexicans over eighteen years of age (including citizens by naturalization) Federal lands for agricultural uses. One plot only may be taken by one owner, who is forbidden to sell to a foreigner or to any Mexican owning as much or more acreage. Lands which may be irrigated are limited to 25 hectares (1 hectare = 2.47 acres), dry lands up to 100 hectares and pasture lands up to 500 hectares. The Government's fee is $25 gold.

President Calles told Congress Sept. 1, 1925, that through the National Agrarian Commission 2,074,072 acres of land had been previously distributed among 76,549 Mexican families, and that a total of 1,449,270 acres had been definitely distributed among 76,549 Mexican families, and that a total of 1,432,480 acres of national lands had been distributed among 2,537 farmers. By Dec. 31, 1928 5,401,019 hectares (13,340,517 acres) had been distributed. The National Farm Credits Bank with a capital of 50,000,000 pesos was set up in March, 1926, to make loans to small farmers; regional associate banks with a minimum capacity of 500,000 will be established in every state.

Next to agriculture, the chief wealth of Mexico is in its minerals, and mining has been the most highly developed of her industries since the days of the Spanish conquest. The total value of silver mined from the first year of the Spanish conquest (1521) to January, 1922, was $3,000,000,000, somewhat more than 155,000 tons in weight, according to figures compiled by the Bureau of Mines of the Mexican Department of Commerce and Industry, being two-thirds of the world's silver production for the past 400 years. About $500,000,000 American capital is invested in mining. Mexico now yields over one-third of the world's production of silver and about 5% of its gold.

Mineral production in kilos for three years was:

	1926.	1927.	1928.
Gold	24,033	22,586	21,343
Silver	3,057,268	3,252,683	3,374,016
Lead	210,794,394	243,348,390	234,726,664
Copper	58,763,192	58,746,607	65,102,893
Zinc	105,336,568	136,471,434	162,022,801
Mercury	45,416	81,115	84,771
Antimony	2,614,404	1,707,000	3,342,222
Graphite	4,434,548	6,510,000	4,972,051
Arsenic	6,458,224	8,205,000	

The estimated value of mineral production in 1928 was 320,699,131 pesos; and in 1927, 332,981,595 pesos. About 50,000 metric tons of pig iron and 75,000 metric tons of steel ingots are produced annually, all for home consumption.

Mexico has an abundance of low grade coal, much like that of Texas, with 300,000,000 tons in sight. In Coahuila, 800,000 tons were mined in 1926.

PETROLEUM PRODUCTION

The petroleum industry in Mexico, which, in 1920, produced 23.5 per cent. of the world's output, in 1924, 13.8 per cent., and in 1925, 10.8 per cent., became a commercial factor in 1910. The total production from 1901 to 1927 has been 1,465,048,422 barrels with a commercial value of about $1,250,000,000. Oil had been discovered in 1901 in the Tampico district. In 1910, the famous Juan Casiano No. 7 well was drilled, and the equally famous Potrero del Llano No. 4 came in later with an initial flow of 10,000 barrels daily, increasing to 160,000 barrels, establishing itself as the largest producer up to that time. These were in the southern part of the Tampico district.

In 1925, 299 new wells were brought in and 498 abandoned; in 1924, the figures were 296 and 403; and in 1923, 259 and 208. In 1926, 853 wells were drilled of which 318 were producers with an initial production of 1,170,248 barrels a day, an average per well of 3,680 barrels. The average daily initial output of the new wells in 1925 was 3,668 barrels, and in 1924, 3,384. Total exports in 1926 were 82,587,681 barrels (96,517,050 in 1925); 67% went to the United States.

Mexican Government engineers reported, in 1926, that Mexico had approximately 14,820,000 acres of oil lands, of which only 14,820 have been exploited; these were valued at 386,388,000 pesos. They estimated that the total investment of the 85 oil companies operating in 1924 was 780,000,000 pesos, of which Mexican capital had furnished 23,528,000 pesos. Mexico had in 1920, 19 refining plants with a daily production capacity of 461,360 barrels. Storage capacity for all companies was 83,806,356 barrels.

The value of the 1926 product was $112,561,621; and the revenue to the state was 34,892,202 pesos from the production and the export taxes. The revenue in 1927 was 13,053,403 pesos and in 1928, 6,780,307 pesos.

The petroleum production of Mexico from 1908 to 1928 was as follows:

	Barrels.		Barrels.
1908.....	3,932,900	1919.....	87,072,954
1909.....	2,713,500	1920.....	163,620,551
1910.....	3,634,080	1921.....	193,397,587
1911.....	11,552,798	1922.....	182,712,000
1912.....	16,558,215	1923.....	149,584,856
1913.....	25,696,291	1924.....	139,497,476
1914.....	26,235,403	1925.....	114,784,947
1915.....	32,910,508	1926.....	90,421,000
1916.....	40,545,712	1927.....	64,121,142
1917.....	55,292,770	1928.....	50,150,641
1918.....	63,828,327		

Official statistics of the Ministry of Industry, commerce and labor in 1925 give these figures for the manufacturing industries:

Manufactures of	Plants. *No.*	Workers. *No.*	Capital. *Dollars.*
Food, drink, incl. brew. and sug. mills.	1,064	34,313	42,192,879
Textiles.....	266	40,300	41,697,191
Chemicals, paints, etc.	391	9,430	16,178,939
Steel mills, metal works, etc.....	236	30,486	14,817,335
Cigarets and cigars...	40	3,713	14,920,000
Clothing and shoes...	920	7,232	2,639,275
Printing, etc.....	134	2,432	2,060,825
Construction mats...	65	2,028	1,529,875
Wood products, furniture, etc.....	—	4,488	1,269,860
Carriages, wagons....	19	346	444,100
Leather goods.....	38	157	91,650
Miscellaneous.....	3,485	134,347	165,946,384
Total.....	6,658	269,272	303,788,313

Official estimates of capital invested in 1925 are: Agriculture, $540,585,143; petroleum, $532,774,055; railways, $1,026,438,000; mines, $407,029,065; manufacturing, $303,788,313; light and power, $70,500,000; total, $2,881,114,576.

American investments in Mexico as estimated by the United States Department of Commerce approximate $1,325,000,000. Of this $475,000,000 are invested in oil properties and is about 57.8% of the capital invested in them, while the British share is 33.4% and the Mexican about 1%. Of the remaining investments, $340,000,000 is in mining; $240,000,000 in railroads; $200,000,000 in plantations and timber; $80,000,000 in manufacturing and public utilities; $25,000,000 in merchandising, and $10,000,000 in banking.

In 1928, 14,007 citizens of the United States were registered as residents of Mexico.

The Government in 1926 reported the value of all city property at 1,878,656,290 pesos; and of all rural property at 1,350,279,521 pesos. The number of rural holdings is 679,553 of all classes; and 595,519 were returned as owners of small holdings worth not more than 1,000 pesos; 12,550 holdings were valued at over 15,000 pesos; and 60 at from 500,000 to 1,000,000 pesos.

Mexico had, in 1927, 16,714 miles of railroads, of which 13,670 miles were under Federal control. The mileage open to traffic is 12,691. In 1909 the main lines were united in one Government-controlled corporation—the National Railways of Mexico, the operation of which, with virtually all the private lines, was taken over in 1914 and operated by the Government under the name of the Constitutionalist Railways of Mexico. The National Railways of Mexico own 6,818 miles of track and control 1,708 more; the Mexican Railroad has 550 miles of track; the Tehuantepec, 184; the Mexico Northwestern, 494; the Southern Pacific Railroad of Mexico, 1,307; and the United Railroads of Yucatan 530. Vera Cruz, Tampico, Puerto Mexico, Salina Cruz, Manzanilla and Acapulco are the chief ports. In 1927, 4,882 vessels of 8,869,159 tons, engaged in foreign trade entered.

The Federal Government has begun a comprehensive program for 7,125 miles of main highways and 13,000 miles of branches calling for an expenditure of nearly $40,000,000 in six years. For 1930 the budget carries 12,000,000 pesos.

There were, in 1922, 564 federated labor unions with 640,000 members, besides certain strong unions such as the railroad brotherhoods, with 47,600 members and the port workers with 15,000 on the outside. The new Constitution in Article 123 decrees: The eight-hour working day; the seven-hour working night; the six-hour day for working children twelve to sixteen; no night work for women and children; one day of rest in seven; a vacation on pay for child-bearing; a living wage; no garnishment of the living wage; enforced profit-sharing; cash wages; double pay for overtime; housing for workingmen; accident compensation; safe and sanitary work places; right to organize; right to strike or shut down; three months' wages for unwarranted dismissal; worker's lien; immunity of wages from attachment; free employment bureaus; no contracting out of workmen's rights; social insurance, and co-operative building associations.

CIVIL WARS AND INSURRECTIONS.

Mexico has been much torn by civil war and insurrections since achieving its independence from Spain (proclaimed Sept. 15, 1810, and effected in 1821). Conditions resulting almost in a state of war with the United States followed the *coup d'etat* by which, in February, 1913, Gen. Victoriano Huerta replaced Francisco I. Madero (murdered Feb. 22, 1913) in the Presidency. The United States did not recognize his Government (he resigned July 15, 1914), but, on Oct. 19, 1915, did recognize that of Gen. Carranza, who had driven Huerta's successor, Carbajal, from the capital and assumed executive power, Aug. 20, 1915. Carranza held power until May, 1920, when he fled from the capital before an uprising, and was killed trying to reach Vera Cruz. Adolfo de la Huerta, then Governor of Sonora and later Secretary of the Treasury, was made Provisional President in May, 1920, and Gen. Alvaro Obregon was chosen President at a general election in September, being inaugurated Dec. 1, 1920. The United States did not recognize his Government until Aug. 31, 1923; it then followed a three-months' conference between personal representatives of the two Presidents, held in Mexico City (see The World Almanac for 1926, page 644), and the preliminary signing of a convention covering boundary disputes, claims and the stipulation that Article 27 of the new Constitution of May 1, 1917, is not to be interpretated retroactively.

Article 27 affirmed that the title to mineral and other subsoil deposits was vested in the people of Mexico, and stipulated that only Mexicans and Mexican companies had the right to acquire concessions to develop mineral fuel in the republic. A foreigner might secure that right only if he renounced the privilege of recourse to his Government for redress through diplomatic channels. The intent to safeguard future concessions in the interest of the commonwealth is clear, but whether or not the article is retroactive has been the subject of much debate.

The Mexican Petroleum Law to put in effect Article 27, which was passed in December, 1925, and became effective Dec. 31, 1926, vests in the nation the direct ownership of all petroleum deposits. Owners who acquired titles prior to May 1, 1917, were called upon, under penalty of forfeiture, to apply before midnight of Dec. 31, 1926, for "confirmation" of their titles and then to exchange them for "concessions of fifty years' duration, counting from the time when the exploitation work began. This statute has been held by Secretary of State Kellogg to be both retroactive and confiscatory, on the ground that "it converts exclusive ownership under positive Mexican law into a mere authorization to exercise rights for a limited period of time.

When the time for filing registrations expired the Government cancelled drilling permits previously issued to companies, including a number of American ones which had not complied with the law. The Mexican Minister of Industry, Commerce and Labor, announced on Jan. 21, 1927 that of the 147 oil companies operating in Mexico, all but 22 (operating 1,660,579 acres, 5.83%) had accepted the petroleum law. It was reported from Washington that the companies opposing the law represented 88% of the oil production.

Following further diplomatic negotiations Congress, on recommendation of President Calles, passed an amended petroleum law in Dec. 1927. Executive regulations signed by President Calles on March 27, 1928, denied more liberally the terms of the law and replacing the objectional fifty-years "confirmatory concessions" offered by the old law in exchange for valid titles acquired prior to Mar. 1, 1917 by titles issued without time limitations. The time for applying for confirmations of pre-constitutional titles was extended to Jan. 11, 1929. Practically all companies by that date had complied with the law. This action was regarded by both governments as the final step in adjusting the controversy.

The Alien Land Law promulgated Jan. 21, 1926, went into effect Jan. 21, 1927, by which date between 8,000 to 10,000 foreigners had registered declarations of land ownership. The law enacts an article in the Constitution of 1917 which permits only Mexicans to own land in Mexico except that foreigners owning property prior to the promulgation of the law may retain it until death, or, in the case of corporations, for 10 years.

AGREEMENT ON THE DEBT.

The Secretary of Finance, Adolfo de la Huerta, signed an agreement in New York, June 16, 1922, with the International Committee of Bankers, designed to settle the eight-year-old question involving the Mexican external and internal debt. This agreement was approved by the Mexican Congress and signed by President Obregon.

The plan of adjustment relates to all external Mexican Government debts, direct or guaranteed, the National Railways debt and certain so-called internal Government debts largely held outside Mexico; the total face value of the securities covered being over $500,000,000 gold, on which the interest in arrears amounts to approximately $200,000,000.

This $700,000,000 includes Mexico's direct debt and guaranteed railroad bonds, totaling approximately $322,000,000 gold; the railroad debt, not guaranteed, amounting to about $230,000,000 back interest on bonds, and railroad debt amounting to about $115,000,000; sinking fund defaults amounting to about $28,000,000.

This agreement was declared operative on Dec. 8, 1923, and the $15,000,000 payment for 1923 was duly made. Further execution, however, was held up by the abortive revolution in 1924 of de la Huerta, which President Obregon told Congress cost $30,000,000 to put down.

The agreement was revised on Oct. 23, 1925, and the debt and service charges divided between Government debt and railroad debt, the latter being 45 per cent. The National Railways passed under private control on Jan. 1, 1926, with B. F. Holloway as Executive President. The defaulted payments of interest on the debt were spread over eight years; payment for 1926 was duly made, $11,021,999 on the direct debt, and $2,029,943 on the debt of the National Railways which the latter were unable to meet. Arrears for 1927 were paid up by June 30, 1928.

OBREGON ASSASSINATED.

Gen. Alvaro Obregon was elected without opposition on July 1, 1928, receiving 1,381,000 votes, president of Mexico for a six-year term, beginning Dec. 1, to succeed President Plutarco Elias Calles. He was assassinated while at a dinner in Mexico City on July 17, by Jose de Leon Toral, a young artist, who proved to be under the influence of certain rather obscure clerical plotters headed by Mother Superior Concepcion of the Espiritu Santo Convent, a suppressed institution. The two with 15 alleged accomplices were tried in November, Toral was found guilty and executed by a firing squad in Mexico City Penitentiary, Feb. 9, 1929. Mother Superior Concepcion was sentenced to 20 years imprisonment.

President Calles at the opening of Congress Sept. 1 emphatically refused to continue in office as Provisional President after his term of office, and pledged himself never again to be president. The Chamber of Deputies numbered 280, of which 234 were Obregonists. On Sept. 25, Congress in joint session unanimously elected Emilio Portes Gil, Provisional President, to serve from Dec. 1 to Feb. 5, 1930. Election of a constitutional president to serve the balance of the full six-year term (Feb. 5, 1930 to Nov. 30, 1934) was set for Nov. 17, 1929. (See Chronology for results).

Dr. Gil is 37 years old, a lawyer, and from 1925 until his appointment as Minister of the Interior was Governor of the State of Tamaulipas. He pledged himself to continue to policies of Calles and Obregon.

THE ESCOBAR REBELLION

A rebellion, purely political-military, well organized and led by Gen. J. Gonzales Escobar, broke out on March 3, 1929 in Vera Cruz and in Sonora and six of the northern and western states. The Vera Cruz uprising was put down within a week. President Portes Gil made ex-President Calles Minister of War. He made the campaign with between 30,000 and 35,000 troops against the rebels, who with about 12,000 to 15,000 soldiers formerly of the regular army held strong positions in Sonora, Chihuahua and Sinaloa. March and April saw many sanguinary engagements with continuing success of the Federal forces and the first days of May witnessed the complete collapse of the rebellion. Gen. Escobar escaped to the United States. Fifty-two deputies were expelled from Congress. Forty-four generals were deprived of their rank, some were captured and shot and the property of all the leaders confiscated, about $4,500,000, and given to the National University. The immediate expense to the Government amounted to $7,500,000; loss of revenue was about $3,500,000; damage to railroads was about $6,500,000 and certain property loss was estimated at $10,000,000.

President Hoover announced on March 5 that he would continue the Coolidge policy of supporting the constitutional regime in Mexico, declined to recognize the belligerents on March 11, and on March 15 surplus arms, ammunition and material of the War Department was sent the Mexican Government on their request. Little damage was suffered along the border.

Minister of War Gen. Amaro in his annual report Sept. 1, 1929, gave the personnel of the army as: 27 generals of division, 115 generals of brigade, 1,770 other high ranking officers, 5,664 junior officers and 55,646 troops of the line. Military education is compulsory in the schools.

CHURCH CONTROVERSY SETTLED

The long standing controversy between the Church and the State, which became acute in 1926, was adjusted in 1929. Announcement was made on June 21 by President Portes Gil and the Apostolic Delegate Archbishop Leopold Ruiz y Flores in a joint statement. By the settlement priests, duly named by their superiors, are to register under the laws; it is accepted that the church edifices are national property and as such under government control with duly appointed custodians, the church having the right to designate the priests in charge of the churches; religious instruction in public schools is prohibited by the constitution but permitted within church confines by ministers of any religion; and the constitutional right of petition guaranteed. Much credit was given the American Ambassador, Dwight W. Morrow, for his good offices. Churches that were closed on July 31, 1926 when the heriarchy ordered the suspension of all religious services were reopened and masses celebrated on June 27 amid universal rejoicing. Bishop Pascual Diaz of Tabasco was made Archbishop of Mexico City and Primate by the Pope in succession to the late Archbishop Mora y Del Rio, who died in exile in San Antonio on April 22, 1928.

(For the controversy with the church see the World Almanac for 1928, pages 642-43, and the Almanac for 1927, pages 643-44.)

THE NEW CONSTITUTION.

Mexico is now governed under a new Constitution promulgated Feb. 5, 1917, replacing the Constitution of 1857. By it Mexico is declared to be a federated republic of 28 states, each with a large measure of home rule and with Governor, Legislature and judiciary elected by popular vote; two territories and a Federal District, whose Governors are appointed by the President. Interstate customs duties are not permitted. The legislative power rests in a Congress consisting of a Chamber of Deputies and a Senate of fifty-eight members, two for each state, all elected for two years by universal suffrage. The President is elected for four years by direct popular vote and cannot be re-elected until after an intervening term (Amendment of 1927). He appoints a Cabinet of ten Secretaries. Article 33 confers on the President the right to expel from Mexico without "judicial process" any foreigner whose presence he might deem "inexpedient."

The Constitution was amended in 1928, making the president's term six years, reducing the number of Federal deputies to 150, providing that Supreme Court judges be appointed by the President instead of being elected, and establishing Federal commissions instead of mayors and boards of aldermen to rule Mexico City and other towns in the Federal District.

A new income tax law and a profits tax law were promulgated March, 1924.

A new penal code promulgated by President Portes Gil under extraordinary plans given him by Congress became effective Dec. 15, 1929. The death penalty is abolished and also trial by jury in criminal cases gives way to investigation by a commission of alienists and other experts whose findings cannot be appealed from. A Supreme Council of Social Protection and Prevention made up of five specialists takes charge of the defendant on conviction on an indeterminate sentence and decides on treatment and reform, and under their authority will be placed all penal and preventative institutions. The carrying of arms is prohibited.

Education is under Federal control and is free and compulsory from six to sixteen. The percentage of illiteracy as shown by the census of 1921 was 62.29. There are many Indian tribes, about 20

per cent. of the population, quite uncivilized. In 1926, of 2,652,199 children of school age, only 1,040,521 were attending school—35.57 per cent. The number of schools supported by the Federal Government in 1926 was 2,690; and by the several states, 4,635. Appropriation by Federal, state and local governments for education in 1925, totaled about 43,250,000 pesos. The present administration is making every effort to extend elementary education to all classes of the people; 2,000 volunteer teachers of illiterates were enrolled in 1921.

Vocational education, particularly in agriculture, is being promoted. There are normal schools for both sexes throughout the country and some hundred technical schools. The National University of Mexico, founded in 1553, is famous among Latin-American universities, and in the capital are many higher institutions of learning and culture and scientific institutions and societies.

Mexico is not a member of the League of Nations.

REVENUE AND EXPENDITURES.

Recent budgets in pesos are:

Year.	Rev.	Exp.
1923	237,876,206	246,837,134
1924	241,664,624	
1925	309,306,101	291,863,677
1926, est'd	315,000,000	305,000,000
1927, est'd	334,300,000	326,900,000
1928, est'd	290,000,000	289,900,000
1929, est'd	290,000,000	291,117,789
1930, est'd	287,000,000	280,000,000

The highest expenditure in any pre-revolutionary year was in 1910-11, 100,913,924 pesos.

The Bank of Mexico, Inc., began operations Sept. 1, 1925, with a capitalization of 100,000,000 pesos—51 per cent. of the stock owned by the Government—for the issuance of paper currency, none of which had been in circulation since 1920. Note circulation (old and new) Dec. 31, 1927 amounted to 31,830,000 pesos.

The public debt of Mexico is as follows:

Internal Debt:	
Consolidated 3% internal debt, 1886	$21,191,925
5% internal redeemable bonds, 1894	46,455,850
State loans guaranteed by Mexican Gov't.	1,750,000
Total	$69,397,775
External Debt:	
Customs secured Government loans	$128,080,837
Other secured Government guaranteed loans	31,719,675
Unsecured Government loans	37,037,500
Railway loans	241,894,778
Total	$438,732,790
Grand total	$508,130,565

The peso (=$0.50) had an average exchange value of $0.4939 in 1925, of $0.483087 in 1926, of $0.472 in 1927, and $0.481 in 1928.

Imports and exports were:

Year.	Imports.	Exports.
1920	$197,731,525	$427,652,497
1921	247,001,594	378,614,591
1922	151,404,180	472,273,009
1923	157,553,764	369,776,415
1924	152,232,778	355,746,501
1925	192,761,000	338,456,000
1926	184,188,000	329,129,753
1927	163,495,000	296,124,201
1928	167,629,000	269,636,000

The total trade balance in favor of Mexico for seven years was about $1,246,700,000 or $168,000,000 a year.

The trade between the United States and Mexico exceeded a million dollars a day in the final half of 1925. The United States took about 90% of Mexico's exports for 1922, 1923 and 1924; 75.77% in 1925; and 71% in 1926; and supplied 58% of her imports in 1922, 72% in 1923, 85% in 1924; 70.20% in 1925; and 70.45% in 1926.

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$109,884,917	$132,087,840
1923	120,196,238	140,141,888
1924	135,076,703	167,087,305
1925	144,720,323	178,835,454
1926	134,994,277	169,306,142
1927	109,148,365	137,815,044
1928	115,651,922	124,521,996

MONACO, PRINCIPALITY OF

AREA, 8 square miles.

POPULATION, census of 1928, 24,927.

CAPITAL, Monaco, population 1928, 2,085; other towns, La Condamine, 11,787; Monte Carlo, 11,055.

Prince, Louis II., born July 12, 1870, succeeded his father, the late Prince Albert, June 26, 1922.

The Heiress Apparent is the Hereditary Princess Charlotte Louise Juliette (Duchess of Valentinois), born Sept. 3, 1898, married, March 19, 1920, Prince Pierre of Monaco (Count de Polignac) and has issue a daughter, Princess Antoinette, born Dec. 28, 1920; and a son, Prince Rainier, born May 31, 1923.

Monaco is a small principality on the Mediterranean surrounded by the French Department of the Alpes Maritimes. An independent Principality for 800 years, the reigning Prince was dispossessed by the French Revolution. The line was re-established in 1814 and placed under the protectorate of the Kingdom of Sardinia. In 1861 King Charles III, ceded his rights to France. The Prince of Monaco was an absolute ruler until Jan. 7, 1911, when a Constitution was promulgated which provides for a National Council of 21 members, elected by universal suffrage for four years. The revenue is mainly derived from the gaming tables of the Casino at Monte Carlo. The annual grant for the concession was £80,000 in 1917; in 1927 it was £90,000, and in 1937 will be £100,000. The yearly average of visitors is over 1,500,000.

The "take" in 1928 was $5,766,104, expenditures, $2,538,891, profits, $3,227,213.

The Monegasque voters, about 700 in number, demanded of Prince Louis in December, 1928, constitutional and administrative reforms, threatening if denied a referendum to call his abdication, and declare a republic allied to France. Finally, on Sept. 12, 1929, the Prince agreed to the reforms.

The late Prince established an important oceanographic museum and laboratory at Monaco.

MOROCCO, SULTANATE OF
EL MOGHREB
(French and Spanish Protectorates.)

AREA, about 231,500 square miles; viz., French Protectorate, 213,000; Spanish Protectorate, 18,360; Tangier (internationalized), 140.

POPULATION, census of March, 1926, French zone, 4,229,146; Spanish zone, estd., 744,000; Tangier zone, estd., 80,000.

CAPITAL, Fez, population, census of 1921, 70,540. Seat of government French zone, Rabat, population, 30,953; residence of French Resident General. Seat of government Spanish zone, Tetuan, population, 30,000; administrative headquarters of the Caliphs and the Spanish High Commissioner. Other cities, Marrakesh, or Morocco, population, 1921, 139,874; Casablanca, 101,690 (39,283 Europeans); Tangier, 80,000, (12,000 Europeans); Mekines, 36,592; Mazagan, 21,630; Mogador, 20,309; Sale, 24,202; Safi, 26,396; and Melilla, 42,590.

Sultan, Moulai Mohammed, third son of Moulai Yusef, succeeded his father Nov. 18, 1927.

French Resident General, Lucien Saint, appointed Jan. 2, 1929.

Khalifa of the Spanish Zone, Sidi Muley Hassan Mehedi (born 1910), younger son of Sultan Muley-el-Mehedi (died 1923), installed Nov. 9, 1925.

Spanish High Commissioner, Gen. Conde de Jordana.

United States Agent and Consul General, at Tangier, Maxwell Blake.

Morocco of to-day is the remnant of the great Shereefian Empire founded by the Arab invader, who carried the crescent of Islam west at the close of the seventh century and ruled all northwestern Africa and most of the Iberian peninsula. It is bounded on the east by Algeria, on the north by the Mediterranean, the extreme point opposite Gibraltar being Ceuta, a city which, with its four-mile-long peninsula (dominated by Jebel Musa, one of the Pillars of Hercules), has belonged to Spain since the close of the sixteenth century. This narrow northern strip, about 60 miles wide, from the Atlantic nearly to the Algerian border, is one of the Spanish zones. Ceuta is, politically, part of the Spanish province of Cadiz.

On the west is the Atlantic Ocean and on the south Rio de Oro (Spanish) and the Sahara Desert. The extreme southern end forms a second Spanish zone, and a strip 50 miles long by 15 deep on the Atlantic Coast, inclosing the town of Ifni, the third.

Along the 200 miles of the Mediterranean littoral run the Riff hills, still unexplored. Through the country from northeast to southwest run the Atlas Mountains in five great ranges rising to an altitude of 12,000 feet (Mt. Ayashiu, altitude 14,150 feet). Between these ranges lie fertile, well-watered plains and the northern slopes of the mountains are well wooded. Irrigation is much used, though all agricultural methods and implements are primitive.

The climate is good and healthy, especially on the

Atlantic Coast, which is shielded from the hot winds of the Sahara by the Atlas Mountains, and where there is a "tell" or fertile region. Tangier is a recognized health resort, also Mogador, where the temperature never rises above 80 or falls below 40.

The most numerous of the inhabitants are the aboriginal Berbers, mountain dwellers, whose forebears thrice conquered Spain, and who so long maintained the independence of their country. The plains are mostly occupied by Arabs and a mixture of the two races, known to foreigners as "Moors." The latter are also town dwellers. The third race is Jewish, in two sections, one settled there from time immemorial, and the other driven from Europe in comparatively modern times, who live near the ports, are progressive and have much of the foreign trade. The European population in 1926 numbered about 106,000, of which two-thirds are French.

The people are agricultural and pastoral. Eggs and poultry have become the chief articles of export, reaching even to England. In 1926 the value of eggs exported was 113,897,667 francs, and in 1927, 82,040,363 francs. Other important exports are skins, hides, wool, beans, barley, linseed and wheat, almonds, cummin and gums. The chief imports are textiles, sugar, tea, machinery and hardware, candles and spirits. Fruit and vineyards are abundant and dates a regular crop. Under proper cultivation Morocco should become a rich, cereal-producing country. Carpets, leather goods, fezzes, woolen and silk stuffs are among the manufactures, chiefly for domestic consumption. Mineral deposits are undeveloped, but much copper, lead and tin are known to exist. An oil field extends from Fez to Laraish. Phosphate exists in great aburdance, estimated at 100,000,000 metric tons, with a yield of 65 per cent., and a decree of 1920 reserves to the Sultan's Government the right of exploitation. Export of phosphate from Casablanca, in the French zone, in 1928 amounted to 1,337,100 metric tons; and in 1927, 1,183,469 tons.

The country had no roads or bridges, transportation being by mule and camel back, but the French have built, 1927, 1,779 miles of first class roads and 669 miles of second class roads. Little has been done in the Spanish zone. In the French zone, in 1924, there were 914 miles of railroads, those of narrow gauge being rebuilt at standard gauge. The Spaniards have a narrow gauge road from Ceuta, to Tetuan, to Rio Martin. The French use aeroplanes for mail, passengers and freight.

In 1927, 1,713 vessels of 2,421,088 tonnage entered the ports of French Morocco, and 1,615 vessels of 1,557,188 tonnage entered Tangier. Imports at Tangier in 1926 were valued at 145,936,000 francs (138,061,614 in 1925), and exports at 28,595,000 francs (18,096,725 in 1925). Imports into the Spanish zone in 1924 amounted to 123,600,000 pesetas, and exports to 18,000,000 pesetas.

French interests in Morocco had been steadily growing because of its proximity to Algeria for years and had been recognized in the agreements of 1906 and 1909. A general rising of the tribes in October, 1910, culminating in the siege of Fez called out a French expedition of pacification, which occupied Fez in 1911. The need of this had been notified to the powers, but was resented by Spain, who in June suddenly occupied two towns, and by Germany, who on July 1, 1911, sent the gunboat Panther to Agadir, a seaport on the Atlantic, ostensibly to safeguard German subjects in the Sus but really to challenge the extension of French influence. The crisis became acute and war seemed inevitable. Great Britain, however, stood by the Entente and made formal objection to Germany's acquiring territorial influence in Morocco. Diplomatic conversations followed, which resulted in the Franco-German treaty of Nov. 4, 1911, by which France ceded to Germany some territory in French Equatorial Africa on the southern and eastern borders, the Cameroons, in return for recognition of her political protectorate over Morocco. A treaty with Spain adjusted the limits of their respective spheres. On March 30, 1912, the Sultan Mulai Hafid signed a treaty with France accepting the protectorate, which was recognized by the powers, who withdrew their diplomatic representatives. Gen. Lyautey was appointed Resident General, and his advice the Sultan, an absolute despot, and his six viziers have to follow. Risings occurred later in the year and Mulai Hafid abdicated in favor of his brother. The rebellious tribesmen made much trouble and were stirred up to more by the Germans during the World War. An outbreak, in October, 1920, was crushed by the French capture of Wazzan, who thus consolidated their rule in most of the districts.

A severe outbreak near Melilla in July, 1921, seriously threatened the Spanish rule in its protectorate, but was suppressed only to be followed by a more serious one under the Riffian leader, Mohammed ben Abd-el-Krim el Khattabi, who organized an army in 1923 to fight the Spaniards. He sought the independence of the Riff. It was technically a rebellion against the Sultan of Morocco. The frontier of the spheres of influence were shadowy and the tribes given to raiding, so the French found themselves in April, 1925, attacked and compelled also to defend their prestige in Africa.

After much severe fighting and heavy losses on both sides, Abd-el-Krim found himself defeated and surrendered to the French May 28, 1926. He was later exiled to Reunion with a pension and establishment of an ex-Sultan.

Gen. Lyautey's wise administration of the protectorate, to which he returned in 1917, after service in 1916 as Minister of War in Paris, had been one of peaceful penetration, extension of railroads and roads, public works and social welfare. Agricultural and industrial enterprises have been fostered, public health and education improved. The country has become safe and orderly. Able army officers and civilians have assisted him. Colonization is encouraged. Economic opportunity, the "open door," is guaranteed to all.

Tangier, a seaport of 80,000 inhabitants, including 11,700 Europeans and 12,000 Jews, which occupies the extreme northwest corner of Africa on the Atlantic, was temporarily internationalized in the negotiations of 1911-12, with a hinterland of about 140 square miles. A convention was signed on Dec. 18, 1923, and a protocol in July, 1925, by Great Britain, France and Spain, providing for its permanent neutrality, security and internationalization. Spain, however, reopened the question in 1926 by a demand for full control and the incorporation of Tangier within the Spanish protectorate. Great Britain and France withheld consent and Italy declared her interest in the matter as a Mediterranean power. Italy's right to intervene in all questions affecting the balance of power in the Mediterranean was recognized. A new accord was signed July 25, 1928 and went into effect Jan. 18, 1929. Spain was given control of policing. A committee of control, consisting of the eight consular officers of the Algeciras signatory powers, and an international legislative assembly of twenty-six members, forms the government.

The budget of the French protectorate for 1929 was balanced at 687,768,968 francs. The Moroccan debt (five French loans), amounted on Jan. 1, 1927, to 705,624,000 francs.

The budget for 1928 in Spanish Morocco was balanced at 59,913,441 pesetas by including a grant of 37,349,941 pesetas from the Spanish treasury. The Tangier budget for 1929 was: Revenues, 23,971,500 francs, and expenditures, 00,000,000 francs.

Imports into the French Zone in 1927 were valued at Frs. 1,789,597,755, and exports at Frs. 851,390,410. Imports into the Spanish Zone in 1926 were valued at 94 million pesetas, and exports at 17,000,000 pesetas. Imports into Tangier in 1927 were valued at Frs. 129,445,605, and exports at Frs. 33,543,730.

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$3,017,126	$212,616
1923	2,112,144	357,865
1924	1,569,690	465,062
1925	2,391,479	737,364
1926	2,313,311	542,485
1927	3,296,217	731,794
1928	3,668,926	1,141,355

NEPAL, KINGDOM OF

AREA, estimated, 54,000 square miles.

POPULATION, 5,639,092.

CAPITAL, Kathmandu, population, 80,000.

Sovereign, Maharajah Tribhubana Bir Bikram, born June 30, 1906, succeeded his father Dec. 11, 1911.

Prime Minister, Maharajah Sir Chandra Shumshere Jung, Bahadur Rana, appointed June 26, 1901; he holds the rank of General in the British Army.

Nepal is an independent state on the southern slope of the Himalayas, bounded by Thibet on the north, by Sikkim and Bengal on the east and by Bengal and the United Provinces of British India on the south and west. Though friendly, a policy of seclusion is followed and travel discouraged. The Ghurkas, whose Aryan ancestors from Rajputana mixed with the Mongolic aborigines, overran the country in the latter half of the eighteenth century, and are the dominant race. From their ranks the British Indian Government recruits regiments of most valuable soldiers. The kingdom maintains a well-drilled and efficient army of 32,000 infantry and 2,500 artillery. There are many fertile valleys lying in the slopes of the bleak and lofty mountains (which include Mt. Everest, altitude 29,141 feet), and its territory runs into the Teral on the plains of India. It has rich forests. Nepal exports rice, grain, hides and cattle, and imports textiles, sugar, salt, hardware, etc. The capital is in a most fertile valley, cultivated from end to end, 15 miles long

and twenty miles wide, which supports 300,000 inhabitants and is noted for its 2,700 Buddhist shrines, nearly all lavisnly decorated examples of Nepalese art. Paton is the largest city and Pashpoti a holy centre for pilgrims.

The Maharajah, whose rule is absolute, declared in a humanitarian speech on Dec. 3, 1924, a decree for the abolition of slavery. The General Council put it into effect immediately, completing the manumission in August, 1926. Out of 15,719 owners of slaves only 467 desired the retention of slavery. The number liberated with compensation was 51,782. Their masters freed 4,651 without compensation, 1,984 died; 1,342 fled and 114 paid for their own release, thus accounting for a total slave population of 59,873. The cost was $1,366,250, an average of $25 a slave. Rates paid ranged from $7 for a female and $5 for a male under three years to $35 for a female and $26 for a male between the ages of thirteen and forty. Tracts of cultivable land were thrown open and suitable cash advanced to the freedmen.

The first railway, 24 miles long, was opened in February, 1926. It runs from Raxaul, on the Indian frontier, to Kathmandu.

Exports to India in 1925 amounted to £2,095,760 (£2,106,562 in 1924); and imports, £4,365,011 (£4,554,799 in 1924).

NETHERLANDS, KINGDOM OF
HOLLAND.

AREA; 12,582 square miles, land only; 13,208 square miles including inland waters. Colonia possessions: Dutch East Indies, 733,642; Dutch Guiana, 54,291 square miles; Curacao Islands, 403 square miles; total, 788,336 square miles, Grand total, 801,544 square miles.

POPULATION, official estimate Dec. 31, 1927, 7,625,938. Colonial—Dutch East Indies, 49,534,618; Dutch Guiana, 128,822; Curacao, 56,038. Grand total, 57,345,516.

CAPITALS, The Hague (seat of the Court), population, est. Dec. 31, 1927, 416,179; Amsterdam (legislative), population, 734,884. Other cities: Rotterdam, 571,842; Utrecht, 151,660; Groningen, 101,310; Haarlem, 113,304; and 40 others with between 20,000 and 80,000.

Queen, Wilhelmina, born Aug. 31, 1880, succeeded on the death of her father, Willem III., Nov. 23, 1890; crowned Sept. 6, 1898. Married Prince Henry of Mecklenburg-Schwerin (Prince Consort), Feb. 7, 1901. *Heir*, her only daughter, Princess Juliana, born April 30, 1909.

Premier, Jonkheer Charles J. M. Ruys Van Beerenbrouck (Interior and Agriculture) Catholic, Aug. 7, 1929.

The Netherlands (Holland), a kingdom in northwestern Europe, 196 miles long by 109 miles wide, is bounded by Germany on the east, Belgium on the south and the North Sea on the west and north. Its surface is flat, with an average height above sea level of 37 feet and with about one-fourth of its land below sea level, reclaimed and protected by dikes, of which there are 1,500 miles. Drainage of half of the shallow Zuyder Zee, which covers 1,350 square miles with an opening into the North Sea about nineteen miles wide, designed to add 900 square miles to the cultivable land (polders), adopted June 14, 1918, is now under way. One part of the great dam (1½ miles long) connecting the west coast with the island of Wieringen, was completed in 1925. The other (17½ miles long), to connect the island with the eastern shore, will have huge tidal sluices to discharge the waters of the "Lake" Yssel, which will be left as a huge freshwater reservoir fed by the River Yssel, a branch of the Rhine, and will be finished by 1935. The cost of the dam will be $35,000,000, and the entire expenditure for thirty years on dikes and drainage will be about $190,000,000. The added value of fertile soil will be $210,000,000.

Of the country's 5,563,960 acres given over to agriculture, (including gardens, orchards and pastures), 90 per cent. are in holdings of less than 50 acres and more than 50 per cent. of less than 12 acres, with 361,392 employed on the land in 1921. There are 615,165 acres of well cared for forests. Great crops of cereals, potatoes, etc., are raised. Dairy products are an important industry, her cheese products being famous, and her cattle high grade; tulips and other flowering bulbs and roots are grown and exported extensively.

The livestock census of 1921 returned 2,062,771 cattle, 668,211 sheep, 363,688 horses, and 1,519,245 pigs.

Beet sugar produced in 1926 was 259,115 tons.

Fisheries engage about 6,500 vessels and 18,000 men, and the product of the herring fisheries alone in 1926 was $4,144,400, and of all fresh fish, $9,086,600.

Shipbuilding and sugar refining are important industries, also brewing and distilling. Amsterdam is famous for diamond cutting. Coal is found in Limburg, where 5,882,254 metric tons were mined in 1924; 6,848,000 in 1925; 8,643,272 in 1926; 9,323,110 in 1927; and 10,694,000 in 1928.

There were 106 cotton mills in 1928 with 1,112,740 spindles and 52,026 looms.

Unemployment, which reached 102,225 on Jan. 1, 1924, steadily declined to 50,850 on June 21, rose to 76,000 on Jan. 1, 1925, fell to 51,000 on May 3, 1926, and to 47,200 on July 30, 1927. A new labor law providing for compulsory arbitration in labor disputes went into effect May 4, 1926. Government payments for unemployment doles in 1926 amounted to 5,783,000 guilders (5,051,600 in 1925), and municipalities expended in 1926, 1,670,100 guilders (1,765,700 in 1925).

Canals, of which there are 2,000 miles, are most important in internal communication; elaborate systems are in the cities and feed the harbors. The Rhine and the Scheldt reach the sea through the Netherlands and carry enormous traffic.

The roads and streets, narrow and old, have suffered the very heavy wear and tear of ever increasing automobile traffic. The government has made up a comprehensive program for highway and bridge construction and maintenance which will involve expenditures up to 300 million guilders ($120,600,000) in the next 25 years. The first part, a five-year program was begun in 1927, about 10 million guilders being expended that year, and 26.6 million in 1928. There are 15,530 miles of roads of which 1,240 are under direct control of the National Government, and 1,860 under direct control of the several provinces.

Over 1,500,000 bicycles are in use and 47,000 motorcycles.

The railway mileage in 1927 was 2,284, and tramway mileage 1,909.

Holland's merchant marine on July 1, 1929, consisted of 988 steamers of 2,545,221 gross tons, and 332 motor ships of 387,119 gross tons. In 1927, 24,710, vessesl of 33,716,000 tonnage entered the ports of The Netherlands, 59.4% entering Rotterdam and 15.6% entering Amsterdam.

The first Constitution after the reconstruction of the Netherlands as a sovereign state was promulgated in 1814, and revised in 1815, after the addition of the Belgian provinces, and in 1840, 1848, 1887, 1917 and 1922. It assures a hereditary constitutional monarchy. Executive power rests exclusively in the sovereign and the States-General of two Chambers: First Chamber, fifty members, elected for nine years (one-third each third year) by the provincial states, and the Second Chamber, 100 Deputies, elected for four years directly. Universal suffrage for citizens of both sexes over twenty-five years of age and proportional representation is in force. The Sovereign exercises the executive authority through a Council of Ministers, the President thereof corresponding to a Prime Minister. There is a State Council of fourteen members, named by the Sovereign, of which she is President, to be consulted on all legislative and some executive matters.

Under the revision of 1922 the Dutch East Indies have been abolished as a colony and made an integral part of the Kingdom. All laws adopted by the government of the islands are to be approved by the States-General.

Compulsory voting brought 3,380,217 to the polls at the election of the Second Chamber of the States-General, July 1, 1929. The Catholic party polled 1,001,574; the Socialists, 804,818; the orthodox Communists, 37,622; and the secessionist Communists, 29,860; but electing their leader, David Wijnkoop. The make-up of the Chamber, practically unchanged, is: Catholic, 30; Socialists, 24; Anti-Revolutionists, 12; Christian-Historicals, 11; Liberty Leaguers, 8; Democrats, 7; Others, 4.

The first chamber elected in 1926 stands: Catholics, 16; Anti-Revolutionists, 7; Protestants, 7; Social Democrats, 11; Liberals, 6; and Democrats, 3.

The kingdom has a unique system of frontier defense besides the fortresses, inasmuch as two-thirds of the total area is surrounded by the sea with dikes to hold back the waters. An advance by an enemy may be stopped by inundating the lands. Army service is partly compulsory and partly voluntary. Every Dutchman is liable for service from ages nineteen to forty. Actual service may be by lot, substitution being prohibited. Annually 25,500 are recruited, with 600 for sea service. The strength on April 1, 1928 was 8,651 officers, and 364,142 men. The army budget is about 58 million guilders annually, and the navy 40 million.

Entire liberty of worship and conscience is guaranteed. The royal family belong to the Dutch Reformed Church. The state budget for 1927 con-

tains allowances for different churches: Protestant, 1,791,000 guilders; Roman Catholic, 704,000; Jansenists, 12,000, and Jews, 35,000.

Education is obligatory from ages six to thirteen. Instruction is free in both public and denominational schools and teachers are paid by the state. The state expenditure in 1928 was 148,836,000 guilders. Intelligence is most widely diffused. Conscripts called in 1927 showed only 0.17% unable to read. There are universities at Amsterdam (2), Utrecht, Leyden, Delft, Groningen, Wageningen (Agriculture), Rotterdam (Commerce), and Nijmegen (Roman Catholic), with 627 professors and 9,808 students in 1928.

The guilder (or florin) is the unit of currency, par 40.2 cents. It has been on a gold basis since April 28, 1925.

Recent budgets in guilders were:

Year.	Revenue.	Expenditure.
1925 (actual)	782,896,000	750,259,000
1926 (actual)	835,716,000	750,321,000
1927 (actual)	767,420,000	704,327,000
1928 (estimated)	760,735,000	932,758,000
1929 (proposed)	645,961,706	783,219,792
1930 (proposed)	648,892,849	708,735,461

The budgets for colonial possessions were: 1929, Revenues in mother country, 14,694,600 guilders; in the colonies, 759,819,633 guilders; total, 774,514,233 guilders. Expenditures, home government, 153,438,959 guilders; in the colonies, 643,574,792 guilders; total, 827,013,751 guilders; in 1928, total revenues, 747,194,826 guilders; total expenditures, 798,110,550 guilders. The 1930 budget proposed by the Dutch East Indies Government was: Revenues, total, 848,637,000 guilders; expenditures, total, 908,690,000 guilders.

The consolidated debt on Sept. 1, 1929, was 2,505,279,000 guilders, the net floating debt about 222 million; and the amount of capital invested in state industries was about 209 million. The limit of direct taxation is believed to have been reached, excise duties have been increased and some adjustment made in custom duties. Note circulation of The Netherlands Bank on July 31, 1929, was 812,000,000 guilders, with a gold reserve of 449,000,000 guilders (55.3% of cover).

Imports and exports, exclusive of gold and silver, in guilders (000 omitted) were:

Year.	Imports.	Exports.
1922	2,027,599	1,221,231
1923	2,009,226	1,303,221
1924	2,363,532	1,660,656
1925	2,456,000	1,808,000
1926	2,441,903	1,749,205
1927	2,548,913	1,899,711
1928	2,683,892	1,986,185

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$117,806,225	$63,794,944
1923	109,172,753	77,521,178
1924	151,734,170	74,041,925
1925	141,518,151	92,538,892
1926	135,795,044	101,855,118
1927	148,219,960	87,241,834
1928	142,269,936	83,617,678

DUTCH EAST INDIES

AREA, 733,642 square miles; viz., Borneo, 206,810; Molucca Islands, 30,168; Celebes Islands, 72,679; Java and Madura, 50,557; Sumatra, 163,128; Timor Archipelago, 26,410; Rian-Lingga Archipelago, 12,506; New Guinea, 160,692; rest of the Archipelago, 10,494.

POPULATION, census of 1920, 49,534,618. Est. Dec. 31, 1925, 51,014,000; viz., Java and Madura, 1920, 34,984,171 (est. 1925, 36,404,000); Borneo, 1,682,922; Sumatra, 5,848,868; Celebes Islands, 3,108,337; rest of the Archipelagos, 475,000; New Guinea, est. 195,000.

CAPITALS, Batavia, Java, population, 290,408; Banjermasin, Borneo, 65,074. Other cities, Surabaya, 248,961; Surakarta, 151,273; Semarang, 150,952; Bandoeng, 136,016; and Djokjakarta, 110,120.

Governor General, Dr. A. C. D. de Graeff, 1926.

The colonial possessions of the Netherlands in the East Indies consist of great islands and archipelagoes lying along the Equator from about 6° north latitude to 10° south latitude, between the Asiatic mainland and the Philippines, and Australia. They form the bulk of Malaysia. The estimate of 1925 gave the native Malay population as 49,848,600; Europeans, 210,000, and Orientals, chiefly Chinese and Arabs, 955,300. Java is the most densely populated land mass in the world (689.4 to the square mile). The great majority of the natives are Mohammedans. Much attention is given to education.

The islands are luxuriant, even for the Tropics, of enormous natural and annually productive wealth. Dense forests abound in valuable timber. Besides raising sufficient food for the dense population, there is produced for export in Java and Madura alone, sugar (2,938,829 metric tons in 1928, 2,046,000 in 1927, and 2,514,000 in 1926); coffee, tea, cocoa, indigo, spices, cinchona, tobacco, rubber, copra, tin and petroleum. Of coal, the mines of Java, Sumatra and Borneo produced in 1927, 1,620,205 long tons, and in 1926, 1,466,359 tons.

The export of rubber in 1927 was 280,244 metric tons, and in 1926, 249,021 tons. The production of tin from the state owned mines in their fiscal year 1927-28 was 21,063 metric tons.

Petroleum production in 1928 was 28,500,000 barrels (25,698,000 in 1927, and 21,243,000 in 1926).

Of the world's supply of quinine (cinchona), 10,700,000 kilos (99% of the world's supply) comes from Java, the first trees having been brought from Peru.

There are 4,416 miles of railroads, 3,368 in Java and 1,019 in Sumatra; 2,550 are state owned. In 1927, 11,757 steamers of 9,086,926 tonnage, and 9,026 sailing vessels of 524,028 tonnage, entered the ports. The Colonial army numbers 40,000, about one-quarter European, with 20,000 in the reserve.

The guilder (=40.2 cents) is the unit of currency which has been on a gold basis since Apr. 28, 1925.

The budget for 1929 is shown above in the Netherlands article.

The debt, Dec. 31, 1928, was about 1,079,700,000 guilders.

Imports and exports, including for both government and private account and gold and silver in guilders:

Year.	Imports.	Exports.
1921	1,245,480,271	1,196,658,528
1922	782,783,456	1,148,395,818
1923	651,631,000	1,388,189,000
1924	703,386,000	1,557,308,000
1925	862,584,000	1,813,348,000
1926	923,989,000	1,598,656,000
1927	927,041,000	1,643,664,000

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$8,096,203	$34,424,253
1923	12,089,786	54,889,320
1924	14,479,265	57,520,320
1925	19,204,364	95,834,007
1926	27,608,882	119,616,454
1927	32,137,012	91,388,340
1928	34,444,703	86,151,996

DUTCH GUIANA (Surinam).

AREA, 54,291 square miles.

POPULATION, Dec. 31, 1926, 142,896, exclusive of Negroes and forest Indians.

CAPITAL, Paramaribo; population, 1925, 45,554.

Governor, Dr. A. A. L. Rutgers, 1928.

Dutch Guiana (about the size of New Jersey and Pennsylvania) is situated on the north coast of South America, between French Guiana on the east and British Guiana on the west; inaccessible forests and savannas on the south stretch to the Tumuc Humac Mountains. The chief products are sugar (13,964 metric tons in 1926, and 15,573 in 1927), cacao coffee, bananas and rum. Placer mines produced in 1927, gold to the amount of 239,796 grams; in 1926, 258,608 grams. In 1927, 235 vessesl of 209,784 tonnage entered its ports.

The Dutch by the Treaty of Breda, 1667, gave New Netherlands (NewYork) to England in exchange for Surinam.

The guilder (= 40.2 cents) is the unit of currency

Local revenues in 1929 were estimated at 5,951,000 guilders (1928, 4,604,000); and subvention from home, 2,463,000 guilders (1928, 2,928,000); expenditures, 8,414,000 guilders (1928, 7,896,000).

Imports and exports were:

Year.	Imports.	Exports.
1921	$4,228,304	$2,109,972
1922	3,894,402	2,097,094
1923	3,154,064	3,355,355
1924	2,998,581	2,963,776
1925	3,808,613	3,992,787
1926	4,028,247	3,091,253
1927	3,734,131	4,757,413

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$843,761	$695,859
1923	810,475	820,931
1924	801,717	613,050
1925	1,219,660	742,517
1926	1,577,935	360,356
1927	1,183,419	1,412,396
1928	1,034,074	1,090,623

CURACAO (Dutch West Indies)

AREA, Group, 403 square miles; Curacao, 210.

POPULATION, Jan. 1, 1926, 58,931.

CAPITAL, Willemstad; population, 1926, 17,889.

Governor, K. L. A. Fruytier, 1928.

A group of six islands in the Caribbean Sea, off the coast of Venezuela, constitute the colony.

Products are maise, dulse, cattle, salt and phosphates; chief industry is the refining of oil.

In 1927, 8,645 vessels of 25,148,479 tonnage entered the ports.

Imports, 1925, 70,507,241 guilders; 1926, 107,178,462 guilders; 1927, 142,238,750 guilders; exports, 1925, 59,646,517 guilders; 1926, 95,487,238 guilders; 1927, 134,553,894 guilders.

Budget of 1927—Revenue, 2,697,650 guilders; expenditures, 2,732,685 guilders; 1928—Revenues, 3,597,600 guilders; expenditures, 3,535,824 guilders; 1929—Revenues, 5,464,500 guilders; expenditures, 5,363,689 guilders. The deficit is supplied by the home government.

Trade with the United States was:

Cal Year	Imports	Exports.
1922	$2,233,374	$2,760,108
1923	2,720,014	3,592,203
1924	3,710,051	4,139,501
1925	4,206,938	9,298,067
1926	4,866,463	24,835,832
1927	6,431,670	29,933,288
1928	13,622,457	54,372,797

NICARAGUA, REPUBLIC OF

AREA, 49,200 square miles.

POPULATION, census of 1920, 638,119.

CAPITAL, Managua; population, census of 1926, 32,536; Leon, 23,565.

President, Gen. Jose Moncada, elected Nov. 4, 1928; inaugurated January 1, 1929.

Premier, Cordero Reyes (Foreign).

Nicaragua lies between the Caribbean Sea, with a coastline of 280 miles, and the Pacific (200 miles), with Honduras on the north and Costa Rica on the south. In area it is a little larger than the State of New York. The Cordillera range of mountains, including many volcanic peaks, runs from northwest to southeast through the middle of the country. Between this range and a range of volcanic peaks to the west lie Lake Managua, thirty miles long by fifteen miles wide, and Lake Nicaragua, 100 miles long and forty-five miles wide, of great importance in the transport system of the country; and with the San Juan River, on the Costa Rican boundary the latter forms the route for a trans-isthmian ship canal planned to connect the Atlantic and Pacific. The right to construct a canal over this route for 99 years, together with a naval base in the Gulf of Fonseca on the Pacific and Corn Island in the Caribbean, was acquired for $3,000,000 by the United States in a treaty ratified Feb. 18, 1916; the United States was to supervise the expenditure of that money. The Pacific Railroad, running from Corinto to Leon and from Managua to Granada (171 miles), the only one in the country, was Government-owned, but 51 per cent. of the stock was sold to New York bankers, who also held the rest of the stock in escrow for a loan of $1,060,000 This the Government repaid out of surplus revenue in 1924, thereby regaining possession of the rail road.

At the November, 1924, election, Carlos Solorzano, National Liberal, received 48,072 votes, defeating Gen. Emiliano Chamorro, Conservative, 28,760; and Luis F. Corea, Republican Liberal, 7,264.

On Aug. 3, 1925, the 100 United States marines who had served as guard at the United States Legation for thirteen years were withdrawn.

By a coup d'etat in October, 1925, Gen. Emiliano Chamorro forced President Solorzano to make him Minister of War and Commander of the Army, and oust other Liberal Ministers. He also had himself elected Senator and forced Congress to replace nineteen Liberal members with candidates defeated at the election. His subservient Congress then banished the elected Vice-President Juan B. Sacasa, and named Chamorro "First Designate." On Jan. 17, 1926, the resignation of the constitutional President, Dr. Solorzano, was presented to Congress and Gen. Chamorro assumed executive power.

The United States and the other Central American states refused to recognize Chamorro under the terms of the Central American Treaty of Peace and Amity of Feb. 7, 1923, as having obtained control of the Government by force.

A revolution by the Liberals broke out on May 2, 1926, when they captured Bluefields; on May 7 United States Marines landed from the U. S. S. Cleveland and declared the port a neutral zone. They withdrew early in June. Fighting was frequent throughout the summer.

Senator Adolfo Diaz, Conservative, was designated as President by Congress Nov. 14, 1926, and recognized by the United States Nov. 17, 1926. Dr. Juan B. Sacasa returned and set up a government backed by the Liberals at Puerto Cabezas. He was recognized by Mexico. Civil war broke out and again marines were landed under the command of Rear Adm. Julian L. Latimer to protect American interests.

President Coolidge sent Col. Henry L. Stimson, former Secretary of War, to Nicaragua on April 9, 1927, as his personal representative and peace emissary. He induced both the Conservative and Liberal leaders (except Gen. Sandino) to accept peace terms, which were given to the pubic by the State Department on May 6. These were: Complete disarmament on both sides, a general amnesty, return of occupied or confiscated property to owners; participation of Liberals in Diaz's Cabinet, a constabulary organized on a nonpartisan basis commanded by American officers, the continuation of about 1,500 marines in the country till the constabulary could function, and American supervision of the election in 1928. These terms were carried out Dr. Sacaso left for Guatemala City May 20. By June 6 about 15,000 rifles, with 338 machine guns 41 cannon and about 5,000,000 small arm cartridges were delivered to Adm. Latimer. The withdrawal of marines not needed for police duty began on June 17, Lt. Col. R. Y. Rhea, U.S.M.C., was made Chief of the Constabulary. Gen. Frank R. McCoy, U.S.A., was appointed by President Coolidge on July 2, as chairman of the commission to supervise the election of 1928.

Perfect order prevailed at the elections on Nov. 4, 1928. Gen. McCoy had an American representative in charge of the polls in each of the 432 election districts under the decree of President Diaz signed March 21, 1928. Gen. Jose Moncada, Liberal, was elected President, receiving 76,676 votes to 56,987 for Adolfo Benaro, Conservative. The composition of Congress, meeting Dec. 25, 1928, was: Senate, Conservatives, 12; Liberals, 12; Chamber of Deputies, Conservatives, 24; Liberals, 19. About 89.7% of the registrants voted.

The cost of the revolution to Nicaragua was estimated at over $20,000,000 which includes unjudicated claims, and from 1,500 to 2,000 Nicaraguans lost their lives.

The force of United States Marines in Nicaragua July 1, 1928, was 302 officers and 5,318 men. Casualties were 21 killed and 45 wounded. Although the insurgent Gen. Sandino kept the field, his forces suffered greatly in depletion. The extra cost of maintaining the marines from May 4, 1927, when the Stimson agreement was signed to June 30, 1928 was reported to the United States Congress as $1,607,290.

The marine force was reduced in January, 1929 to 231 officers and 3,330 men, and further reduced to 2,300 in July.

The rebellion was declared suppressed Feb. 3, 1929, and Gen. Sandino and a few faithful followers went to Mexico in exile in June, 1929.

By permission of the Nicaraguan Government, Secretary of War Good on Sept. 5, 1929, named a picked engineering battalion of 400 officers and an Interoceanic Canal Board of three military and two civilian engineers, headed by Lt. Gen. Edgar Jadwin, U.S.A., Retired, to survey a route for the proposed new interoceanic canal.

The country has valuable forests, some gold is mined, but it is essentially an agricultural and stock raising community. On the broad tropical plains of the east coast, bananas and sugar cane are cultivated, and coffee is grown on the mountain slopes. In 1928, 39,857,811 pounds of coffee was exported, 15,000 short tons of sugar, and 2,750,000 bunches of bananas.

The chief exports are coffee, sugar, bananas, timber and hides. Textiles, machinery, etc., chemicals and flour are the chief imports.

In 1927, 812 ships with a tonnage of 650,137 entered her ports.

By agreement between the United States, Nicaragua and Colombia in 1928 the islands Old Providence and San Andres off the coast in the Caribbean Sea are recognized as Colombian, and Great Corn and Little Corn Islands as Nicaraguan, the latter being under lease to the United States, while the United States obtains the Roncador Reef group as light house stations, Colombia having the fishing rights.

The Constitution of March 12, 1912, amended in 1913, provides for a Congress of two Houses, a Senate of thirteen members elected for six years, and a House of forty Deputies elected for four years by universal suffrage. The President is elected for four years and has a Council of five Ministers. The Roman Catholic is the prevailing religion. The army numbers 2,000 men, selected by conscription,

The debt on March 31, 1928, was approximately $23,526,067.

Recent budgets in cordobas (=$1.00) are:

Year.	Rev.	Exp.
1922	2,257 000	1,882,000
1923	2,097,286	1,580,000
1924	2,211,706	1,580,000
1925	2,772,640	2,772,640
1926	4,443,630	4,443,630
1927 (actual)	4,865,601	4,919,295

Imports and exports in cordobas were:

Year.	Imports.	Exports.
1922	5,123,505	7,903,446
1923	7,268,432	11,028,309
1924	8,806,896	12,990,025
1925	10,376,290	12,359,585
1926	10,254,512	13,028,726
1927	10,208,242	9,025,677

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$4,116,709	$3,174,117
1923	4,989,709	5,428,276
1924	6,250,499	5,453,167
1925	7,434,539	6,188,436
1926	6,264,272	5,975,837
1927	6,949,830	4,226,835
1928	7,357,105	5,482,913

NORWAY, KINGDOM OF

AREA, 124,964 square miles (exclusive of Spitzbergen, estimated, 25,000).

POPULATION, census of 1920, 2,649,775; est'd 1925, 2,772,000.

CAPITAL, Oslo (formerly until Jan. 1, 1925, Christiania), population, 258,520; Bergen, 97,495; Trondhiem (Nidaros), 56,523; Stavanger, 47,370; Drammen, 26,174; and twelve others above 10,000.

King, Haakon VII., born Aug. 3, 1872, second son of Frederick VIII., King of Denmark, elected King of Norway by the Storthing Nov. 18, 1905 and crowned June 22, 1906; married July 22, 1896, to Princess Maud, third daughter of King Edward VII. of Great Britain. *Heir*, Crown Prince Olaf, born July 2, 1923, married March 21, 1929 to Princess Martha of Sweden, daughter of Prince Charles.

Premier, J. L. Mowinckel (Foreign), Radical, Feb. 13, 1928.

Norway occupies the west part of the Scandinavian Peninsula in Northwest Europe from the Skagerrack, which separates it from Denmark, to the North Cape in the Arctic Ocean, where on the east it meets Finland. The Kjolen Mountains, which separate Norway from Sweden to the east, give to Norway in the northern part but a narrow fringe of country washed by the Arctic and North Atlantic Oceans, and cut deep by fjords of scenic grandeur. The climate is mild and moist, like England's, on the west coast, but cold and dry in the interior and in the north and east sections.

Norway in 1929 annexed the Island of Jan Mayen in the Polar Ocean between Spitzenbergen and Greenland, also Bouvet and Thompson Islands in the South Atlantic, 1,200 miles southeast of Tristan de Cunha. The islands have value as bases for whalers.

Norway has but 4,300 square miles of land under cultivation; rivers and lakes occupy 5,000; and forests 27,500; three-fourths of the land is unproductive. Norway is essentially a maritime-country. Her merchant fleet, though neutral, suffered heavily in the World War by sinking and torpedoing, the total loss being 831 vessels with a total of 1,238,300 registered tons, and 1,200 men killed. She dropped from fourth place to sixth in the mercantile tonnage. Norway's merchant marine on July 1, 1929 included 1,488 steamers of 2,254,268 gross tons and 304 motor ships of 963,527 tons. The gross revenue from shipping in 1927 was $115,000,000. Her sailors are known the world over. Fisheries constitute a leading industry and provide a large part of the exports. In 1921 more than 112,000, 17 per cent. of the entire male wage earning population (660,000), earned their living directly or indirectly by the sea. In 1928, 801,500 barrels of whale oil were produced, 704,212 in 1927, 660,000 in 1926, 597,690 in 1925, and 377,553 in 1924.

The forests have an estimated value of a billion kronen (approximately $250,000,000) and about three-fifths of the acreage is covered in pine and fir trees. The Norwegian Afforestation Association has planted since 1906 between ten and fifteen million new trees annually. Export of wood pulp was: In 1928, 264,676 metric tons; and in 1927, 229,777 tons. The export of newsprint paper in 1928 was 224,836 metric tons as against 221,509 tons in 1927.

Agriculture is limited, only about 3% of the total area being under cultivation, and the country imports much food supply.

The number of farms is about 250,000, of which 165,000 are less than 5 acres and 65,000 between 5 and 25 acres. The importation of grain and flour has been monopolized by the Government Food Commission since 1916; it is obliged to purchase all wheat, rye and barley of good quality offered by home producers at the same prices for which it can deliver foreign grain. All grinding is done in Norway for the account of the state.

Livestock census, June 30, 1925, returned 183,887 horses, 1,150,617 cattle, 1,528,819 sheep, 275,783 goats and 252,759 pigs.

The country lacks coal but has become a great power producing country by utilizing by electrical transmission its greatest natural asset—water power, which is estimted to amount to 15,000,000 horse power day and night. Of this the Government owns 2,000,000 and has developed 75,000. Private enterprise has developed about 1,750,000 horse power. Engineering plans are under way to transmit hydro-electric power to Central Europe. Already Norway is feeling the impulse on its industries, which on Jan. 1, 1927, numbered 10,475 establishments, giving employment to 119,845 workers, and which have been developing on an export basis.

The chief mineral products are pyrites, copper ore, iron ore, nickel ore, silver and feldspar.

Norway, in 1928, had 2,282 miles of railroads, of which 1,960 are state-owned; the work of converting these to electrical power is going on rapidly. The number of ships entering Norwegian ports in 1927 was 9,094, with a net tonnage of 7,027,453.

The population of Norway is singularly homogeneous, there being numbered of non-Norwegians only about 1 per cent., 20,000 Lapps or Finns and 8,000 Quains, both of Mongolian ancestry. This excludes about 50,000 foreign-born residents of the country before the war, many of whom returned to their native countries. Norwegians have emigrated in great numbers, chiefly to the United States and Canada. The United States census of 1920 returned 363,862 residents of the United States as born in Norway. Emigrants in 1925 numbered 9,326 as contrasted with 18,287 in 1923.

Norway under its Constitution, adopted May 17, 1814, is a constitutional hereditary monarchy. Independent for centuries, Norway entered into a union with the Kingdom of Denmark in 1381. By treaty of Jan. 14, 1814, the King of Denmark ceded Norway to Sweden, but the Norwegian people declared themselves independent and elected a Danish Prince as their King. The foreign powers refused to recognize this election; as a result a convention on Aug. 14 proclaimed the independence of Norway in union with Sweden, and on Nov. 4 elected Charles XIII. of Sweden King of Norway. This union lasted until 1905. Disagreements having arisen, culminating in Norway's claiming the right to maintain its own consular service, Norway declared the union dissolved on June 7, and after negotiations a repeal of the union by mutual agreement was signed Oct. 26, 1905. After a plebiscite Prince Charles of Denmark was elected King and ascended the throne, taking the name of Haakon VII. A treaty guaranteeing the integrity of Norwegian territory was signed in October, 1907, by Norway, Great Britain, France, Germany and Russia. This was denounced Jan. 8, 1924.

The legislative power is vested in the Storthing, the members numbering 150, elected for three years' by direct vote on universal suffrage of citizens, both male and female of twenty-three years of age. The Storthing divides itself into two sections, one-fourth of the membership forming the Lagthing, and three-fourths the Odelsthing, which consider the legislation separately, sitting in joint session on failure to agree separately, when decision is made by a two-thirds majority. The King may exercise the veto twice, but if the same bill is passed a third time it becomes law. The King appoints an executive Cabinet of at least eight Ministers, who may speak in the Storthing, but have no vote. There is a large measure of home rule throughout the country through local governing bodies elected by universal sufferage.

The elections of November, 1927, returned a Storthing composed of: Laborites, 59; Conservatives and Moderate Liberals, 31; Liberals, 31; Agrarians, 26; Communists, 3.

A majority of Norwegians voted in 1919 for a partial prohibition under which the sale of wines and beer was permitted. The authorities succeeded in stopping nearly all smuggling of alcohol but proved quite unable to prevent home manufacture of liquor which became very large. The new Government proposed and the Storthing voted

a new plebiscite which was held on Oct. 18, 1926. The vote against prohibition was 531,425 (gain of 229,869 over the vote of 1919); and the vote for prohibition was 421,292 (a loss of 62,626).

Parliament repealed the Act of 1919 on April 4, 1927. New regulations adopted went into effect May 2, under which a certain amount of local option is permitted; liquor may not be sold or served to minors, may be sold only between 3 and 11 p. m., and may not be sold on important holidays, the day before or the day after. Importation of spirits is a monopoly, and 13 official stores were set up in which liquor is purchasable. The budget for 1927-28 estimated receipts from liquor taxes at 25,100,000 kroner.

By April, 1927, 16,000 workmen were on strike against a proposed reduction in wages and as many more threatening to strike. In the *impasse* the Storthing over the solid vote of Labor and the Communists, passed a law that had been bitterly opposed by both the trades unions and the employers making arbitration compulsory for all labor conflicts until April, 1929. The court functioned, important wage readjustments were made without friction, and unemployment declined to 23,000 by July 31, 1927. It rose to 32,000 June 30, 1928, but was 12,400 on July 31, 1929.

The Evangelical Lutheran religion is endowed by the state and its clergy are nominated by the King. All religions are tolerated.

Education is compulsory from seven to fourteen, and the school system is highly organized. There is, so to speak, no illiteracy. The University at Oslo, founded 1811, has 2,500 students and is subsidized by the state.

The army is a national militia with universal and compulsory service. The peace strength is 40,000 men, with a reserve of 315,000. The navy is designed for coast defense only and numbers about 1,200 officers and men, with all seafaring men between the ages of twenty and forty-four enrolled on the active list and liable to conscription.

The krone (= 26.8 cents) is the unit of currency. The average rate of exchange was 17.88 cents in 1925, 22.33 in 1926, 26.05 in 1927, and 26.69 in 1928. On May 1, 1928, restrictions on gold exports ceased and the Bank of Norway resumed specie payments.

Note circulation of the Bank of Norway on July 31, 1929, was 315,000,000 kroner, with a gold reserve of 147,000,000 kroner and foreign balances of 39,000,000 kroner, a cover of 59%.

Recent budgets in thousands of kroner are:

Year.	Revenues.	Expenditures.
1922-23 (actual)	376,983	550,305
1923-34 (actual)	376,191	477,770
1924-25 (actual)	449,220	486,239
1925-26 (actual)	419,965	448,184
1926-27 (actual)	398,822	405,770
1927-28 (actual)	416,700	414,700
1928-29 (estimated)	372,100	372,100
1929-30 (estimated)	366,500	366,500

A $25,000,000 6% loan was floated at 97½ in the United States in August, 1924, for foreign debt adjustments and to meet deficits.

A $30,000,000 5½% 40-year loan was floated at 96¾ in New York on June 1, 1925, to refund the 8 per cent loan.

A $30,000,000 5% 35-year loan was floated in New York at 97½ on March 7, 1928, the proceeds to be used to consolidate short term indebtedness.

The public debt after giving effect to this financing was 1,704,857,000 kroner ($456,751,676). The government owns properties valued in excess of $360,000,000, most of which are revenue producing such as railroads, telegraph and telephone lines, forests, mines and hydro-electric plants. The wealth of the country in 1928 was estimated at 7,957,000,000 crowns, and the income of all Norwegian subjects at 2,140,000,000 crowns, with state and commune taxes totaling 630,000 crowns.

Norway's international balance of payments as of Jan. 1, 1927 showed an estimated surplus of $25,000,000 kroner, which it may be noted was exactly the amount credited to "tourist receipts."

Imports and exports in kroner and dollars at current rate of exchange for four years:

Year.	Imports.	Exports.
1923	1,342,000,000 ($224,114,000)	831,000,000 ($138,777,000)
1924	1,548,000,000 ($216,720,000)	1,063,700,000 ($148 918,000)
1925	1,378,504,430 ($280,620,300)	1,047,112,936 ($209,714,100)
1926	1,092,838,000 ($243,066,900)	811,127,754 ($181 096,300)
1927	976,584,000 ($254,399,632)	684,737,685 ($175,374167)
1928	1,012,787,000 ($270,311,750)	682,129,438 ($181,060,710)

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$31,242,518	$14,705,932
1923	27,609,740	20,099,195
1924	23,236,926	21,391,252
1925	26,199.708	23,289,084
1926	24,880,050	25,055,248
1927	23,361,290	22,230,823
1928	21,179,066	21,846,012

SPITZBERGEN.

(Svalbard).

AREA, about 30,880 square miles.

POPULATION, 1921, 1,503.

Spitzbergen, a mountainous group of islands in the Arctic Ocean between 76° 26′ and 80° 50′ north latitude and 10° 20′ and 32° 40′ east longitude, the largest being West Spitzbergen (12,000 square miles), lies about 370 miles due north of Norway, half-way to the Pole. Discovered by Norsemen in 1194 and rediscovered by Barents in 1596, the Islands had been the resort of whalers of several nations. Ever since 1261 Norway has periodically asserted her claims to the islands, and from 1870 the demand became more insistent, increasing as Norwegian exploration discovered rich outcropping seams of coal—a necessity which Norway lacks. International conferences were held without result, the islands remaining a No Man's Land. The war put an end to negotiations, but, following action by the Peace Conference in 1919, a treaty was signed in Paris, Feb. 9, 1921, by the United States, Great Britain, Denmark, France, Italy, Japan, the Netherlands, Sweden and Norway, which put Spitzbergen under the flag of Norway, but not with unlimited sovereignty, as they set certain specified guarantees—no naval base to be established, the ships of all signatories to enjoy hunting and fishing privileges there, and equal treatment must be shown to all.

Soviet Russia accepted the treaty in February, 1924. The Norwegian flag was formally hoisted on Aug. 14, 1925.

The development of the coal fields has proceeded rapidly. The resources are estimated at 9,000,000,000 tons. Norwegians own the two largest mining companies. The coal exported has been good steam coal; the output in 1926-27 was 291,211 metric tons; in 1925-26, 153,000 tons; and in 1924-25, 162,000, practically all of which went to Norwegian ports. There are large deposits of low-grade iron ore and gypsum, and signs of oil have been reported.

The population in the summer of 1923 was 1,522; and during the winter 1923-24, 1,197.

PALESTINE

FLSTIN

(British Mandate in force Sept. 29, 1923.)

AREA, estimated, 9,000 square miles.

POPULATION, census of Oct. 23, 1922, 757,182; divided 590,890 Mohammedans, 83,794 Jews, 73,026 Christians, 7,028 Druses, 163 Samaritans, 265 Bahais, 1,454 Hindus, 408 Sikhs, and 156 Metawilehs. Estimated April 30, 1926, 852,268.

CAPITAL, Jerusalem, population, census 1922, 62,678; other towns: Jaffa, 47,709; Haifa, 40,000; Gaza, 17,486; Hebron, 16,577; Nazareth, 7,424; Bethlehem, 6,658; Acre, 6,420.

British High Commissioner, Lt. Col. Sir John R. Chancellor, G. C. M. G., took up duties Dec. 6, 1928.

Palestine, the Holy Land, lying between the Mediterranean Sea and the River Jordan, was formerly a vilayet of the Turkish province of Syria. It was conquered during the World War by British troops under General, now Field Marshal, Viscount Allenby, Jerusalem being surrendered Dec. 9, 1917. Jerusalem had been in Moslem hands since 1244, had been conquered and reconquered in the Crusades, and had been under the rule of the Turk since 1517. It remained under British Military Administration until July 1, 1920, when Sir Herbert L. Samuel was appointed High Commissioner and a civil government set up. The announced policy of Great Britain is to accord equal treatment to the people and to provide a national home for the Jews, permitting them to return to Palestine only as the development of that country guarantees the normal absorption of immigrants for rising industries and reclaimed agricultural lands.

Sir Herbert Samuel, British High Commissioner, at the conclusion of his term of office in 1925, reported a surplus of ££600,000 had been accumulated, taxes somewhat reduced, 600 miles of new roads built, 200 village schools opened, and that Palestine then had nearly 150 industries with an investment of ££1,200,000, of which all but ££100,000 is Jewish. The total number of schools was 711 (314 Government conducted), with 2,373 teach-

ers and 53,467 pupils. Of the privately supported schools about 125 were Christian, 175 Jewish, and 30 Moslem. The educational budget for 1926-27 was £E113,000, for Apr. 1 to Dec. 31, 1927, £E106,502, and for 1928, £E143,619.

Palestine was a country infested by malaria. This has been largely stamped out, and an active campaign waged also against trachoma. Good water supply has been brought to Jerusalem. An ordinance enacted in July, 1920, forbids absolutely all billboards that mar the landscape.

Both civil and religious courts have been established. A new code of commercial law has been enacted, and many laws modernized. A survey has been initiated and a definite registration of land titles begun.

Between Sept. 1, 1920, and March 1, 1925, the total number of immigrants into Palestine were 46,225 Jews and 2,027 non-Jews. On June 1, 1925, the Jewish population had increased according to Government figures to 115,151 (84,000 in 1914 and 57,900 in 1920). In 1925, 34,641 immigrants, of whom 33,801 were Jews, were admitted compared with 13,553 (12,856 Jews) in 1924. Ninety per cent. came from Europe; 47 per cent. from Poland alone; 594 came from the United States. In 1926, 13,910 (13,081 Jews) arrived and 9,429 left. In 1927, 3,595 (2,713 Jews) arrived, and 6,978 (5,071 Jews) left. In 1928, 3,086 (2,178 Jews) arrived and 3,122 (2,168 Jews) left. In 1928, 63,319 and in 1927, 59,305 tourists visited the Holy Land, 75% from the United States.

The Arab population has increased by 80,000 since the end of the war. The birth rate was 49.3 in 1925.

The Palestine Foundation Fund in seven years, April, 1921, to September, 1928, spent £3,510,721 in various constructive features for the upbuilding of Palestine; more than 55 per cent. was contributed by Jews in the United States. On education was spent £642,642, on the promotion of immigration, £343,328; on public works, £484,700; on public health, £225,295; and on agriculture colonization (forty-three being established, with an experimental station at Tel-Aviv), £1,081,332. In Tel-Aviv, newly built, near Jaffa, a modern town with a population of 40,000, seventy industries have been established.

John D. Rockefeller, Jr., has given $2,000,000 to build, equip and endow an archaeological museum in Jerusalem. It is to be completed by Jan. 1, 1931.

The Syrian boundary line was adjusted in April, 1924, in accordance with the Anglo-French Convention of March, 1923, and the ancient district of Dan, seventy-five square miles with twenty villages, brought within the frontiers of Palestine the re-establishment of the Biblical boundaries, "from Dan even unto Beersheba."

A new constitution was promulgated on Sept. 1, 1922. It provides for a high commissioner, commander-in-chief and executive council. A legislative council is created consisting, in addition to the high commissioner, of ten official and twelve unofficial members, the latter to be elected and to include not less than two Christians and two Jews. This council has authority to pass ordinances, which must be approved by the high commissioner, who may reserve any ordinance for the consideration of the mandatory power. Freedom of conscience and of worship is assured and discrimination on the grounds of race, religion or language forbidden. English, Hebrew and Arabic are the official languages. All male Palestinians over twenty-five years of age are entitled to vote.

The Jewish population have an internal organization through an elective assembly which has chosen a national committee to represent them in dealing with the administration. This split, June 16, 1925, the Orthodox Jews bitterly opposing the demands of the progressives for woman suffrage. The World Zionist Organization is recognized by the British Government and Palestine Administration as the agency of the Jewish people in all matters pertaining to the upbuilding of the Jewish National Home. A Moslem council controls Moslem Wakf affairs.

An earthquake on July 11, 1927 shook the Holy Land, killing 670, injuring 3,000, and causing a property loss of $2,000,000. Nablus (Shecham of old), was razed, Jericho badly damaged and Jerusalem less so. There was a somewhat less severe earthquake Feb. 22, 1928.

Work was begun in 1927 on the harnessing of the River Jordan by the Palestine Electric Corporation, which has a £2,000,000 concession from the High Commissioner. The falls of the River Jordan between Lake Tiberias and Jis-el-myamjieh, where there is a fall of 130 feet in an eight-mile stretch, will be utilized together with the water of the Yamuk, and will provide, it is estimated, 130,000,000 kilowatts of power. The government plans to electrify the railroads and the Jaffa, Haifa and Tiberias sections are already completed.

Bids were submitted on Dec. 31, 1926, for a concession to exploit the salts which in solution make up one-fourth of the Dead Sea water. Dr. Thomas H. Norton of New York estimates that obtainable are notably 1,300 million tons of potash, 853 million tons of bromine, 11,900 million tons of salt (unusually pure), and 22,000 million tons of magnesium chloride, which he estimates as worth $1,182,000,000,000.

The concession for 75 years was granted May 22, 1929 to Moses A. Novomeysky, a Jewish engineer, Russian born but a citizen of Palestine, and Major T. G. Tulloch by the London Crown Agent of Palestine and Transjordania. A company with capital of at least £100,000 is to be formed within a year, required minimum production of potassium chloride in the third year is 1,000 tons with output rising to 50,000 after the tenth year, and a royalty of 5% to be shared by the governments of Palestine and Transjordania.

Jerusalem, the Holy City, is visited annually by large pilgrimages of Orthodox Greek Christians. The Mosque of Omar occupies the site of Solomon's Temple. It contains the sacrificial stone of Abraham and a relic of Mahomet. Bethlehem is also visited, the Church of the Nativity being reputed the oldest Christian church in existence.

Clashing of the several sects of Christians, the Moslems and the Jews over the control and use of the holy places has been constant and persistent. An Arab mob of perhaps two thousand with banners raided and subjected to indignities the Jews worshipping at the Wailing Wall on the fast commemorating the destruction of the Temple, Aug. 16; 1929. Rioting continued. A Jewish boy was killed and his funeral Aug. 21 was a great Jewish demonstration. August 23 brought violent attacks by armed Arabs on Jews in Jerusalem followed by attacks on the Slodoka Talmud school at Hebron and on towns and villages. The disorders spread. Martial law was proclaimed. British troops were brought in from Egypt by air and marines from warships, and airplanes used on Bedouin raiders. Before order was restored these casualties were reported: killed—Moslems, 870; Christians, 4; Jews, 119; seriously wounded—Moslems, 121; Christians, 11 Jews, 175.

Palestine proper is about the size of the State of Vermont with twice as many inhabitants. On the west is the coastal plain a hundred miles long and fifteen wide, fertile and well watered. In the centre is the plateau of Judea. The eastern border drops sharply into the depressed valley of the River Jordan and the Dead Sea, forty-six miles long, with an average width of eight miles, 1,292 feet below sea level. The country is capable of great agricultural development, dependent on irrigation. Olives, figs and grapes are grown in large quantities.

Wheat production in 1927 was 99,406 metric tons (99,023 in 1926); barley, 44,524 tons (69,358 in 1926); durra, 37,441 tons (23,913 in 1926); olives, 1,866 tons (2,093 in 1926); olive oil, 3,737 tons (4,560 in 1926); and lentils, 3,155 tons (3,321 in 1926). In 1928, 2,202,432 cases of oranges valued at £P648,678 were exported and in 1927, 2,658,249 cases valued at £P813,574.

In 1928 there were 226,611 sheep, 367,730 goats, 23,850 camels and 600 buffaloes.

Over five million trees have been planted in a Government effort to reforest the country and to protect the fisheries in the Sea of Galilee, not now so prolific as of old.

There were 756 miles of railroads in 1928, with a net operating surplus of £P166,117, and in 1928, 2,290 vessels of 1,811,571 tons entered the seaports,—Jaffa, Haifa, Acre and Gaza—in the foreign trade.

The principle imports are cotton textiles, sugar, petroleum, cigarettes and rice; and the chief exports are oranges, soap, wines, melons, apricot port and almonds.

A new unit of currency, the Palestine Pound (= 1 pound sterling = $4.866 = 97.5 Egyptian piasters) and divided into 1,000 mils replaced the Egyptian currency on Nov. 1, 1927. New notes and coins were put in circulation.

Budgets in Egyptian pounds (£E = $4.95 at par of exchange) and after April 1, 1926 in the new £P were:

Year to Mar. 31.	Revenue.	Expenditure.
1920-21	£E1,108,528	£E1,228,097
1921-22	2,312,243	1,881,108
1922-23	1,764,585	1,837,173
1923-24	1,633,893	1,633,227
1924-25	2,101,072	1,806,660
1925-26	2,739,091	2,040,332
1926-27	£P2,390,081	£P2,070,479
1927, Apr. 1 to Dec. 31	1,739,380	1,944,397
1928 (cal.)	1,944,397	3,381,993

The total revenues from July 1, 1920, when the civil government was formed, to Dec. 31, 1928, was £P18,733,433; total expenditures, £P18,143,903; surplus balance, £P589,530.

Palestine's share of the Ottoman debt allotted by the Treaty of Lausanne amounts to £T3,284,429. (Gold value = about $14,500,000). The annual service charge is £E92,047. The advance from Britain on March 31, 1926, was £E660,075.

A Palestine loan of £4,475,000 (35-year 5%) approved, by the British Government in December 1926, was made by the Bank of England in December, 1927; of this, £1,640,000 will go for railway construction, £1,115,000 for harbor works at Haifa, £745,000 for other development works, and £1,000,000 for repayment of capital work, mostly reconstruction, done by the British. Expenditure incurred in anticipation of the loan totaled about £E1,800,000.

Trade in Egyptian pounds and dollars was:

Year, Apr. 1 to Mch. 31.	Imports.	Exports.
1922-23	£E5,124,945	£E1,834,118
	($24,036,000)	($8,601,000)
1923-24	5,589,679	2,120,931
	($25,318,000)	($9,608,000)
1924-25	7,603,923	1,588,157
	($37,640,000)	($7,861,000)
1925-26	6,513,331	1,497,921
	($32,566,655)	($7,489,505)
1926-27	£P6,447,113	£P1,903,189
	$31,339,416	$9,251,400
1928 (Cal.)	£P6,770,818	£P1,487,207

(Exchange rates used: 1923, $4.69; 1924, $4.53; 1925, $4.95; 1926, $5; 1927 and 1928, £P = $4.86).

Trade with the United States was:

	Imports.	Exports.
1925	$3,619,705	$179,013
1926	1,192,981	187,869
1927	1,088,462	248,080
1928	1,506,309	306,199

The cost of Palestine to the British Exchequer was announced by Prime Minister Macdonald to the House of Commons as: 1920-21, £8,000,000; 1921-22, £3,155,000; 1922-23, £1,874,000; 1923-24, £1,400,000; and for 1924-25, estimated, more than £1,000,000. The estimate for 1925-26 was £624,000, which includes the cost of the air squadron, the British gendarmerie (£206,000), and the maintenance of the Ninth Lancers (£40,600). Since then the British grants in aid from April 1, 1926 to Dec. 31, 1928 amounted to £152,618.

TRANSJORDANIA

Emir, Abdullah, second son of King Husein of the Hejaz, and brother of King Feisal of the Iraq; became ruler April, 1921.

Transjordania is an Arab state set up within the Palestine Mandate yet separate from Palestine (Sept. 1, 1922). It is under the responsibility of the High Commissioner for Palestine, who has a British agent there, Lieut. Col. C. H. F. Cox. The Emir administers the country under a council of advisers. The first legislative assembly of 22 elected deputies was opened by the Emir April 2, 1929.

Plans are under way for transformation into a principality resembling the government of the Iraq, with the present Emir as Sultan or King, to be assisted by a ministry of his own choice. A British resident will advise him and control finance and the British financial subsidy will continue.

The boundaries have not been determined, but roughly, on the west the line separating it from Palestine runs from the Lake of Tiberias down the Jordan to the Dead Sea and thence south across Wadi el Araba to Marashash on the Gulf of Sinai; on the north it is separated from Syria by the River Yarmuk, thence eastward to Imtar and thence a straight line northeast toward Abu Kamal on the Euphrates; on the east the boundary between it and the Iraq runs south from Abu Kamal to the junction of the boundaries of the Iraq and Nejd; on the south lies Nejd and the Hejaz. No estimate of the area is available, but the population was estimated in 1926 at 240,000, chiefly nomad Arabs, of whom about 220,000 are Mohammedan, 10,000 Christian and 10,000 Circassians.

The King of the Hejaz, in 1924, transferred Akaba, Maan and Tebuk to Transjordania.

The country is largely desert except for a thirty-mile strip between the Jordan and the Hejaz railroad which transverses the country from Dera to Maan, its present terminus. A road fit for motor traffic runs from Jerusalem to the capital, Amman, where there is a British aerodrome and air-force detachment.

The Transjordania frontier force numbers 40 officers and 640 men and cost in 1928, £P151,909, of which the British Government paid one-sixth.

Recent budgets were:

Year (fiscal).	Revenues.	Expenditures.
1926-27 (actual)	£P302,516	£P274,910
1927-28 (actual)	282,073	318,260
1928-29 (estimated)	280,916	301,430

British grants in aid for these years were £66,000, £45,000, and £40,000. For schools the expenditures were £P18,232, £P19,738, and £P22,274. There are 57 Government schools with 4,437 pupils, 57 Christian schools with 2,400 pupils, and 43 Moslem schools with 1,172 boys.

PANAMA, REPUBLIC OF

AREA, 33,667 square miles.

POPULATION, 1923, 442,522; excluding the Canal Zone. Whites, 52,069; Negroes, 85,970; Indians, 33,425; Orientals, 3,061; Mestizos, 267,961.

CAPITAL, Panama, population, 1921, 59,458; Colon, 31,230.

President, Don Florencio Harmodio Arosemena, 1928-32, inaugurated Oct. 1, 1928.

Premier, Sr. Adriano Robles (Government and Justice).

The Republic of Panama, formerly a department of Colombia, declared its independence Nov. 3, 1903, and was recognized Nov. 13 by the United States. It occupies the entire isthmus of that name connecting North and South America, lying between the Caribbean Sea on the north and the Pacific on the south. The Costa Rican boundary line on the west has been a matter of dispute. The Colombian boundary line to the east was determined in 1921 by the Thompson-Urrutia Treaty.

By treaty Nov. 18, 1903, ratified Feb. 23, 1904, and with a supplemental (Taft) agreement of 1904, the United States acquired the right to construct the Panama Canal across the Isthmus, a strip (the Canal Zone) extending for five miles on each side of the Canal, the terminal cities of Cristobal, adjacent to Colon, and Balboa, adjacent to Panama, and islands for defensive purposes in the bay, in perpetuity and exclusive control for police, judicial, sanitary and other purposes. The United States also has complete jurisdiction over sanitary and quarantine matters in the two cities of Colon and Panama and owns and operates the Panama Railroad, forty-seven miles long, connecting these cities. In return the United States paid Panama $10,000,000, and $250,000 a year, beginning after nine years.

The Taft agreement was abrogated, June 1, 1924, and a commercial treaty supplanting it was signed July 28, 1926. The United States agreed not to set up in the Canal Zone any business which would compete with the commerce of Panama. The United States Commissioners for the civil and military personnel in the Canal Zone will be maintained as usual.

It stipulates moreover, that "Panama agrees to cooperate in all possible ways with the United States in the protection and defense of the Panama Canal. Consequently, Panama will consider herself in a state of war in case of any war in which the United States should be a belligerent, and in order to render more effective the defense of the Canal will, if necessary in the opinion of the United States Government, turn over to the United States in all the territory of the Republic of Panama, during the period of actual or threatened hostilities, the control and operation of wireless and radio communication, aircraft, aviation centers, and aerial navigation . . . and the United States shall have the direction and control of all military operations in any part of the territory of Panama."

The National Assembly of Panama, Jan. 27, 1927, rejected the pact, asking for further negotiations. The United States Senate took no action. Former Foreign Minister Morales at Geneva in September appealed to the Assembly of the League of Nations to intervene and determine the status of the Canal Zone, but without effect.

(For Canal Zone and for the Panama Canal, see Index.)

The soil of Panama is very fertile, but of the whole area more than half is wholly uncultivated. Immigration is encouraged. The forest resources are great. Stock raising is extensively carried on. The chief exports are bananas (from Almirante), cocoanuts, balata, hides, gum and tortoise shell.

A discovery of gold within a concession of 4,600 square miles in the Sierras made to a British company was reported in April, 1926.

The Constitution, adopted Feb. 13, 1904, and amended Dec. 26, 1918, provides for a Chamber of Deputies of forty-six members (election to be held every four years beginning with 1924) and a President, also elected by direct vote for a four-year term, and not eligible for re-election. He appoints a Cabinet of five Ministers. There are nine provinces, each under a Governor appointed for a term of one year by the President. The Roman Catholic religion prevails, but religious freedom is guaranteed. Primary education is free and compulsory. A university has been opened. There is no army; the national police numbers 69 officers and 750 men.

Spanish is the official language and its use is compulsory.

Panama authorized a loan of $16,000,000 in 1928, of which $4,000,000 was reserved to refund 30-year 5½% bonds of 1923 redeemable June 1, 1933. The rest, $12,000,000 5% 35-year bonds, were floated in New York June 25, 1928, at 96¾; three issues totalling $6,218,913 were redeemed and the remainder will be used for public works. After this financing the external funded debt of the Republic will amount to approximately $16,446,000 and the internal debt to $2,975,588.

The budget for 1927-29 was balanced at $14,302,488; and that for 1929-31 at $17,031,908. For the service of the debt $4,126,174 is appropriated, and for education, $3,327,937.

The unit of currency is the balboa (= $1.00).

Imports and exports were:

Year.	Imports.	Exports.
1921	$11,372,370	$2,495,407
1922	10,268,549	2,437,479
1923	12,675,249	2,389,728
1924	13,769,434	3,008,014
1925	14,605,962	3,530,800
1926	14,289,000	3,438,936
1927	14,516,000	3,785,660

Trade with the United States was:

Cal. Year.	Imports.	Exports
1922	14,517,059	3,607,014
1923	21,769,332	4,267,047
1924	26,365,846	5,003,663
1925	28,236,618	6,430,796
1926	32,412,669	5,548,522
1926	31,921,269	5,548,522
1927	34,051,031	5,383,941
1928	34,200,568	6,457,692

PARAGUAY, REPUBLIC OF

AREA, estimated from 122,000 to 172,000 square miles. Northwest boundary undetermined.

POPULATION, Census of 1927, 791,469, exclusive of the Chaco region the estimate of which is: whites 7,500, Indians 30,000.

CAPITAL, Asuncion, population, official estimate, 1929, 142,519.

President, Dr. Jose P. Guggiari, 1928-32, born Mch. 17, 1884; inaugurated Aug. 15, 1928.

Premier, Don Belisario Rivarola (Interior).

Paraguay is an inland agricultural and pastoral country of South America, communicating with the South Atlantic by the Paraguay River and the Parana, a tributary of the River Plata, and navigable by vessels of light draft up to Asuncion. A railroad, British owned, 272 miles long, connects the capital with the Argentine railroad system. It is bounded on the north by Bolivia and Brazil, on the east by Brazil and Argentina, on the south by Argentina, and on the west by Argentina and Bolivia. In area it is about the size of Wisconsin, Minnesota and Iowa, if its right is granted to the Chaco territory (62,000 square miles) in dispute between Paraguay and Bolivia. The high plateaus are suitable for cattle raising of which there are 5,000,000 head. The chief exports are hides, quebracho, timber, cattle, yerba mate and tobacco.

The cotton crop for 1928 was 8,000,000 kilos.

The Constitution of 1870 is modelled on that of the United States, but more centralized. The history of Paraguay since its declaration of independence from Spain in 1811 has been one of constant dissensions, dictatorships, revolutions and wars. The Roman Catholic religion is established, but others are tolerated. Education is free and nominally compulsory. The university at Asuncion had 279 students in 1921. Enrollment in the 633 primary schools in 1927 was 58,300 with 1,755 teachers.

The number of vessels entering Asuncion, which is 800 miles from the sea, in 1926, was 2,836 of 323,587 tons.

Paraguay has a standing army of 1,900 and a reserve of 100,000.

Paraguay uses the Argentinian gold peso = 96.5 cents, average exchange value in 1925 91.3 cents, and in 1926, 92.1 cents. The paper peso was exchanged at the fixed rate of 42.61 to the gold peso.

Recent budgets converted into paper pesos are:

	Revenues.	Expenditures
1923-24	185,467,956	178,451,462
1924-25	235,048,668	177,643,999
1925-26	236,517,067	227,693,654
1926-27	220,985,856	219,289,703
1927-28	220,986,178	219,290,660
1928-29	263,477,727	263,475,754

The foreign debt on Nov. 30, 1928, was 4,535,872 gold pesos. Paraguay after defaulting on its payments for several years, came to an agreement with its creditors in 1924, since when remittances have been made fully and promptly. The total floating debt was 14,585 gold pesos and 4,379,906 paper pesos. American capital invested in Paraguay is estimated at $15,000,000.

Foreign trade in 1926 was: Imports, 12,205,280 gold pesos; exports, 15,497,504 gold pesos; and in 1927: Imports 11,977,766 gold pesos, exports 14,282,040 gold pesos.

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$388,841	$1,064,332
1923	585,999	544,876
1924	820,543	113,730
1925	902,479	380,476
1926	905,407	540,954
1927	1,316,632	913,421
1928	1,353,678	555,247

PERSIA, KINGDOM OF

IRAN

AREA, 628,000 square miles.

POPULATION, estimated 10,000,000.

CAPITAL, Teheran, population, estimated, 250,000; other cities, Tabriz, 200,000; Ispahan, 100,000; Mesnad, 80,000, and 42 cities of above 10,000.

Shah, Mirza Reza Pahlevi, born March 16, 1878, proclaimed Dec. 6, 1925. *Heir*, his eldest son, Crown Prince Shahpur Mohammed Riza, born Oct. 26, 1919.

Premier, Mehdigholi Khan Hadayat, the Mokhbar es-Saltaneh, June 21, 1927.

Persia (Iran) is an ancient kingdom occupying the western and larger half of the great Iranian plateau, between the rivers Indus and Tigris in Southwestern Asia. It is bounded on the north by Transcaucasia (Russia), the Caspian Sea and Turkestan; on the east by Afghanistan and Beluchistan (British India); on the south by the Arabian Sea and the Persian Gulf; on the southwest by Mesopotamia (the Kingdom of Iraq); and on the west by Armenia. The boundaries are indeterminate—a cause of much friction. In size it equals the States of Idaho, Colorado, Utah, Nevada, Arizona and New Mexico combined. It is described as a "vast and miserable poor country with scanty population." The people are Moslems, mostly of the Shi'a sect, and education is largely limited to reading the Koran.

Across this plateau, which lies at an altitude of 4,000 to 8,000 feet, in the north central part, from northwest to southeast, stretches a desert, 800 miles long, varying from 100 to 200 miles wide. There are many peaks from 9,000 to 10,000 feet high. Fine forests cover the maritime plains and mountain slopes. Mineral deposits are undeveloped, but known to be considerable. Turquoise mines are worked crudely in Nishapur. Oil is produced near Ahwaz in Karan Valley, at the head of the Persian Gulf. The Anglo-Persian Oil Company holds the concession, covering nearly 500,000 square miles, and has large refineries at Abadan in the Shatt el Arab on the Persian side of the Tigris below Basra. The British Government bought control in this company in 1914 and increased its holdings in 1917 to $25,000,000. Prospecting is vigorously pushed.

Petroleum production in 1928 was 42,080,000 barrels; in 1927, 39,688,000; in 1926, 35,842,000; in 1924, 32,373,000; and in 1923, 28,793,000. The export value in 1926-27 was $63,868,000 and in 1927-28, $58,766,288.

Agriculture is the chief industry, wheat, barley, rice, fruits, gums, drugs, wool and cotton being the chief products. Some wines are famous. Persian carpets, all made on hand looms, are produced in Tabriz, Sultanabad and Kerman. The chief exports in 1928 were petroleum, cottons, carpets, fruits, opium and rice; the chief imports were textiles, sugar, tea and manufactures of metals. The British Empire, Russia, Egypt and Turkey are the best customers. There are fifteen regular trade routes along which goods are carried by caravans.

A railroad 1,500 kilometers long was authorized by Parliament to be constructed from Khormusa, a deep water port on the Persian Gulf, passing north through Dizful, Burujird, Hamadan and Kazvin, thence east to Teheran and Firuzkuh (or Semnan where valuable iron and coal deposits have been discovered) and northeast to Bendergaz on the Caspian Sea. It will cost roughly $100,000,000, and the revenue from the sugar and tea monopoly (about $7,000,000 annually) was set aside for the project. Preliminary surveys for the route were completed in 1927 and contracts for construction were awarded in April, two in the north to an American and a German firm; and four in the south, two to American firms, one to a French firm, and one to a British company. It is hoped to complete

the railroad in eight years, as well as building a foundry at Semnan. Persia had in 1927, 231 miles of railroads.

The Road Administration spent $2,014,000 on roads in 1927-28, building 600 kilometers of gravel roads and 50 kilometers of macadam and Persia now has 8,750 kilometers of dirt and gravel roads and 1,850 kilometers of macadam. For 1928-29 the road budget is $2,686,400.

Tonnage of vessels entering the Persian Gulf in 1925-26 amounted to 7,335,204, the bulk of it British; at the Caspian Ports, 473,126, mostly Russian.

Persia has been in political turmoil for twenty years. A Constitution was forced from the Shah in 1906 that provides for a National Assembly, which has been convened three times. Government is in the hands of a Cabinet. In 1907, Great Britain and Russia, by a convention, while mutually engaging to respect the integrity and independence of Persia, marked off special "spheres of influence" for each, Russia taking about two-fifths or her territory in the north and Great Britain about one-quarter in the south, the remainder being a buffer zone. Persia, though a neutral in the World War, was constantly fought over, suffered heavily and the northwest provinces brought nearly to famine. The province of Azerbajan, peopled by Tartars, in the extreme northwest, adjoining Armenia and Transcaucasia, with Baku, the great oil port on the Caspian as its capital, declared its independence in 1917, after the Russian debacle, and later became a Soviet republic.

On Aug. 9, 1919, Great Britain and Persia signed a treaty by which the former agreed to furnish expert advisers, military officers, munitions and modern military equipment, a loan of $10,000,000 to be secured by customs duties, and to build certain railroads. This agreement was never put in force and was denounced by Persia with the consent of Great Britain in February, 1921. Immediately (in March) Persia signed a treaty with the Russian Soviet Republic as a substitute for all previous Russo-Persian treaties, which established diplomatic relations, restored Firuzeh and Ashurada to Persia, annulled all concessions previously granted to Russians in Persia, turned over the Russian Discount and Loan Bank to the Persian Government, cancelled all Persian debts to Russia and abolished the capitulations.

Persia sent a delegation to Paris in 1919 to lay its claims before the Peace Conference, but was denied a hearing.

Agitation for the overthrow of the monarchy and the establishment of a democratic republic was very great but when success seemed assured on the Mohammedan New Year (March 21), 1924, veering public sentiment made the move abortive. The National Assembly, however, deposed the Shah, Ahmed Mirza (born June 29, 1898, succeeded his father, Mohammed Ali, who abdicated July 16, 1909, who was absent in Paris and installed his two-year old son on the throne with Mirza Reza Khan, Prime Minister as regent. Parliament, early in 1925, made him Supreme Chief of all Persian forces, an army numbering 40,000 men.

The Constituent Assembly (Majlis) on Oct. 31, 1925, proclaimed the disposition of the Shah and abolished the Kajar family as a governing dynasty. Seven Shahs of this line had ruled Persia since 1779. On Dec. 13, 1925, the Assembly elected Mirza Riza Khan hereditary Shah. He was proclaimed Dec. 16, and crowned April 25, 1926.

All capitulations granting extraterritorial rights to other governments and their citizens were canceled on May 10, 1928 and replaced by provisional agreements mostly for one year following in general the treaty with Russia.

Dr. A. C. Millspaugh, the American who has been Administrator General of the Finances since November 1922, refused on July 25, 1927 to accept a new contract because in it his powers were curtailed. In his June 1926 report he announced the conversion in three years of a heavy deficit into a small surplus, the reduction of the debt, and the accumulation of cash in the treasury sufficient to repay the entire funded debt of Persia. In his December 1926 report he noted that in the four years expenditure for public works had increased from $100,000 to $2,500,000; for education from $700,000 to about $1,500,000; and for public health from $120,000 to about $275,000.

The unit of currency is the kran. It averaged $0.1101 in the fiscal year 1925-26; $0.0976 in 1926-27; $0.0980 in 1927-28.

Recent budgets for fiscal years ending March 20, in krans, are:

Year.	Revenues.	Expenditures.
1925-26	292,364,228	235,277,913
1926-27	323,416,863	253,556,721
1927-28	267,866,000	243,131,000
1928-29	276,857,000	276,828,000
1929-30	301,124,000	349,430,000

The public debt on March 20, 1928 was: Funded, £1,637,845; floating, 7,214,000 krans. Treasury resources on that date were £1,488,000 and 299,363,000 krans.

The new national bank authorized by Parliament May 5, 1927, was opened in September, 1928 with Dr. F. Lindenblatt, a German, in charge, and an initial capital of 5,000,000 krans, government appropriation, for capital.

Royalties from petroleum produced by the Anglo-Persian Oil Co. were: in 1923-24, £341,996; 1924-25, £755,660; in 1925-26, £728,780; in 1926-27, £1,389,612; and in 1927-28, £1,488,000.

Imports and exports for fiscal years ending in March:

Year.	Imports.	Exports.
1922	$55,428,548	$45,635,890
1923	61,920,000	73,398,000
1924	68,132,000	76,839,000
1925	77,144,514	100,016,314
1926	97,000,000	116,639,000
1927	76,850,000	107,762,000
1928	79,128,000	103,920,000

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$756,076	$3,346,673
1923	244,686	5,180,645
1924	886,931	5,455,049
1925	438,991	7,211,930
1926	753,904	8,400,851
1927	1,568,819	7,526,586
1928	1,513,047	9,308,194

PERU, REPUBLIC OF

AREA, 533,916 square miles, with about 100,000 square miles in dispute.

POPULATION, estimated, 5,500,000, besides unenumerated savage tribes.

CAPITAL, Lima, population, census of 1920, 176,476; estimated, 1928, 250,000; chief port, Callao, population, estimated, 60,000. Other cities are Arequipa, population, estimated, 48,000; Iquitos, 15,000; Cuzco, 23,000.

President, Dt. Augusto B. Leguia, 1929-1934, by coup d'etat July 4, 1919, legalized by Congress; he took the oath Oct. 15, 1919, for full term of five years; re-elected, 1924, for five years; re-elected Aug. 5, 1929, for five years from Oct. 12, 1929.

Premier, Dr. Benjamin Huaman de los Heros (Government and Police) May, 1929.

Peru is situated on the Pacific Coast of South America, bounded on the north by Ecuador and Colombia on the east by Brazil and Bolivia, and on the south by Chile. In area it equals the combined area of Texas, Arizona, Nevada and Utah. The territory, amounting to 100,000 square miles, in the northeast corner in the Amazon basin has been in dispute between Colombia, Ecuador, Brazil and Peru. The boundaries between Peru, Colombia and Brazil were adjusted (subject to ratification) through the good offices of Secretary of State Hughes in Washington on March 4, 1925. Colombia recognizes Peru's title to certain disputed territory north of the Pulumayo River and Peru admits Colombia's ownership of a strip of territory adjacent to the line between the confluence of the Apaporis and Yapura Rivers, and the village of Tabatinga on the Amazon, which has been recognized as the common boundary of Brazil and Peru. The Peruvian Congress ratified the treaty on Dec. 21, 1927. The territory has about 13,000 square miles.

The Province of Tarata (1,922 square miles, with a population about 15,000) was restored by Chile to Peru on Sept. 1, 1925. The Province of Tacna, 4,786 square miles, was restored by Chile in 1929; (For Tacna-Arica Settlement see Index).

The Andes reach their highest altitudes in Peru, which contains seven peaks towering above 19,000 feet, of which Huascaran (altitude 22,187 feet), Coropuna (21,700 feet), Huandoy (21,088 feet), Misti (20,013 feet) and Huaican (19,945 feet) are among the loftiest. The thirty mile wide strip of land along the Pacific is a desert except as it is irrigated from streams from the mountains; the uplands or western slopes of the Andes are well watered and also the eastern descent to the Amazon basin, tropical lowlands, very fertile, thickly wooded in parts with much wild rubber, and thinly populated. Iquitos, the capital of this district, is over 2,000 miles up the Amazon.

The mountains are rich in minerals and many valuable mines, some dating back to the Incas, are being worked. The total production in 1927 was valued at £P22,453,627 (£P18,060,782 in 1926). Peru produces 95% of the world's vanadium (858,327 kilos in 1926).

The output of copper, chiefly from the very rich Cerro de Pasco mines, was 52,272 metric tons in 1928; 47,805 in 1927; 42,939 in 1926, 36,844 in 1925; 33,937 in 1924; and 44,166 in 1923. Peru is third in production of silver, 18,296,000 troy ounces in 1927; and 23,589,000 in 1926. Lead production was 13,107 metric tons in 1928.

Petroleum output was 11,970,000 barrels in 1928; 10,135,000 in 1927; 10,519,000 in 1926; 9,164,000 in 1925; and 7,812,000 in 1924, giving Peru ninth place as a producer.

The cotton production in 1926, 230,769 bales (from 28,600 acres), of which 215,769 were exported. In 1927, 224,915 bales were exported and in 1928, 203,112. Sugar production in 1927 was 374,852 tons from 141,020 acres (375,973 tons in 1926).

There are estimated to be 10,000,000 sheep, 1,500,000 alpacas and 500,000 llamas and the annual clip is about 14,200,000 pounds, more than half alpaca.

From the islands in the Pacific 75,458 tons of guano were taken in 1926-27.

Manufacturing is increasing; 533 establishments with a total production of £P23,855,000 ($95,420,000) being reported in 1928.

There were in 1928, 2,725 miles of railroads, 1,481 miles being state railroads under control of the Peruvian Corporation. At Callao, in 1926, in the foreign trade there entered 758 steamers of 2,470,505 tons.

Under the new Constitution, Jan. 18, 1920, the Government is highly centralized. The President, the Senate (35 members), and the House of Representatives are all elected for five years.

Absolute political and religious freedom is guaranteed. The Catholic religion is the state religion.

The law of Feb. 5, 1921, makes elementary education compulsory and free. In 1928 there were 3,461 public elementary schools with 272,490 pupils and 6,012 teachers; and 492 private schools with 28,402 pupils. At Lima is the University (with, in 1928, 1,418 students), founded by Charles V. in 1551.

Over 50% of the population are full-blooded Indians, including many uncivilized and unenumerated tribes; 40% are Mestizos, or of other mixed blood, and but 2% entirely of Caucasian blood. The lot of the Indians has been very bad.

President Leguia put in motion an elaborate series of reforms to modernize the country, including the sanitation of thirty-one Peruvian cities, the reorganization of the army and navy, the reconstruction of the educational system, huge irrigation works, and the stamping out of yellow fever.

Military service is compulsory, the standing army numbers 7,500, with 90,000 in the reserved. The navy is small. Four 800-ton submarines, 200 feet long, built at Groton, Ct., have been added to the navy.

Foreign capital invested in Peru is estimated at $320,000,000, of which $100,000,000 is American. Prof. Edwin W. Kemmerer of Princeton University undertook, in 1926, to advise the Government on financial and economic matters. The customs, Reserve Bank, naval and educational services are administered by American missions; the army by a French mission; the police by a Spanish mission; the postal and telegraph and 80% of the railway by English, and electric power in the capital by an Italian company.

Congress in 1927 created two national banking institutions, the Reserve Bank of Peru, with a capital of £P1,500,000 of which Willard J. Bloomer of New York was made the head; and the Agricultural Credit Bank, with a capital of £P750,000. The note circulation of the Reserve Bank on July 31, 1928, was £P6,210,000; the gold reserve, £P4,126,000; and foreign exchange reserve, £P1,487,000.

The unit of currency is the libra, or Peruvian pound (at par of exchange = $4.8665) which, though fluctuating considerably, had an average rate for 1925, 1926 and 1927 of $3.83, but rose to $4.00 on Nov. 1, 1928.

Peru floated two series of 6% 33-year bonds in New York, the first of $50,000,000 at 91½ on Dec. 21, 1927, and the second of $25,000,000 at 91 on Oct. 24, 1928. The purpose was to refund the entire external debt of the republic and certain short term debts; the construction of dock and shipping facilities at Callao; and other public works.

The total debt of the republic, June 30, 1928, was approximately $128,521,695 of which $97,274,562 was external funded debt.

Recent budgets were balanced: for 1923, £P6,895,603; for 1924, £P7,879,489; for 1925, £P8,862,245; for 1926, £P9,412,619; for 1927, £P10,371,542; for 1928, £P11,113,650; for 1929, £P12,583,636. Actual revenues in 1928 were £P12,198,103, and expenditures £P12,075,467.

Imports and exports in gold dollars were:

Year.	Imports.	Exports.
1922	$40,887,000	$72,154,000
1923	58,084,000	98,439,000
1924	73,019,000	101,713,000
1925	73,457,000	87,437,000
1926	72,761,000	89,190,000
1927	71,354,000	105,337,000
1928	79,000,000	112,585,600

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$14,036,990	$15,872,125
1923	19,775,789	24,401,758
1924	23,837,124	22,895,470
1925	23,032,431	17,174,278
1926	29,352 521	21,796,710
1927	24,869,505	20,091,158
1928	23,409,469	20,775,920

POLAND, REPUBLIC OF

AREA, 1923, 149,140 square miles; of this the former Prussian portion was 17,789 square miles; Russian, 43,804, and Austrian, 30,481. Plebiscites in Silesia and East Prussia added more, and in 1923 the Vilna section in Lithuania with about 5,200 square miles was added. Some boundaries are indeterminate.

POPULATION, Dec. 31, 1922, Poland in the boundaries of September, 1921, 27,372,447; Polish Upper Silesa, 980,296; Central Lithuania, 488,968; army, 312,452; total, 29,160,163. Official estimate, Jan. 1, 1928, 30,212,962.

CAPITAL, Warsaw, population, 936,713. Chief cities, Lodz, 451,813; Lemberg (Lwow), 219,193; Cracow, 183,706; Posen (Poznan), 184,756; Vilna (Wilno), 128,954; and sixteen others with population between 40,000 and 100,000.

President, Prof. Ignatz Moscicki, elected June 1, 1926.

Prime Minister, Casimir Switalski, April 14, 1929.

Minister of War, Marshal Joseph Pilsudski.

The Republic of Poland was formed following the World War of reunited parts of the old kingdom dismembered about 150 years ago by Russia, Austria and Prussia. It is about the size of the States of West Virginia, Ohio, Kentucky and Tennessee, and in population is the sixth state in size in Europe.

Poland is bounded by Germany on the north and west; Latvia and Lithuania, north; Czechoslovakia and Roumania, south; Ukraine and Russia, east. Of the population 18,820,000 are Catholic Poles and Slavs; 2,111,300 Jews; 3,900,000 Ruthenians; 1,060,000 White Ruthenians; and 1,059,000 Germans. Absolute freedom of worship is guaranteed.

Poland is, except in the extreme south, an unbroken plain, across which three glacial movements have swept; average elevation, 480 feet; average rainfall, 21 to 23 inches; snowfall, 10 to 20 per cent. of total precipitation lasting 40 to 100 days.

The Allied Ambassadors' Conference, March 14, 1923, decided to recognize the eastern frontier of Poland, as established in the Treaty of Riga between Russia and Poland; also that the whole of East Galicia, which Poland had been allowed to occupy for four years, should pass to Polish sovereignty; and that Poland be confirmed in possession of Vilna (Wilno), the old capital of Lithuania, which Polish Gen. Zeligowski had seized in the lawless raid in October, 1920, and handed over to Poland. (See Lithuania).

Access to Free City of Danzig (Gdansk), formerly of the German Empire, as a port on the Baltic Sea, was granted by the Treaty of Versailles, and in 1922 Danzig was brought within the Polish customs frontier. Poland has begun to develop its own Baltic port, Gdynia, on Polish soil, in the "corridor" granted her just west of Danzig. It has been partially opened to navigation since 1927. In 1928, vessels arriving and departing totaled 2,201 of a total of 1,977,795 net tons; 23,282 passengers were carried and 1,957,348 metric tons of freight. The population in 1929 was nearly 30,000. A naval port has been started there with a harbor depth of forty feet.

The Vistula River gives navigation from Danzig south through Poland. A trans-European trade route is projected by canalizing the Vistula, cutting a canal to the Dnieper, and canalizing that river to the Black Sea at Odessa.

Sixty-five per cent. of the population engage in agriculture. There are approximately 44,478,000 acres arable; 13,000,000 pastures; 22,153,000 forests; 9,000,000 gardens and other uses.

Crop yield in 1928 was: Wheat, 1,460,000 metric tons from 2,665,130 acres; rye, 5,900,000 metric tons from 11,245,910 acres; barley, 1,900,000 metric tons from 3,164,070 acres; oats, 3,650,000 metric tons from 6,659,120 acres; potatoes, 27,900,000

metric tons from 5,098,430 acres; and sugar beets, 5,000,000 metric tons from 575,510 acres.

Under the Land Reform Act of Dec. 17, 1920, some 1,000,000 acres, of which 625,000 were private property, have been taken over by the state; of this, 380,000 acres were distributed to private individuals and private institutions, 295,000 in the eastern provinces were distributed among 5,000 war settlers; and 276,000 acres were assigned to the Polish Land Distribution Offices, which parcelled out 51.6 per cent to small farmers, 26 per cent. to non-farmers, 8.5 to employees on estates, 6.4 to large farmers and 7.5 to invalids and soldiers. The greater portion of the land taken over by the state consisted of extensive private properties which had been neglected. The maximum holdings were 400 hectares (988 acres), but the greater part were less than half that size, with a maximum of sixty hectares (148 acres), in industrial districts.

Polish Galicia has been a large producer of petroleum, but the production in 1922-23 has been only 60 per cent. of the pre-war average and is below the refining capacity. The output in 1928 was 5,830,000 barrels; in 1927, 5,342,000; in 1926, 5,844,000; and in 1925 5,960,000. The production of natural gas in 1928 was 456,209,000 cubic metres (454,139,000 in 1927). French capital is heavily invested and at present controls more than half the production.

Forests cover 23 per cent. of area; total 22,153,000 acres; state-owned, 29.5 per cent.; private, 70.5 per cent. Coniferous trees predominate, mostly Scotch pine, spruce, fir, larch; deciduous trees, beech, oak, alder, birch, elm, aspen, etc. Woodworking industries are important. Annual regrowth is estimated at 9,000,000,000 feet board measure, permitting exportation of about 5,500,000 tons, or about 8,000,000,000 feet, with constant demand.

In Upper Silesia, Poland acquired 1,300 square miles of the 4,100 involved. Most of mineral and industrial values were in Polish-acquired territory, which contains enough coal to mine annually 50,000,000 tons for 300 years. The normal coal production in Poland proper, Dumbrowa district, is 10,000,000 tons. Poland acquired virtually all the zinc mines, whence annually 180,000 tons are taken —18 per cent. of world's zinc; most of iron industry; twenty-two out of thirty-six blast furnaces. Railways there, which are nationalized, are to remain undivided for fifteen years with a Polish-German commission to supervise them and the industries The major part of steel industry remains German.

The transfer of the southeastern part of Upper Silesia to Poland, which became effective in the summer of 1922, brought a wealth of coal. In 1928 that territory produced 30,250,000 tons, as compared with a pre-war annual average production of 32,500,000 tons. Total production from all fields in 1928 was 40,609,652 metric tons (38,084,086 in 1927) of which 13,406,000 tons was exported.

Production of pig iron in 1928 was 683,811 metric tons (618,327 in 1927); of steel ingots and castings, 1,437,047 tons (1,243,691 in 1927); of finished rolled products, 1,044,903 tons (918,327 in 1927). The number of workmen engaged in 1928 was 53,036 (44,716 in 1927). Production of zinc in 1928 was 138,000 metric tons (129,830 in 1927).

Of the sixty-two coal mines in the district forty-nine became Polish and eleven remained in Germany, two being part German and part Polish. It is estimated that 90 per cent. of the undeveloped coal fields are in Polish territory. Poland received all the twenty-four zinc works and eleven of the fourteen zinc mines with 82 per cent. of the output.

Iron and steel industries are highly developed; also chemicals and glass. Lwow (Lemberg) is the centre of the textile industry, with approximately 900,000 spindles. The output of the forty-seven mills in the Polish textile industry in 1922 exceeded pre-war production by 40 per cent. The cotton mills in Oct. 1927 had 2,473,192 spindles, and 39,793 looms, and the woolen mills 732,368 spindles and 2,752 looms.

Industrial establishments in operation on Dec. 31, 1925, totaled 2,870 with 298,857 workmen, and on Nov. 30, 1926, 3,582 with 429,828 workmen. Unemployment which had been 218,368 on Jan. 1, 1922, 81,000 Jan. 1, 1923, 67,581 Jan. 1, 1924, 161,940 Jan. 1, 1925, 311,090 Jan. 1, 1926, 233,057 Jan. 1, 1927, 190,546 on June 30, 1927, 116,000 on May 31, 1928, 78,300 on Oct. 31.

Poland had on Dec. 31, 1926, 10,534 miles of railroads, all state-owned. The railroad administration showed a profit of 20 million zlotys in 1924, whereas there was a deficit of over 300 million in 1923.

Poland is governed under a Constitution adopted March 17, 1921, which calls for a two-chamber legislative body. Senate of 111 members, and House (Sejm) of 555 members (in 1922 reduced to 444), elected by universal suffrage, on a system of proportional representation which takes care of minorities. Freedom of press, religion, etc., is guaranteed. The President of the Republic is chosen by Parliament for a seven-year tenure, and appoints a Cabinet of Ministers responsible to Parliament. The Voyvodships have a considerable measure of home rule. There are a score of political parties. Blocs must combine to furnish a working majority. A new constitution giving much greater power to the President was placed before the Sejm in February, 1929.

Marshal Josef Pilsudski by a military coup d'etat overturned the government May 12, 1926. He refused an election to the presidency but on Oct. 1 took the premiership himself.

Two thousand candidates representing 34 parties sought the 444 seats in the Sejm in the election of March 4, 1928. The government secured 111 seats and about the same proportion in the Senate.

A concordat with the Vatican was arranged in February, 1925, and laws were passed to improve the condition of the Jews.

The Polish Army, which numbered more than 1,000,000 during the Soviet-Polish war of 1920, was reduced to 270,000 by Sept. 1, 1923. Military service for two years is compulsory.

Poland is making a strong fight to eradicate illiteracy and its educational program provides for compulsory education for all children under sixteen years. Sufficient school buildings and trained teachers have yet to be provided. Elementary schools in 1925 numbered 27,414 with 3,237,340 pupils and 66,176 teachers; there were 778 secondary schools, with 219,978 pupils and 14,681 teachers There are six important universities—Warsaw, with 8,939 students in 1923; Lwow (Lemberg), 5,646; Cracow, 5,235; Poznan (Posen), 3,416; Wilno (Vilna), 2,260; and Lublin, 1,120. Warsaw and Lwow have Polytechnic Institutes.

The Polish Government in April, 1923, adopted a new unit of value, the "zloty," equivalent to a gold franc (=19.3 cents). The Polish mark fell heavily in sympathy with the German mark, but was stabilized on April 28, 1924, at 1,800,000 paper marks to the zloty.

The zloty dropped, reaching 12.87 cents on Jan. 1, 1926; 9.58 on May 1; but recovered until the average for 1926 was 11.18; for 1927, 11.22; and for 1928, 11.21.

The Bank of Poland was opened Apr. 28, 1924, with a capital of 100 million zlotys. It has the sole right to issue notes for 20 years. Circulation July 31, 1929, was 1,293 million zlotys with a cover of gold at home 432 million, gold abroad 219 million, and foreign exchange 441 million zlotys.

Poland floated a 7%, 20-year, $72,000,000 stabilization loan on Oct. 18, 1927, at 92. Of this, $47,000,000 was taken in the New York market; £2,000,000 in England, $6,000,000 in Switzerland; $4,000,000 in Holland; $2,000,000 in France; $2,000,000 in Sweden, and $1,000,000 in Poland. Under the provisions of the loan an American citizen was to be named for three years as adviser to the government and the Bank of Poland with suitable powers. For that post Charles S. Dewey, assistant Secretary of the Treasury was selected. In addition the Federal Reserve Bank, the Bank of England, the Bank of France and the Central banks of eleven other countries joined in a credit of $20,000,000 for protection of exchange.

Poland's debt for post-war food credits and relief work to the United States was funded on Dec. 15, 1924, at $178,000,000, to be paid within 84 years, and her debt to Great Britain of £5,000,000 was refunded on a 16½-year basis. A most favored nation trade agreement with the United States was signed in Washington on Feb. 10, 1925. A $35,000,000 25-year 8 per cent. loan was floated in New York in March, 1925.

The City of Warsaw floated a $10,000,000 7% 30-year loan at 89 in New York March 12, 1892; and the province of Silesia a $11,200,000 7% 30-year loan at 89¼ in New York on June 9, 1928.

The external debt on Jan. 1, 1928, was 3,862,265,000 zlotys ($433,962,000), and the internal debt 293,900,029 zlotys ($33,022,470).

Recent budgets in zlotys are:

Year.	Revenues.	Expenditures.
1924 (calendar)	1,703,000,000	1,631,300,000
1926 (calendar)	1,856,200,000	1,971,518,000
1926 (calendar)	1,905,722,000	1,852,072,000
1927-28 Apr. 1 (Fiscal)	3,046,685,000	2,853,934,000
1928-29	3,007,643,000	2,808,463,000
1929-30	2,954,967,000	2,787,788,000

Trade for six years (000 omitted) was:

Year.	Imports.	Exports.
1923 gold zlotys	1,116,482	1,195,587
1924 " "	1,478,378	1,265,862
1925 " "	1,602,823	1,272,072
1926 " "	896,232	1,306,040
1927 new "	2,891,972	2,514,740
1928 " "	3,362,164	2,507,990

Trade of Poland and Danzig with the United States was:

Cal. Year.	Imports.	Exports.
1922	$16,371,317	$1,943,751
1923	12,110,515	3,632,895
1924	4,580,881	2,848,397
1925	6,556,154	2,527,197
1926	3,938,887	4,146,739
1927	9,260,839	4,825,078
1928	15,875,960	3,594,026

PORTUGAL, REPUBLIC OF

AREA, 35,490 square miles, which includes the Azores, 922 square miles, and Madeira, 314, islands in the North Atlantic Ocean. Colonial possessions in Africa—Cape Verde Islands, 1,480 square miles; Guinea, 13,940; Principe and St. Thomas Islands, 360; Angola, 484,800; Mozambique, 426,712; total Africa, 927,292; in Asia—Goa, India, 1,469; Damao, India, 169; Timor, Malaysia, 7,330; Macao, China, 4; total Asia, 8,972. Grand total, 965,754.

POPULATION, census of 1920, 5,628,610, exclusive of the Azores, 1920, 232,012, and Madeira, 1920, 179,002; total, 411,014. Colonial possessions—Africa, 7,736,700; Asia, 1,001,153; total colonial possessions, 8,737,853. Grand total, 14,777,477.

CAPITAL, Lisbon, population, 1925, 529,524. Other cities, Oporto, population, 1925, 215,625; Setubal, 37,074; Funchal (Madeira), 24,687.

President, Gen. Antonio Oscar de Fragoso Carmona, assumed office Nov. 29, 1926. Elected President Mch. 25, 1928.

Prime Minister, Gen. Ivens Ferraz (Interior) July 8, 1928.

Portugal occupies the western part of the Iberian Peninsula, being bounded on the north and east by Spain and on the south and west by the Atlantic Ocean. Its area is 34,254 square miles, a little larger than the State of Maine. The Azores and Madeira Islands, in the North Atlantic, are politically an integral part of the republic. The country is mountainous and well watered to the north. About one-third of the land is cultivated. Vineyards abound, and wines, olive oil and fruit are largely produced. Wine-making is the chief industry. Forests of pine, oak, cork and chestnut cover 19 per cent. of the country, and cork, of which 85,000,000 pounds were produced in 1925, is the second largest industry. Portugal has much mineral wealth, but is undeveloped because of a scarcity of coal and poor transportation. The sardine fisheries are important. Hides and wool are also exported.

Portugal had in 1926, 2,040 miles of railroads, of which 843 were state owned. The merchant marine in 1927 had a total tonnage of 258,698; in 1927, 2,058 steamers of 5,457,385 tonnage entered Lisbon.

Portugal, an independent state since the twelfth century, was a kingdom until Oct. 5, 1910, when a revolution drove King Manuel II. from the throne and proclaimed a republic. It is governed under a Constitution, adopted Aug. 20, 1911, which provides for a National Council of 164 members, elected by direct vote for three years, and an Upper Chamber of 71 members, elected by the Municipal Councils, half renewable every three years. The President is elected by both Chambers for a four-year term; he appoints the Ministers, who are responsible to the Chamber. Voters must be able to read and write. The army is raised by conscription and numbers 40,000, with reserves of 620,000. The navy personnel is 6,000.

The dominant religion is Roman Catholic; there is freedom of worship. Primary education is free and nominally compulsory; the republic has been showing increased interest in education, but the percentage of illiteracy is about 75. There are three universities.

After more than a year of political unrest the Government was overthrown on May 29, 1926, by a bloodless revolution led by military and naval officers. President Bernardino Machado, who had been elected on Dec. 11, 1925, to succeed President Teixeira Gomez, resigned, himself resigned. Disagreements among the triumvirate of officers who assumed power resulted in a second "bloodless revolution" on June 17, and a third on July 9, headed by Gen. Carmona. A violent attempt in February, 1927, failed to unseat him.

The country has suffered greatly in the last two years from the depreciation of the escudo.

The escudo is the unit of currency, gold par being $1.0805. Average of exchange in 1927 was $0.0503; and in 1928, $0.0447.

Recent budgets in escudos are:

Year.	Revenues.	Expenditures.
1923-24	666,576,163	802,415,872
1924-25	1,237,986,167	1,324,188,853
1925-26	1,306,193,612	1,369,758,769
1926-27	1,289,032,232	1,555,304,830
1927-28	1,459,377,587	1,848,045,029
1928-29	1,919,388,000	1,917,811,000
1929-30	2,033,433,000	2,024,855,000

The British war debt, some £21,000,000, was funded at £5,500,000 in Dec. 1926, to be paid before Dec. 31, 1927. The National debt July 1, 1927, amounted to £101,946,871 gross and about £63,762,871 net. Banknotes in circulation July 31, 1929, amounted to 1,921 million escudos with a gold reserve of 9 million.

Trade in 1925 was: Imports, 2,561,000,000 escudos; exports, 1,158,000,000 escudos; in 1926, imports, 2,685,384,805 escudos, exports, 1,072,573,562 escudos; and in 1927, imports, 2,662,107,700; exports, 722,569,900.

Trade of Portugal with the United States was:

Cal. Year.	Imports.	Exports.
1922	$6,733,066	$5,110,403
1923	8,597,614	3,788,701
1924	8,085,109	3,040,950
1925	8,733,119	3,651,372
1926	11,634,029	5,559,772
1927	10,672,262	4,564,825
1928	12,711,562	5,327,189

Trade of the Azores and Madeira Islands with the United States was:

Cal. Year.	Imports.	Exports.
1922	$675,975	$2,552,759
1923	495,242	2,335,167
1924	885,991	2,964,281
1925	1,144,423	1,742,892
1926	1,280,316	1,594,775
1927	1,945,517	1,814,209
1928	730,887	1,619,102

Portug uese Colonial Possessions

Asiatic.

Portuguese India includes Goa (capital, Panju) on the Malabar coast; Damao, near Bombay; and Diu, a small island 140 miles from Damao; area 1,638 square miles; population, 548,472. Salt is produced in Goa and Damao, and manganese near Mormugao, where there are twenty mines. Manganese is imported into the United States for steel-making as an essential. The 1928-29 estimated revenue of this group was 5,596,746 rupees. The 1927 imports were valued at 16,823,589 rupees; and exports, chiefly cocoanuts, copra, fish, spices and salt, 4,047,150 rupees.

Macao, China, is on an island of the same name at the mouth of the Canton River; it has 160,000 population (1927), 3,864 of which were Portuguese; the rest Chinese; a military force of 488 natives; and had (budget of 1926-27) a revenue of 3,029,210 escudos, and expenditures of 3,321,742. The trade is mostly transit and reached a total of 50,000,000 dollars Mex. in 1927.

Portuguese Timor is the eastern part of the Malay island of that name, off the north coast of Australia. Holland having the western part. The population in 1926 was 451,604. The 1926-27 budget balanced at 1,882,527 escudos. Imports, 1925, 604,123 escudos; exports, coffee, sandalwood, sandal root, copra and wax, 711,757 escudos.

African.

The Cape Verde Islands, in the North Atlantic longitude 25°, latitude 15°, fourteen in number Praia, capital, had a population of 149,793 in 1922 of which 4,799 were white. Chief products are coffee, medicinal products, hides and millet. The budget of 1926-27 was: Revenues, 17,504,815 escudos; expenditures, 17,111,699 escudos.

Portuguese Guinea, on the coast of Senegambia, chief port Bissau, has a population Census of 1924 770,791. In 1927 imports were 34,322,414 escudos; exports, chiefly rubber, wax, oils, ivory and hides, 34,309,015. The budget for 1928-29 was balanced at 34,970,000 escudos.

The Islands of S. Thome (pop. 58,907) and **Principe** (pop. 4,938), about 125 miles off the west coast of Africa in the Gulf of Guinea, form a province under a Governor. Chief products are cacao, coffee, rubber and cinchona; exports being valued at 91,776,486 escudos in 1927 and imports at 36,271,746. The budget for 1926-27 balanced at 10,213,658 escudos.

Angola, Portuguese West Africa, has a 1,000-mile coast line stretching south from the mouth of the Congo. It is governed by a High Commissioner, with large powers. The Portuguese have owned it since 1575. Its area is 484,800 square miles.

In 1928 the capital was moved from unhealthy Loanda where it had been for 350 years to Nova

Lisboa, nearly a mile above sea level and 225 miles inland on the railway.

The native population, census of 1926, was 2,481,956. There were fifty-two Government schools with 4,752 pupils. The budget for 1927-28 estimated revenues at 167,559,760 angolares, and expenditures at 166,217,050 angolares. The debt is about $21,500,000.

Exports in 1927 were valued at £1,814,000, and imports at £2,420,600.

Chief products are coffee, rubber, wax, sugar, oil seeds, cocoanuts, ivory, cattle, fish, tobacco for local use, cotton, petroleum and asphalt. There are large deposits of malachite, copper, iron and salt, and gold has been found. Diamond output was 180,334 carats in 1927. Railway mileage is 1,436.

Mozambique, Portuguese East Africa, extends from Cape Delgado (10° 40′ south latitude) to the Union of South Africa just below the capital, Lourenco Marques. To the west lies the Union of South Africa and Rhodesia (British). On the north is Tanganyika, formerly German East Africa, but surrendered to the British November, 1919; over 400 square miles of that territory, the Kionga Triangle, was transferred to Mozambique in 1919.

Mozambique has 428,132 square miles, and a population in 1925 of 3,652,000 natives and 25,000 whites. The budget estimate for receipts and expenditures for 1927-28 was 399,701,814 escudos ($19,985,090). Chief products are sugar, cocoanuts, beeswax and coal deposits exist. It has vast natural resources practically untouched. The principal ports are Lourenco Marques and Beira. In 1926 imports were valued at $12,098,420, and exports $9,012,995; in 1927, imports, $13,484,000; and exports, $7,270,000.

Railroads are being pushed, the most important line being the Delagoa Bay to Pretoria, 347 miles, of which 57 miles is in Portuguese territory; 460 miles are under State Administration; 425 miles are in Mozambique Company's territory.

In 1927, 774 vessels of 3,693,320 tonnage entered the port of Lourenco Marques, and 594 vessels the Port of Beira.

Trade of Portuguese Africa with the United States was:

Cal. Year.	Imports.	Exports.
1922	$2,986,716	$5,876,439
1923	3,859,641	11,036,798
1924	4,642,302	15,634,554
1925	5,620,378	13,528,204
1926	6,451,632	11,703,645
1927	6,045,847	1,473,310
1928	6,852,837	3,115,888

ROUMANIA, KINGDOM OF

AREA, 122,282 square miles; divided, Old Roumania, 53,489; additions confirmed by the 1919 peace treaties, Bessarabia, 17,146; Bukovina, 4,030; Transylvania, 22,312; Crisana, 8,038; Maramuresh, 6,258; Banat, 11,009.

POPULATION, 17,393,149; divided, Old Roumania, 7,904,104; Bessarabia (joined March, 1918), 800,098; Transylvania (joined December, 1918), 2,678,367; Crisana, 1,316,981; Maramuresh, 766,666; Banat, 1,582,133 (Census of 1917). Roumanians by race number 13,000,000.

CAPITAL, Bucharest; population, official estimate Dec. 31, 1927, 875,000. Other cities, Kishinev, (Chisinau), 175,000; Cernauti, 175,000; Galati, 130,000; Ploesti, 115,000; Timisoara, 110,000; Jassy (Iasi), 100,000; and Klansenberg (Clug), 100,000.

King, Michael, (Mihai), born Oct. 25, 1921, son of Crown Prince Carol, born Oct 15, 1893, who renounced his right of succession Dec. 31, 1925, and of Princess Helen of Greece, married March 10, 1921 and divorced June 21, 1928. He succeeded his grandfather, King Ferdinand I, born in Prussia Aug. 24, 1865, came to the throne Oct. 11, 1914, died July 20, 1927. The Dowager Queen is Marie, Princess of Saxe-Coburg and Gotha, granddaughter of Queen Victoria, born Oct 29, 1875, and Married Jan. 10, 1893.

Regency, Prince Nicholas, second son of King Ferdinand, born Aug. 18, 1903, the Patriarch Miron Christea, and M. Saratzeanu.

Premier, Dr. Julio Maniu, Peasants' Party, Nov. 10, 1928.

Roumania, whose history began as a Roman colony, was formed within Turkey-in-Europe by the union of the Danubian principalities Wallachia and Moldavia, in 1861; proclaimed its independence May 21, 1877, during the Russo-Turkish War, and was so confirmed by the Treaty of Berlin in 1878, losing Bessarabia, however, to Russia. The World War resulted in the return of Bessarabia, the addition to Transylvania from Hungary and of Bukovina with part of the Banat, Crisana and Maramuresh from the Austro-Hungarian Empire, based on ethnological grounds.

The treaty of the powers ratifying the union of Bessarabia to Roumania concluded by Great Britain, France, Italy and Japan, Oct. 28, 1920, which had been ratified by Great Britain and France, was ratified by Italy March 9, 1927, and thereby became effective. Soviet Russia promptly announced that not having been a party to the treaty, she declined to admit its validity of power.

Roumania is bounded on the north by Hungary, Czechoslovakia and Poland, on the east by the Ukraine (Russia) and the Black Sea, on the south by Bulgaria and Serbia, and on the west by Yugo-Slavia and Hungary. It is about the size of New England, New York and New Jersey. For 300 miles the Danube forms its southern boundary; the last 250 miles of its course (from Oltenitza to the Black Sea), it flows through Roumania. The Dneister forms its northeast boundary for 300 miles. The Carpathian Mountains extend from north to south to the middle of the country, whence the Transylvanian Alps extend 200 miles due west. These mountains formed the old western boundary.

The forests are extensive (18,750,000 acres), and the timber industry important. The soil is very fertile, making the country a granary of Europe. Four-fifths of the population engages in agriculture and stock-raising.

Cereal production in 1928 was: Wheat, 3,551,590 metric tons from 8,015,920 acres, (2,634,465 tons from 7,752,882 acres in 1927); maize, 2,536,937 tons from 11,113,730 acres; barley, 1,646,575 tons from 3,397,525 acres; rye, 300,579 tons from 739,260 acres; and oats, 932,768 tons from 2,790,402 acres. There were 394,355 acres planted to sunflowers.

The livestock census in 1928 showed: Horses, 1,944,700; oxen, 4,435,697; buffalo, 189,641; sheep, 12,800,576; goats, 386,045; and pigs, 2,831,524.

Of the forest land 7,390,000 acres are State property of which 2,194,000 are in the Government administration and 5,196,000 are managed by private companies under State supervision. Public institutions own 3,301,000 acres while 7,531,000 are private property. The Ministry of Agriculture places the value of the Roumanian forests at $347,421,000, the value of arable land at $412,654,000, and the value of livestock at $496,000,000. Fisheries produce annually about $121,954,000; mineral products yearly output is about $73,898,000; of which crude oil is about $45,835,000.

Under the land reforms carried through since the armistice 13,099 properties, totaling 14,461,995 acres, had undergone expropriation by Feb. 15, 1923. By Nov. 15, 1924, nearly half had been allotted. In Old Roumania, the peasants who had received land numbered 413,932; yet to receive land, 599,529; in Transylvania, 335,073 and 503,694; in Bukovina, 19,166 and 36,890; while in Bessarabia 357,016, all entitled to it, had received land.

Lignite output in 1927 was 2,850,011 metric tons; in 1926, 2,731,362; pig iron production was 63,203 metric tons; in 1926, 62,976; salt, a state monopoly, output 1926, 344,062 metric tons.

The output of petroleum in 1928 was 31,690,391 barrels; in 1927, 27,263,300; in 1926, 23,314,000; and in 1925, 16,646,000. Exports of oil products in 1928 were 17,394,462 barrels.

In 1928, 1,113 vessels of 2,482,767 net tonnage entered Constanza (the chief Black Sea port, population, 30,000); and tonnage clearing Danube ports totaled 825,524 (1,662,932 in 1926). The European Commission of the Danube, established in 1856 with sovereign powers over the navigation of that river, had its seat at Galatz.

The Government in June, 1929, let a contract to a Swedish engineering firm to construct a navigable canal 52 miles long from Bucharest to the Danube with harbor works there, which, with electric works, will cost about $12,000,000.

A new Constitution on March 27, 1923, replaced the Constitutions of the several countries which before had Constitutions—Old Roumania, Bessarabia, Transylvania and Bukovina. It provides for a Senate, partly composed of ex-officio members and partly of others indirectly elected, and for a Chamber of Deputies elected by "universal, equal, direct, compulsory and secret suffrage, on the basis of the representation of minorities." Mineral and other subsoil products are nationalized. Special franchises and monopolies are forbidden. The administration is centralized. It carries a sweping bill of rights.

A new mining law was promulgated July 4, 1924, whereby foreign companies are given ten years to transfer up to 55 per cent. of their stock to Roumanian nationals. This especially concerns the oil fields and has been protested. Very considerable increases in the tariffs for protection have been

made. The capital invested is estimated at $170,000,000, of which 75 per cent. is foreign.

Military service is compulsory. In 1927 the effective strength of the army was 12,293 officers and 128,483 men.

The navy consists of a small cruiser, six destroyers, two scout boats, and four gun boats, with a special Danube River naval force of twelve gunboats, nine sloops, four river monitors, eight destroyers and seven torpedo boats.

Of the population in 1918 there were 9,695,000 of the Orthodox Greek Church, 1,456,000 of the Greek Catholic Church, 1,483,000 of the Roman Catholic Church, 1,334,000 Protestants, 17,000 Armenians, 834,000 Jews and 44,000 Mohammedans Liberty of worship is assured. Orthodox clergy are paid by the state, other clergy being subventioned. The Jews in 1928, received for the first time a State subsidy of $60,000.

Instruction is free and compulsory "wherever there are schools." In 1925-26 there were 13'439 primary schools with 30,645 teachers and 1'460,408 pupils, and 816 secondary schools with 10,995 teachers and 195,995 students. There were 20 universities with 704 professors and 21,442 students.

The Parliamentary elections on May 25, 1926, were held under a law passed in March on the Italian Fascist model. The Government had an absolute majority of 200,000, the total popular vote for its candidates being 1,243,909; the National Peasant Party having 707,263; the Bratiano Liberals, 179,763; the Anti-Semites, 100,889; the Socialists, 35,570; and the Communists, 26,180. The distribution of deputies under the new law was: Government, 280; National Peasants, 82; Liberals, 15; Anti-Semites, 8.

In the election of a new Chamber, July 7, 1927, Jon Bratiano, who had been called to the Premiership again on June 22, gained control of 80% of the seats.

Jon died and his brother, Vintila, was made Premier, Nov. 24, 1927. During 1928 the National Peasants' party made powerful demonstrations, finally demanding of the Regents that Premier Bratiano be removed. The Regency yielded and made the Peasants' leader, Dr. Julio Maniu, Premier, Nov. 10, 1928.

The election of Dec. 12, 1928, returned this Chamber of Deputies: National Peasants, 333; Liberals (Bratiano party) 13; Hungarian minorities, 10; Social Democrats, 8; German party, 9; others, 10. The Peasant party polled 78% of the popular vote. The Senate election Dec. 16, returned: National Peasants, 157; Liberals, 26; Hungarian minorities, 6; Independents, 1; in addition to 22 ex-officio Senators.

The Government announced a policy of democratizing the country and decentralizing administration and the encouragement of foreign investments by putting them on a common basis with domestic investments.

The leu is the unit of currency. The pre-war gold par was 19.3 cents; the exchange in 1926 was 0.46 cents; 0.60 cents in 1927; and 0.61 cents in 1928. On Oct. 15, 1929, it was 0.594 cents. The rate of stabilization voted by Parliament Feb. 7, 1929 was, Leu ten milligrams of gold, nine-tenths fine; the dollar = 167.18 lei; the pound sterling = 813.58 lei; the French franc = 6.55 lei, and the Swiss franc = 32.25 lei.

Recent budgets in thousands of lei, are:

Year.	Revenue.	Expenditure.
1926 (actual)	29,933,161	29,250,000
1927 (actual)	36,700,000	34,640,000
1928 (estimated)	38,350,000	38,350,000
1929 (estimated)	37,700,000	37,700,000

The bank note circulation on Aug. 31, 1929, was 20,340 million lei, with a gold reserve at home of 5,158 million lei, gold held abroad, 3,952 million lei, and other foreign assets of 5,793 million lei.

The public debt as of Jan. 1, 1928, totaled $716,299,884, composed of an equivalent of $552,271,500 payable in various foreign currencies, and $164,028,384 (26,559 million lei of internal and foreign debts payable in paper lei). The service of the debt was $33,624,000.

A loan of $101,000,000 7% 30-yr. bonds was floated at 88 in New York and eleven European countries on Feb. 14, 1929. It was called the Monopolies Institute Loan and of it the Swedish Match Co. bought $30,000,000 at par.

Imports and exports in thousands of lei were:

Year.	Imports.	Exports.
1923	19,455,044	24,610,469
1924	26,192,449	27,823,602
1925	30,098,000	29,025,000
1926	34,700,000	38,011,000
1927	33,428,547	37,703,178
1928	32,145,101	26,919,257

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$2,436,415	$499,941
1923	1,177,758	336,440
1924	1,192,165	99,427
1925	2,199,064	302,259
1926	3,111,261	1,097,933
1927	4,924,642	649,412
1928	9,430,970	677,174

RUSSIA

(Union of Soviet Socialist Republics.)

AREA, Land area, 8,144,228 square miles (21,352,572 square kilometers).

POPULATION, census of 1926-27, 147,013,600 (males, 71,024,300; females, 75,989,300). Density, 18.1 to the square mile.

CAPITAL, Moscow, population, census of Dec., 1926, 2,025,947. Other cities, Leningrad, 1,614,008; Kiev, 513,789; Baku, 452,808; Odessa, 420,888; Kharkov, 417,186; Tashkent, 323,613; Rostov-en-Don, 308,284; Tiflis, 292,973.

Council of People's Commissars, selected by the Central Executive Committee, April, 1927.

Chairman of the Council, Alexis I. Rykov.

Vice Chairmen of the Council, J. E. Rudzutak, V. V. Kuybyshev, and V. V. Schmidt.

Commissar for Army and Navy, K. E. Voroshilov.

Commissar for Trade, A. I. Mikoyan.

Commissar for Foreign Affairs, George Tchitcherin.

Commissar for Transportation, J. E. Rudzutak.

Commissar for Posts and Telegraphs, N. K. Antipov.

Commissar for Finance, N. P. Briukhanov.

Commissar for Labor, N. A. Uglanov.

Commissar for Peasants' and Workers' Inspection, G. K. Ordjonikdze.

Chairman of the Supreme Economic Council, V. V. Kuybyshev.

Director of Central Statistical Board, V. P. Milutin.

Chairmen of the Central Executive Committee, U. S. S. R., M. I. Kalinin, G. I. Petrovsky, A. G. Chervlakoy, Gazanfar Mussabekov, Netyrbay Altakov, and Faizulla Khodzhayev.

Russia stretches across two continents, from the North Pacific to the Baltic. It occupies the northern part of Asia and the eastern half of Europe, from the Arctic to the Black Sea.

On March 12, 1917, the day of the revolution that destroyed Czardom, Imperial Russia comprised 8,764,586 square miles of territory, with 182,182,600 (official "revision" estimate of 1915) of population; this included 131,796,800 in European Russia; 13,229,100 in the Caucasus, 10,377,900 in Siberia; and 11,254,100 in the Central Asiatic provinces.

The changes wrought by the World War, the revolutionary movements in minor regions, treaty decrees of the Allied and Associated Governments and negotiations of the Russian Socialist Federal Soviet Republic as to political and economic relations brought dismemberment to the old empire and great modifications of territory and relationship toward the new federation (U. S. S. R.) of many of the old districts and provinces. Five independent states have risen in the west. In 1920 the Russian Soviet Government concluded treaties of peace with each: Esthonia, Feb. 2; Lithuania, July 12; Latvia, Aug. 11; Poland, Oct. 12; and Finland, Oct. 14; which recognized the territorial limitations of each or provided for further settlement. That same year agreement was reached by the Allied Powers whereby Roumania received Bessarabia, taken from her in 1878, subject to later discussion by Russia. The former Turkish province of Kars, also taken in 1878, was renounced by the Soviet in the treaty of Brest-Litovsk, March 3, 1918. The area and population lost were:

	Square Miles.	Population.
Poland (independent)	43,804	12,247,600
Finland (independent)	125,689	3,241,000
Esthonia (independent)	16,000	1,750,000
Latvia (independent)	27,000	2,500,000
Lithuania (independent)	22,890	2,246,000
Bessarabia (to Roumania)	17,330	2,213,000
Kars area (semi-autonomous)	7,780	492,000
Total	260,493	24,689,600

The present territory of the U. S. S. R. is 93% of the Czarist Empire; the present population 82%.

RUSSIAN STATES IN 1929.

Many political reassignments have been made under Bolshevik control. The composition, area in square kilometers, population and capitals of the Union of Soviet Socialist Republics, as established

by the Treaty of Union July 6, 1923, with the addition of the Uzbek S. S. R. and the Turkoman S. S. R. in 1924, and Tajikistan in October, 1929, according to the census of December, 1926, are as follows:

Constituent Republics	Area, Sq. K.	Pop. 1926
Russian S. F. S. R.	19,757,953	100,858,000
White Russian S. S. R.	126,792	4,983,900
Ukrainian S. S. R.	451,731	29,020,300
Transcaucasian S. F. S. R.	184,492	5,850,700
Turkoman S. S. R.	491,216	1,030,500
Uzbek S. S. R.	240,388	4,447,600
Tajikistan S. S. R.	100,000	822,600
U. S. S. R., Total	21,352,572	147,013,600

In the above list the Transcaucasian S. F. S. R. represents a union of three Soviet Socialist Republics as follows:

Name.	Population.	Capital City.
Azerbaijan	2,312,000	Baku
Armenia	870,700	Erivan
Georgia	2,668,000	Tiflis

The eleven Autonomous Soviet Socialist Republics in the R. S. F. S. R. with their capitals and total populations, are as follows:

A. S. S. Republic	Population	Capital City
Bashkir	2,695,000	Ufa
Buryat-Mongol	491,300	Verkhneudinsk
Chuvash	894,500	Cheboksary
Crimean	714,100	Simferopol
Daghestan	788,100	Makhach-Kala
German-Volga	571,900	Pokrovsk
Karelian	269,700	Petrozavodsk
Kazak	6,491,700	Kzyl Orda
Kirghiz	993,100	Frunze
Tatar	2,594,000	Kazan
Yakut	278,800	Yakutsk

The twelve Autonomous Areas in the R. S. F. S. R., with the administrative center and total population of each, follow. The Adigeh-Circassian Area, the Chechen Area, the Circassian Area, the Ingush Area and the North Ossetian Area have no urban settlements, and their administrative centers are towns outside their own borders. The areas are:

Adigheh	114,200	Krasnodar
Votyak	956,300	Izhevsk
Chechen	309,900	Grozny
Ingush	75,200	Vladikavkaz
Kabardian-Balkar	204,000	Nalchik
Kalmuk	141,600	Elista
Karachai	37,000	Batalpashinsk
Kara-Kalpak	304,600	Chimbai
Komi	207,800	Ust-Sysolsk
Mari	482,100	Yoshkar-Ola
North-Ossetian	152,400	Vladikavkaz
Oirat	99,900	Ulala

The Autonomous S. S. R., in the Ukrainian S. S. R. is:

Moldavian	572,000	Balta

The three Autonomous Republics in the Transcaucasian Federation follow:

Nakhichevan (Azerbaijan)	105,100	Nakhichevan
Abkhasian (Georgia)	200,500	Sukhum
Adjar (Georgia)	131,300	Batum

The two Autonomous areas in the Transcaucasian Federation are:

Mountain Karabakh (Azerbaijan)	125,200	Stepanakert
South Ossetian (Georgia)	87,300	Tskhinvaly

The census of December, 1926, showed that the U. S. S. R. was composed of 182 different nationalities with 149 languages. Russians form 52.9 per cent of the population and Ukrainians 21.2 per cent. Growth of population is about 3,500,000 annually.

The population of three important regions (parts of other political organizations) for 1926 are as follows: Ural, 6,786,800; North Caucasian, 8,363,100; Siberia, 8,691,000.

THE CONSTITUENT REPUBLICS.

The Russian Socialist Federated Soviet Republic, Capital Moscow, (Soviet Russia proper) contains nearly 70% of the population of the Soviet Union and includes 92% of its territory. The population, census of December, 1926, was 100,858,000 and the area 19,757,953 square kilometers. Its territories stretch from the Latvian and Finnish borders and the White Russian and Ukrainian lines on the west, to the shores of the Pacific Ocean, and from the Arctic Ocean on the north to the shores of the Black and Caspian seas and the borders of Persia, Afghanistan, Mongolia and Manchuria on the South. It includes forty former provinces of European Russia, three provinces of the Northern Caucasus, the greater part of Siberia and the Far East. Its eleven autonomous republics and thirteen autonomous areas are representative of its principal minor national groups.

The White Russian Soviet Socialist Republic, capital Minsk, was proclaimed January 1, 1919. It has a population of 4,983,900 census of December, 1926, and an area of 126,792 square kilometers. It occupies six former counties of the Minsk province and parts of the old Smolensk, Vitebsk and Gomel provinces.

Under the Czars White Russia was the pale of settlement of the Jewish population. It suffered greatly from periodical pogroms and from interracial struggles. Between 1914 and 1920 it was a field for military operations. The racial composition is White Russians 72.2%, Great Russian 14.1%, Jews 10.6%, Poles 2%, other nationalities 1.1%.

The country is agricultural, the soil largely marshy and lacking in fertility. The lack of land was so great that it could not be solved by the expropriating the large holdings. Some 250,000 acres have been added to the farm lands by drainage, and it is planned to increase this to 5,400,000 acres during the next three years.

The principal industries are wood-working, linen, matches, leather, confections, oil pressing, glass, paper, foodstuffs.

The Ukrainian Soviet Socialist Republic, capital Kharkov, is the most densely populated of the Constituent Republics having 19.7% of the U. S. S. R. population in 2% of the area, its population, census of December, 1926, being 29,020,300, with an area of 451,731 square kilometers. The Ukrainian S. S. R. was proclaimed in December 1917 and formed in December, 1919. It borders on the Black Sea, with Poland and Rumania on the west and southwest.

Of the population 80% are Ukrainians, 9.5% Russians, 5.4% Jews, 1.6% Poles, and 3.5% Greeks, Bulgarians, Rumanians, Gypsies, etc. There are also about 800,000 Ukrainians living in other portions of the Soviet Union. The city population includes 47.5% Ukrainians, 25% Russians, and 22.7% Jews. Three-fourths of the schools teach in the Ukrainian language. Workers form 85.2% of the population, farmers 6%, and office employes 4.2%.

The Ukraine contains the famous black soil belt, the chief wheat-producing section of the Soviet Union. Sugar beets and oil seeds are important crops and livestock breeding is rapidly advancing.

In the Donetz Basin the Ukraine has a huge storage of coal, iron and other metals. Here are produced 75% of the coal mined in the country, 70% of the iron and a large proportion of the manganese. There are heavily developed chemical and dye industries, salt mines, etc. Electric power development is making rapid advances and in the rural districts over 200,000 farms are supplied with current. On the Dnieper River the largest hydro-electric development in Europe is under construction, with an ultimate capacity of 455,000 kilowatts.

The Transcaucasian Socialist Federal Soviet Republic, capital Tiflis, represents the union of Azerbaijan, formed April, 1920, Armenia formed December, 1920, and Georgia, formed February, 1921, joined in December, 1922, in a single Constituent Republic. The population, census of December, 1926, was 5,850,700, and the area 184,492 square kilometers. Azerbaijan has a population of 2,313,200, capital Baku. Armenia has a population of 875,000, capital Erivan. Georgia has a population of 2,660,900, capital Tiflis. Azerbaijan contains one autonomous republic and Georgia two.

In addition to Armenians, Azerbaijan Turks, Georgians, Russian, Germans, Greeks and Persians, the conglomerate population includes many small nationalities such as Abkhages, Adjarians, Aisors, Jews, Kurds, Ossetes, Talishes, Tats, etc. Each of the nationalities maintains its own language, customs and habits. Some like the Georgians and Armenians, have a civilization over a thousand years old, while others until recently have had no written language.

Azerbaijan has at Baku the most important oil field in Russia, Georgia in Chiaturi possesses the greatest known deposits of manganese. Other industries include copper mining, cotton ginning, silk spinning, leather factories, tanning plants, saw mills, dairies. Many new electrification projects are recently completed or in construction. Newly discovered natural riches include deposits of lead, zinc, silver, asbestos and pumice stone. Cotton is the principal crop.

The Uzbek Soviet Socialist Republic and the Turkoman Soviet Socialist Republic in Central Asia were organized in 1924. The Uzbek S. S. R., capital Askabad, had a population of 5,270,200, census of December, 1926, and an area of 340,388 square kilometers. The Turkoman S. S. R., capital Samarkand, had a population of 1,030,500 and an area of 491,216 square kilometers. The area includes a new regrouping of Khiva and Bokhara. The Tsarist Government conquered this territory at the beginning of the nineteenth century and suppressed all national independence and culture.

Cotton is the chief crop. Vineyards, fruit orchards

and silk growing are also important. Irrigation is a necessity to agriculture and many large projects are under way. The five-year plan calls for an extension of the irrigated area to 3,400,000 dessiatins (9,180,000 acres). There is a marked development in cotton textile plants, ginning, coal mining, the oil industry, the salt industry.

Tajikistan was raised from an Autonomous Republic in Uzbekstan to a Federal State in October, 1929. Its area is about 100,000 square miles and its population, census of 1926, is 822,600. It is in the extreme south of Central Asia and borders on Afghanistan and China. The Tajiks speak Farsit. The mineral resources of the country are believed to be great. The Soviet authorities have done their utmost to develop Tajikistan, having spent about 90 million rubles up to 1928 and the country's budget has risen to 40 million rubles. The area under cotton in 1929 was about 250,000 acres.

The flag of the U. S. S. R. is red, bearing in the upper left canton a golden sickle and a golden hammer crossed, surmounted by a red star edged with gold. The canton is separated by a gold band from the field.

THE NEW FEDERAL CONSTITUTION.

The All-Russian Central Executive Committee (of 286 members) on July 4, 1923, in Moscow, unanimously approved of a new Federal Constitution for the Union of Socialist Soviet Republics. The committee on July 6, acting as a temporary Federal Parliament, elected Federal Commissars according to its provisions.

The Soviet republics that "united in a Federal state" in the agreement were the Russian Socialist Federated Soviet Republic, which now includes Siberia and the Far Eastern Republic, The Ukraine, White Russia, and the Transcaucasian Federated Socialist Soviet Republic (Azerbaijan, Georgia and Armenia). The constitution was drawn up on the assumption that other states and dependencies will adhere to it and provides that "each federated republic has the right of freely withdrawing from the union." There is no Bill of Rights.

Universal suffrage of all citizens above eighteen years is provided in the Constitutions of the six Constituent Republics, save that employers of labor for profit (except farmers employing labor), persons who do no socially useful work, and members of the clergy may not vote. There is no provision for a direct vote. District Soviet Congresses choose delegates to the Soviet Congress of the Union on a new basis of one delegate for every 25,000 voters in the city Soviets, and for every 125,000 inhabitants in the provincial Soviets.

The supreme organ of authority is the All-Union Congress of Soviets, of upwards of 2,000 members, which meets at least once in two years. It is composed of representatives of town and township Soviets, and of provincial councils of Soviets.

During intervals between the All-Union Congresses supreme authority devolves upon the Central Executive Committee, consisting of the Council of the Union and the Council of Nationalities. The Council of the Union (450 members, originally 371) is elected by the All-Union Congress from representatives of the six constituent republics, in proportion to their population. The Council of Nationalities (139 members) is formed of representatives of the Constituent and Autonomous Republics, 5 delegates from each, and of representatives of autonomous areas, one delegate from each. Members of the Council are elected at the Republican and regional congresses of Soviets.

The Central Executive Committee selects a Presidium of 27 members, to which the powers of the Committee are delegated while the Committee is not in session. The Presidium consists of nine members representing the Presidium of the Council of the Union, nine representing the Presidium of the Council of Nationalists and nine elected by the two Councils in joint session.

The Central Executive Committee selects the members of the Council of People's Commissars which serves as the executive body of the Soviet State, responsible to the Executive Committee and its Presidium. The Council has a chairman and three vice-chairmen, and eight members with portfolios (commissars) as follows: Foreign Affairs, Army and Navy, Transport, Posts and Telegraphs, Trade, Workers' and Peasants' Inspection, Labor and Finance. In addition the Chairman of the Supreme Economic Council and the Director of the Central Statistical Board have seats in the Council. The six Constituent Republics similarly have their Councils of Commissars, reduplicating the Government portfolios of Workers' and Peasants' Inspection, Labor, Finance and Supreme Economic Council, and in addition having Commissariats for Agriculture, Internal Affairs, Justice, Education, Health and Social Welfare.

The Central Executive Committee, which must meet three times a year, issues legal codes, decrees, ordinances and orders, combines the legislative and administrative work of the Union and defines the activities of the Presidium, and of the Council of People's Commissars. It has the right to annul and suspend the decrees, etc., of the Presidium and of the Soviet Congress of the several states, and of other authorities.

All decrees, dispositions, etc., must be published in the six principal languages current in the Federated Republics (Russian, Ukrainian, White Russian, Georgian, Armenian and Turkish-Tartar).

Each participating state has also its own Commissars of Agriculture, the Interior, Justice, Public Education, Sanitation and Social Welfare.

The Supreme Court of the Union, attached to the Central Executive Committee, gives the Supreme Courts in the Constituent Republics guiding interpretations on Federal legislation, and the legislation of the Constituent Republics; decides legal conflicts between Constituent Republics, and examines cases of accusation against high officials of the Union.

Land and natural resources are held in trust by the Government for the general population, and may not be acquired by private title. Every citizen is entitled to secure land for cultivation, the form of tenure being that of perpetual leasehold. Natural resources are exploited by the state trusts, by mixed companies, under concession, in which the state has a participating interest, or by private companies under concession. Such private concessions run for a limited period of years (generally fifteen). The transport system as well as posts, telephones and telegraphs, are operated as Government departments. Industry is conducted largely by state trusts. Private factories employing not over twenty persons may be operated without formality. For enterprises employing from twenty-one to one hundred persons permission of local authorities is necessary, and for larger enterprises a special leasing or concession agreement from the Government is required. Many industrial enterprises are conducted by the cooperatives. Universal military service is incumbent. Non-producers (i.e., persons not engaged in socially useful work) may not vote and are exempt from army service.

The united governmental Political Department of the union is established to "unite the revolutionary efforts of the Federated Republics in the struggle against the political and economic counter-revolutionaries and against espionage and banditry" and to direct the activities of the local organs which will function under a special law.

This new Constitution was ratified with some minor changes by the Second Soviet Congress, January 30, 1924.

The fifth All-Union Congress of Soviets met in May, 1929. There were 1,678 voting delegates and 887 consulting delegates. The delegates included 374 women, of whom 258 were voting delegates. Of voting delegates 1,199 were members of the Communist Party and 164 of the Communists Youth League. More than half of the delegates, or 52%, were industrial workers, 23% were peasants, 25% intellectual workers, including members of the professions. Over two-thirds of the delegates were under forty years, only 5% over fifty. Fifty-eight different nationalities within the Soviet Union were represented in the Congress. The Congress meets biennially.

THE POLITICAL BUREAU.

No mention of the all-powerful Central Committee of the Communist Party appears in the Constitution. This committee, elected, or revised, yearly, numbers fifty-two members, thirty-four substitutes, chooses from its members the Political Bureau, who are the real rulers of Russia.

Members of the Political Bureau of the Communist Party elected December, 1927, were as follows: Bukharin, Voroshilov, Kalinin, Molotlov, Rykov, Stalin, Tomsky, Kuybyshev and Rudzutak. Substitutes—Petrovsky, Uglanov, Andreyev, Kirov, Mikoyan, Kaganovich, Kosior, Chubar. Elections were for two years. The Secretary-General is Joseph Djugashvili Stalin.

The Third (Red Communist) International was founded by Lenin in the Kremlin, March 5, 1919. Bukharin was chairman of the Presidium until removed in August, 1929. No successor was then appointed. It is an international labor organization and supplied the machinery through which Russian Communists kept in touch with Communists of other countries and sent out revolutionary propaganda.

The membership of the Communist Party in the Soviet Union on Oct. 1, 1928, was given as 1,360,489 full members and 397,980 candidates on probation. Oct. 1, 1927 it was 785,298 members and 425,746 candidates.

Normal diplomatic relations have been estab-

lished between the Soviet Union and the following countries: Afghanistan, Arabia, Austria, China, Danzig, Denmark, Esthonia, Finland, France, Germany, Great Britain, Greece, Italy, Japan, Latvia, Lithuania, Mexico, Mongolia, Norway, Persia, Poland, Sweden, Turkey, Uruguay. Great Britain, however, broke off diplomatic relations in May, 1927, following a raid, May 12, on Soviet House, the headquarters of Arcos, Ltd., the trading corporation in London. Negotiations for a resumption of relations were begun in the summer of 1929, and on Sept. 27 the British Foreign Office announced that diplomatic relations would be restored, followed by a settlement of the points in dispute between the two Governments. Czechoslovakia has a trade treaty but no diplomatic relations.

The Administration made known on Sept. 13, 1926, that the attitude of the United States toward the recognition of Russia had not been modified. The status of the Russian debt to the United States as shown by the Treasury ledgers on Aug. 1, 1926, was: Net, $187,729,750; sales of war material, $406,082; obligations on account of relief supplies, furnished under the act of Feb. 25, 1919, $4,465,465. Total net principal, $192,601,297. As of Nov. 15, 1925, unpaid interest due aggregated $68,390,105, bringing the total debt as of that date to $260,991,402. There was also $75,000,000 of bankers' loans overdue and unpaid, and the value of American property confiscated in Russia was estimated as over $400,000,000. Russia is not a member of the League of Nations.

The Soviet Government on August 19, 1928, authorized its representative to sign the Kellogg Pact in Paris and on the same day the Pact was ratified by the Presidium of the Central Executive Committees.

On the initiative of the Soviet Government a protocol was signed in Moscow, Feb. 9, 1929, with representatives of the Governments of Esthonia, Latvia, Poland and Roumania making the Kellogg Pact immediately effective as among the five signatory Governments. All five Governments ratified the protocol, which was also adhered to by Turkey (Feb. 27), Persia (April 3) and Lithunia (April 5).

The Communist Party faced bitter opposition in its ranks at the Fourteenth Party Congress, December, 1925, when Trotzky, Gregory Zinoviev, Leon Kamenev and others bitterly criticized Stalin, Bukharin, Kalinin and their supporters, charging that the latter were leading the party away from communism into capitalism and intensifying the New Economic Policy. The Congress upheld Stalin and the Government bloc headed by Kalinen and Rykov by an overwhelming majority. Trotzky, Kamenev, Sokolnikov and others, after a period of quiet, persisted in their agitation despite the party's decision against them and were eventually removed from their Government positions and finally expelled from the party, as was also Zinoviev. In January, 1928, the leaders of the opposition, some 30 in all, were ordered to leave Moscow to reside in various designated more or less remote points until further notice. Since that time most of Trotzky's associates have composed their differences with the party majority and been restored to responsible positions. The intransigeant Trotzky was exiled from the country in the spring of 1929 and has since been living in Turkey. In the spring of 1929 another smaller schism in the party arose among leaders who opposed the majority plan for the rapid industrialization of the country. Bukharin and Tomsky were mentioned as leaders of this new opposition. After the party decision on the program, Bukharin was relieved of his posts as Chairman of the Presidium of the Third International and as editor of the party organ Pravda, and Tomsky of his position as Chairman of the Central Council of Trade Unions.

Education in the Soviet Union follows the general American plan of being a charge against the Constituent Republics and against local budgets. About two-thirds of the appropriations are local.

Expenditures under both budgets for popular education were $317,200,000 in 1926-27, $425,330,000 in 1927-28, and about $500,000,000 in 1928-29.

Statistics for elementary and secondary schools are as follows:

Year.	Elementary. Schools.	Pupils.	Secondary. Schools.	Pupils.
1913-14	104,600	7,235,988	1,790	563,480
1925-26	101,193	9,437,110	1,640	706,804
1926-27	108,424	9,903,439	1,708	784,871
1927-28	116,373	10,502,964	1,819	805,369

There were 137 universities with 143,100 students in 1927-28, as compared with 124 universities with 160,000 students in 1926-27. In 1927-28 there were 105 workers' faculties with 54,700 students, as compared with 109 workers' faculties with 45,702 students in 1926-27.

An average of about 50,000 schools for adult illiterates have been operated during the past three years. In these about 1,500,000 persons annually have been taught to read and write.

Under the census of 1926-27 the percentage of literacy among males over 7 years was 65.4 and females 36.7. Under the census of 1897, the last general census before the war, the figures were respectively 37.9 and 12.5%.

Military service is compulsory. The Red Army, according to Commissar Voroshilov numbers 562,000 men, including territorial cadres and frontier guards. About 84 per cent. are peasants and 11 per cent. workmen. The budget of 1929-30 carries $438,100,000 for national defense.

Each division contains three infantry regiments and numbers 8,700 if on the frontier, or 6,721 if in the interior, with 48 guns in the first instance and 16 in the latter. The allotment is: Russian, 39 divisions; Turkestan, 4; Georgian, 1; Azerbaijan, 1; Armenian, 1; Far Eastern Republic, 2. There are between 40 and 60 batteries of heavy artillery, and 14 cavalry divisions. Much attention is given to aviation and the corps has (1926) 2,000 good machines. The navy is being built up but is at present inconsiderable, and accurate figures of its strength are not available.

(For the growth of Bolshevik control see The World Almanac for 1925, pages 660-61.)

CHANGES IN POLICIES.

During the past few years there have been certain modifications of internal policy. In 1925 existing restrictions on private trade were ameliorated, the taxes on private enterprises lowered and credit made easier. For a time there was a revival of private trading, but this is now steadily decreasing under the increased competition of the cooperatives. In the retail trade turnover in 1927-28 the cooperatives handled 62.4%, private traders 24.2% and State organizations 13.4%. In wholesale trade most of the business is done by wholesale distributors of the Government trusts and syndicates, with private trade playing a negligible part.

An important decree of April 1925 permitted farmers to employ hired labor the year round under the established regulations on wages, social insurance, etc. During the rush seasons the working day may be increased beyond the legal eight-hour limit for such labor.

In September, 1928, the Soviet Government announced a program of extension and liberalization of the policy of granting concessions to foreigners. The new policy included the importation of construction materials duty free and simplification of the taxing scheme. Fields thrown open for concessionaries included mining, production of machinery, paper pulp, artificial silk, automobiles, tanned leather, fuel, electric plants, timber, cotton and sugar growing, dairying, building construction. Earlier in the month it had been announced that the W. A. Harriman Company was giving up its concession to exploit the manganese fields of Chiaturi, begun in 1925. The steady fall in the world price of manganese had made the venture unprofitable. The concession was taken over by a Soviet trust. The Harriman investment of $3,450,000 in the enterprise was to be repaid in the course of 15 years, with interest at 7%. There were 68 foreign concessions in operation on Feb. 1, 1929 eight held by Americans.

FIVE-YEAR PLAN.

An ambitious five-year plan for economic development in the Soviet Union was finally adopted by the Soviet Congress in May, 1929, after several revisions upward. The plan had been in tentative operation since Oct. 1, 1928, the beginning of the fiscal year 1928-29. The plan as adopted provides for an increase of 133 per cent. in the industrial output during the period and an increase of 55 per cent. in agriculture. The plan provides for total new investments of some $33,300,000,000 during the period, including $8,500,000,000 for industry and $12,000,000,000 for agriculture, with large sums for transport, electrification and housing. Imports for the period are set at $3,200,000,000, mostly machinery and raw materials, and exports about $400,000,000 higher.

Under the plan production of key products in industry, in 1927-28 and 1932-33 respectively, is projected as follows (in metric tons): Coal 35,400,000 and 75,000,000; oil 11,600,000 and 21,700,000; iron ore 5,900,000 and 19,000,000; pig iron 3,300,000 and 10,000,000. Production of electrical energy is scheduled to expand from 5,050 million kwh. in 1927-28 to 22,000 in 1932-33; railway mileage from 77,000 kilometers to 90,000. In agriculture the plans involve a great expansion of highly mechanized state grain farms, some of over 100,000 acres, and of collective farms, so that by the end of the period nearly 20 per cent. of the grain crops will be produced in the "Socialized Sector." State farms will be 15,000,000 acres and collective farms upwards of 50,000,000 acres.

At the close of 1928-29 it was announced that the plan schedule for the year had been exceeded. Industrial production, as compared for the previous year, had increased 24 per cent., as compared with 21.4 per cent. provided under the plan. In agriculture, acreage under both State and collective farms was well above the program, collective farms alone aggregating over 10,500,000 acres.

In connection with the intensive development of industry under the five-year plan, the Council of People's Commissars on Aug. 26, 1929, issued a decree for the installation of an unbroken working week. Under this plan factories will operate 360 days in a year, while labor will operate under a stagger system by which the weekly day of rest will be distributed among the days of the week for various groups. In addition to the weekly rest days there will be five national holidays during the year. This plan, it was stated, had been put in tentative operation in several hundred plants, with a resultant increase of 10 to 20% in weekly production. The general extension of the 7-hour working day is part of the new plan. At the end of 1928-29, thirteen per cent of Soviet industrial workers were on a 7-hour schedule.

The Soviet Academy of Sciences has sponsored an alternative plan for the continuous working week which involves a revision of the calendar. Under this scheme each month would consist of six weeks of five days each, one day out of five being a rest day arranged on the stagger system. In addition there would be five general holidays distributed through the year. The All-Union Council of Trade Unions and the Commissariat for Labor have indorsed the five-day week.

Under the five-year plan hundreds of foreign engineers and technicians are being engaged to contribute to the upbuilding of Soviet industry, under so-called technical assistance contracts. By October 1, 1929, thirty of such contracts had been concluded with American firms, some of which were furnishing as many as thirty-five technical men. The firms included General Electric Company, Ford Motor Company, Radio Corporation of America, Hugh L. Cooper & Co., Freyn Engineering Company.

The five-year plan envisages the completion of three major economic projects. These are: 1—The Dnieprostroy hydroelectric development, the largest hydroelectric plant in Europe, begun in 1927, to cost $115,000,000. 2—The Turkestan-Siberian Railway, 950 miles, begun in 1927, to cost $100,000,000. 3—The Volga-Don Canal, which will give Russia's chief inland waterway a deep-water port on the Black Sea, to cost $85,000,000. In September, 1929, it was reported that the Dnieprostroy construction was proceeding under schedule and the Turkestan-Siberian Railway, then two-thirds completed, would be finished a year ahead of schedule. Construction on the Volga-Don Canal is slated to begin in 1930.

Trade union membership was 11,060,400 in December, 1928, as compared with 10,441,100 at the beginning of that year.

Unemployment on Jan. 1, 1928, was reported as 1,352,000. On Oct. 1, 1928, it was 1,374,000.

Membership in cooperative societies Oct. 1, 1928, was upwards of 38,000,000, as compared with 9,892,900 on Oct. 1, 1924. The cooperatives handled 62.4% of the retail trade in the country in 1927-28 and about 10% of the foreign trade. The trade turnover of the consumers', agricultural and handicraft cooperatives in 1927-28 was $11,093,099,000, as compared with $7,388,000,000 the previous year.

The Consumers' Cooperatives Oct. 1, 1928, included 28,616 societies operating 85,028 stores. Membership was 22,561,000, and the turnover for 1927-28 was $7,499,945, as compared with $5,000,000,000 the previous year. The agricultural Cooperatives represented 128,200 societies with 15,000,000 members. The turnover for 1927-28 was $2,400,414,000, as compared with $1,544,485,000 the previous year. The Handicraft Cooperatives had 11,047 societies with 616,000 members Oct. 1, 1927. Their turnover for 1927-28 was $1,192,740,000.

During the past few years the metric system has been put in general use.

Realizing that prohibition had failed and had brought about the almost universal illicit distilling of strong and bad home brew, the Government on October 4, 1925 authorized the distilling of 40% vodka by the Government monopoly. Production in hectoliters was 1,804,000 in 1926-27, 1,577,000 in 1925-26. It was 4,636,000 in 1913. In 1929 the sale of vodka on Sundays and holidays was forbidden.

RESOURCES OF RUSSIA.

The Russian domains comprehend every phase of climate except the distinctly tropical, and have varied topography. It has vast plains, some virtually desert, some actually or potentially productive; many high mountain ranges, and a distinctive geologic feature is the Russian steppes — broad plains of shifting sandy formation.

In the main, however, Russia proper begins in the centre with a series of low tablelands, and slopes in the direction of the Baltic, Black and Caspian Seas, and toward the White Sea and the Arctic Ocean to the north.

The Ural Mountains form the boundary between Russia proper and the main body of Asia; the Caucasian Mountains are on the southern line, between the Black Sea and the Caspian. Extensive forests occupy much of the central portions, total forest area being about 500,000 square miles.

The rivers are important as actual or potential channels of commerce—the Dneiper and Dniester, flowing into the Black Sea, the Dneiper being part of the proposed trans-European waterway from the Black Sea at Odessa to the Baltic Sea at Danzig; the Volga and Ural flowing into the Caspian Sea; the Neva flowing into the Gulf of Finland; and the Petchora flowing into the Arctic Ocean. There are 42,091 miles of rivers, lakes and canals navigable for steamers.

The areas controlled by Russia comprehend nearly every material natural resource of modern civilization—minerals of all kinds, base and precious; every variety of timber, excepting tropical, every character of cereals, vegetable and fruit lands; being as near to self-contained, economically, as any other power, excepting the British Empire.

Approximately 500,000,000 acres of forested areas are to a large degree potentially agricultural when the timber has been removed. The by and large estimate is that, under development such as has been attained in other civilized countries, Russia would have close to 700,000,000 acres of cultivable lands, or the equivalent of more than 1,000,000 square miles of actually tilled lands, which is more than like areas in the United States.

There are very large mineral resources in the Ural Mountains. Gold and silver are mined there, also salt, zinc and copper. Discovery of rich graphite deposits in Northwestern Siberia was reported in 1925. In 1927 the Geological Committee reported huge deposits of potash in the Solikamsk district of the West Ural region. The supply in a surveyed area of four square miles was estimated at 68,000,000 metric tons. Exploitation was begun in 1928.

Undeveloped hydraulic resources are estimated at 62,380,000 horse power, coal reserves at 475,000,000,000 metric tons, oil reserves 2,883,800,000 metric tons, iron 2,782,000,000 metric tons exclusive of the Kursk anomaly of 26,000,000,000 tons.

What Russia was capable of producing before the war and the Bolshevik revolution was shown in the official statistics of the former empire printed in The World Almanac for 1923.

AGRICULTURE.

During the revolution over 1,080,000,000 acres of and belonging to the landowners were acquired by the peasantry. In addition the peasants seized and distributed among themselves over 48,000,000 acres belonging to the richer strata of the peasantry. In 1922 the People's Commissariat for Food reported that 50 per cent. of the farms having arable lands and meadows, were less than 14.5 acres and 45 per cent. between 14.5 and 35.7 acres.

Upwards of 85% of the people live by agriculture. In the European section from 96% to 99% of the arable land is in the hands of the peasants for use.

The total sown area in 1929 was 117,960,000 hectares, (hectare=2.47 acres), as compared with 112,980,000 hectares in 1928. Area sown to grain was 95,790,000 hectares, as compared with 92,120,000 hectares in 1928. The gross grain crop in 1926, 1927, and 1928, in thousands of metric tons (peasant farms only):

	1926.	1927.	1928.
Rye	23,510	23,994	19,199
Wheat	24,206	20,464	21,316
Barley	5,345	4,408	5,335
Oats	15,100	12,858	15,843
Buckwheat	1,419	1,752	1,661
Millet	2,218	3,312	2,946
Corn	3,266	3,398	3,379
Other grains	1,598	1,532	1,863
Total	76,562	71,718	71,541

Other crops in thousands of metric tons:

	1926.	1927.	1928.
Potatoes	42,969	41,218	39,304
Sugar Beets	6,358	10,097	9,398
Sunflower Seeds	1,545	2,131	2,180
Hemp (fiber)	431	511	489
Hemp (seeds)	529	596	534
Flax (fiber)	315	292	346
Flax (seeds)	536	518	578
Tobacco	157	126	102
Raw cotton	559	718	891

Live stock estimate for 1928 (peasant farms only) was: Horses, 31,978,600, cattle, 66,791,800 sheep and goats 136,190,200, hogs, 25,233,500.

Grain exports for the fiscal year 1927-28 fell to less than 300,000 tons as compared with over 2,500,000 tons the previous year. Before the war they averaged 10,740,000 tons.

Fur exports in 1927-28 were $58,400,000 as compared with $41,400,000 in 1926-27.

The catch of fish in 1927 was 787,900 metric tons as compared with 758,500 tons in 1926. Exports of fish were valued at $6,417,000 in 1927-28 as compared with $3,811,000 the previous year.

PETROLEUM PRODUCTION.

Petroleum deposits constitute one of the most important of the many natural resources of the country. The entire industry is nationalized. Production in the three principal fields, Baku, Grozny and Emba, is organized under three trusts. Marketing is in the hands of the Federal Naphtha Syndicate. During the world war and the revolutionary period much damage was done to the oil properties, and after peace was restored the industry was hampered for a time by inadequacies of equipment and of transport. Widespread adoption of American machinery and drilling methods, and a rapid increase in electrification, have placed the industry on a higher productive basis than before the war.

The Soviet Union stands third among the oil-producing countries. The new pipe line between Grozny and the Black Sea port of Tuapse (391 miles) was completed in November, 1928, and the new Baku-Batum pipe line was nearing completion in 1929. England became the principal country for oil export in 1929, followed by Italy, Germany, Spain and Turkey. Oil production and exports (in metric tons):

	Production.	Exports.
1913	9,215,911	947,700
1926-27	10,184,000	2,038,800
1927-28	11,502,000	2,683,700
1928-29 (preliminary)	13,700,000	3,500,000

Coal production was 41,300,000 metric tons for 1928-29 (preliminary figures), as compared with 35,400,000 in 1927-28 and 30,950,000 in 1926-27.

Iron ore produced in 1928-29 was 7,100,000 metric tons (preliminary), as compared with 5,977,000 in 1927-28 and 4,815,000 in 1926-27. Output of manganese ore was 1,406,000 metric tons in 1928-29 (preliminary). Output of pig iron for 1928-29 was 4,100,000 metric tons (preliminary), as compared with 3,281,000 in 1927-28 and 2,963,000 for 1926-27. Output of steel for 1928-29 was 4,800,000 metric tons (preliminary), as compared with 4,156,000 in 1927-28 and 3,586,000 in 1926-27.

Platinum production in 1927 was 100,000 troy ounces. Gold output in 1926-27 was 23,152 kilograms.

Output of finished cotton cloth in 1928-29 was 2,952 million meters (preliminary), as compared with 2,695 in 1927-28 and 2,343 in 1926-27.

Cement output for 1928-29 was 14,400,000 barrels (preliminary), as compared with 11,900,000 in 1927-28.

Timber exports increased from 351,803 metric tons in 1926-27 to 402,840 metric tons in 1927-28.

The total output of industry in 1928-29 was estimated at 160 per cent. of that of 1913, the increase for the year being 24 per cent.

STATE INDUSTRY.

About 90 per cent. of the industrial output comes from the system of State Trusts. Net profits of the large-scale State industry have averaged upwards of $300,000,000 for the past three years. Expenditures for capital improvements (not including electrification) for 1928-29 were $855,440,750, as compared with $650,700,000 in 1927-28. The funds were derived from profits, depreciation account and Government budget appropriations. The wholesale price index, with prices of 1913 taken as 100, was 178.1 for the nine months ending June 30, 1929, as compared with 170.8 for the same period of the previous year. The figures for the retail price index for the same periods were respectively 207 and 196.

Average number of workers employed in large-scale State industry for the first nine months of 1928-29 were 2,309,000 as compared with 2,150,000 for the same period of the previous year.

The major industries are combined in syndicates (Textile Syndicate, Oil Syndicate, etc.) of federal scope for development and marketing. Each syndicate is a combination of operating trusts. The division into trusts is according to geographical or other economic reason. Virtually all the larger syndicates operate under the general control of the Supreme Economic Council. The managing boards of the syndicates and trusts are held responsible by the Council for profitable operation, efficiency and quality of output.

Total railway mileage at the close of 1927-28 was 47,941 miles, as compared with 47,320 miles at the close of 1926-27 and 42,500 miles before the revolution. Operating revenues for 1927-28 were $887,305,800, net profits from operation $188,944,700, as compared with $117,317,000 the previous year. Average daily freight car loadings for the first nine months of 1928-29 were 35,208, as compared with 30,675 for the same period of the previous year. Air transportation in 1928 embraced 11,981 kilometers of lines in regular operation.

Electrical power plants in 1927-28 had a capacity of 2,130,000 kilowatts as compared with 1,690,000 kilowatts the previous year. Power output in 1928-29 was 6,500,000,000 kwh. as compared with 5,000,000,000 kwh. in 1927-28 and 4,112,000,000 in 1926-27. A total of $180 000,000 was spent for electrification in 1928-29, including $100,000,000 by the federal Government on super-power development.

A fifty-year concession to the Lena goldfields of Siberia, estimated to contain $100,000,000 of gold, was granted to an Anglo-American company, the British Lena Goldfield Corporation, on Aug. 12, 1925. The minimum output of gold for five years is put at 14,428 pounds. Copper, zinc and lead are by-products.

Direct taxes are imposed in the form of a single agricultural tax, a trading tax, a realty tax, and taxes on incomes and assessments. Indirect taxes consist of excise taxes and customs duties. Excise taxes are levied on sugar, tobacco, textile products, fermented and distilled spirits, oil products, salt, tea and coffee, matches, yeast. The Soviet Union has a moderate system of tariff duties on imports, supplemented by duties on a limited number of exports. There are separate schedules for the European and Asiatic frontiers. Import taxes on all luxuries are very high.

A new single tax on the land, levied on a sliding scale, depending on how much land is farmed, the yield of crops, etc., was put in effect in May, 1924. It yielded $181,609,500 in 1926-27 and $179,884,800 in 1927-28. Next in importance as yielders of revenue are the trading tax, income and property tax, excise and local taxes, in that order. Income taxes collected in 1927-28 aggregated $118,748,700.

THE BUDGET.

In a country where State economic enterprises play a dominant role, the growth of the federal budget is regarded as an important gauge of economic progress. The first "firm" budget, that of 1923-24, balanced at 1,460,000,000 rubles; that of 1928-29 at 7,640,600,000 rubles, and the preliminary draft fixed the budget for 1929-30 at 9,497,200,000 rubles ($4,891,058,000). The budget for 1913 was 3,605,000,000 rubles. The budget for 1923-24 was the first post-revolutionary budget to be balanced. Since that year each budget has produced a surplus of revenues over expenditures.

Receipts in classified form in budgets of the past three years (1928-29 is estimated), in thousands of rubles (par value one ruble equals $0.5146) are:

	1926-27.	1927-28.	1928-29.
Taxes and Excise..	2,477,400	3,255,900	3,836,600
State Properties and Establishments...	602,100	803,900	906,000
Transport and Communications..	1,712,100	1,984,900	2,098,000
Credit Operations and other.....	409,700	726,400	800,000
	5,201,300	6,761,100	7,640,600

Actual receipts for 1928-29 were provisionally estimated at 7,925,000,000 rubles.

Annual receipts and expenditures, in millions of rubles (figures for 1928-29 are preliminary):

	1925-26.	1926-27.	1927-28.	1928-29.
Receipts.....	3,948.0	5,201.3	6,761.1	7,925.0
Expenditures.....	3,867.8	5,151.3	6,588.9	7,755.6

Expenditures for the past two years (figures for 1928-29 are preliminary), in thousands of rubles:

Departments and Institutions (including army and navy).	1,773,900	1,979,600
Financing National Economy.	1,327,400	1,960,100
Service on Loans.....	299,000	293,000
Subventions to local budgets..	836,000	999 800
Transport and communications	2,241,500	2,455,600
Other.....	111,100	67,500
	6,588,900	7,755,600

The total internal debt as of July 1, 1929, was 2,101,400,000 rubles ($1,083,221,000). On October 1, 1928 it was 1,422,100,000 rubles and on October 1, 1927, it was 933,700,000 rubles. During 1927-28 bonds sold amounted to 1,018,000,000 rubles, bonds refunded to 531,400,000 rubles.

Negotiations were resumed in 1927 with France regarding the adjustment of the Czarist pre-war debt, amounting April 30, 1926, to 6,738 million pre-war gold francs. No settlement has been reached.

The State Bank on Oct. 1, 1929, reported a note issue of 1,460,279,950 rubles, with a cover of gold, platinum and foreign currency of 369,189,340. The corresponding figures for Oct. 1, 1928 were: note issue 1,058,621,050 rubles, cover 259,584,930 rubles. Total resources of the State Bank as of July 21, 1929, were 4,891,631,000 rubles. Since June 15, 1927, the bank's capital has been 250,000,000 rubles.

The Government monopoly of foreign trade was firmly maintained during the year. It is controlled through the Commissariat for Trade and Commerce and conducted by agencies of the Commissariat, of the trading bureaus of the six constituent Republics, by the Consumers' Co-operatives, by trading agencies of some of the large industrial syndicates, by a few mixed companies operating under license in which the Government holds a participating interest (generally 50 per cent.), and by a few foreign firms operating under special agreement.

The Soviet Government has been exercising a rigid control over imports, and any one desirous of purchasing goods in that country or selling goods to it must deal with the proper Soviet institution, either directly or in the last instance.

FOREIGN TRADE.

The principal countries taking Soviet exports in 1927-28 were: Germany 24.0%, England 19.5%, Latvia 10.3%, Persia 9.2%, France 5.2%. The principal countries furnishing Soviet imports were: Germany 26.3%, United States 19.9%, Persia 6.6%, Argentina 5.1%, England 5.0%.

For the Soviet fiscal year 1928-29 ending Sept. 30, the Soviet trading organizations in the United States reported purchases of $109,000,000 for shipment to the Soviet Union and sales of Soviet products in the United States of $40,000,000. For the previous year the figures were respectively $91,230,000 and $22,000,000. The principal purchases here included cotton, agricultural machinery and industrial and electrical equipment. In 1913 the total of Russian-American trade was $48,000,000.

The foreign trade turnover for recent years:

Year (Fisc.)	Exports.	Imports.	Total.
1924-25	$296,125,000	$370,800,000	$666,925,000
1925-26	348,449,000	389,546,000	737,995,000
1926-27	396,807,500	366,989,000	763,796,500
1927-28	398,554,000	486,523,000	885,087,000
1928-29 (9 mos.)	321,051,000	308,021,500	629,072,500

Foreign trade turnover in 1913 was $1,490,495,000.

Trade for 1927-28 was divided as follows:

	Exports.	Imports.
European frontiers	$327,458,000	$422,344,000
Asiatic frontiers	71,106,000	64,179,000
Total	$398,564,000	$486,523,000

Trade with the United States for all Soviet Russia both in Europe and Asia was:

Cal. Year.	Imports.	Exports.
1922	$28,814,025	$522,877
1923	7,308,389	1,481,699
1924	41,948,578	8,030,465
1925	68,906,060	13,236,673
1926	49,905,642	14,121,992
1927	64,921,693	12,876,790
1928	74,091,235	14,023,189

EL SALVADOR, REPUBLIC OF

AREA, 13,173 square miles.

POPULATION, estimated Jan. 1, 1928, 1,688,129.

CAPITAL, San Salvador, population 85,300. Other cities: Santa Ana, 60,679; San Miguel, 30,406.

President, Dr. Pio Romero Bosque, 1927-31, inaugurated, March 1, 1927.

Premier, Dr. Reyes Arrieta Rossi (Foreign).

El Salvador lies along the Pacific Ocean with Honduras as its northeast boundary, and Guatemala on the northwest. Its coast line is 160 miles long and its average breadth 60 miles. It is about the size of the State of New Jersey. Along the sea is a narrow, low alluvial plain, and the interior is a plateau about 2,000 feet above sea level, containing a number of volcanic cones. Earthquakes are frequent; that of June 8, 1917, destroyed much of the capital and three other towns; even greater damage was done to the capital on April 28, 1919. It has luxuriant forests and abundant mineral deposits, which are undeveloped. Mestizos and Indians form two-thirds of the population.

El Salvador is a one-crop country. Its prosperity depends on coffee which is grown on about 150,000 acres. The product in 1928-29 was 86,335,000 pounds; in 1927-28, 120,125,000; in 1926-27, 78,275,000; and in 1925-26, 110,360,000. Sugar exported was 9,720 metric tons in 1928 and 7,744 in 1927.

Tobacco, indigo, henequen, lumber, rice, balsam and hides are also exported.

Under the Constitution of 1924, modified last in 1886, a President for four years and single chamber of 70 deputies for a year are elected by universal suffrage. The President appoints a ministry of four members. The dominant religion is Roman Catholic.

The army numbers 3,000 with reserves of 25,000.

There are 349 miles of narrow gauge railroads.

The government is carrying on an intensive campaign to reduce illiteracy. In 1926 there were 847 schools with 1,555 teachers and 52,000 pupils. Education is free and compulsory.

A three-power agreement pledging the Governments of El Salvador, Guatemala and Honduras to a common policy in matters of general concern in Central America was signed in May, 1927.

The colon (=50 cents) is the unit of currency.

In 1927, 7,684 steamers, tonnage, 13,525,071, entered its ports.

Of a well planned system of arterial surfaced highways totaling 1,000 miles, 684 were completed in 1928.

Recent budgets, (in colones), were:

Year.	Revenues.	Expenditures.
1925	20,320,309	20,271,674
1926	22,314,798	21,922,930
1927	20,514,491	21,799,526
1928	25,546,291	25,367,254
1929-30	25,490,000	25,755,398

The public debt Dec. 31, 1927 was: External, 43,058,538 colones; internal, 1,161,161 colones; floating, 4,292,003 colones; total, 48,511,702 colones.

Imports and exports were:

Year.	Imports.	Exports.
1922	$7,639,296	$16,213,807
1923	8,771,000	17,057,877
1924	11,175,000	24,367,500
1925	19,383,000	16,885,000
1926	26,035,000	24,636,000
1927	14,864,384	14,152,164
1928	19,188,643	24,463,860

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$4,850,781	$2,618,716
1923	5,214,250	4,523,663
1924	6,491,955	3,912,310
1925	9,193,916	2,323,424
1926	9,556,521	4,237,149
1927	6,869,147	1,545,353
1928	7,617,353	3,205,768

SAN MARINO, REPUBLIC OF

AREA, 38 square miles.

POPULATION, census of 1928, 13,013.

San Marino, situated in the Apennines near Rimini, in the heart of Italy, claims to be the oldest state in Europe and to have been founded in the fourth century. Its treaty of friendship with the Kingdom of Italy, concluded June 28, 1907, was revised in 1921. It has an extradition treaty with the United States and other countries. Agriculture and stock raising are practically the only industries. It is governed by a Great Council of 60 members elected by popular vote, two of whom are chosen to exercise executive power for a term of six months. It maintains a military force of 39 officers and 950 men. Revenue and expenditures for 1927-28 balanced at 4,053,072 lire, and that for 1926-27 balanced at 4,145,179 lire. There is no debt.

SIAM, KINGDOM OF

AREA, 200,148 square miles, of which about 45,000 is in the Malay Peninsula.

POPULATION, census of 1919-20, 9,207,355. Official estimate, 1926, 9,831,000.

CAPITAL, Bangkok, population, 1923, 745,640.

King, Praja Dhipok, born Nov. 8, 1893, succeeded on the death of his brother Rama VI., on Nov. 26, 1925.

Foreign Minister, Prince Dewawongse.

Siam is situated in Southeastern Asia, with Burma (British India) on the northwest and west and French Indo-China on the northeast and east, and the Gulf of Siam, which is part of the China Sea, on the south and east. It also occupies the neck of the Malay Peninsula as far as the Federated Malay States (British). It is of rolling topography, with large areas susceptible to irrigation, of which about 250,000 acres have been under water since 1922.

Bangkok, the capital, in the delta of the Menam, is a convenient modern city, drained and cleaned, well lighted and beautified with spacious parks.

There are many large forests, teakwood being an important article of export. Labor is higher than in almost any other Oriental country.

The chief product is rice, the national food, and heavily exported. The yield in 1928-29 was 2,618,000 metric tons from 4,187,000 acres; and in 1927-28, it was 3,153,500 tons from 4,266,000 acres. In 1927-28, 1,706,587 metric tons valued at 201,156,349 bahts was exported; and in 1926-27, 1,297,592 tons valued at 165,226,234 bahts.

The livestock census of March 31, 1927, returned 4,128,000 cattle; 4,366,000 buffaloes; 8,800 domesticated elephants and 265,000 horses.

Teakwood exports in 1927-28 amounted to 70,231 metric tons valued at 9,947,249 bahts (59,339 tons in 1926-27 valued at 8,218,583 bahts).

Mineral resources are extensive and include coal, iron, manganese, tungsten, antimony and quicksilver; the export of tin and tin ore in 1927-28 was 10,844 metric tons valued at 22,423,979 bahts (10,140 tons valued at 22,839,806 bahts in 1926-27).

In 1927-28, 1,183 vessels of 1,277,485 tonnage entered the port of Bangkok. There were in 1927, 1,701 miles of railways and 211 miles under construction, the southern line gives through traffic via Padang Besar to Singapore, 1,188 miles away.

Executive power vests in the King. The new King, who was educated in England, restored the Supreme Council of State, composed of five princes of government experience, to be advisory to the Sovereign and to co-ordinate the work of the various ministries. There is a Legislative Council of Ministers and others, appointed by the King. Present membership is forty. It supervises the legislation of the Kingdom, being charged with the task of perfecting the statutes. Laws must be signed by the King.

Siam attained full legal equality among the nations on March 25, 1927, when the last of the consular courts was closed, and two days later a new customs tariff, controlled no longer by treaty limitations, went into effect.

Buddhism is the prevailing religion. In 1926 there were 16,185 temples, with 129,206 priests. Schools are controlled by the Minister of Education, excepting those for military, naval, and legal training, and some which are under royal patronage. In 1925 there were 343 Government schools, with 1,958 teachers and 47,268 pupils; 4,707 local schools, with 9,872 teachers and 527,603 pupils; and 573 private schools, with 1,446 teachers and 27,435 pupils. About 11 per cent. of the people were literate in the last census.

Every able-bodied man serves in the army. The navy has 5,000 active and 20,000 reserve men. In 1920 there were over 15,000 Boy Scouts. Siam is a member of the League of Nations.

The baht (called the tical until 1928) is the unit of currency and equals 44.24 cents at par; rate of exchange 1926 was 44.78; 1927, 43.0; 1928, approximately par.

Recent budgets in bahts were:

Year (fiscal, Mar. 31.)	Revenues.	Expenditures.
1924-25 (actual)	91,960,236	96,452,497
1925-26 (actual)	92,712,662	94,651,651
1926-27 (actual)	100,590,765	100,551,546
1927-28 (estimate)	100,550,416	100,016,132
1928-29 (estimate)	100,627,805	99,981,836

Capital expenditures incurred for 33 years up to March 31, 1927, were: Railways, 147,201,188 bahts; irrigation, 23,964,854; Bangkok water works, 4,969,189 bahts; mining research, 606,525, bahts; other items, 8,439,459 bahts; total, 185,181,215 bahts. Estimated capital expenditures for 1927-28 amounted to 7,807,678 bahts; and for 1928-29 to 7,801,300 bahts.

The public debt on March 31, 1929 was 11,639,640. Note circulation July 31, 1929 was 131 million bahts with a silver reserve of 52 million bahts and foreign assets of 7.9 million bahts.

Foreign trade through the port of Bangkok which handles over 85% of the trade, in bahts, was:

Year (fisc.)	Imports.	Exports.
1924-25	153,006,580	158,167,555
1925-26	161,244,004	187,486,612
1926-27	196,520,429	276,269,963
1927-28	201,080,535	276,269,363

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$871,196	$141,794
1923	798,541	222,028
1924	925,368	306,800
1925	1,444,122	769,652
1926	1,852,088	633,324
1927	1,940,055	570,092
1928	2,637,733	254,013

THE ANGLO-EGYPTIAN SOUDAN

(Condominium.)

AREA, 1,014,600 square miles.

POPULATION, estimated, 1923, 5,852,729.

CAPITAL, Khartoum, including Khartoum North, on the Blue Nile; population, 1923, 32,211. Below on the White Nile, Omdurman, the old Dervish capital, population, 78,732.

Governor General, Sir John L. Maffey, K. C. V. O.

The Soudan is bounded by Libya and Egypt on the north, the line being the 22° north latitude; the Red Sea and Eritrea (Italian) and Abyssinia on the east Uganda (British) and the Belgian Congo on the south, and French Equatorial Africa on the west. Its greatest length north and south is 1,650 miles, and its greatest breadth east and west is about 1,200 miles. The northern zone consists of the Libyan desert, on the west, and the mountainous Arabian desert, extending to the Red Sea on the east, separated by the narrow valley of the Nile; the central zone has large areas of fertility, including the rainlands of Kassala and Tokar, the Gezira plain and the pastures and gum forests of Kordofan; and the southern equatorial belt where the soil is richest and watered by tropical rains.

The White Nile flows north through the middle of the country; the Blue Nile, rising in the mountains of Abyssinia, flows northwest to its junction at Khartoum with the White Nile to make the Nile that flows on in a huge S curve to enter Egypt at Wadi Halfa.

The Sennar Dam, at Makwar, 170 miles south of Khartoum, was opened officially by Lord Lloyd, Jan. 21, 1926, with its canalization of 300,000 acres of the plain. The dam impounds the water of the Blue Nile, for irrigation of the Gezira country between the rivers. Another dam is under construction at Gebel Aulia in the White Nile, 24 miles south of Khartoum. These will hold double the quantity of water stored by the Aswan Dam for the benefit of Egypt.

The amount of land-producing cotton in 1925 was 87,475 acres; and in 1927, 218,546 acres. The crop for 1927-28 was 17,578 tons of lint and 40,000 tons of cotton seed; in 1926-27, 28,370 tons of lint and 54,900 tons of cotton seed. The export of cotton in 1928 was 23,486 tons, valued at £E3,589,480; and in 1927, 28,891 tons, valued at £E3,190,289; and of cotton seed in 1928, 47,960 tons, valued at £E398,484; and in 1927, 57,847 tons valued at £E359,415.

The new Kassala railway (217 miles) opens up a new region. It is expected the Gash Delta, when fully developed, will produce a minimum of 100,000 bales of good Egyptian cotton yearly.

The population, which was estimated at 9,000,000 in 1884, decreased to 2,000,000 under Dervish misrule through war, famine and disease. The inhabitants are partly Arabs, partly Negroes and partly Nubians of mixed Arab and Negro blood; the Arabs and Nubians are all Mohammedans. The Mahdist rebellion in 1884, culminating in the fall of Khartoum and the death of Gen. Gordon Jan. 26, 1885, forced the Egyptian Government to withdraw from the Soudan, retaining only Wadi Halfa on the Nile and Suakin on the Red Sea as frontier ports. The Dervishes were overthrown by Lord Kitchener with the Anglo-Egyptian army at Omdurman, Sept. 2, 1898. On the reconquest of the Soudan an agreement was signed Jan. 19, 1899, between Egypt and Great Britain, which fixed the boundary, provided for the administration of the territory by a Governor General appointed by Egypt with the consent of Great Britain (aided since 1910 by a council) who should make laws by proclamation, and providing that the British and Egyptian flags should fly together. Free trade with Egypt was provided for also and the import and export of slaves was forbidden, together with the import of arms, ammunition and spirits. The civil and criminal codes are based on those of Egypt and India.

While Egypt claims the Soudan as an integral part, the British Government has officially announced as a fixed policy that Great Britain will never abandon the Soudan nor tolerate any attempt to disturb the administration.

The country has prospered under the Anglo-Egyptian rule, though suffering agriculturally during seasons of low water in the Nile and by depression consequent on the past years of the war when the exports of grain and cattle almost entirely ceased. Cotton can be grown successfully with increased irrigation and transportation facilities. Rich forests are of great extent and the Soudan is the chief source of the world's supply of gum arabic, the exports being 22,425 tons, valued at £E1,006,625 in 1923; 18,956 tons in 1925, valued at £E791,931; 22,744 tons in 1926 valued at £E844,198; 21,239 tons in 1927 valued at £E680,887; 22,777 tons in 1928 valued at £E724,468. Of ivory, 45 tons, valued at £E78,819, were exported in 1920; 38 tons, £E32,000, in 1921; 56 tons, £E63,308, in 1922; 41 tons, £E56,112, in 1923; 32 tons, £E47,808, in 1924; and 43 tons, £E69,849 in 1925.

The Soudan railroad reached Khartoum in 1899.

A line from Atbara across the Arabian desert to Port Soudan and Suakin on the Red Sea was opened in 1906. A bridge has been built over the Blue Nile at Khartoum and another over the White Nile near Hillet Abbas. The total length of railroads Jan. 1, 1929, was 1,852 miles.

A fleet of Government passenger and freight steamers is maintained on the Nile and its tributaries with a scheduled service covering over 2,500 miles. In 1928, 922 vessels entered Port Soudan.

The unit of currency is the Egyptian pound, £E1=$4.943 at par of exchange; rate of exchange, in 1924, $4.53; and in 1925, $4.95.

The budgets for six years are:

Year.	Rev.	Exp.
1922	£E3,498,595	£E3,496,999
1923	3,766,133	3,392,470
1924	4,298,856	3,453,273
1925	4,833,640	4,410,519
1926	5,857,988	5,482,388
1927	5,929,945	5,550,493
1928	6,646,833	6,045,286
1929	6,451,000	6,451,000

The reserve fund on Jan. 1, 1929 was £E592,939.

The funded debt Jan. 1, 1926, was £12,514,412 all for public works, the Sennar dam and canalization alone requiring about £10,000,000.

The foreign trade, in dollars, was:

Year.	Imports.	Exports.
1922	$19,308,120	$9,050,199
1923	21,897,628	12,016,206
1924	25,638,720	16,872,230
1925	26,190,000	19,005,000
1926	27,872,000	24,381,180
1927	30,425,717	24,497,953
1928	32,315,000	28,175,000

Trade with the United States, the chief item of export being gum arabic, was:

Year.	Imports.	Exports.
1922	$481,122	$797,619
1923	446,526	1,431,472
1924	363,591	987,187
1925	326,339	1,215,374
1926	229,088	1,455,282
1926	594,072	1,156,519

SPAIN, KINGDOM OF

AREA, Continental Spain, 190,050 square miles; including the Balearic and the Canary Islands, 194,783 square miles; Spanish Colonies in Africa, including Spanish Morocco, 140,000 total, 334,783.

POPULATION, census of Dec. 31, 1923 (including the Balearic Islands, 338,894; and the Canary Islands, 473,497), 21,763,147; (estimated Dec. 31, 1925, 22,127,700). Colonies, estimated, 980,000; total, 22,743,147.

CAPITAL, Madrid; population, census of Dec. 31, 1923, 813,991; other cities, Barcelona, 760,572; Valencia, 256,263; Seville, 226,969; Malaga, 159,535; Zaragoza, 153,570; Murcia, 146,517; Bilbao, 120,369; Granada, 103,783; and twenty-seven others larger than 30,000.

King, Alfonso XIII.; born May 17, 1886, after the death of his father, King Alfonso XII.; succeeding on birth; married May 31, 1906, Princess Victoria Eugenie, daughter of Prince Henry of Battenberg and Princess Beatrice, youngest daughter of Queen Victoria of Great Britain; *Heir*, his eldest son, Prince Alfonso, born May 10, 1907. There are three other sons and two daughters.

Premier, Gen. Miguel Primo de Rivera, Marquis d'Estella; assumed control Sept. 13, 1923, as head of the military directorate; made Premier on restoration of civil government, Dec. 3, 1925. He took Foreign portfolio Nov. 5, 1928.

Spain is bounded on the west by Portugal and the Atlantic Ocean, on the north by the Atlantic and by France, on the east and south by the Mediterranean Sea, the British fortified station Gibraltar being at the southernmost tip, guarding the entrance to the Mediterranean from the Atlantic. The Balearic Islands in the Mediterranean (capital, Palma; area, 1,935 square miles; population, 338,894) and the Canary Islands (area, 2,807 square miles; population, 473,497), in the Atlantic, are provinces of Spain; Ceuta, a fortified post in Africa, opposite Gibraltar (area, 5 square miles; population, 34,708), is part of the Province of Cadiz.

Spain occupies the entire Iberian peninsula with the exception of Portugal. The lofty Pyrenees separate it from France. The interior is a high inclosed plateau traversed east and west by mountain ranges and deficient in rainfall. However, 88.45 per cent. of the soil is regarded as productive or potentially so, crops and fruit being gathered from more than one-third of the productive area, and a quarter of it is given over to grazing.

The national wealth is estimated (1925) by the Banco Urquijo at 218,150 million pesetas (approximately $31,000,000,000 at current exchange) and the annual income at 24,293 million pesetas. Agriculture has first place in income, the annual yield of the cereal and vegetable crops being valued at 4,501 million pesetas; root crops at 830 million; vines at 792 million; olives at 648 million; pasture at 644 million; fruit trees at 446 million; and hay and fodder at 437 million.

The land is largely held by small proprietors. Of the 3,426,083 paying land taxes the large estates number 277,188. About 10,770,000 acres are planted to wheat, the product in 1927 being 3,941,518 metric tons; about 9,000,000 acres were given to other cereals; 3,412,310 acres of vineyards in 1927 produced 4,611,729 metric tons of grapes, yielding 28,325,192 hectolitres of wine.

Spain leads as a producer of olives. The yield from 4,127,130 acres in 1927 was 3,516,582 metric tons of olives and 6,656,388 hectolitres of oil. Oranges and nuts are largely exported; also exports flax, hemp and pulse.

Silk culture is carried on in Valencia, Murcia and other localities. There are seventy sugar factories, 1927 production 219,235 metric tons.

Domestic animals in 1926 numbered 697,678 horses; 1,286,360 mules; 1,077,377 asses; 3,794,029 cattle; 20,067,200 sheep, 4,749,463 goats; 5,267,328 pigs and 3,923 camels (in the Canary Islands). The investment in stock raising is 10,119 million pesetas, with an annual income of 1,214 million.

Spain has large mineral wealth. Iron abounds with coal, lead, copper, asphalt, tin, wolfram, manganese, quicksilver, silver, sulphate of soda, salt, sulphur, and phosphorus. Platinum has lately been discovered. Mining industries employed in 1926, 136,408 men, 3,774 women and 18,684 boys and girls under eighteen years of age.

The 1926 metal output was valued at 918,979,850 pesetas (896,020,150 in 1925), and the ore output at 475,598,411 pesetas.

Coal production in 1928 was 6,534,872 metric tons (6,992,540 in 1927); anthracite production in 1927 was 429,896 metric tons; iron ore, 4,971,705 tons; copper ore, 3,983,853 tons; lead ore, 195,626 tons; zinc ore, 132,178 tons; sulphur, 75,830 tons, quicksilver ore, 51,353 tons; and manganese, 36,871 tons.

Cotton and woolen goods for domestic use are manufactured to a considerable amount, the normal employment of cotton spindles being 2,614,000, and woolen spindles, 662,000. The Government encourages cotton cultivation. Industries represent a total capital value of 48,247 million pesetas and give an annual return of 7,237 million.

Fisheries in 1921 employed 17,875 boats and 130,000 men, the catch being valued at 344,438,920 pesetas, the most important products being sardines, tuna fish and cod.

Railway mileage in 1927 was 10,010, privately owned, but subsidized by the Government. The state has agreed to furnish needed new capital as a co-partner to regroup the railways and ultimately to nationalize them on a valuation based on the earnings of each company for the past fifteen years, capitalized at 4¼ per cent. The great majority of the companies have assented.

The Government has begun the building, or rebuilding, of 6,287 kilometres of highway during the next ten years.

The merchant marine July 1, 1929 was composed of 697 steamships of 1,058,245 gross tons, and 85 motor ships of 78,081 gross tons. Bilbao and Barcelona are the principal ports. In 1926 vessels entering numbered 18,820 of 24,804,418 tonnage.

The Government by decree on Aug. 20, 1925, has provided an annual subsidy of 10,000,000 pesetas for the shipping industry, and of 8,000,000 pesetas for shipbuilding.

Conservatively estimated, Spain has available undeveloped hydro-electric sites capable of developing 2,000,000 horsepower. Existing plants have a capacity for 858,422 horsepower (1929).

Spain was once overrun by the Moors, who swept across the Mediterranean and went even into France. They were expelled from Europe in 1609, having entered Europe in 711, and for those centuries dominated that part of the European continent, leaving many marks in customs and habits impressed to this day on the Spanish people. However, the language remains in general Castilian, with variations in each separate region. Spain's colonial period was brilliant and extended to the Americas and the Philippines. She lost Mexico and her Central and South American colonies by revolution a hundred years ago, and in 1898 Cuba secured her independence, and she lost the Philippines, Guam and Porto Rico to the United States as a result of the Spanish-American War. Now her colonial possessions are confined to Morocco

in North Africa, Spanish Guinea and a few islands along the Guinean coast. In the north there are 400,000 Basques, of a distinctly different race and language; and there are 50,000 gypsies.

The Government is that of a constitutional monarchy, the Constitution dating from 1876. It provides for a sovereign and the Cortes, composed of two Houses, the Senate and the Congress, equal in authority, 360 Senators and 417 Deputies in the Congress. The last twenty years have seen a very marked tendency toward democracy, numerous disturbances having occurred, with Socialists as the moving force. The country had twenty Premiers in six years, and only one budget was approved by Parliament. Reverses in Morocco roused Spain.

Leading officers of the army, headed by Gen. Primo de Rivera, then Governor-General of Barcelona, rose against the government of Premier Alhucemas on Sept. 13, 1923. The revolt spread without bloodshed throughout the country. King Alfonso refused to support the cabinet, which fell, and obnoxious ministers hurried into exile. King Alfonso called on Gen. Primo de Rivera to form a cabinet and dissolved the Cortes, leaving him president of a military directorate charged with the government of the state and whose decrees would have the force of laws. The country was under martial law from Sept. 15, 1923 till May 17, 1925, and again from Sept. 5, 1926 to Jan. 1, 1927. The military directorate resigned Dec. 5, 1925, and Gen. Primo de Rivera was immediately appointed Premier with a new cabinet called civilian because it had some ministers who were not army men. The dictatorship remained and the King by decree gave full legal status to all acts signed henceforth by the new government.

The National Assembly was summoned on a selective basis, and only in an advisory capacity, and met on Oct. 10, 1927.

The draft of a new constitution was submitted by the government on July 5, 1929 to the National Assembly for study and examination. It proposed to curtail the power of the Certes and strengthen that of the King and the government. It met bitter opposition from Labor.

Suffrage has been granted to women householders; the voting age has been reduced to 23 years for both men and women.

The Roman Catholic is the national religion, all the people adhering excepting about 30,000 (Protestants, 7,000; Jews, 4,000). The Constitution requires state support of the church. In 1928 the state expended 62,900,000 pesetas.

There is a heavy percentage of illiteracy—in 1900, 64; in 1910, 59, and in 1920, 45—showing steady improvement. Although there has been a compulsory education law since 1857, it has not been rigidly enforced. There were, in 1926, 3,098,840 pupils in the public schools, with about 63,100 in secondary institutions. Spain has 11 universities, attended by 31,500 students. Budget for education in 1929 was 172,200,000 pesetas.

In 1923, 93,246 emigrated, including 42,000 farmers, who went to Cuba and Argentina. In 1926, the number was 80,739, and in 1927, 76,883, while each year half a million Spaniards were working in France. About 542,000,000 pesetas are remitted to Spain yearly by Spaniards domiciled abroad.

Military service is compulsory, the peace establishment being set at about 185,000, with reserves in addition. Many far-reaching reforms have been made by the Directorate.

The navy has nine vessels of from 2,134 to 15,700 tons and 51 auxiliaries. A building programme for six years from 1915 called for 59 additional vessels, but the work was delayed.

Spain was neutral in the Great War and was a member of the League of Nations, but resigned on Sept. 11, 1926, because she was refused a permanent seat on the Council. The resignation was reconsidered in 1928.

The unit of currency is the peseta, its gold par being 19.3 cents; average of exchange in 1926, 14.9 cents; in 1927, 17.06 cents; in 1928, 16.5 cents. The rate on Oct. 15, 1929 was 14.85 cents.

The Spanish Government on June 30, 1928, when the peseta reached its lowest point for the year, 16.28 cents, by royal decree was authorized to intervene in the international exchange market to control the quotation of the peseta and prevent speculation. A committee headed by the Minister of Finance was put in charge with a fund of 500,000,000 pesetas in gold and gold credits at its disposal. On Aug. 6, J. P. Morgan & Co., announced that American bankers had arranged a private banking credit (reported to be $25,000,000) for the Bank of Spain in connection with these plans; a private credit of a similar amount was arranged also by the Midland Bank of England.

The consolidated debt on March 31, 1929 was officially given as 19,272.7 million pesetas, (about $2,918,400,000).

Note circulation of the Bank of Spain July 31, 1929 was 4,289 million pesetas, with a gold reserve of 2,563 million pesetas and a silver reserve of 720 million pesetas and a balance abroad of 96 million pesetas.

A new agricultural credit bank, capitalized at 100,000,000 pesetas, was put in operation in April, 1925, by the Government. The Exterior Bank of Spain with a capital of 150,000,000 pesetas was established in Aug. 1928.

Recent budgets in pesetas are:

Year.	Revenues.	Expenditures.
1924 (actual)	2,862,700,000	3,612,100,000
1925 (actual)	2,822,800,000	3,315,300,000
1926 (actual)	2,967,200,000	3,746,400,000
1927 (actual)	3,218,200,000	3,544,700,000
1928 (actual)	3,522,300,000	3,784,500,000
1929 (proposed)	3,329,800,000	3,524,300,000

Extraordinary expenditures largely of a capital nature for 10 years from Jan. 1, 1927 are budgeted at 3,538,900,000 pesetas.

Imports and exports were:

Year.	Imports.	Exports.
1922	pesetas 3,036,880,000	1,453,264,000
1923	pesetas 3,062,678,000	1,596,020,000
1924	pesetas 2,945,419,000	1,790,775,000
1925	pesetas 2,249,550,629	1,584,736,000
1926	pesetas 2,153,523,000	1,605,588,000
1928	pesetas 2,576,097,000	1,887,199,000
1929	pesetas 3,005,000,000	2,183,500,000

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$70,901,364	$28,668,681
1923	61,861,685	31,461,062
1924	71,162,469	28,992,107
1925	79,202,892	32,797,730
1926	68,205,700	41,369,439
1927	73,776,303	34,351,200
1928	86,613,191	35,105,988

Trade of the Canary Islands with the United States was:

Cal. Year.	Imports.	Exports.
1922	$2,173,273	$244,403
1923	1,884,739	234,779
1924	2,001,305	192,821
1925	1,985,711	281,666
1926	3,832,953	464,377
1927	2,343,129	651,944
1928	2,758,858	835,374

SPANISH COLONIES IN AFRICA.

AREA, 140,000 square miles; divided, Rio de Oro and Adrar, 109,200; Ifni, 965; Spanish Guinea, 10,810; Fernando Po and others near Guinea, 795; and Spanish Morocco (Protectorate), 18,350.

POPULATION, Estimated, 980,000; Morocco, 744,000; others near Guinea, 236,000.

The colonies of Spain are now relatively unimportant, in sharp contrast with those which she held in the sixteenth, seventeenth and eighteenth centuries. The Guinean lands are undeveloped, and small values are taken therefrom. All figures are mere estimates.

Spain has given France the right of pre-emption in case of the sale of any of these African colonies or the adjacent islands.

Morocco, over a part of which Spain exercises a protectorate and where she has suffered severe military setbacks, is less developed than the French Algerian and other African possessions. (See Morocco.)

Imports from the United States into Spanish Africa for 1922 were valued at $1,279,425; for 1923, $556,025; for 1924, $601,979; for 1925, $681,684; for 1926, $798,554; for 1927, $1,414,420; and for 1928, $1,076,362.

SWEDEN, KINGDOM OF

AREA, 173,157 square miles. (Land surface only 158,500 square miles.)

POPULATION, estimate Dec. 31, 1927, 6,087,923.

CAPITAL, Stockholm; population, Jan. 1, 1928, 464,699, other cities, Goteborg, 233,303; Malmo, 117,197, and 30 with more than 10,000 population.

King, Gustaf V.; born June 16, 1858; succeeded on the death of his father, Oscar II., on Dec. 8, 1907; married, Sept. 20, 1881, Princess Victoria, daughter of Friedrich, Grand Duke of Baden.

Heir, Crown Prince Gustaf Adolf, born Nov. 11, 1882; married, June 15, 1905, Princess Margaret (died May 1, 1920), daughter of the Duke of Connaught and granddaughter of Queen Victoria; has four sons and one daughter; married, Nov. 3, 1923, Lady Louise Mountbatten.

Premier, Adm. S. A. A. Lindman, Conservative Sept. 27, 1928.

Sweden occupies the eastern and largest part of

the Scandinavian peninsula in northwest Europe. The Kjolen mountain range separates it from Norway on the west, and the Gulf of Bothnia and the Tornea River from Finland on the east. The Baltic Sea separates it from the Baltic states and Germany on the southeast and south and the Cattegat from Denmark on the southwest.

Lakes and rivers are more numerous in Sweden than in any other European country except Finland. The amount of hydroelectric development in 1925 was 1,416,000 horse power, with 6,500,000 more available. Electrification of the state railroads is being carried on rapidly. About 45 per cent. of the farms were in 1927 equipped with electricity.

Although of broken, mountainous topography, it contains much productive land, well watered, on which the Swedes have attained high efficiency in agriculture. Half the people are on farms, which number about 430,000; of which 120,000 are under 5 acres, and 270,800 between 5 and 50 acres. Sweden's total area divides 9.4 per cent. arable, 2.3 per cent. meadows, 59.4 per cent. forests, which are largely susceptible of cultivation after removal of the trees and which yield large annual timber cuts.

The export of timber and lumber in 1927 was 1,755,285,000 board feet; of wood pulp, 1,229,238 metric tons; of newsprint, 171,737 tons; and matches, 42,562 tons.

The crops in 1928 were valued at 1,153 million kroner; and in 1927 at 1,112 million. The wheat harvest in 1928 was 529,878 metric tons from 373,176 acres; rye, 435,947 tons from 561,940 acres; barley, 208,358 tons from 272,565 acres; oats, 1,268,769 tons from 1,806,358 acres; potatoes, 1,793,085 tons from 336,590 acres; sugar beets, 1,096,002 tons from 105,650 acres; fodder roots, 2,895,458 tons from 209,359 acres; and hay, 5,334,372 tons from 4,712,513 acres.

Pig iron production in 1928 was 393,100 metric tons (417,800 in 1927); and steel ingots, 595,100 tons (530,900 in 1927).

About 450,000 tons of coal and 65,000 tons of sulphur pyrites are mined annually. Iron ore mining is most extensive north from the Arctic Circle. The iron and steel industries—Swedish steel being of especial value for tool making—are mostly in the central part. Much machinery is manufactured, with considerable porcelain production. In 1925 the value of the industrial output was about 4,197,991,000 kroner, with 292,714 men, 61,177 women, 28,119 boys and 9,682 girls under eighteen years of age employed in 11,493 factories.

The number of emigrants in 1923 was 29,238; in 1924, 10,671; in 1925, 11,948; in 1926, 13,043; and in 1927, 12,849, about 70% going to the United States.

On July 1, 1928, the Swedish merchant fleet included 1,027 steamships of 1,071,080 gross tons and 232 motor ships of 409,109 gross tons. In 1927 there entered Swedish ports 29,791 vessels of 16,252,600 tonnage. In 1922, 140,274 ships and boats passed through the canals of Sweden.

The gross income from the merchant marine in 1927, 294,603,000 kroner (278,188,000 in 1926).

In 1927 Swedish railways were 10,193 miles, of which 3,865 were state-owned and earned $9,671,000.

The Government is a constitutional monarchy, executive power being vested in the King, advised by a Council of State, headed by the Minister of State or Premier. The Legislature has two Chambers, the first of 150 members and the second of 230 members. Suffrage is universal for all over twenty-four years of age of both sexes. Proportional representation has been in effect since 1909.

The standing of the second Chamber elected on Sept. 15-21, 1928 is: Social Democrats, 90; Conservatives, 73; Liberal Prohibitionists, 28; Agrarians, 27; Communists, 8; Liberals, 4.

A plebiscite was taken in Sweden, Sunday, Aug. 27, 1922, on a consultative referendum on prohibition. The offical result of the vote was 922,122 against prohibition, 886,232 for, a majority of 37,890 out of 1,808,354 votes cast. Fifty-three per cent. of the Stockholm vote was cast by women. Of this 53 per cent. 44 was against and 9 in favor of prohibition. At Gothenburg, the second city in Sweden, 23,355 women voted against prohibition and 11,904 in favor. In Malmo, the third city, 15,141 women voted against and 4,511 for.

The present system of restricted liquor traffic, devised by Dr. Ivan Bratt, was put into effect in 1914, replacing the Gothenburg system, which abolished the saloon and established certain hours when liquor could be sold.

Briefly, the Bratt system is this: All wine and spirits in Sweden containing over 3.6 per cent. alcohol are sold through the Wine and Spirits Central, the only organization in Sweden having the right to manufacture and to sell liquor wholesale. This organization sells to 120 local companies in as many local districts throughout Sweden, and these in turn supply individuals as well as hotels and restaurants. Individual buying is controlled by the "motbok," a booklet with detachable slips on which its owner must sign his name every time he buys strong liquor. The "motbok" entitles its owner to four litres of spirits a month, although in some parts of Sweden, such as the northern provinces, where the prohibition forces are strong, the quantity is two litres. Applying for a "motbok" is like applying for a passport. Usually only one member of a family may have one of these books, exception being made in the case of sons who have reached the age of twenty-five.

In public places, such as hotels and cafes, the amount of spirits to be sold is based on the amount of food consumed, with a certain maximum quantity permitted from noon to midnight.

The Wine and Spirits Central has bought out all the private wine merchants in Sweden, and the shareholders of it and of the local companies which it serves are entitled to only 5 per cent. on their money. The balance of the profits go to the Government. Three main ideas run through the Bratt system: Reduction of the general ration of distilled and spirituous liquors through a central control, denial of liquor to alcoholics and persons who are known to abuse drink, and elimination of all private interest in the liquor traffic. Under this law Sweden now derives a revenue of 110,000,000 kroner from the liquor traffic. "Bootlegging" is unknown. There is no enforcement problem.

In 1913, before the present restrictive measures went into effect, the total Swedish consumption of distilled and spirituous liquors was 38.7 millions of litres. In 1926 the total consumption was 30 millions of litres, a reduction of 23 per cent. But even these figures are far too modest, for in 1913 distilled liquors were sold by scores of private dealers, the figures for which are lacking. Arrests for drunkenness in Sweden have gone down 49 per cent.

The population is very homogeneous, being entirely of the Scandinavian branch of the Aryan family, except about 30,000 Finns and 10,000 Lapps. Emigration has sent about 2,200,000 Swedes abroad, of whom 1,500,000 are in America and 370,000 in Finland. Most of the people are Lutheran Protestant, which is the state religion, but complete freedom of worship exists. Education is compulsory from seven to fourteen years of age, and besides the many higher institutions of learning (including two universities) which attain great culture, schooling is so general that army recruits in 1910 were only 0.16 per cent. illiterate.

Compulsory military service is required, with volunteering permitted, 655,000 men being on the army rolls, with 400,000 reserves. The peace establishment in 1926 was reduced to 15,000. A draft of conscriptives totaling 25,000 is called up for regimental training each year. The navy has 13 vessels of from 3,600 to 7,180 tons, with 10 destroyers, 4 torpedo gunboats, 27 torpedo boats and 14 submarines. The active personnel is 5,500.

Treaties outlawing war for twenty years have been signed with Norway, Denmark and Finland and an arbitration treaty with Germany.

The unit of currency is the krona (=26.8 cents).

Sweden resumed gold payments on April 1, 1924, having a gold reserve then in the Riksbank of 270,700,000 kroner and a note circulation of 503,600,000 kroner on April 15. Note circulation, July 31, 1929, was 522,000,000 kroner, with a gold reserve of 234,000,000 kroner, and foreign assets of 207,000,000 kroner.

The public debt on Apr. 30, 1929 was 1,831,600,000 kroner ($480,868,800), nearly all funded, contracted mostly for productive purposes, therefore representing, not net liability but investment, the interest on state investments covered by this debt being more than the interest thereon. Assets of the Nation were valued at 3,102 million kroner on June 30, 1927.

Recent budgets were balanced at:

1923-24	kroner 737,561,400	($197,666,348)
1924-25	kroner 648,891,700	($173,902,976)
1925-26	kroner 728,800,000	($195,118,000)
1926-27	kroner 633 274,000	($167,034,069)
1927-28	kroner 709,200,000	($190,065,600)
1928-29	kroner 744,746,400	($199,592,000)
1929-30	kroner 769,400,000	($206,199,200)

Imports and exports in both kroner and dollars for seven years:

Year.	Imports.	Exports.
1922	kroner 1,114,760,900 ($298,595,416)	1,152,376,732 ($309,194,548)
1923	kroner 1,294,528,000 ($343,050,000)	1,142,095,000 ($302,655,000)
1924	kroner 1,424,490,413 ($371,462,000)	1,260,953,593 ($331,667,000)
1925	kroner 1,436,051,000 ($395,679,609)	1,357,093,000 ($364,379,470)
1926	kroner 1,492,787,000 ($398,256,916)	1,416,883,000 ($379,724,644)
1927	kroner 1,575,000,000 ($432,257,500)	1,611,457,000 ($433,031,621)
1928	kroner 1,710,078,000 ($458,300,904)	1,566,935,000 ($419,938,580)

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$32,468,343	$33,350,235
1923	42,402,949	36,183,925
1924	42,265,628	40,001,440
1925	42,465,366	41,033,410
1926	40,854,478	44,017,955
1927	44,689,426	47,896,333
1928	57,322,423	46,118,949

SWITZERLAND, CONFEDERATION OF

AREA, 15,976 square miles.

POPULATION, census of Dec. 1, 1920, 3,886,320; official estimate, Dec. 1, 1927, 3,987,000.

CAPITAL, Berne, population, 1927, 109,020; other cities, Zurich, population, 215,460; Basel, 141,650; Geneva, 126,350; St. Gall, 64,850; Lausanne, 76,200; and 19 above 10,000.

President, for 1930,

Switzerland is bounded on the west by France, the north by Germany, the east by Austria and Italy and the south by Italy. It is mostly mountainous, having many high peaks of the Swiss Alps, with many fertile and productive valleys between, in which dairying flourishes, and much foodstuff is produced. The German language is spoken by a majority of the people in nineteen of the twenty-five cantons, French in five, and Italian in one. In 1920, there were 402,385 foreigners in the country; and in 1910 German was spoken by 2,594,298 persons, French by 793,264, Italian by 302,578, Romansch by 40,122; and other languages 23,031. There were in 1920, 212,300 peasant proprietors.

Of the total area, 28.4 per cent. is unproductive. Of the productive area, 35.8 per cent. is devoted to meadows, 29 per cent. to forests; 18.7 per cent. to fruits, and 16.4 per cent. to crops and gardens. In 1926 there were 123,667 acres under wheat and 49,725 acres under rye. Dairy products are the chief agricultural interest, vast quantities of condensed milk and of various forms of chocolate being produced. Wine and tobacco also are produced. In the last census, 1926, there were 139,283 horses, 3,843 mules, 891 donkeys, 2,460,403 cattle, 169,252 sheep, 635,349 swine, and 287,083 goats.

The Swiss Confederation has enacted that the forest area, 3,744 square miles, or 2,396,270 acres, shall never be reduced; the law applying to national cantonal and private forests, replanting being provided for. Over 16 million trees, chiefly coniferous, have been planted yearly for three years.

Switzerland has important clock and watch works, and large embroidery works. In 1925 there were 8,147 factories with 363,730 employees. Exports of clocks and watches in 1928 were valued at 300,437 francs.

For the relief of unemployment 469 millions of francs had been expended between Oct. 29, 1919, and June 1, 1923. The number unemployed reached a maximum of 146,302 on Feb. 28, 1922; by May 1, 1924, it had declined to 23,195, and on Jan. 1, 1925, to 11,419. In 1926 the average was 14,118, and in 1928 unemployment was probably non-existent. Government aid was suppressed by Federal decree on June 30, 1924.

In February, 1924, a referendum was taken on an amendment permitting the Federal Council to prolong the working week from forty-eight hours to fifty-four in times of serious economic crisis. It was rejected by a vote of 431,341 to 314,009.

In 1922, 5,787 Swiss emigrated; in 1923, 8,008; in 1924, 4,140; in 1925, 4,334; in 1926, 4,947; in 1927, 5,272; and in 1928, 4,800.

In a referendum late in 1922 a proposal for a capital levy was heavily defeated—the vote being 735,894 to 109,686.

The state owned railways have a mileage of 1,889, about 55% of the whole. By Jan. 1, 1929, 1,032 miles carrying about 85% of the traffic were operated by electricity, the completion of a ten-year program requiring an investment of 618 million francs computed to yield a return of 8%. The savings are computed to be 20 million francs on coal (550,000 tons, 17.5 millions on staff expenditure and 16 millions on maintenance and upkeep). The net profits of the railways in 1928 was 17 million francs.

By Jan. 1, 1929, the hydro-electric plant installed was rated at about 2,142,000 horsepower, distributed on 6,012 power stations of which 56, of more than 10,000 h.p. each, accounted for 1,675,500; eight with a rating of 539,000 h.p. were being constructed. Production in 1928 was nearly 5,000 million kwh., and capital investment about 1,200 million francs. About 95% of all Swiss towns and villages are served by electricity. Per capita consumption exceeds 900 kwh. annually.

In 1928, 103,630 foreign tourist automobiles entered Switzerland (78,693 in 1927). Tourist travel in 1927 exceeded 1926 by 13½%, and showed a further increase of from 7% to 10%. The hotel industry employs about 65,000 persons and realizes an annual profit of about 200 millions of francs. Automobiles registration, end of 1928, 65,000; motorcycles, 40,788, and bicycles, 750,277.

The Government is a confederation of the twenty-five cantons, which are joined under a Federal Constitution (that of May 29, 1874, being now in force), with large powers of local control retained by each canton. The national authority vests in a parliament of two chambers, a Standerat" or States Council, and a "Nationalrat" or National Council—the first of forty-four members, the second of 189 members. There is universal suffrage, and in many cantons the people meet in popular assemblies to vote directly under absolute democratic methods. Switzerland has maintained its unity since the men of the three cantons of Uri, Schwyz, and Lower Unterwald formed a defensive league in 1291, and became formally independent of the Holy Roman Empire in 1648.

The election on Oct. 27, 1928 returned a National Council, practically unchanged in complexion, composed of 58 Radical Democrats, 50 Socialists, 46 Catholics, 31 Agrarians, 6 Liberals and 7 others.

There is complete freedom of worship. In 1920 there were 2,218,589 Protestants, 1,586,826 Roman Catholics, and 20,955 Jews. Protestants are in a majority in twelve of the cantons, and Catholics in ten.

Instruction is obligatory, about 600,000 pupils being taught in the lower schools, with many technical schools and seven universities with about 7,000 students. The percentage of illiteracy is low.

A referendum in the interest of prohibition, calling for an extension of the state liquor monopoly and placing a big import duty on all foreign liquors, was rejected at the polls on June 3, 1923, by a vote of 352,772 to 259,741.

A bill to authorize local option as to whether the sale of hard liquor should be permitted in any city or town was presented to the voters by a "dry" petition of 150,000 citizens. At a referendum on May 12 it was overwhelmingly rejected in every Canton, the total vote being impressively negative.

The national defense depends on the National Militia, with compulsory service. Fortifications defend the St. Gothard Pass on the south and the Rhone River valley. The army always has been efficient and for many generations has been constantly in effective condition. The peace establishment normally under training is 46,200.

Switzerland was neutral in the great war and is a member of the League of Nations, of which Geneva is the seat.

A constitutional amendment adopting the principle of old age insurance was accepted by referendum, 406,063 to 192,209 on Dec. 6, 1925.

The budget deficits, uninterrupted since 1913, have been: 1924, 21.6 million francs; 1925, 9 million; 1926, 9.4 million; 1927, 5.2 million; 1928, 9.3 million. That for 1929, however, shows a surplus of 2 million due to increased revenues.

Subsidies for sick insurance rose from 3,999,000 francs in 1919 to 7,060,000 in 1928: accident insurance from 4,344,000 francs to 6,300,000; unemployed relief from 509,000 francs to 2,500,000. Old age pensions in 1928 are estimated at 19,000,000 francs, and the fund for Government employees 19,764,000 francs. In 10 years the outlay for these services increased from 8,852,000 francs to 54,624,000 francs. None of these subsidies existed in 1913. In additional the professional training courses call for 7,329,000 francs in 1928. The social insurance fund on Jan. 1, 1929 was about 60 million francs but still inadequate.

The consolidated debt Dec. 31, 1928, was 1,987,303,000 francs, and the debt of the Federal railways 2,681,683,000 francs.

The Swiss bank estimates the invisible balance of trade in 1926 thus: Tourists, 200 million francs; services (transit traffic, etc.), 105 to 110 million; investments abroad, 320 to 330 million; total, 625 to 640 million. The balance of trade against Switzerland in 1926 was 487 million francs, leaving a favorable invisible balance of trade of 138 to 153 millions of francs. The Bank estimates the National wealth in 1925 at 60 to 64 billion francs.

The unit of currency is the gold franc = 19.3 cents. The Swiss National Bank had outstanding July 31, 1929, banknotes amounting to 900 million francs with a reserve of 507 million francs in gold, 210 million francs of foreign balances, and 34 million francs in silver. The cover was about 88%. Metal currency in circulation amounted to 551.6 millions of which 380 millions were in gold.

The Swiss franc has been on a gold exchange basis for several years though no technical declaration to that effect has been made.

Recent budgets in francs are:

Year.	Revenue.	Expenditure.
1924	282,900,000	304,500,000
1925	298,814,000	307,974,000
1926	313,764,000	323,143,000
1927	331,316,000	332,900,000
1928	338,200,000	347,500,000
1929	352,800,000	350,800,000

Imports and exports were:

Year.	Imports.	Exports.
1921	$399,554,286	$310,193,593
1922	369,491,745	339,983,782
1923	432,723,814	339,719,495
1924	483,362,324	399,551,881
1925	508,392,694	393,477,399
1926	466,000,430	254,443,728
1927	495,112,242	390,437,057
1928	520,557,000	411,862,600

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$4,624,360	$38,923,598
1923	5,900,875	38,123,806
1924	9,055,112	35,605,523
1925	8,812,648	40,267,201
1926	8,259,663	42,038,003
1927	10,122,672	45,866,182
1928	12,206,250	42,887,135

SYRIA.

(French Mandate.)

AREA, estimated, 60,000 square miles.

POPULATION, census of 1923: Lebanon, 628,863; Aleppo, 604,000; Damascus, 594,000; Alouite, 261,000; Jebel Druse, 50,000; Bedouin nomads (estimated), 250,000. Total, 2,981,863.

ADMINISTRATIVE CAPITAL, Beirut, population, 80,000. Chief cities, Damascus, population, estimated, 170,000; Aleppo, 140,000; Homs, 60,000; Hama, 35,000; Alexandretta, chief port, *French High Commissioner*, Auguste Henri Ponsot, Oct. 4, 1926.

Syria is a former province of Turkey lying south of Anatolia with Mesopotamia on the east, Transjordania and Palestine on the south and the Mediterranean on the west. It is about the size of the State of Georgia. It was made an independent state by the Treaty of Sevres, Aug. 10, 1920, and the mandate given to France by the Supreme Council of the Allied Powers. It came in force Sept. 29, 1923.

The French development of Syria provided for a federative state of three provinces, Aleppo (the district around Latakia), Damascus, and Alouite. Aleppo and Damascus were united in 1925 to form the single territory of Syria. Damad Ahmed Namy Bey, a Turk, was appointed President of Syria in April, 1925, to hold office until a regularly elected Parliament met. The council of Alouite that year passed a resolution favoring independence under the French mandate and an economic union with the rest of Syria.

Great Lebanon was proclaimed a state Sept. 1, 1920, with Beirut as its capital and given a flag, the French tri-color with a cedar on the white ground. It was reorganized into the Republic of Lebanon and in May, 1926, its National Assembly elected Charles Debbas, an Arab, as President. He was re-elected May 27, 1929, for three years. A revision of the constitution in the summer increased the term to six years and enlarged his powers.

On Dec. 7, 1924, a new state, Alexandretta, was set off from Aleppo and Damascus. In March, 1926, the Representative Council, meeting as a Constituent Assembly, proclaimed the independence of the region as a separate state and voted a constitution. They asked the High Commissioner to appoint M. Durieux, his delegate there, President.

An outbreak in Jebel Druse, a mountainous district about fifty-five miles southeast of Damascus, Aug. 5, 1925, gave the French serious trouble. The French Government recalled Gen. Sarrail, the High Commissioner, and on Nov. 6, 1925, appointed Henri de Jouvenel.

The Druses, under Sultan el Atrash, waged a guerrilla warfare with great bitterness, which brought fierce reprisals. Damascus, a wealthy city of 140,000, of venerable age in the time of the Apostles, had been first bombarded in October, 1925. It suffered great damage by a second bombardment by the French troops on May 6, 1926, and many civilians were killed. France put about 30,000 troops in the field and by March, 1927, announced the situation had become quiet.

About 1,500,000 of the population are of the orthodox Mohammedan faith.

Ahmed Namy Bey, President of Syria, resigned in February, 1928, and the Kadi of Damascus, Taj-ed-din was made Prime Minister of Syria and head of the Provisional Government, pending the action of a Constituent Assembly, duly elected, which met in Damascus June 9 to draw up a constitution to be followed by a treaty between France and Syria which should define their relations. The 69 delegates were nearly all Nationalists and elected as president Hashim Bey Atassi, once deported for his extreme Nationalist activities.

Despite the statement of the High Commissioner that there was no question whatever of France's giving up her mandate, the Assembly's draft of a constitution declared Syria an "independent sovereign State" containing all the lands ceded by the Ottoman Empire; that the President may negotiate and ratify international treaties, may appoint ministers, diplomatic representatives, civil officials, and judges, and may declare martial law; and provided for a national army.

The High Commissioner requested the Assembly to modify these articles as in conflict with the Mandate. The Assembly rejected this proposal by a vote of 44 to 6 whereupon the High Commissioner on Aug. 12 dismissed the Assembly for three months. He, after a visit to Paris, delivered on Jan. 11, 1929, a general reservation that nothing can be acceptable to France which is or can be in opposition to obligations contracted by France concerning Syria, particularly toward the League of Nations. The Assembly was obdurate and M. Ponsot dismissed it *sine die*.

The unit of currency is the Syrian pound (which in gold = 20 gold francs = $3.86). The paper Syrian pound was $0.648 in 1926, but since 1927 has been fairly stable at $0.785. The budget for 1928 in the Mandated Territory shows: Revenue, £Syr 21,639,000 ($16,943,300). expenditure £Syr.18,177,000 ($14,232,600). The budget for 1929 is estimated to balance at £Syr.19,254,020 ($15,075,100). For 1929 the balanced estimate for the State of Syria is £Syr. 11,259,520 ($8,816,200).

In 1928, 918 steam and 2,859 sailing vessels of 1,923,593 aggregate tonnage visited Syrian ports.

Automobile traffic from Beirut and Damascus to Bagdad and Teheran across the Syrian desert is on the increase, 2,519 automobiles making the trip in 1928.

The important railroad lines are Beirut to Damascus, with connections at Royak to Homs, Homa and Aleppo and from Tripoli, a promising seaport, to Aleppo, where connection is made with the Bagdad railroad. Beirut, the capital, is the seat of the Syrian Protestant College (1,217 students) founded by the Rev. Dr. Daniel Bliss in 1874, which shares with Robert College in Constantinople American educational honors in the Levant.

Schools in 1927 numbered 552 public, with 38,873 pupils, and 990 subsidized private, with 86,648 pupils.

The eastern part of the country is dry, being cut off from the sea-moisture-laden winds by mountains. Irrigation is essential to cultivation. Tobacco, wheat, fruit, wine and silk are the chief products. Mineral wealth is unimportant. Great Lebanon, which extends along the Mediterranean for 120 miles, with an average width of thirty miles, produced olives, wheat, grapes, oranges and mulberry trees, and also supports much livestock. Tobacco production is about 3,000,000 pounds per annum

The cultivable acreage of the country is estimated at about 12,500,000 acres but only one-fifth is under cultivation. The cotton production of 61,500 bales in 1928 was from 60,000 acres and by irrigation the acreage could be profitably increased to 2,000,000 acres. The yield of silk cocoons in 1928 was about 3,500,000 kilos.

Trade in dollars was:

Years.	Imports.	Exports.
1922	$41,164,000	$9,020,000
1923	33,550,000	14,640,000
1924	41,704,000	17,796,000
1925	46,404,000	21,953,000
1926	41,055,000	17,652,000
1927	50,308,000	21,486,000
1928	51,782,000	20,980,000

Trade of Syria with the United States in 1926 was: Imports, $2,165,962; exports, $2,756,860; in 1927, imports, $2,547,350; exports, $3,984,367; in 1928, imports, $3,078,378; exports, $4,683,345.

TURKEY, REPUBLIC OF

AREA; approximately 282,627 square miles, but boundaries are indeterminate. In Europe, 8,819 square miles; in Asia, 273,808.

POPULATION, census of Oct. 26, 1927, 13,660,275.

CAPITAL, Angora, in Anatolia, population, census Oct. 1927, 74,789. Chief city, Constantinople, population, census Oct. 1927, 673,029.

Istanbul Constantinople

Other cities: Smyrna, population census of 1927, 153,845; Konia, 47,286; Brussa, 61,450; Adana, 72,052; Adrianople, 34,669; Caesarea, 39,544; Aintab, 39,571.

President and Commander-in-Chief, Mustapha Kemal Pasha Ghazi, born 1880, elected August, 1923, re-elected for four years Nov. 1, 1927.

Premier, Ismet Pasha, Mar. 4, 1925.

Governor of Constantinople, Emin Bey.

Grand National Assembly at Angora has complete control. The Assembly on Nov. 2, 1922, declared itself invested with sovereign rights, that the Sultanate be abolished, that the present Sultan be deposed as Caliph (spiritual head of Islam), and that a suitable member of the house of Osman be appointed to that place. The Sultan, Mohammed VI., on Nov. 17 boarded the British battleship Malaya and was taken to Malta. He died at San Reno, May 16, 1926. On the 18th the National Assembly elected to the Caliphate the heir to the Sultanate, Abdul Medjid Effendi (born May 25, 1868), the cousin of Sultan Mohammed VI. On March 2, 1924, the Grand National Assembly deposed the Caliph (who fled to Switzerland) and declared the Caliphate vested in the Assembly.

Up to the beginning of the World War Turkey, or the Ottoman Empire, included European Turkey, Anatolia, Arabia, Syria, Palestine, Mesopotamia, Armenia and Kurdistan, also groups of islands in the Aegean Sea.

So late as 1916, the areas of the Turkish Empire totalled about 710,224 square miles, with about 21,273,900 of population. Cyprus and Egypt had passed to British domination—Cyprus annexed, and Egypt under a protectorate. There remained, therefore, in the Turkish Empire, 10,882 square miles of area with 1,891,000 of population in and around Constantinople and Adrianople on the north of the Straits; in Asia Minor, including Ismid (opposite Constantinople), Brussa, Bigha, Smyrna, Kastamuni, Angora, Konia, Adana, Sivas and Trebizond, 199,272 square miles, with 10,186,900 of population; Armenia and Kurdistan, 71,900 quare miles, with 2,000,000 of population; Mesopotamia, 143,250 square miles, with 2,000,000 of population; Syria, 114,530 square miles, with 3,675,100 of population; and the Hejaz and Yemen in Arabia, 170,300 square miles, with 1,050,000 of population; a total of 710,224 square miles, with 21,273,900 of population.

In Asia, a part of Armenia has adopted a Soviet government and is at least in harmonious agreement with Soviet Russia. Syria has passed under the mandate of France (which see), Mesopotamia has been created the dependent kingdom of the Iraq (which see); Palestine under the mandate of Great Britain (which see); and Arabia (which see) has asserted its independence as the Kingdom of the Hejaz and the Nejd, the Imamate of Yemen and other divisions.

The Balkan wars of 1913 had reduced the European area dominated by Turkey, leaving her only that part of Thrace from Adrianople east to the Black Sea and south to Enos on the Aegean; but it left her completely the mistress of the Straits of the Dardanelles.

The Treaty of Sevres (Paris), following the World War, further diminished Turkish territory, giving all Thrace to Greece except a triangle thirty miles by forty, containing a neutral zone, along the immediate border of the Dardanelles, the Sea of Marmora and the Bosphorus on both the European and the Asiatic sides, to secure equal passage rights to all nations. All fortifications were to be demolished. The Straits were to remain open in peace and in war for all craft and to be neutral in time of war. They were not to be subject to blockade or other hostile acts.

A Commission of the Straits was named to have complete control of the navigation of the Straits, but Constantinople was to return to Turkish administration.

The Allied occupation of Constantinople became complete on March 16, 1920.

The real power in the Turkish Empire was seized by the Grand National Assembly and a responsible Ministry set up by the Nationalists at Angora, in Anatolia, which was the most genuinely Turkish section of the old Ottoman Empire, after the last Chamber of Deputies, sitting at Constantinople, was dissolved April 11, 1920. The Assembly voted on Jan. 20, 1921, a Fundamental Law, which was in fact a new Constitution for Turkey. It declared that all sovereignty belonged to the people and that all power was vested in its representatives—the Grand National Assembly. It provided for universal suffrage without religious or race distinction and recognized the right of minorities to freedom and protection. It contained a programme of social reform.

The success of Mustapha Kemal Pasha, soldier and able diplomatist, who was chosen President of the Assembly and Commander-in-Chief, in driving out the Greeks in 1922 from Smyrna (formerly with a population of 225,000, now about 98,000) and its hinterland, establishing his army on the Straits, negotiating the Lausanne Treaty (which the United States Senate failed to ratify on Jan. 18, 1927), to replace the discarded Treaty of Sevres, will be found in the article on Turkey in The World Almanac of 1925.

The *modus vivendi* was extended to June 1, 1928, by an agreement between Turkey and the United States on Feb. 17, 1927, and provision made for resuming diplomatic and consular relations. Joseph C. Grew was appointed Ambassador to Turkey May 20, 1927.

Turkey in Europe is now slightly larger than Massachusetts, and the entire Turkish Republic is slightly larger than California and New Mexico combined. On the west the Bulgarian boundary runs from the mouth of the Rezvaya River on the Black Sea to the Maritza River, fifteen miles northwest of Adrianople; and the Greek boundary follows that river to Enos on the Aegean, except for the Town of Karagatch. On the east the Russian boundary runs from just south of Batum to the northwest corner of Persia. The Persian boundary continues from near Mount Ararat to the Iraq at the Mosul line delimited in 1926 by treaty agreement with Great Britain. (See Iraq.) The southern (Syrian) boundary runs from Payas on the Gulf of Alexandretta to the Iraq, and, with the Mosul line, runs practically due east and west. There are seventy-two vilayets or provinces.

REPUBLIC WITH NEW CONSTITUTION.

In October, 1925, a new Constitution was adopted proclaiming the Republic of Turkey with a President elected for four years. The National Assembly, composed of 283 Deputies elected for four years, will have legislative powers only, the executive power being intrusted to a Cabinet responsible to the Assembly. A Council of State, the members appointed by the President, will fulfil the functions usually cared for by a parliamentary Upper House.

The basic revised Constitution had been adopted by the Assembly on April 20, 1924. It contained clauses designed to limit the citizenship of non-Turks and non-Moslems, and limited the franchise to males over eighteen. A strict prohibition law passed in 1923 had so disastrous an effect on production and brought such a loss of revenue that a new law was passed on April 8, 1924, continuing the liquor traffic under heavy taxes and a measure of Government control.

New laws enacted in 1925 abolished polygamy, enforced registration of marriages, and gave the power to grant divorces to the President. This, Kemal Pasha promptly took advantage of by divorcing his wife, Latife Hanoum, twenty-two years old, an advanced feminist. Turks generally have followed his advice and adopted hats in place of the fez, held an emblem of the old regime, and the turban.

The National Assembly in 1926 adopted three new codes of law: the civil code was taken from Switzerland, the criminal code from Italy, and the commercial code from Germany, all with but little change. The codes are independent of religion, and the civil code replaces the various bodies of laws and codes that had grown up based on the Koran, it deals with the law of persons, of the family, of inheritance, and of property. It abolished both polygamy and slavery by tacit omission. As Turkey denounced the Capitulations on entering the war and as this act was incorporated in the Lausanne Treaty, the adoption of these codes is of the utmost importance. The Swiss civil code was chosen, said Mahmoud Essad, Minister of Justice, because it was "the newest and most perfect and democratic." Switzerland adopted it after seven years of discussion, Dec. 10, 1917, and it went into effect there Jan. 1, 1921.

The Gregorian Calendar was adopted, also the twenty-four-hour clock. Civil marriages were made obligatory after Sept. 1, 1926, though a religious ceremony may follow if desired. The legal marriage age under the new law is seventeen for women and eighteen for men. Public declaration of intention must be made fifteen days before the ceremony.

The National Assembly unanimously passed in April 1928 a bill amending the constitution by eliminating the article declaring that Islam is the religion of the Republic. In April 1928 the Assembly enacted the substitution of the Roman alphabet and characters for the Arabic in all official documents. Kemal Pasha declared the Arabic characters "respon-

sible for 80% of Turk illiteracy." A new dictionary will be prepared and new textbooks for schools. Fifteen years will be allowed the people to become accustomed to the new system before its use becomes compulsory. The change from Turkist figures to the so-called Arabic figures used in the West has already been widely made. The new alphabet omits Q and W and X. It adds a C and an S each with a cedilla, a G with an accent, and I, O, and U, each with two dots above like the umlaut. A reform following the census experience in October 1927 is being worked out to compel Turks to adopt surnames. Also it is proposed to scrap old titles and substitute Western ones, like "General" for "Pasha."

The National Assembly in 1929 consolidated the public works program for the next 12 years by appropriating $120,000,000 to be used exclusively for the construction of a network of railways, ports and breakwaters, and in irrigation and reclamation projects. Supervision of the work was given to Swedish engineers. Highway reconstruction is being studied.

A mutual guarantee and neutrality treaty for three years was signed by Turkey and Russia on Dec. 17, 1925.

NATURAL RESOURCES.

Agriculture is the chief industry of the Turks, products being tobacco, which goes to almost all world marts; cereals, cotton, figs, nuts, fruits of almost all varieties, opium and gums. About 17 million acres are in forests. The export of tobacco in 1927 was 41,562 tons and of cotton 17,000 tons.

In 1927 there were 9,745,088 sheep, 6,853,356 goats, 2,616,089 cattle, 1,096,422 asses, and 178,116 horses.

Turkey has large mineral resources, not yet developed, chrome ore, zinc, manganese, antimony, copper, borax, emery, asphalt, meerschaum, some coal and lignite, salt, some gold and silver, and petroleum on lands bordering the Marmora Sea.

Turkish fisheries are regarded as important, but manufactures are small and methods crude.

Turkey suffered severely during the twelve long years of war. The destruction of Smyrna, devastation of cultivated areas, lack of transportation and the deportation of the skilled Christian workers kept the output of the country in 1923 far below pre-war average. The Government has made efforts to assist the peasant and is undertaking the building of railroads; but in its efforts to build up a purely Turkish Moslem state many prohibitive duties and restrictive laws and regulations have been put into force. In the compulsive exchange of population 1,000,000 Greeks and Armenians left the country, and by May, 1924, 300,000 Moslem refugees had been brought in.

The majority of the Turkish refugees had some capital and were settled upon land vacated by the Greeks. Reconstruction is proceeding, but slowly. In 40,000 villages in January, 1926, there were reported 4,800 primary schools with 9,000 teachers and 302,500 pupils; 71 secondary schools, 56 for 4,800 boys, and 15 for 1,000 girls; 20 high scoools for 4,500 boys and 1,100 girls; 85 per cent. of the population is illiterate. The budget of the Ministry of Education for 1928-29 is £T6,558,000. The strength of the active army in 1927 was 120,000.

Railway mileage of standard gauge in use Dec. 31, 1927, was 4,296 kilometers (2,668 miles), with 2,205 kilometers (1,369 miles) under construction. In 1927, 2,255 vessels of 1,775,059 tonnage called at Smyrna and at Constantinople; the number clearing and in transit was 13,195 of 11,321,654 tonnage.

The unit of currency is the piaster (par of exchange = 4.4 cents), of which 100 = 1 pound Turkish. Average exchange rates for the Turkish pound were: 1923, $0.6967; 1924, $0.529; 1925, $0.5449; 1926, $0.5231; 1927, $0.515; 1928, $0.5006; and May 31, 1929, $0.4953.

According to the Lausanne Treaty, the pre-war Ottoman debt, amounting to £129,000,000, will be distributed between Turkey and the territories detached after the Balkan War and World War. Turkey's share is 62.25%. Agreement was reached in 1928 whereby Turkey's annual payments were fixed at from 1928 to 1935, £T1,980,000 gold; to 1941, £T2,380,000; to 1946, £T2,780,000; to 1951, £T3,-180 000; then till paid £T3,400,000. This agreement was ratified by the National Assembly May 15, 1929, and from June 1, payments began to be made through the Ottoman bank.

The treasury bonds are to be consolidated in one loan paying 5% and redeemable in 20 years, and partial cancellation of interest on the long-term debt and unified loans" were arranged.

Finance Minister Shurky Bey in his budget speech Apr. 18, stressed the need for a State Bank for which funds are being accumulated. A $500,000 government gold reserve will be used for this purpos augmented by the sale of Turkish state jewels having no historic interest and the net profit about $15,000,000 from the replacement of the old currency by the new which was put out to the amount of £T453,-000,000 in 1928.

Recent budgets in Turkish pounds were:

(Ending May 31.)	Revenues.	Expenditures.
1924-25	£T129,214,610	£T140,433,370
1925-26	153,060,000	167,000,000
1926-27	190,158,864	190 105,544
1927-28	194,580,554	194,454,619
1928-29	207,173,199	207,169,388
1929-30	220,546,000	220,408,481

Foreign trade figures are:

	Imports.	Exports.
1923	£T144,789,000 ($57,844,000)	£T 84,651,000 ($51,538,000)
1924	£T193,611,000 ($102,420,000)	£T158,868,000 ($84,041,000)
1925	£T242,314,118 ($132,000,000)	£T193,119,456 ($105,000,000)
1926	£T234,591,722 ($120,814,737)	£T187,742,801 ($96,887,542)

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$15,980,548	$21,682,492
1923	3,464,034	12,888,639
1924	3,387,240	14,582,009
1925	3,379,038	14,648,177
1926	2,927,980	16,834,463
1927	4,027,174	20,009,551
1928	4,241,708	18,386,586

URUGUAY, REPUBLIC OF

AREA, 72,153 square miles.

POPULATION, estimated, Dec 31, 1928, 1,808,286.

CAPITAL, Montevideo; population, Dec. 31, 1928, 458,784.

President, Dr. Juan Campisteguy; 1927-31, born 1859; inaugurated March 1, 1927.

President of the Administrative Council, J. Batlley Ordonez.

Uruguay, the smallest republic in South America, is bounded on the north and east by Brazil, on the south by the South Atlantic Ocean and the River Plata, and on the west by Argentina, the boundary line being the River Uruguay, which is navigable from the Plata to Salto, 200 miles north. In area it is slightly larger than the combined States of New York, New Jersey, Vermont, Massachusetts, Rhode Island and Connecticut. Lying between latitudes 30° and 35° south and consisting of rolling grassy plains, it enjoys an extraordinarily healthy climate with a uniform temperature. It is agricultural and pastoral. Over 2,150,000 acres are under cultivation. Recent production figures are:

	1926-27. *Acres.*	1927-28. *Acres.*	1926-27. *Met. T.*	1927-28. *Met. T.*
Wheat	959,548	1,220,904	278,641	337,944
Maize	424,154	480,220	84,940	125,890
Barley	4,888	8,853	1,524	1,734
Oats	98,928	149,085	20,940	38,398
Linseed	170,085	207,668	50,029	52,007

For grazing 41,500,000 acres of fertile land are used. The official live stock census of 1924 returned 8,431,673 cattle and 14,514,060 sheep; the wool clip for 1925 was 110,000,000 pounds. The export of animal products in 1927 was valued at 85,513,232 pesos, and of agricultural products at 6,410,684 pesos.

In 1928 there entered the port of Montevideo 7,684 steamers of 13,525,071 tonnage.

Great Britain is the best customer, with the United States second. American capital invested in Uruguay in 1928 was estimated at $67,000,000.

Uruguay declared her independence of Spain Aug. 25, 1825. The present Constitution, as amended, came into force March 1, 1919. It provides for universal franchise for males over 18 and for proportional representation. The President is elected for four years by direct vote. He shares executive power with the National Administrative Council, which consists of nine members, six of the majority party and three of the largest minority—three retiring every two years—all elected by direct popular vote. The President appoints the Ministers of Foreign Affairs, War and the Interior and has supreme control of these departments. The Council appoints the Ministers of Finance, Public Work, Industry and Education and has control. Congress has two Houses—the Senate of nineteen members, chosen for six years by an electoral college one-third retiring every two years; and a House of Representatives of ninety members, chosen for three

years by direct vote. There are nineteen departments, which have ample home rule.

In the election of Feb. 8, 1925, the Nationalists were victorious for the first time in fifty years.

Church and state are separated and there is complete religious tolerance. The majority of the people are Roman Catholic. Primary education is compulsory and free. In 1928 there were 1,508 primary schools with 4,582 teachers and 133,588 pupils. The educational system is highly progressive. The university at Montevideo had 10,250 students in 1928. Schools and hospitals are plentiful, and the prison at Montevideo is a model penal institution. The death penalty was abolished in 1907.

Uruguay had, in 1928, 1,819 miles of railroads mostly British owned, of which 1,060 miles are under state guarantee. The Bank of the Republic has a paid-up capital of $20,335,955. Its President and directors are appointed by the Government. It has the exclusive right to issue notes. Circulation June 30, 1928, was 67,647,000 pesos with a gold reserve of 66,065,000 pesos. The peso (=$1.0342) is the unit of currency; average of exchange for 1923, 79.06 cents; 1924, 82.27 cents; 1925, 98.4 cents; 1926, $1.015; 1927, $1.0134; and for 1928, $1.029. The Government in 1912 created a National Insurance Bank and gave it a monopoly of issuing insurance. The standing army, in which service is voluntary, numbers 18,500, with a reserve of 157,439 in the National Guard service, which is compulsory.

Uruguay has made great advances in social welfare legislation and administration during the last twelve years. Expenditure for old age pensions in 1924 was 2,224,385 pesos (2,040,843 in 1923) and on Dec. 31, 1924, 22,144 pensions were in effect. In 1927, 3,879,006 pesos were paid out.

The public debt on Dec. 31, 1928, amounted to 213,999,318 pesos of which 141,496,844 pesos was external and 2,545,501 pesos shared with Brazil both for public works. This includes an issue of $30,000,000 6 per cent. gold bonds floated at 96.5 in New York, in April, 1926. The official estimate of the national wealth is 2,521,508,643 gold pesos (approximately $2,597,000,000); over $1,547 per capita.

Recent budgets in pesos are:

Year.		
1923-24	42,364,000	42,435,000
1924-25	45,535,000	45,215,000
1925-26	53,497,613	52,457,620
1926-27	53,824,000	54,613,538
1927-28 (actual)	59,986,472	55,946,243
1928-29	54,061,384	54,227,929
1929-30	58,041,562	58,547,252

Foreign trade in pesos was:

Year.	Imports.	Exports.
1923	55,102,000	100,786,901
1924	80,897,378	106,826,282
1925	72,438,663	98,709,015
1926	73,271,830	94,303,490
1927	81,829,873	96,674,131
1928	93,729,483	101,203,145

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$11,419,076	$16,502,049
1923	15,077,188	21,811,424
1924	18,222,114	7,069,513
1925	21,269,743	16,100,470
1926	23,015,149	18,502,363
1927	25,060,001	10,894,565
1928	26,016,798	11,757,009

STATE OF VATICAN CITY.

THE SEE AND CHURCH OF ROME.

AREA, 108.7 acres.

POPULATION, 523.

Supreme Pontiff, Pius XI. (Achille Ratti), born at Desio May 31, 1857, made Papal Nuncio to Poland and named titular Archbishop July 3, 1919, translated to the Archbishopric of Milan and created Cardinal, June 13, 1921, elected Pope (261st) in succession to Benedict XV., Feb. 6, 1922.

Secretary of State, Cardinal Gasparri.
(For members of the College of Cardinals and list of Popes consult the Index.)

Governor, Commendatore Camillo Serafini.

Director of the Vatican Treasury, Commendatore Bernardino Nogara.

Papal Nuncio to Italy, Mgr. Francisco Borgongini-Duca.

Ambassador from Italy to Vatican City, Count Cesare Maria de Vecchi.

Apostolic Delegate to the United States, Archbishop Pietro Fumasoni-Biondi.

The Popes for many centuries, with some slight breaks, held temporal sovereignty over mid-Italy (the so-called Papal States), extending from sea to sea, comprising an area of some 16,000 square miles, with a population in the nineteenth century of over 3,000,000. This territory in the reign of Pius IX. was incorporated in the Kingdom of Italy, the sovereignty of the Pope being confined to the palaces of the Vatican and the Lateran in Rome and the villa of Castel Gandolfo, by the Italian law of May 13, 1871. This law also guaranteed to the Pope and his successors in the chair of St. Peter a yearly indemnity of 3,225,000 lire ($622,425 as part of exchange), which allowance, however, remained unclaimed and unpaid.

Final settlement of the Roman question came after negotiations begun Oct. 4, 1926, when the Treaty of Conciliation, the Concordat and the financial convention were signed at the Lateran Palace on Feb. 11, 1929, by Cardinal Gasparri and Premier Mussolini. The treaty was duly ratified by the Pope and by the Italian Parliament May 14 and 25 and signed by the King May 27; and became effective June 7 by exchange of ratification at the Vatican.

THE LATERAN TREATY.

The Lateran Treaty is composed of a preamble and twenty-seven articles. After stating that the two high contracting parties recognize the advisability of eliminating every reason for enmity between them, it begins by reaffirming the principle contained in the first article of the Constitution of the Italian Kingdom by which the Catholic Apostolic Roman religion is the only State religion in Italy. It then recognizes the full property and exclusive dominion and sovereign jurisdiction of the Holy See over the Vatican as at present constituted.

For this purpose, the "State of Vatican City" is created, declaring that in its territory no interference by the Italian Government will be possible and that there will be no authority but the authority of the Holy See. St. Peter's Plaza, though forming part of the Vatican territory, will continue to be normally open to the public and subject to the police powers of the Italian authorities. The boundaries of the Vatican City include St. Peter's, the Vatican palace and museum covering more than 13 acres, the Vatican gardens, the Holy office and neighboring buildings between Viale Vaticano and the church.

All public services with which the Vatican City will be endowed shall be by Italian connection with other States, such as telegraph, telephone, wireless broadcasting and postal service.

Another agreement provided for: The circulation on Italian territory of terrestrial vehicles and aircraft belonging to the Vatican City is provided for, also the water supply, and the prevention of airplanes flying over the territory.

The sovereignty of the Holy See over those having stable residence in the Vatican City is provided for as well as the immunity which will be enjoyed by those who do not reside there, namely, all dignitaries of the Church, persons belonging to the Pontifical Court and Vatican officials declared indispensable by the Holy See.

Territorial immunities also are provided for the patriarchal basilicas and certain edifices situated outside of the Vatican City in which the Holy See has housed or will house its congregations or offices and services necessary for its administration.

Italy recognizes the Holy See's right to send its own diplomats to foreign countries and to receive foreign diplomats. The agreement provides for diplomatic relations between Italy and the Vatican.

It is also agreed that the artistic and scientific treasures existing in the Vatican City and the Lateran Palace shall continue to remain visible to students and visitors.

If the Holy See requests it, the Italian Government will see to the punishment in its own territory of crimes committed in the Vatican City. Similarly, the Holy See will deliver to Italy persons who have taken refuge on Vatican territory accused of acts which are held criminal by the laws of both States.

The Vatican wishes to remain, and will remain, extraneous to temporal competitions between other States and from international congresses convened for the purpose, unless the parties in conflict appeal unanimously to its mission of peace, and reserves the right, in any case, to exercise its moral and spiritual power. As a consequence the Vatican territory will always be considered neutral and inviolable. This declaration follows:

The Holy See considers that with the agreements today signed it possesses guarantees necessary to provide with due liberty and independence the spiritual government of the Diocese of Rome and of the Catholic Church in Italy and the whole world;

declares the Roman question definitely and irrevocably settled and therefore eliminated, and recognizes the Kingdom of Italy under the dynasty of the House of Savoy, with Rome as the capital of the Italian State. Italy on its side recognizes the State of Vatican City under the sovercignty of the Supreme Pontiff. The law of guarantees and any other law or act contrary to the present treaty is abrogated.

The Italian State recognizes matrimony as a sacrament regulated by canon law in its relation to civil law. The banns of marriage must appear in the parish church as well as in the municipality. The parish priest must send within five days the marriage certificate to the municipality and have it copied in the registers there. (In effect Aug. 8, 1929.)

Cases concerning the nullity of marriage and the dissolution of marriages celebrated but not consummated, are reserved to the ecclesiastical courts. There decisions, before becoming definite, must be brought before the Supreme Tribunal of Segnatura to pass upon the legality of the action, and its decision will be sent to the Court of Appeal of the Italian State, which will enforce the decisions of the ecclesiastical authority. With regard to cases of separation, the Holy See consents to judgment being given by the Italian civil authorities.

The teaching of religion becomes compulsory, not only in the elementary schools but also in the secondary schools of Italy. Catholic organizations, according to the instruction of the Holy See, must keep their activity outside of any political party and under the immediate control of the hierarchy of the Church.

The financial convention establishes that the Holy See, as a definite settlement of all its financial relations with Italy in consequence of the fall of temporal power, accepts 750,000,000 lire in cash and 1,000,000,000 lire in Italian State consols at 5%. This sum is inferior to what Italy would have paid if the Holy See had accepted the allowance granted by the law of guarantees of May 13, 1871.

The Italian Government declares the person of the Pope sacred and inviolable, and binds itself to punish attempts against him exactly in the same way as attempts against the person of the King. It agrees also to punish anyone unlawfully wearing clerical dress in the same way it punishes persons unlawfully wearing a military uniform.

GOVERNMENT OF VATICAN CITY.

The new fundamental law of the State of Vatican City came into force with no radical departures, on June 10. It vests all powers, executive, legislative and judicial, in the Supreme Pontiff. He may delegate some to others who will be responsible to him alone. During the interregnum between the death of one Pope and the election of his successor, the power is vested in the College of Cardinals whose acts, to be valid, must be ratified by the new Pope.

Civil cases will be tried by a special court and the Sacred Tribunal of the Rota will act as a court of appeal. Penal cases will be tried by a judge or judges appointed by the Governor. Any person who believes his rights or interests have been injured can appeal to the Pope through the Councilor General of State.

The Vatican City legal system is based on canon law and pontifical constitutions and rules. In all cases not covered the Italian law of Rome will apply. The flag of the State is white and yellow charged with the crossed keys and triple tiara.

Pope Pius XI. left the Vatican where for 59 years each successive Pope had been a "Prisoner of the Vatican," on Sunday, July 25, and with medieval and ecclesiastic splendor was borne around St. Peter's Plaza on a richly decorated platform followed by Cardinals and high prelates and bestowed the Apostolic benediction on a kneeling throng of 300,000 people.

The central administration of the Roman Catholic Church is carried on by eleven committees called Sacred Congregations, viz: Holy Office, Consistorial, Discipline of the Sacraments, Council, Religious, Propaganda Fide, Eastern Church, Sacred Rites, Ceremonial, Extraordinary Ecclesiastical Affairs, Seminaries and Universities; and the three Tribunals, Sacred Penitentiary, Sacred Roman Rota, and the Apostolic Segnatura; and various offices.

The Holy See maintains diplomatic relations with Austria, Bavaria, Belgium, Czechoslovakia, France, Germany, Great Britain, Hungary, Japan, Monaco, the Netherlands, Poland, Portugal, Prussia, Roumania, Spain, Switzerland, Yugo-Slavia, together with most of the American republics except the United States, Cuba, Mexico and Uruguay. The Concordat with Prussia was negotiated in 1929.

The London Catholic Directory gives the number of Catholics in British Empire in 1926 as 15,289,660 souls; in world, 334,664,791, of whom 328,158,020 are of the Latin rite.

VENEZUELA, REPUBLIC OF

AREA, approximately 393,976 square miles.
POPULATION, census of 1926, 3,026,878.
CAPITAL, Caracas; population, 1920, 92,212. Chief cities, Maracaibo, population, estimated 1925, 100,000; Valencia, 29,466; Varquisimeto, 23,943; chief port, La Guaira, 22,000.

President, Dr. Juan Bautista Perez, 1929-36, elected May 30, 1929.

Commander-in-Chief, Ex-President Juan Vicente Gomez, 1929-36, elected May 30, 1929.

Premier, Dr. Ruben Gonzales (Interior).

Venezuela is the northermost state of South America and is bounded on the north by the Caribbean Sea, on the east by British Guiana, on the south by Brazil and Colom and on the west by Colombia. It stretches from 12° 26′ north to within two degrees of the Equator. The climate is tropical hot and unhealthy in the coastal and river regions. In area it is as large as the States of Texas, Louisiana and Arkansas combined. The spurs of the Eastern Andes and the foothills are covered with dense forest, and the high plateaus provide excellent grazing. The River Orinoco (over 1,600 miles in length) flows through many stretches of level prairies (llanos) and is navigable for 700 miles for large steamers and for 200 miles further for smaller vessels. A natural river or canal, the Casiquiare, unites its upper reaches with the Rio Negro, a tributary of the Amazon. The island of Margarita (area of 400 square miles), noted for its pearl fishing, with Tortuga and seventy other islands, belongs to Venezuela, but Trinidad, at the mouth of the Orinoco, is British and Curacao and others off the coast are Dutch.

Agriculture and cattle raising are the chief industries, and the chief exports are coffee, cacao, balata, chiefly textiles, machinery and hardware. The country is rich in metals, but is mostly undeveloped.

Gold valued at $813,767 was exported in 1927.

The production of petroleum for 1928 was 107,235,094 barrels, making Venezuela the second in the list of oil producing countries; in 1927, 64,436,926; 1926, 37,226,019; 1925, 19,771,000; 1924, 9,042,000; 1923, 4,201,000; 1922, 2,201,000; and 1921, 1,433,000. The value of petroleum exported in 1927 was $52,293,000; and in 1926, $46,590,000. To Oct. 1, 1927, 800 wells had been drilled; 685 were producers. The law concerning hydrocarbons, promulgated June 30, 1929, states clearly the rights and privileges of foreigners in the development of oil lands. Both British and American oil interests have secured possessions in the rich Maracaibo district. American capital invested in Venezuela in 1928 was estimated at $172,000,000.

Coffee exported in 1927 was valued at $19,666,000 and in 1926 at $18,871,000; Cocoa exported in 1927 was valued at $5,146,000, and in 1926 at $3,630,000.

There were in 1928, 661 miles of railroads. Caracas (altitude 4,017 feet), the capital, being connected with its seaport, La Guaira, by a railroad twenty-two miles long which is famous for its magnificent views The roads of the country have been greatly improved of late years.

In 1926, 1,963 vessels of 2,459,938 tonnage in the foreign trade entered Venezuelan ports.

Venezuela was the first of the Spanish colonies in South America to formally declare her independence (July 5, 1811), following the disturbing conditions in Spain caused by Napoleon. After severe fighting, the Republic of Colombia, of which the present states of Colombia, Venezuela and Ecuador, formed the three departments, was established Dec. 17, 1819, under the Presidency of the Liberator, Gen. Simon Bolivar. In May, 1830, a convention recreated the Republic of Venezuela and adopted a constitution. Separation from Colombia was amicable, but the boundary separating the two countries was not determined until 1923.

The centenary of the death of Bolivar will be commemorated on Dec. 7, 1930.

Venezuela has had many revolutions and many revisions of its Constitution since the first was adopted in 1819. That now in force was adopted June 24, 1925. It provides for a President, elected by Congress for seven years; a Senate of forty members, elected for three years, and a House of Deputies of about seventy-seven members, elected for three years. There are twenty autonomous states, a federal district and two territories. Gen. Juan Vicente Gomez, who has been President since Castro quit in 1908, declined a re-election. The Constitution was amended in May, creating the office of Commander-in-Chief, and Gomez was elected to that office. Certain of the President's functions may now be exercised only in conjunction with the Commander-in-Chief; these include the appointment and removal of Cabinet Ministers, the power

to declare war, authority to convoke Congress in special session, authority to suspend civil rights when necessary and other powers incident to a state of war or rebellion. The Commander-in-Chief is head of all national armed forces.

The Roman Catholic is the state religion, but religious freedom is guaranteed. Primary education is free and nominally compulsory. There are 1,860 public elementary schools with 2,369 teachers and 111,939 pupils. Higher education has been much improved under recent administrations. Military service is compulsory. A standing army of 8,000 is maintained with 87,000 in the reserve.

The bolivar ($0.193) is the unit of currency.

The National debt, which totaled 233,096,493 bolivars on Jan. 1, 1909, when Pres. Gomez took office, was on Jan. 1, 1929, 67,564,605 bolivars, with 92,922,911 bolivars in the National treasury. In 1928, 48,512 bolivars was spent on public works.

Recent budgets in bolivars are:

Year.	Revenues.	Expenditures.
1924-25	66,167,000	63,354,500
1925-26	95,300,400	92,800,000
1926-27	94,992,000	92,785,600
1927-28	112,000,000	111,457,000
1928-29	204,345,961	195,450,000
1929-30	193,189,750	192,450,000

Imports and exports were:

Year.	Imports.	Exports.
1921	$18,415,335	$25,777,067
1922	18,401,548	26,603,959
1923	29,469,617	30,243,910
1924	33,132,063	35,377,722
1925	58,548,000	62,327,000
1926	78,600,000	75,364,000
1927	69,005,000	84,288,000

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1922	$8,664,189	$13,929,464
1923	11,918,570	13,111,757
1924	17,642,530	16,462,636
1925	25,157,087	19,564,227
1926	39,690,084	23,315,607
1927	34,744,133	28,597,511
1928	37,819,979	38,863,226

YUGO-SLAVIA.

KINGDOM OF THE SERBS, CROATS AND SLOVENES.

AREA, 96,134 square miles.

POPULATION, Census of 1921, 12,017,323.

CAPITAL, Belgrade, population, 1921, 111,740; estimated, 1928, 240,000; other cities, Zagred (Agram), 108,338, estd. 1928, 150,000; Ljubliana, 53,306; Sarajevo, 66,317; Novi Sad, 39,147; Split, 25,042; Nish, 25,000.

King of the Serbs, Croats and Slovenes, Alexander I., born Dec. 17, 1888; Prince Regent from June 24, 1914, to Aug. 16, 1921, when his father, King Peter I., died; married June 8, 1922, at Belgrade, Princess Marie, second daughter of the King and Queen of Roumania. *Heir*, their son, Prince Peter, born Sept. 6, 1923. A second son, Prince Tomislav, was born Jan. 19, 1928; a third, Prince Andreja, was born June 29, 1929.

Prime Minister, Gen. Pera Zhivkovitch (Interior), Jan. 6, 1929.

By a royal decree signed Oct. 3, 1929 by King Alexander, the name of the Kingdom of the Serbs, Croats and Slovenes was changed to the Kingdom of Yugo-Slavia, an appellation long in popular use. The 33 provinces were replaced by nine banats which with their new capitals are: Save, capital Zagreb; Danube, capital Neusatz; Vardar, capital Skoplje; Drina, capital Sarajevo; Morava, capital Nisch; Drave, capital Ljubljana; Vrbas, capital Banjaluka; Coastal Banat, capital Spalato and Zeta, capital Cetinje. Each banat will be governed by banus appointed by the King.

The new names correspond generally to those of the great rivers of Yugo-Slavia and the frontiers roughly conform to those of the old provinces. No estimate of area and population of the banats is as yet (Oct. 15, 1929) available.

Serbia, which had since the Battle of Kossovo, in 1389, been a vassal principality of Turkey, was established as an independent kingdom by the Treaty of Berlin, July 13, 1878. By the Balkan wars of 1913 her boundaries were enlarged by the annexation of Old Serbia. The Government of Austria-Hungary laid the assassination of the Archduke Franz Ferdinand (June 28, 1914) to a Serbian plot and by invasion following her ultimatum brought on the World War of 1914-18. Serbia was overrun and suffered enormously, but in October, 1918, her army again occupied Nish and on Nov. 3, 1918, reoccupied the capital, Belgrade. At the dissolution of the Austrian-Hungarian Empire, the National Assembly of the former Hungarian provinces of Croatia and Slovenia proclaimed their independence and a National Council was established, to which representatives of other Slav states of the old empire, including Bosnia and Herzegovina, were admitted, and union with Serbia as the Kingdom of the Serbs, Croats and Slovenes (Yugo-Slavia) became effective on Dec. 29, 1918, when a Ministry was formed.

On Nov. 29, 1918, the National Parliament of Montenegro, which had been recognized as an independent state by the Treaty of Berlin in 1870, deposed King Nicholas, who was then in exile, and decided to unite with Serbia. This union became a fact on the death of King Nicholas, March 1, 1921, and Montenegro officially disappeared from the map of Europe on July 13, 1922, when the Council of Ambassadors sitting in Paris to ratify the boundaries of Yugo-Slavia and Albania recognized that its union was an accomplished fact.

Yugo-Slavia is bounded by Italy and the Adriatic Sea on the west, by Austria and Hungary on the north, by Bulgaria and Greece on the east, and by Albania and Greece on the south. Its area and population by provinces is approximately as follows:

Districts.	Area, Sq. Miles.	Popul'n Census of 1921.
North Serbia	19,286	2,655,078
South Serbia	17,651	1,474,560
Montenegro	3,733	199,857
Bosnia and Herzegovina	19,768	1,899,929
Dalmatia	4,916	621,429
Croatia and Slavonia	16,920	2,739,593
Slovenia	6,253	1,056,464
Voyvodina	7,607	1,380,413
Total	96,134	12,017,323

According to nationality there are approximately 9,730,000 Slavs, 500,000 Germans, 490,000 Hungarians, 480,000 Albanians, 180,000 Roumanians, and 10,000 Italians. According to religion there are approximately 5,460,000 Greek Orthodox (the state religion), 4,475,000 Roman Catholics, 1,337,000 Mohammedans and 300,000 of other religions.

The Constitution, adopted June 28, 1921, provides for a single Legislative Chamber of 315 members elected for four years, one deputy to every 40,000 inhabitants. The Chamber (Skuptchina), contains about a dozen parties. The government since Feb. 8, 1925, has been made up of a coalition of Radicals and Croatian Peasants that was so unstable that Premier Uzunovitch seven times placed the resignation of the cabinet in the hands of the King. On April 17, 1927, Velja Voukitchevitch (Radical) became Premier, adding the Democrats to the coalition. At the election Sept. 11, 1927, the Government won 201 of the 315 seats. The Radicals lost 30, but the Democrats gained 40. One Socialist Deputy was elected, but all the Communists failed.

The bitter clashes between the Serbian and Croatian parties provoked bloodshed on June 20, 1928. During a debate in Skuptchina,—a Montenegrin deputy in the Government party, Punica Ratchitch, shot down a group of opposition delegates, mortally wounding Stefan Raditch, the Croatian leader of the peasant party, killing his nephew Paul Raditch and Dr. George Basaritchik, the vice president of the Croatian party, and wounding the secretary, Dr. Pernar and two others. Stefan Raditch died on Aug. 8. The 85 Croatian deputies left the Skuptchina and later met in protest at Zagreo. Premier Vukitchevitch's cabinet fell and it was not until July 27 that a new cabinet was formed by the Rev. Dr. Anton Korosec, a Slavonian and a Catholic priest—the first non-Serbian to head the government. The Croatians remained obdurate and bitter.

The new government secured on Aug. 13 the ratification of the Nettuno Treaty signed with Italy on July 20, 1925, which had been held up because of the fierce uncompromising opposition of the Croatians. This act was considered an essential preliminary to the consummation of the £50,000,000 stabilization loan to Serbia by a consortium of London and American bankers signed in March 1928, and awaiting ratification.

The Croatians remained obstinate and bitter. Father Korosec found it impossible to reconcile the factions and resigned in December. King Alexander on Jan. 6, 1929, in a royal decree announced the dissolution of the Skuptchina, suspended the constitution, and declared that laws would be repealed or altered by royal decree only. He proclaimed immediately four laws declaring himself the sole source of power and making the ministers responsible to the sovereign alone; prohibiting communism and declaring that any political party of a nationalistic or Chauvinist character will be instantly dissolved;

severely limiting freedom of comment in the press; and abolishing all local elected and self-governing bodies. The capitals were given municipal councils nominated by the King.

A new cabinet, headed by Gen. Pera Zhivkovitch, commander of the Royal Guard, was appointed.

The *coup d'etat* was taken calmly by the country and the orthodox Christmas festivities went on.

The Croatian Peasant party was dissolved Jan. 21, and the police closed the party headquarters at Zagreb, confiscating the records. Three days later like treatment was meted out to the Radical, Independent Democrat, Serbian, Peasant and Socialist parties, and student clubs ordered to disband. On Feb. 18, the King decreed the creation of a legislative council of seventeen (11 Serbs, 4 Croats and 2 Slovenes), replacing parliament but with advisory duties only, and, later, new and heavier penalties were decreed against those who offend the State. In May two Croat leaders were interned.

Ratchitch, who murdered Raditch, was found guilty June 7, and sentenced to sixty years and six months in prison, a sentence automatically reduced to twenty years (the maximum) by the Serbian law.

Elementary education is nominally compulsory and is free. In 1926 there were 7,208 elementary schools with 17,576 teachers and 786,324 pupils. There are three universities, Belgrade with 3,115 students in 1926; Zagreb, 3,175; and Ljubliana, 1,031.

The army has been reorganized on a peace strength of 116,000. Service is compulsory.

Agriculture is the basic industry, closely followed by cattle raising and forestry, and furnishes occupation for 85% of the population. About 27,200,000 acres, 45% of the Kingdom, is devoted to agriculture and 80% of this to cereals. Corn is the leading crop, product 3,410,100 metric tons from 5,366,751 acres in 1927—and wheat second, 1,943,950 tons from 4,440,036 acres. Drought badly affected the crops in 1927. The sugar production in 1926 was 70,018 metric tons. Tobacco production in 1926 was 14,821 tons. Livestock census, Jan. 1927, was: 1,227,707 horses, mules and asses; 3,737,538 cattle; 7,932,825 sheep; 2,806,182 pigs; and 1,721,263 goats.

The principal exports are grain, cattle, timber, and prunes; imports, agricultural and animal products, machinery and chemicals. Serbia is an agricultural country of small peasant holdings. Nearly one-third of its area, 18,200,000 acres, is covered with forests. There are valuable coal and iron mines and some lead and copper.

Coal production in 1928 was 5,051,800 metric tons (4,745,000 in 1927); iron ore, 439,480 (336,900 in 1927); copper ore, 327,800 (288,000 in 1927); and bauxite, 49,260 (101,000 in 1927).

The state owns 3,482 and operates 1,168 more of the 6,231 miles of railroads.

The tonnage of the merchant marine had increased to 300,000 gross tons at the end of 1928. From 1922 to 1928 the shipping companies have received subsidies totaling 171,567,694 dinars, and will receive 40 million a year for 1929 and 1930. The river navigation of the Danube and the Save is important. The new free zone is Saloniki, Greece, was opened July 1, 1929.

Susak, the eastern part of Fiume, with excellent docks, is Serbia's seaport on the Adriatic. Of the new loan floated in New York in April, 1927, $15,000,000 are to be expended for the construction of the Belgrade Adriatic Railway.

The unit of currency is the dinar or crown (par of exchange = 19.3 cents); exchange is nearly stable having averaged 1.71 cents in 1925, 1.76 cents in 1926 and 1927. The dinar was stabilized at this point March 30, 1928.

The budget for 1927-28 was: Revenues 10,772,036,400 dinars, and expenditures 10,513,128,300 dinars. The budget for 1928-29 provides for revenues, 11,555,794,000 dinars; expenditures, 11,592,794,000 dinars. The budget for 1929-30 is balanced at 12,000,000,000 dinars (approximately $204,000,000.)

The foreign debt on Nov. 1, 1927, including the war debt of $62,850,000 to the United States funded May 3, 1926, and the gold $30,000,000 7% 40-year loan floated at 92½ in New York in April, 1927, was about $534,442,924, or approximately $43 per capita. In addition is the funded war debt £25,591,428 to Great Britain and the unfunded war debt to France, about 1,500,000,000 francs.

The internal debt was 3,825,269,000 dinars, equal at current exchange to about $38,250,690; and is mostly non-interest bearing. The amount of paper money in circulation on July 31, 1929, was 5,659 millions of dinars, with a gold reserve of 94 millions.

Imports and exports were:

	Imports.	Exports.
1923.....paper dinars	8,309,635,472	8,048,843,930
1924.....paper dinars	8,221,743,552	9,538,774,432
1925.....paper dinars	8,752,900,000	8,904,500,000
1926.....paper dinars	7,631,800,000	7,818,100,000
1927.....paper dinars	7,286,201,000	6,400,153,000
1928.....paper dinars	7,835,338,000	6,444,700,000

Trade with the United States was:

Cal. Year.	Imports.	Exports.
1924	$491,375	$686,054
1925	1,001,327	1,431,090
1926	789,078	1,154,925
1927	996,330	984,849
1928	1,782,280	1,768,925

BEGINNINGS OF FAMOUS FOREIGN UNIVERSITIES.

The rise and spread of universities in Europe was a characteristic of the Middle Ages. For a long time these institutions were ecclesiastic.

When they began to specialize, there was a separate faculty for each great branch of instruction.

Later, the branches were called colleges, and the modern university is a collection of colleges and specialized schools under one common management.

Often, one or more colleges of a university are widely separated therefrom, as in the cases of medicine and law schools.

The University of Pavia, Italy, was founded by Lothaire, grandson of Charlemagne, in 825 and celebrated its eleventh centenary on May 5, 1925. Its renaissance began in 1361 under Galeazzo II.

The University of Oxford is said to have been founded by King Alfred in 872.

Winchester School, in Hampshire, England, was founded by Bishop William of Wykeham, 1382-1387.

The first college of the University of Cambridge was founded by Hugo, Bishop of Ely, in 1257.

Eton College, in Buckinghamshire, England, was founded by Henry VI in 1440 and was intended as a preparatory school for King's College, Cambridge. Henry took many ideas for Eaton from the Casa Giacosa, the great school near Mantua, Italy, founded by its Marquis about 1429.

The University of Paris was founded by King Philip II. about 1200.

The first university in the German Empire was at Prague, Bohemia, 1348.

Upsala University, in Upsala, the ancient capital city of Sweden, was founded in 1477.

The University of Moscow was founded in 1755 by the Empress Elizabeth, and the University of St. Petersburg in 1819 by Czar Alexander I.

The first Hungarian University was founded by King Louis the Great at Pecs in 1367. It was in its prosperity attended by 2,000 students, but passed out of existence in 1543 at the time of the occupation of Pecs by the Turks. In 1635 the University of Nagyszombat, now the University of Budapest, was founded by Peter Pazmany, Archbishop of Estergom.

The oldest Spanish university is that of Salamanca, founded in 1240.

The University of Copenhagen, Denmark, was founded in 1479.

Other old Italian universities are Bologna, founded 1200; Padua, 1222; Naples, 1224; Genoa, 1243; Perugia, 1276; Macerata, 1290. There were nine more founded between 1300 and 1550. Italy was the greatest resort of students for the higher education in the middle ages.

The University of Leyden, in the Netherlands, was founded by Prince William (the Silent) of Orange in 1575 as a reward for the heroic defense of the city against the Spaniards. Grotius, "father of international law," is one of its famous scholars.

Trinity College, Dublin, was incorporated by royal charter in 1591.

St. Andrews University, in Scotland, was founded by Bishop Wardlaw in 1411.

The University of Glasgow was founded by Bishop Turnbull in 1451.

The University of Edinburgh was founded in 1582 by a charter granted by King James VI. of Scotland.

The Royal College of Physicians, London, dates from letters patent granted under Henry VIII in 1518 to his physician, Dr. Linacre, who became the first president. The College of Physicians at Dublin was created in 1667; that at Edinburgh in 1681; the College of Surgeon's, London, in 1745; and that at Dublin in 1786.

The University of Jagielle, of Cracow, Poland, where Copernicus received his education, was founded in 1364 by the Polish King Kazimiers the Great, and endowed by a later Polish King, Jagielle, in 1400.

Note—The dates of founding of the higher institutions in the United States and Canada will be found in the tables of American colleges and universities.

ENGLISH RULERS.

Year Acces.	Name.	Year Acces.	Name.
A. D.		A. D.	
51	Caractacus (taken prisoner to Rome).	924	Athelstan, eldest son of Edward.
61	Boadicea (defeated the Romans).	940	Edmund I., 5th son of Edward the Elder
451	Hengist and Horsa (Saxons).	946	Edred, his brother.
470	Aella (Saxon), King of Sussex.	955	Edwy, eldest son of Edmund I.
515	Arthur, King of the Britons.	959	Edgar the Peaceable.
686	Ceadwalla, King of Wessex.	975	Edward II. the Martyr.
802	Egbert (unites Saxons in Heptarchy).	979	Ethelred II., his half brother.
839	Ethelwolf, son of Egbert.	1016	Edmund (Ironsides).
858	Ethelbold, his son.	1017	Canute, the Dane.
860	Ethelbert.	1035	Harold (Harefoot), son of Canute.
866	Ethelred, his brother.	1040	Canute II. (Hardicanute).
878	Alfred the Great.	1042	Edward the Confessor.
901	Edward the Elder.	1066	Harold II., son of Earl Godwin.

Name.		Acces.	Died.	Age.	Rgd
	THE HOUSE OF NORMANDY.				
William I.	Obtained Crown by conquest	1066	1087	60	21
William II.	Third son of William I.	1087	1100	40	13
Henry I.	Youngest son of William I.	1100	1135	67	35
Stephen	Third son of Stephen, Count of Blois, by Adela, fourth daughter of William I.	1135	1154	60	19
	THE HOUSE OF PLANTAGENET.				
Henry II.	Son of Geoffery Plantagenet, by Matilda, only daughter of Henry I.	1154	1189	56	35
Richard I.	Eldest surviving son of Henry II.	1189	1199	42	10
John	Sixth and youngest son of Henry II.	1199	1216	49	17
Henry III.	Eldest son of John.	1216	1272	65	56
Edward I.	Eldest son of Henry III.	1272	1307	68	35
Edward II.	Eldest surviving son of Edward I.	1307	1327	43	20
Edward III.	Eldest son of Edward II.	1327	1377	65	50
Richard II.	Son of the Black Prince, eldest son of Edward III. (deposed 1399).	1377	1400	34	22
	THE HOUSE OF LANCASTER.				
Henry IV.	Son of John of Gaunt, 4th son of Edward III.	1399	1413	47	13
Henry V.	Eldest son of Henry IV.	1413	1422	34	9
Henry VI.	Only son of Henry V. (deposed 1461)	1422	1471	49	39
	THE HOUSE OF YORK.				
Edward IV.	His grandfather was Richard, son of Edmund, 5th son of Edward III., and his grandmother, Ann, was great-granddaughter of Lionel, third son of Edward III.	1461	1483	41	22
Edward V.	Eldest son of Edward IV.	1483	1483	13	0
Richard III.	Younger brother of Edward IV.	1483	1485	35	2
	THE HOUSE OF TUDOR.				
Henry VII.	Son of Edmund, eldest son of Owen Tudor, by Katherine, widow of Henry V.; his mother, Margaret Beaufort, was great-grand-daughter of John of Gaunt	1485	1509	53	24
Henry VIII.	Only surviving son of Henry VII.	1509	1547	56	38
Edward VI.	Son of Henry VIII., by Jane Seymour	1547	1553	16	6
Mary I.	Daughter of Henry VIII., by Catharine of Aragon	1553	1558	42	5
Elizabeth	Daughter of Henry VIII., by Anne Boleyn	1558	1603	70	44
	THE HOUSE OF STUART.				
James I.	Son of Mary Queen of Scots, granddaughter of James IV., and Margaret, daughter of Henry VII.	1603	1625	59	22
Charles I.	Only surviving son of James I.	1625	1649	48	24
	COMMONWEALTH DECLARED MAY 19, 1649.				
Cromwells.	Oliver Cromwell, Lord Protector	1653	1658	59	..
	Richard Cromwell, Lord Protector, resigned May 25, 1659	1658	1712	86	..
	THE HOUSE OF STUART (Restored).				
Charles II.	Eldest son of Charles I.	1660	1685	55	25
James II.	Second son of Charles I. (Deposed 1688. Interregnum Dec. 11, 1688, to Feb. 13, 1689)	1685	1701	68	4
William III. and Mary II.	{ Son of William Prince of Orange, by Mary, daughter of Charles I. } { Eldest daughter of James II. and wife of William III. }	1689	1702 1694	51 32	13 6
Anne	Second daughter of James II.	1702	1714	49	12
	THE HOUSE OF HANOVER.				
George I.	Son of Elector of Hanover, by Sophia, daughter of Elizabeth, daughter of James I.	1714	1727	67	13
George II.	Only son of George I.	1727	1760	77	33
George III.	Grandson of George II.	1760	1820	82	59
George IV.	Eldest son of George III.	1820	1830	68	10
William IV.	Third son of George III.	1830	1837	72	7
Victoria	Daughter of Edward, Duke of Kent, 4th son of George III.	1837	1901	81	63
	THE HOUSE OF SAXE-COBURG.				
Edward VII.	Eldest son of Victoria	1901	1910	68	9
	THE HOUSE OF WINDSOR (style proclaimed July 17, 1917.)				
George V.	Second and surviving son of Edward VII.	1910	....	..	..

RULERS OF SCOTLAND.
(The date is that of accession.)

A. D.	Name.	A. D.	Name.	A. D.	Name.	A. D.	Name.
330	Fergus I.	684	Eugenius V.	893	Donald VI.	1165	William.
357	Eugenius I.	686	Eugenius VI.	904	Constantine III.	1214	Alexander II.
404	Fergus II.	698	Amberkeletus.	944	Malcolm I.	1249	Alexander III.
420	Eugenius II.	699	Eugenius VII.	953	Indulfus.	1286	Margaret (Norway)
451	Dongardus.	715	Mordachus.	961	Duff.	1292	John Ballol.
457	Constantine I.	730	Ethinus.	965	Cullen.	1298	Sir W. Wallace, Reg.
479	Congallus I.	761	Eugenius VIII.	970	Kenneth III.	1306	Robert I (Bruce).
501	Goranus.	764	Fergus III.	994	Constantine IV.	1329	David II.
535	Eugenius III.	767	Solvathius.	995	Kenneth IV.	1370	Robert II.
558	Congallus II.	787	Achaius.	1003	Malcolm II.	1390	Robert III.
569	Kinnatellus.	819	Congallus III.	1033	Duncan I.	1406	James I.
570	Aidanus.	824	Dongal.	1040	Macbeth.	1437	James II.
605	Kenneth.	831	Alpine.	1057	Malcolm III	1460	James III.
606	Eugenius IV	834	Kenneth II.	1095	Duncan II.	1488	James IV.
621	Ferchard I.	854	Donald V.	1098	Edgar.	1513	James V.
632	Donald IV.	858	Constantine II.	1107	Alexander I.	1542	Mary.
646	Ferchard II.	874	Eth (Lightfoot).	1124	David I.	1567	James VI (succeeded to Eng. throne in 1603 at the union.)
664	Maldiunus.	876	Gregory.	1153	Malcolm IV.		

RULERS OF FRANCE.

A.D.	Name.	A.D.	Name.	A.D.	Name.
481	Clovis founds Kingdom of the Franks	888	Eudes or Odo	1589	Henry IV. (the Great) of Navarre
511	Childebert, Thierry, Clotaire and Clodomir (four sons of Clovis).	893	Charles III. (the Simple)	1610	Louis XIII. (the Just)
558	Clotaire (Sole King of France)	923	Rodolph (Raoul)	1643	Louis XIV. (the Great)
562	Caribert, Gontran, Sigebert and Childeric	936	Louis IV.	1715	Louis XV. (the Well-beloved)
584	Clotaire II. (King of Soissons)	954	Lotherius	1774	Louis XVI.
596	Thierry II. and Theodobert II. (Kings Paris and Austrasia)	986	Louis V.	1793	Louis XVII. (never reigned)
613	ClotaireIII. (SoleKingFrance)	987	Hugh Capet		*First Republic.*
628	Dagobert and Charibert	996	Robert (the Wise)	1792	National Convention
638	Sigebert II. and Clovis II.	1031	Henry I.	1795	Directory
654	Childeris II. (King Austrasia)	1060	Philip I. (the Fair)	1799	Consulate
679	Thierry III. (King all France)	1108	Louis VI. (le Gros)		*First Empire.*
692	Clovis III.	1137	Louis VII. (le Jeune)	1804	Napoleon (Bonaparte) I.
695	Childebert III.	1180	Philip II. (Augustus)		*Bourbons Restored.*
711	Dagobert III.	1223	Louis VIII.	1814	Louis XVIII.
716	Childeric II.	1226	Louis IX. (Saint Louis)	1824	Charles X.
720	Thierry IV.	1270	Philip III. (the Bold)	1830	Louis Philippe
737	Charles Martel (Duke of the Franks)	1285	Philip IV. (the Fair)		*Second Republic.*
742	Childeric III.	1314	Louis X. (Hutin)	1848	Louis Napoleon elected Pres.
751	Pepin (Le Bref), founder of Carlovingian	1316	John I.		*Empire Restored.*
768	Charles (the Great) and Carloman	1316	Philip V. (the Long)	1852	Louis Napoleon elected Emp.
771	Charlemagne (sole monarch)	1322	Charles IV. (the Fair)		*Third Republic—Presidents.*
814	Louis I. (le Debonnaire)	1328	Philip VI. (of Valois)	1871	Thiers, Louis Adolphe
840	Charles (the Bald)	1350	John II. (Jean)	1873	MacMahon, Marshal
877	Louis II. (the Stammerer)	1364	Charles V. (the Wise)	1879	Grevy, Paul J.
879	Louis III. and Carloman II.	1380	Charles VI.	1887	Sadi-Carnot, M.
885	Charles II. (the Gross)	1422	Charles VII.	1894	Casimir-Perier, Jean P. P.
		1461	Louis XI.	1895	Faure, Francois Felix
		1483	Charles VIII.	1899	Loubet, Emile
		1498	Louis XII.	1906	Fallieres, Armand
		1515	Francis I.	1913	Poincare, Raymond
		1547	Henry II.	1920	Deschanel, Paul
		1559	Francis II.	1920	Millerand, Alexandre
		1560	Charles IX.	1924	Doumergue, Gaston
		1574	Henry III.		

KINGS OF GERMANY AND EMPERORS OF THE HOLY ROMAN EMPIRE.

A. D.	Name.	A. D.	Name.	A. D.	Name.
534	Theodobert (King of Metz).	1152	Frederick I (Barbarossa).	1440	Frederick IV.
548	Theodebald (King of Metz)	1190	Henry VI.	1493	Maximilian I.
840	Lotharius.	1198	Philip.	1519	Charles V.
843	Lewis (of Bavaria).	1208	Otho IV.	1558	Ferdinand I.
876	Charles (the Bald).	1215	Frederick II.	1564	Maximilian II.
887	Arnulf	1250	Conrad IV.	1576	Rudolph II.
900	Louis IV.	1256	Interregnum (till 1273.)	1612	Matthais.
911	Conrad I.	1273	Rodolph (of Hapsburg), 1st of Austrian family.	1619	Ferdinand II.
919	Henry (the Fowler).	1292	Adolphus (of Nassau.)	1637	Ferdinand III.
936	Otho (the Great) (Emperor, 962).	1298	Albert I (of Austria).	1658	Leopold I.
973	Otho II.	1308	Henry VII.	1705	Joseph I.
983	Otho III.	1314	Louis V (of Bavaria).	1711	Charles VI.
1002	Henry II.	1347	Charles IV.	1740	Maria Theresa (of Austria, till 1780).
1024	Conrad II (the Salic)	1378	Wenceslaus.	1742	Charles VII.
1039	Henry III.	1400	Rupert.	1745	Francis I (of Lorraine).
1056	Henry IV.	1410	Josse (Marquis of Brandenburg).	1765	Joseph II.
1106	Henry V.	1411	Sigismund.	1790	Leopold II.
1125	Lotharius II.	1438	Albert II.	1792	Francis II. (to 1806.)
1138	Conrad III.				

RULERS OF PRUSSIA.

A. D.	Name.	A. D.	Name.	A. D.	Name.
1134	Albert I (1st Elector of Brandenburg).	1688	Frederick.	1840	Frederick William IV.
1616	John, Sigismund (Elector, Duke of Prussia).	1701	Frederick crowned King of Prussia.	1861	William I. (made German Emperor, Jan. 18, 1871).
1619	George William.	1713	Frederick William I.	1888	Frederick.
1640	Frederick William ("The Great Elector").	1740	Frederick II ("the Great").	1888	William II. (abdicated as German Emperor Nov. 9, 1918).
		1786	Frederick William II.		
		1797	Frederick William III.		

NOTE TO GERMANY AND PRUSSIA—The German Empire was restored on Jan. 1, 1871, and King William I. of Prussia was proclaimed German Emperor, at Versailles, Jan. 18, 1871. On his death he was succeeded by King Frederick of Prussia, and the latter in turn by William II.

William II. (Kaiser Wilhelm) abdicated as German Emperor, Nov. 9, 1918, all the rest of the sovereigns of the German states quit too, one by one, and the German Empire became a Republic, under the Presidency of Frederick Ebert, who died Feb. 28, 1925, and was succeeded by the former Field Marshal Paul von Hindenburg. The Constitution was adopted July 31, 1919.

Russian Emperors—(1689) Peter the Great; (1725) Catherine, his widow; (1727) Peter II, grandson of Peter the Great; (1730) Anne, Duchess of Courland, daughter of Czar Ivan of Muscovy, whose reign began in 1682; (1740) Ivan VI, grand-nephew of Peter the Great; (1741) Elizabeth, daughter of Peter the Great; (1762) Peter III, son of Anne, Duchess of Courland; (1762) Catherine II, wife of Peter III; (1796) Paul, son of Catherine II; (1801) Alexander I; (1825) Nicholas I; (1855) Alexander II; (1881) Alexander III; (1894) Nicholas II, who, with his family was assassinated in 1918. Meantime, in 1917, he had abdicated and a Provisional Government ended the Romanoffs and the Empire.

Kings of Modern Italy—(1805) Napoleon, Emperor of the French; he abdicated in 1814; (1861) Victor Emmanuel II of Sardinia; (1878) Humbert I; (1900) Victor Emmanuel III.

Rulers of Austria-Hungary—(1804) Francis I, who reigned as Francis II of Germany until 1806; (1835) Ferdinand, his son; (1848) Francis-Joseph, son of Francis-Charles, who was a brother of Ferdinand. The Dual Monarchy dissolved in the World War, Austria becoming a republic and Hungary a kingdom.

Kings of Belgium—(1831) Leopold I; (1865) Leopold II; (1909) Albert, nephew of Leopold II.

Kings of Spain—(1512) Ferdinand V.; (1516) Charles I; (1556) Philip II; (1598) Philip III; (1621) Philip IV; (1665) Charles II; (1700) Philip V; (1724) Louis I; (1746) Ferdinand VI; (1759) Charles III; (1788) Charles IV; (1808) Ferdinand VII; (1808) Joseph Bonaparte; (1813) Ferdinand VII; (1833) Isabella II; (1870) Amadeo I; (1873) a republic; (1874) Alphonso XII; (1886) Alphonso XIII.

Kings of Denmark—(1839) Christian VIII, son of Frederick VI (who was King of Denmark and Norway); (1848) Frederick VII; (1863) Christian IX; (1906) Frederick VIII; (1912) Christian X.

ROMAN RULERS.

B. C.	Name.
752	Romulus.
715	Numa Pompilius.
672	Tullus Hostilius.
640	Ancus Martius.
616	Tarquinius Priscus.
578	Servius Tullius.
534	Tarquinius Superbus.
509	Tarquins, expelled.
498	Lartius, 1st Dict.
488	Tribunes created.
483	Quaestors instit.
456	Cincinnatus, Dict.
453	Tribunes incr., 5 to 10.
445	Milit. Trib. created.
437	Censorship instit.
391	Marcus F. Camillus, Dict.
325	Papirius Cursor, Dict.
301	Fabius Maximus and Valerius Corvus.
260	Provin. Quaestors inst.
217	Fabius Maximus, Dict.
183	Cato, the Elder, Censor.
82	Sylla, Dict.
70	Crassus and Pompey, Cons'ls.
59	Pompey.
49	Julius Caesar.
43	Octavius Caesar, Mark Antony and Lepidus, 2nd Triumvirate.
31	Octavius (Caesar) Emp.

A. D.	Name.
14	Tiberius.
37	Caligula (Caius.)
41	Claudius.
54	Nero.
68	Galba.
69	Otho.
69	Vitellius.
70	Vespasian.
79	Titus.
81	Domitian.
96	Nerva.
98	Trajan.
117	Adrian (or Hadrian.)
138	Antoninus Pius.
161	Marcus Aurelius Antoninus and Lucius Verus.
171	Marcus Aurelius (alone).
180	Commodus.
192	Pertinax; Julianus.
193	Septimius Severus.
211	Caracalla and Geta.
212	Caracalla (alone).
217	Macrinus.
218	Heliogabalus.
222	Alexander Severus.
235	Maximinus.
238	Gordianus I.; Gordianus II.
238	Pupienus and Balbinus.
238	Gordianus III.
244	Philip the Arabian.
249	Decius.
251	Gallus.
254	Valerianus.
260	Gallienus.
268	Claudius II.
270	Aurelian.
275	Tacitus.
276	Probus.
282	Carus.
283	Carinus and Numerianus.
284	Diocletian.
305	Galerius and Constantius.
306	Constantine the Great.
330	Constantine removes seat of Empire to Constantinople.
337	Constantine II., Constans and Constantius.
361	Julian the Apostate.
363	Jovian.
364	Valentinian (West), Valens (East).
367	Gratian (West).
375	Valentinian II. (West).
379	Theodosius the Great (East).
394	Theodosius (East and West).
395	Arcadius (East), Honorius (West).
408	Theodosius II. (East).
425	Valentinian III. (West).
450	Marcian (East).
455	Petronius Maximus (West).
455	Avitus (West).
457	Leo the Great (East).
457	Majorianus (West).
461	Severus (West).
467	Anthemius (West).
472	Olibius (West).
473	Glycerius (West).
474	Julius Nepos (West).
474	Zeno (East).
475	Augustulus Romulus (West).
476	Rome taken by Odoacer, King of Italy; extinction of Western Empire.

ROMAN EMPIRE OF THE EAST.

A. D.	Ruler.
491	Anastasius.
518	Justin I.
527	Justinian I.
565	Justin II.
578	Tiberius II.
582	Maurice.
602	Phocas.
610	Heraclius.
641	Constantine III.
641	Constans II.
668	Constantine IV. (Pogonatus)
685	Justinian II.
695	Leontius.
698	Tiberius III.
705	Justinian II. (again).
711	Philippicus Bardanes.
713	Anastasius II.
716	Theodosius III.
718	Leo (the Isaurian).
741	Constantine V. (Copronymus)
775	Leo IV.
780	Constantine VI. (Porphyrogenitus).
797	Irene
797	Nicephorus.
811	Michael (Curopalatts).
813	Leo V. (the Armenian).
820	Michael (Balbous).
829	Theophilus.
842	Michael III.
867	Basilius.
886	Leo VI. (the Philosopher).
911	Constantine VII.
919	Constantine and Romanus.
959	Romanus II.
963	Nicephorus Phocus.
969	John Zemisses.
976	Basilius.
1025	Constantine VIII.
1028	Romanus Argyrus.
1034	Michael IV.
1041	Michael (Caliphales).
1042	Constantine (Monomachus).
1054	Theodora (Empress).
1056	Michael VI.
1057	Isaac (Comnenus).
1059	Constantine X. (Ducas).
1068	Romanus Diogenes.
1071	Michael Ducas.
1078	Nicephorus (Boton).
1081	Alexius I. (Comnenus).
1118	John (Comnenus).
1143	Manuel (Comnenus).
1180	Alexius II. (Comnenus).
1183	Andronicus (Comnenus).
1185	Isaac Angelus.
1195	Alexius Angelus (the Tyrant)
1203	Alexius IV.
1204	Alexius V.
	At Nicaea.
1204	Theodore Lascaris I.
1222	John III. Ducas.
1255	Theodore Lascaris II.
1259	John IV. Lascaris.
	Restored to Constantinople.
1261	Michael VIII.
1282	Andronicus II.
1295	Michael IX. (Regent).
1328	Andronicus III.
1341	John Palaeologus I.
1347	John Cantacuzenus (Regent).
1376	Andronicus IV.
1379	John Palaeologus I. (restored).
1391	Manuel II.
425	John Palaeologus II.
1448	Constantine XIII. (Palaeologus).
1453	Constantinople taken by the Turks, extinction of the Eastern Empire.

Kings of Sweden—Before 1001 the Swedish rulers were known as Kings of Upsala. The sovereigns since 1389 when Margaret of Denmark was called to the throne, have been: (1412) Eric XIII; (1440) Christopher III; Charles VIII (Canuteson); (1483) John II; (1520) Christian II; (1523) Gustavus I (Vasa); (1560) Eric XIV; (1569) John III; (1592) Sigismund III; (1604) Charles IX; (1611) Gustavus II (Adolphus the Great); (1633) his daughter, Christina; (1654) Charles X; (1660) Charles XI; (1697) Charles XII; (1718) Ulrica Eleanora and her husband, Frederick I; (1741) Frederick I; (1751) Adolphus Frederick; (1771) Gustavus III; (1792) Gustavus IV; (1809) Charles XIII; (1818) Charles XIV (John Bernadotte of France); (1844) Oscar I; (1859) Charles XV; (1872) Oscar II; (1907) Gustavus V.

Norway, which had been united with Denmark and Sweden, in 1389, under Margaret, declared independence in 1814, but the union of Norway and Sweden was not finally dissolved until 1905, when Prince Carl of Denmark was elected King of Norway as Haakon VII.

THE IMPERIAL GERMAN CROWN.

(From a communication in the London Times.)

Mr. G. A. H. Samuel's statement that the Iron Crown of Lombardy was regarded as the symbol of Imperial Power cannot be accepted.

It was the crown of the Longobards, and was used by Charlemagne and the German emperors, as well as by Napoleon I., for their coronation as King of Italy.

This crown is still kept at Monza, near Milan.

When the Emperor Otto III. opened the tomb of Charlemagne in the Minster of Aachen in 1000 Charlemagne was found sitting on a marble throne, with sword and Bible, but probably without crown, though that is not certain.

In 813 Charlemagne (who died 814) made his son Lewis crown himself Emperor of Aachen; similarly Napoleon crowned himself Emperor of the French in 1804, though Pope Pius VII. was present by his invitation.

The Imperial Golden Crown of the Holy Roman Empire dates from the tenth century; the arch was added by Conrad II., 1024-1039.

This crown, the Royal Crown (probably the gift of Richard of Cornwall, brother of Henry III. of England, who was crowned German King at Aachen in 1257 during the interregnum after the ruin of the Hohenstauffen), the sword and other insignia, were kept at Nurnberg in Dürer's time.

POPES, CHRONOLOGICAL LIST OF.

The list is that of the *Annuario Pontificio* with Anti-Popes inserted in italics. The Popes who resided at Avignon are marked with (A.). c. = circa (about).

Date Consc.	Name of Pope.	Date Consc.	Name of Pope.	Date Consc.	Name of Pope.	Date Consc.	Name of Pope.
42	St. Petrus	619	Bonifacius V.	975	Benedictus VII.	1342	Clement VI. (A.)
67	St. Linus	625	Honorius I.	984	Joannes XIV.	1352	Innocentius VI. (A.)
78	St. Cletus	640	Severinus	985	Joannes XV.		
90	St. Clement I.	640	Joannes IV.	996	Gregorius V.	1362	Urbanus V. (A.)
100	St. Anacletus	642	Theodorus I.	*997*	*Joannes XVI.*	1370	Gregorius XI. (A.)
112	St. Evaristus	649	St. Martinus I.	999	Sylvester II.	1378	Urbanus VI.
121	St. Alexander I.	655	St. Eugenius I.	1003	Joannes XVII.	*1378*	*Clement VII. (A.)*
132	St. Sixtus I.	657	St. Vitalianus	1003	Joannes XVIII.	*1394*	*Benedictus XIII. (A.)*
142	St. Telesphorus	672	Deusdedit II.	1009	Sergius IV.		
154	St. Hyginus	676	Donus I.	1012	Benedictus VIII.	1389	Bonifacius IX.
158	St. Pius I.	678	St. Agatho	1024	Joannes XIX.	1404	Innocentius VII.
c167	St. Anicetus	682	St. Leo II.	1033	Benedictus IX.	1406	Gregorius XII.
c175	St. Soterus	684	St. Benedictus II	1044	Gregorius VI.	1409	Alexander V.
c182	St. Eleutherus	685	Joannes V.	1046	Clement II.	1410	Joannes XXII.
193	St. Victor I.	686	Conon	1048	Damasus II.	1417	Martinus V.
203	St. Zephyrinus	687	St. Sergius I.	1049	St. Leo IX.	*1424*	*Clement VIII.*
221	St. Calixtus I.	701	Joannes VI.	1055	Victor II.	1431	Eugenius IV.
227	St. Urbanus I.	705	Joannes VII.	1057	Stephanus X.	*1440*	*Felix V.*
233	St. Pontianus	708	Sisinnius	*1058*	*Benedictus X.*	1447	Nicolaus V.
238	St. Anterus	708	Constantinus I.	1059	Nicolaus II.	1455	Calixtus III.
239	St. Fabianus	715	St. Gregorius II.	*1061*	*Honorius II.*	1458	Pius II.
253	St. Cornelius	731	St. Gregorius III.	1061	Alexander II.	1464	Paulus II.
255	St. Lucius I.	741	St. Zacharius	1073	St. Gregorius VII.	1471	Sixtus IV.
257	St. Stephanus I.	752	Stephanus II.	*1080*	*Clement III.*	1484	Innocentius VIII.
260	St. Sixtus II.	752	St. Stephanus III.	1087	Victor III.	1492	Alexander VI.
261	St. Dionysius	757	St. Paulus I.	1088	Urbanus II.	1503	Pius III.
272	St. Felix I.	768	Stephanus IV.	1099	Paschalis II.	1503	Julius II.
275	St. Eutychianus	771	Hadrianus I.	1118	Gelasius II.	1513	Leo X.
283	St. Caius	795	St. Leo III.	*1118*	*Gregorius VIII.*	1522	Hadrianus VI.
296	St. Marcellinus	816	St. Stephanus V.	1119	Calixtus II.	1523	Clement VII.
304	St. Marcellus I.	817	St. Paschalis I.	1124	Honorius II.	1534	Paulus III.
309	St. Eusebius	824	Eugenius II.	1130	Innocentius II.	1550	Julius III.
311	St. Melchiades	827	Valentinus	*1130*	*Anacletus II.*	1555	Marcellus II.
314	St. Sylvester I.	827	Gregorius IV.	*1138*	*Victor IV.*	1555	Paulus IV.
337	St. Marcus	844	Sergius II.	1143	Celestinus II.	1559	Pius IV.
341	St. Julius I.	847	St. Leo IV.	1144	Lucius II.	1566	St Pius V
352	St. Liberius	855	Benedictus III.	1145	Eugenius III.	1572	Gregorius XIII.
363	St. Felix II.	858	St. Nicolaus I.	1153	Anastasius IV.	1585	Sixtus V.
367	St. Damasus	867	Hadrianus II.	1154	Hadrianus IV.	1590	Urbanus VII.
366	*Ursinus*	872	Joannes VIII.	1159	Alexander III.	1590	Gregorius XIV.
384	St. Siricius	882	Martinus II.	*1159*	*Victor V.*	1591	Innocentius IX.
399	St. Anastasius I.	884	St. Hadrianus III.	*1164*	*Paschalis III.*	1592	Clement VIII.
402	St. Innocentius I.	885	Stephanus VI.	1181	Lucius III.	1605	Leo XI.
417	St. Zosimus	891	Formosus	1185	Urbanus III.	1605	Paulus V.
418	St. Bonifacius I.	*896*	*Bonifacius VI.*	1187	Gregorius VIII.	1621	Gregorius XV.
423	St. Celestinus I.	896	Stephanus VII.	1187	Clement III.	1623	Urbanus VIII.
432	St. Sixtus III.	897	Romanus	1191	Celestinus III.	1644	Innocentius X.
440	St. Leo I.	898	Theodorus II.	1198	Innocentius III	1655	Alexander VII.
461	St. Hilarus	898	Joannes IX.	1216	Honorius III.	1667	Clement IX.
468	St. Simplicius	900	Benedictus IV.	1227	Gregorius IX.	1670	Clement X.
483	St. Felix III.	903	Leo V.	1241	Celestinus IV.	1676	Innocentius XI.
492	St. Gelasius I.	903	Christophorus	1243	Innocentius IV.	1689	Alexander VIII
496	St. Anastastus II.	904	Sergius III.	1254	Alexander IV.	1691	Innocentius XII.
498	St. Symmachus	911	Anastasius III.	1261	Urbanus IV	1700	Clement XI.
514	St. Hormisdas	913	Landonius	1265	Clement IV.	1721	Innocentius XIII.
523	St. Joannes I.	915	Joannes X.	1271	Gregorius X.	1724	Benedictus XIII.
526	St. Felix IV.	928	Leo VI.	1276	Innocentius V.	1730	Clement XII.
530	Bonifacius II.	929	Stephanus VIII.	1276	Hadrianus V.	1740	Benedictus XIV.
532	Joannes II.	931	Joannes XI.	1276	Joannes XX.	1758	Clement XIII.
535	St. Agapetus I.	936	Leo VII.	1277	Nicolaus III.	1769	Clement XIV.
536	St. Silverius	939	Stephanus IX.	1281	Martinus IV.	1775	Pius VI.
538	Vigilius	942	Martinus III.	1285	Honorius IV.	1800	Pius VII.
555	Pelagius I.	946	Agapetus II.	1288	Nicolaus IV.	1823	Leo XII.
560	Joannes III.	956	Joannes XII.	1294	St. Celestinus V.	1829	Pius VIII.
574	Benedictus I.	*963*	*Leo VIII.*	1294	Bonifacius VIII.	1831	Gregorius XVI.
578	Pelagius II.	964	Benedictus V.	1303	Benedictus XI.	1846	Pius IX.
590	St. Gregorius I.	965	Joannes XIII.	1305	Clement V.	1878	Leo XIII.
604	Sabinianus	972	Benedictus VI.	1316	Joannes XXI.	1903	Pius X.
607	Bonifacius III.	973	Donus II.	*1328*	*Nicholas V.*	1914	Benedictus XV.
608	St. Bonifacius IV.	*974*	*Bonifacius VII.*	1334	Benedictus XII.	1922	Pius XI.
615	St. Deusdedit I.						

Pius XI (Achilles Ratti) was born at Desio, Italy, May 31, 1857, and on June 13, 1921 was made a Cardinal and became Archbishop of Milan.

All the Popes have been Italian since 1591, when Innocent IX (Facchinatti) ascended the throne.

The Pope is known as the Bishop of Rome or Roman Pontiff.

The temporal power of the Pope, which covered 16,000 square miles until the reign of Pius IX, and which was altogether extinguished by the Italian Government in 1871, was re-established by the Lateran Treaties of 1929, which create the State of the Vatican City, including St. Peter's Square.

APOSTLES, DEATHS OF.

It is generally believed that only one of Christ's Apostles, John, escaped martyrdom.

Matthew is supposed to have been slain with a sword in Ethiopia.

James, son of Zebedee, was beheaded at Jerusalem.

James, the brother of the Savior, was thrown from a pinnacle of the Temple and then beaten to death with a fuller's club.

Philip was hanged up against a pillar at Hieropolis, a city of Phrygia.

Bartholomew was flayed alive at Albanapolis, in Armenia.

Andrew suffered martyrdom on a cross at Patrae, in Achaia.

Thomas was run through the body with a lance at Coromandel, in the East Indies.

Thaddeus was shot to death with arrows.

Simon Zelotes was crucified in Persia.

Peter was crucified, head downward, it is said, during the Neronian persecution.

Matthias was first stoned and then beheaded, and Paul was beheaded at Rome by the tyrant Nero.

Judas Iscariot, after the betrayal of his Lord, hung himself.

SOME LITERARY PSEUDONYMS.

Pen Name.	Real Name.
Adeler, Max	Clark, Charles Heber
A. L. O. E.	Tucker, Charlotte M.
Alcibiades	Tennyson, Alfred
Alexander, Mrs.	Hector, Mrs. A. F.
Arp, Bill	Smith, C. H.
Ayres, Alfred	Osman, Thomas E.
Bab	Gilbert, W. S.
Balfour, Clara	Hemans, Felicia
Bede, Cuthbert	Bradley, Rev. Edward
Bedott, Widow	Whitcher, F. M.
Bell, Acton	Bronte, Ann
Bell, Currer	Bronte, Charlotte
Bell, Ellis	Bronte, Emily
Bickerstaff, Isaac	Swift, Rev. Jonathan (D'n)
Biglow, Hosea	Lowell, Jas. Russell
Billings, Josh	Shaw, Henry W.
Bostonian	Poe, Edgar Allan
Boz	Dickens, Charles
Breitmann, Hans	Leland, Charles G.
Brown, Pisistratus	Black, William
Brown, Tom	Hughes, Thomas
Burchell, Old	Burritt, Elihu
Carleton	Coffin, Chas. Carleton
Carmen Sylva	Elizabeth, Queen of Roumania
Carroll, Lewis	Dodgson, Rev. C. L.
Carter, Nick	Coryell, J. Russell
Cavendish	Jones, Henry
Coffin, Joshua	Longfellow, Henry W.
Conway, Hugh	Fargus, F. J.
Corelli, Marie	Mackay, Eva M.
Cornwall, Barry	Procter, B. W.
Craddock, Charles Egbert	Murfree, Mary N.
Crayon, Geoffrey	Irving, Washington
Cringle, Tom	Walker, William
Crinkle, Nym	Wheeler, Andrew C.
Crowfield, Christopher	Stowe, H. B.
Dagonet	Sims, George R.
Dooley, Mr.	Dunne, Finley P.
Droch	Bridges, Robert
Drop Shot	Cable, George W.
Duchess, The	Hungerford, Mrs.
Elia	Lamb, Charles
Eliot, Alice	Jewett, Sarah Orne
Eliot, George	Evans, Marian (Mrs. Cross)
English Opium Eater	de Quincey, Thomas
Ettrick Shepherd	Hogg, James
Fane, Violet	Lady Currie (Mrs. Singleton)
Fern, Fanny	Parton, S. P. W.
Finn, Mickey	Jarrold, Ernest
Forrester, Fanny	Judson, Emily C.
France, Anatole	Thibault, Jacq. Anatole
Gath	Townsend, Geo. Alfred
Gordon, Julien	Cruger, Mrs. S. V. R.
Gorki, Maxim	Peshkov, A. Max.
Grand, Mme. Sarah	McFall, Mrs.
Gray, Maxwell	Tuttiet, Miss M. G.
Greenwood, Grace	Lippincott, Sarah J.
Greville, Henri	Durand, Mme.
H. H.	Jackson, Helen Hunt
Haliburton, Hugh J.	Robertson, J. L.
Hamilton, Gail	Dodge, Mary Abigail
Harland, Marion	Terhune, Mrs. Mary V.
Henry, O.	Porter, W. Sidney
Hobbes, John Oliver	Craigie, Mrs. Pearl
Holland	Edwards, E. J.
Holm, Saxe	Jackson, Helen Hunt
Hope, Anthony	Hawkins, A. Hope
Ingoldsby, Thomas	Barham, Rev. R. H.
Iron, Ralph	Schreiner, Olive (Mrs. Cronwright)
Ivory Black	Janvier, Thos. A.
Johnson, Benj. F.	Riley, Jas. Whitcomb
Josiah Allen's Wife	Holley, Marietta
June, Jennie	Croly, Mrs. Jane C.
Junius	Francis, Sir Philip
Kerr, Orpheus C.	Newell, Robert H.
Kirke, Edmond	Gilmore, J. R.
Knickerbocker, Diedrich	Irving, Washington
Laurence, Slingsby	Lewes, George Henry
Lee, Vernon	Paget, Violet
L. E. L.	Landon, Letitia E.
Leslie, Mrs. Frank	Wilde, Mrs. M. F. F.
Little, Thomas	Moore, Thomas
Logan, Olive	Sikes, Mrs. W. W.
Lothrop, Amy	Warner, Anna B.
Loti, Pierre	Viaud, Julien
Ludlow, Johnny	Wood, Mrs. Henry
Lyall, Edna	Bayley, Ada Ellen
Maclaren, Ian	Watson, Rev. John
Maclean, Mona	Todd, Margaret
Macleod, Fiona	Sharp, William
Malet, Lucas	Harrison, Mrs. Kingsley
Maori	Inglis, James
Marlitt, E.	John, Henriette E.
Marvel, Ik	Mitchell, Donald G.
Meredith, Owen	Lytton, Earl of
Mulock, Miss	Craik, Dinah M.
Nasby, Petroleum V.	Locke, David R.
Nordau, Max	Sudfeld, Simon
North, Christopher	Wilson, Prof. John
O'Dowd, Cornelius	Lever, Charles
Ogilvie, Gavin	Barrie, J. M.
Oldstyle, Jonathan	Irving, Washington
Optic, Oliver	Adams, William T.
O'Reilly, Miles	Halpine, Charles G.
O'Rell, Max	Blouet, Paul
Ouida	Ramee, Louise de la
Parley, Peter	Goodrich, Samuel G.
Partington, Mrs.	Shillaber, Benjamin P.
Perkins, Eli	Landon, Melville D.
Perley	Poore, Ben: Perley
Phiz	Browne, Hablot K.
Plymley, Peter	Smith, Rev. Sydney
Poor Richard	Franklin, Benjamin
Porte Crayon	Strother, David H.
Prendergast, Paul	Jerrold, Douglas
Prout, Father	Mahony, Francis S.
Publicola	Adams, John Quincy
Publius	Hamilton, Alexander
Quad, M.	Lewis, Charles B.
Quiz	Dickens, Charles
Rita	Booth, Mrs. Otto
Sand, George	Dudevant, Mme.
Sharp, Luke	Barr, Robert
Sidney, Margaret	Lathrop, Harriet M.
Slick, Sam	Haliburton, T. C.
Slingsby, Philip	Willis, Nathaniel P.
Sloper, Ally	Ross, C. H.
Stepniak	Dragomanov, Michael
Syntax, Dr.	Combe, William
Templeton, Laurence	Scott, Sir Walter
Teufelsdrockh	Carlyle, Thomas
Thanet, Octave	French, Alice
Titcomb, Timothy	Holland, Dr. Josiah G.
Titmarsh, Michael Angelo	Thackeray, William M.
Toby, M. P.	Lucy, H. W.
Twain, Mark	Clemens, Samuel L.
Uncle Remus	Harris, Joel C.
Ward, Artemus	Browne, Charles Farrar
Winter, John Strange	Stannard, Mrs.

FORM OF ADDRESS FOR PERSONS OF RANK.

The *President* of the United States is usually, and properly, spoken to as "Mr. President"; in writing to him, "My dear Mr. President" is good usage, and so is "Dear Mr. President."

A member of the *American Cabinet* may be addressed as "Dear Mr. Secretary"; the head of a bureau may be written to as "Dear Mr. Commissioner."

A member of the *upper branch of the Congress* is "My dear Senator," or "Dear Senator"; *a member of the lower branch* may be written to as "My dear Congressman," or "Dear Mr. Representative."

A member of the *Supreme Court* of the United States is "Dear Mr. Justice," adding his family name if preferred.

An *Emperor* is to be addressed, in a letter, as "Sire," or "Your Imperial Majesty."

A *King or Queen* is to be addressed, in a letter, as "Sire" (or "Madam"), or "Your Majesty." The envelope is to be addressed, "The King's (or Queen's) Most Excellent Majesty."

Princes and *Princesses* and other persons of royal blood are addressed as "His (or Her) Royal Highness." Here, as in the cases above, a letter may begin "May it please," following with the words "Your Majesty" or "Your Royal Highness." "May it please" goes well at the start of any letter.

A *Duke* or *Marquis* is "My Lord Duke" (or "Marquis"), a Duke is "His (or Your) Grace."

Wives of any peer may be addressed as "Madam," with the further alternative of "Your Ladyship," or "Your Grace," if she is of high rank. Women of peers may be addressed also as "the Right Honorable," or "the Honorable," according to the rank. The wife of an Earl is a *Countess*.

Abroad, a *Cardinal* is "Your (or His) Eminence," An *Archbishop* is "My Lord" or "His Grace." A *Bishop* is "My Lord." An *Archdeacon* is "Venerable Sir."

In the U. S. a *Cardinal* is "Your Grace," and so is an *Archbishop* — or, "Most Reverend" can be used to any high church official.

An *Ambassador* is "Your Excellency." A *Minister Plenipotentiary* is "Sir."

SHORT DICTIONARY OF AMERICAN BIOGRAPHY.

Born.	Died.	Name.	Occupation.
1807	1873	Agassiz, L. J. R.	Scientist.
1763	1848	Astor, John Jacob	Merchant.
1810	1891	Barnum, P. T.	Showman.
1813	1887	Beecher, Henry W.	Preacher.
1775	1863	Beecher, Lyman	Preacher.
1795	1872	Bennett, James Gordon	Newspaper.
1841	1918	Bennett, J. G., Jr.	Newspaper.
1830	1893	Blaine, James G.	Statesman.
1735	1820	Boone, Daniel	Hunter.
1800	1859	Brown, John	Abolitionist.
1756	1836	Burr, Aaron	Statesman.
1829	1894	Childs, Geo. W.	Newspaper.
1808	1873	Chase, Salmon P.	Jurist.
1799	1859	Choate, Rufus	Lawyer.
1832	1917	Choate, Joseph H.	Lawyer.
1777	1852	Clay, Henry	Statesman.
1845	1917	Cody, William F.	Scout.
1791	1883	Cooper, Peter	Philanthropist
1786	1836	Crockett, David	Hunter.
1839	1876	Custer, Geo. A.	Soldier.
1819	1897	Dana, Chas. A.	Newspaper.
1808	1889	Davis, Jefferson	Statesman.
1779	1820	Decatur, Stephen	Naval.
1834	1928	Depew, Chauncey M.	Orator.
1838	1917	Dewey, George	Admiral.
1817	1895	Douglass, Fred. (colored)	Publicist.
1804	1897	Dow, Neal	Prohibitionist.
1604	1690	Eliot, John	Missionary.
1803	1889	Ericsson, John	Inventor.
1818	1901	Evarts, William M.	Statesman.
1801	1870	Farragut, David G.	Admiral.
1819	1892	Field, Cyrus W.	Atlantic Cable
1813	1890	Fremont, John C.	Explorer.
1765	1815	Fulton, Robert	Inventor.
1805	1879	Garrison, W. Lloyd	Abolitionist.
1750	1831	Girard, Stephen	Merchant.
1858	1928	Goethals, Maj.-Gen.G.W.	Engineer.
1850	1924	Gompers, Samuel	Labor Leader.
1836	1892	Gould, Jay	Railways.
1810	1888	Gray, Asa	Botanist.
1811	1872	Greeley, Horace	Newspaper.
1757	1804	Hamilton, Alexander	Statesman.
1737	1793	Hancock, John	Signer.
1838	1905	Hay, John	Statesman.
1832	1881	Hayes, I. I.	Explorer.
1736	1799	Henry, Patrick	Statesman.
1819	1867	Howe, Elias	Inventor.
1833	1899	Ingersoll, Robert G.	Agnostic.
1747	1792	Jones, Paul	Naval.
1807	1870	Lee, Robert E.	Soldier.
1663	1728	Mather, Cotton	Preacher.
1734	1808	Morris, Robert	Financier.
1791	1872	Morse, S. F. B.	Inventor.
1795	1869	Peabody, George	Philanthropist
1644	1718	Penn, William	Founder.
1811	1884	Phillips, Wendell	Abolitionist.
1847	1911	Pulitzer, Joseph	Newspaper.
1718	1790	Putnam, Israel	Soldier.
1733	1833	Randolph, John	Statesman.
1735	1818	Revere, Paul	Patriot.
1786	1866	Scott, Winfield	Soldier.
1820	1891	Sherman, William T.	Soldier.
1823	1900	Sherman, John	Statesman.
1797	1874	Smith, Gerrit	Abolitionist.
1580	1631	Smith, Capt. John	Adventurer.
1816	1902	Stanton, Elizabeth C.	Suffrage.
1812	1883	Stephens, Alex	Statesman.
1803	1876	Stewart, Alexander T.	Merchant.
1779	1845	Story, Joseph	Jurist.
1859	1918	Sullivan, John L.	Pugilist.
1832	1902	Talmage, T. de Witt	Preacher.
1768	1813	Tecumseh (Indian)	Chief.
1814	1886	Tilden, Samuel J.	Statesman.
1740	1809	Trumbull, Jonathan	Soldier.
1823	1878	Tweed, William M.	Politician.
1794	1877	Vanderbilt, Cornelius	Railways.
1782	1852	Webster, Daniel	Statesman.
1765	1825	Whitney, Eli	Inventor.
1839	1898	Willard, Frances E.	Prohibitionist.
1801	1877	Young, Brigham	Mormon.

NOTED AMERICAN AUTHORS.

Born.	Died.	Name.	Subject.
1838	1918	Adams, Henry	Hist., Biog.
1832	1888	Alcott, Louisa M.	Fiction
1836	1907	Aldrich, Thos. Bailey	Fiction
1849	1925	Allen, James Lane	Fiction
1780	1851	Audubon, J. J.	Naturalist
1813	1887	Beecher, Henry Ward	Religion
1848	1895	Boyeson, H. H.	Fiction
1794	1878	Bryant, William C.	Poet
1849	1924	Burnett, Frances H.	Fiction
1837	1921	Burroughs, John	Essayist
1844	1925	Cable, G. W.	Fiction
1835	1910	Clemens, Samuel L.	Humor
1830	1886	Cooke, J. Esten	Fiction
1789	1851	Cooper, J. Fenimore	Fiction
1867	1966	Craigie, Pearl M. (John Oliver Hobbes)	Fiction
1845	1909	Crawford, F. Marion	Fiction
1812	1894	Curtis, Geo. Tickuor	History
1824	1892	Curtis, Geo. Wm.	Essayist
1815	1882	Dana, R. H., Jr.	Biography
1795	1820	Drake, Jos. Rodman	Poet
1872	1906	Dunbar, Paul Laurence	Poet
1703	1758	Edwards, Jonathan	Religion
1837	1902	Eggleston, Edward	Fiction
1803	1882	Emerson, Ralph Waldo	Essayist
1850	1895	Field, Eugene	Poet
1817	1881	Fields, Jas. T.	Biography
1842	1901	Fiske, John	History
1865	1909	Fitch, Clyde	Drama
1706	1790	Franklin, Benjamin	Publicist
1839	1897	George, Henry	Economics
1822	1909	Hale, Edw. Everett	Essayist
1790	1867	Halleck, Fitz-Greene	Poet
1848	1908	Harris, Joel C.	Humor
1839	1902	Harte, Bret C.	Fiction
1804	1864	Hawthorne, Nathaniel	Fiction
1838	1905	Hay, John	Hist., Poet.
1830	1886	Hayne, Paul	Poet.
1850	1904	Hearn, Lafcadio	Essayist
1864	1900	Hovey, Richard	Poet
1842	1908	Howard, Bronson	Drama
1819	1910	Howe, Julia Ward	Poet
1837	1920	Howells, W. D.	Fiction
1783	1859	Irving, Washington	Fiction, Hist.
1831	1885	Jackson, Helen Hunt	Fiction
1843	1916	James, Henry	Fiction
1842	1910	James, William	Philosophy
1849	1909	Jewett, Sarah Orne	Fiction
1779	1843	Key, Francis Scott	Poet
1824	1903	Leland, C. G.	Poet
1833	1888	Locke, David R.	Humor
1850	1924	Lodge, Henry Cabot	History
1876	1916	London, Jack	Fiction
1807	1882	Longfellow, Henry W.	Poet
1813	1891	Lossing, Benson J.	History
1838	1915	Lounsbury, T. R.	Essayist
1874	1925	Lowell, Amy	Poet
1819	1891	Lowell, Jas. Russell	Poet
1819	1891	Melville, Herman	Adventure
1841	1913	Miller, Joaquin	Poet
1822	1908	Mitchell, Donald G.	Essayist
1814	1877	Motley, J. L.	History
1850	1922	Murfree, Mary N. (C. E. Craddock)	Fiction
1827	1908	Norton, Charles E.	Critic
1850	1896	Nye, Edgar William	Humor
1853	1922	Page, Thos. Nelson	Fiction
1855	1918	Page, Walter H.	Diarist
1737	1809	Paine, Thomas	Politics
1823	1893	Parkman, Francis	History
1791	1852	Payne, John Howard	Poet.
1779	1860	Paulding, J. K.	Biography
1844	1911	Phelps-Ward, Eliz. Stuart	Fiction
1785	1866	Pierpont, Rev. John	Hymns
1809	1849	Poe, Edgar Allan	Poet
1867	1910	Porter, W. S. (O. Henry)	Fiction
1790	1859	Prescott, William H.	History
1822	1872	Read, Thos. Buchanan	Poet
1854	1916	Riley, J. Whitcomb	Poet
1858	1919	Roosevelt, Theodore	History
1816	1887	Saxe, John Godfrey	Poet
1791	1865	Sigourney, Lydia H.	Poet
1806	1870	Simms, W. Gilmore	Fiction
1850	1928	Sloane, W. M.	History
1833	1915	Smith, F. Hopkinson	Fiction
1834	1902	Stockton, F. R.	Fiction
1833	1908	Stedman, Edmund C.	Poet
1825	1903	Stoddard, Rich. Henry	Poet
1812	1896	Stowe, Harriet Beecher	Fiction
1825	1878	Taylor, Bayard	Travel
1836	1894	Thaxter, Celia	Poet
1817	1862	Thoreau, Henry D.	Philosopher
1791	1871	Ticknor, George	History
1827	1905	Wallace, Lew	Fiction
1834	1867	Ward, Artemus	Humor
1829	1900	Warner, Chas. Dudley	Essayist
1758	1843	Webster, Noah	Dictionary
1819	1892	Whitman, Walt	Poet
1807	1892	Whittier, John Greenleaf	Poet
1806	1867	Willis, Nathaniel P.	Essayist
1856	1924	Wilson, Woodrow	History
1836	1917	Winter, William	Critic
1828	1861	Winthrop, Theodore	Fiction
1720	1772	Woolman, John	Religion
1848	1894	Woolson, Constance F.	Fiction

FAMOUS AUTHORS OF GREAT BRITAIN.

Born.	Died.	Name.	Subject.	Born.	Died.	Name.	Subject.
1672	1719	Addison, Joseph	Essays.	1491	1555	Latimer, Hugh	Religion.
1832	1904	Arnold, Edwin	Poet.	1838	1903	Lecky, W. E. H.	History.
1822	1888	Arnold, Matthew	Poet.	1632	1704	Locke, John	Philosophy.
1515	1568	Ascham, Roger	Philosophy.	1803	1873	Lytton, E. Bulwer	Fiction.
1775	1817	Austen, Jane	Fiction.	1800	1859	Macaulay, Thomas B.	Essays.
1561	1626	Bacon, Francis	Essays.	1564	1593	Marlowe, Christopher	Drama.
1615	1691	Baxter, Richard	Religion.	1828	1909	Meredith, George	Novelist.
1584	1616	Beaumont, Francis	Drama.	1806	1873	Mill, J. Stuart	Economics.
1748	1832	Bentham, Jeremy	Political.	1608	1674	Milton, John	Poet.
1723	1780	Blackstone, William	Law.	1779	1852	Moore, Thomas	Poet.
1740	1795	Boswell, James	Biography.	1480	1535	More, Sir Thomas	Economics.
1816	1855	Brontë, Charlotte	Fiction.	1838	1923	Morley, John	Biography.
1806	1861	Browning, Elizabeth B.	Poet.	1632	1703	Pepys, Samuel	Diarist.
1812	1889	Browning, Robert	Poet.	1688	1744	Pope, Alexander	Poet.
1838	1922	Bryce, James	History.	1592	1644	Quarles, Francis	Poet.
1628	1688	Bunyan, John	Religion.	1552	1618	Raleigh, Sir Walter	History.
1729	1797	Burke, Edmund	Essays.	1814	1884	Reade, Charles	Fiction.
1759	1796	Burns, Robert	Poet.	1689	1761	Richardson, Samuel	Fiction.
1612	1680	Butler, Samuel	Poet.	1763	1855	Rogers, Samuel	Poet.
1788	1824	Byron (Geo. Gordon)	Poet.	1828	1882	Rosetti, D. Gabriel	Poet.
1777	1844	Campbell, Thomas	Poet.	1819	1900	Ruskin, John	Art.
1795	1881	Carlyle, Thomas	History.	1771	1832	Scott, Sir Walter	Fiction.
1328	1400	Chaucer, Geoffrey	Poet.	1564	1616	Shakespeare, William	Drama.
1772	1834	Coleridge, S. T.	Poet.	1792	1822	Shelley, Percy Bysshe	Poet.
1670	1729	Congreve, William	Drama.	1751	1816	Sheridan, Richard B.	Drama.
1857	1924	Conrad, Joseph	Fiction.	1723	1790	Smith, Adam	Economics.
1864	1924	Corelli, Marie	Fiction.	1771	1845	Smith, Sidney	Essays.
1731	1800	Cowper, William	Poet.	1721	1771	Smollett, Tobias	Fiction.
1809	1882	Darwin, Charles	Evolution.	1774	1843	Southey, Robert	Poet.
1661	1731	Defoe, Daniel	Fiction.	1552	1599	Spenser, Edmund	Poet.
1785	1859	De Quincey, Thomas	Essays.	1820	1903	Spencer, Herbert	Science.
1812	1870	Dickens, Charles	Fiction.	1672	1729	Steele, Richard	Essays.
1804	1881	Disraeli, Benjamin	Fiction.	1713	1768	Sterne, Lawrence	Fiction.
1631	1700	Dryden, John	Poet.	1850	1894	Stevenson, Robert Louis	Fiction.
1819	1880	Eliot, George	Fiction.	1796	1874	Strickland, Agnes	History.
1707	1754	Fielding, Henry	Fiction.	1667	1745	Swift, Jonathan	Fiction.
1818	1894	Freeman, E. A.	History.	1837	1909	Swinburne, Algernon C.	Poet.
1685	1732	Gay, John	Fables.	1840	1893	Symonds, John A.	History.
1836	1911	Gilbert, W. S.	Drama.	1613	1667	Taylor, Jere	Religion.
1737	1794	Gibbon, Edward	History.	1809	1892	Tennyson, Alfred	Poet.
1728	1774	Goldsmith, Oliver	Poet.	1811	1863	Thackeray, W. M.	Fiction.
1849	1928	Gosse, Sir Edmund	Poet, Critic	1700	1748	Thomson, James	Poet.
1716	1771	Gray, Thomas	Poet.	1838	1928	Trevelyan, Sir Geo. Otto	History
1856	1925	Haggard, H. Rider	Fiction, Agric.	1815	1882	Trollope, Anthony	Fiction.
1840	1928	Hardy, Thomas	Fiction.Poetry	1484	1536	Tyndale, William	Religion.
1591	1674	Herrick, Robert	Poet.	1820	1893	Tyndall, John	Scientific.
1861	1925	Hewlett, Maurice	Fiction.	1593	1683	Walton, Izaak	Angling.
1798	1845	Hood, Thomas	Poet.	1674	1748	Watts, Isaac	Hymns.
1711	1776	Hume, David	History.	1855	1928	Weyman, Stanley J.	Fiction.
1825	1895	Huxley, Thos. Henry	Scientist.	1720	1793	White, Gilbert	Nat. History.
1709	1784	Johnson, Samuel	Dictionary.	1856	1900	Wilde, Oscar	Drama.
1574	1637	Jonson, Ben	Drama.	1770	1850	Wordsworth, William	Poet.
1796	1821	Keats, John	Poet.	1640	1715	Wycherly, William	Drama.
1775	1834	Lamb, Charles	Essays.	1324	1384	Wyckliffe, John	Religion.
1844	1912	Lang, Andrew	Poet.	1684	1765	Young, Edward	Poet.

NOTED FRENCH AUTHORS.

Born.	Died.	Name.	Subject.	Born.	Died.	Name.	Subject.
1079	1142	Abelard, Pierre	Philosophy.	1850	1923	Loti, Pierre	Fiction
1799	1850	Balzac, Honore	Fiction.	1850	1893	de Maupassant, Guy	Fiction.
1732	1799	Beaumarchais, P.	Drama.	1803	1870	Merimee, Prosper	Fiction.
1780	1857	Beranger, Pierre	Poet.	1622	1673	Moliere, Jean B.	Drama.
1707	1788	Buffon, Geo. L.	Nat. History.	1533	1592	Montaigne, Mich.	Essays.
1768	1848	Chateaubriand, Fr.	Philosophy.	1623	1662	Pascal, Blaise	Essays.
1445	1509	Comines, Phil.	History.	1495	1553	Rabelais, Fr.	Stories.
1798	1857	Comte, Auguste	Philosophy.	1639	1699	Racine, Jean	Drama.
1606	1684	Corneille, Pierre	Drama.	1823	1892	Renan, Ernest	Religion.
1792	1867	Cousin, Victor	Metaphysics.	1712	1778	Rousseau, J. J.	Essays.
1769	1832	Cuvier, Geo. L.	Nat. History.	1737	1814	Saint Pierre, J. H.	Fiction.
1840	1897	Daudet, Alph.	Fiction.	1804	1876	Sand, Geo.	Fiction.
1596	1650	Descartes, Rene	Philosophy.	1831	1908	Sardou, Victorien	Drama.
1713	1784	Diderot, Denis	Encyclopedia.	1626	1696	Sevigne, Mme. de	Letters.
1803	1870	Dumas, Alex.	Fiction.	1766	1817	Stael, Mme. de	Fiction.
1821	1890	Feuillet, Oct.	Fiction.	1804	1857	Sue, Eugene	Fiction.
1821	1880	Flaubert, Gustave	Fiction.	1828	1893	Taine, H. A.	History.
1621	1695	Fontaine, Jean	Fables.	1797	1877	Thiers, Louis	History.
1844	1924	France, A. (Thibault)	Fiction.	1805	1859	Tocqueville, A. C. de	History.
1337	1410	Froissart, Jean	History.	1828	1905	Verne, Jules	Fiction.
1787	1874	Guizot, Fran.	History.	1431	1484	Villon, Francois	Poet.
1802	1885	Hugo, Victor	Fiction.	1694	1778	Voltaire, Fr.	Essays.
1668	1747	Le Sage, A. R.	Fiction.	1840	1902	Zola, Emile	Fiction.

SWEDISH AUTHORS OF NOTE.

Born.	Died.	Name.	Subject.	Born.	Died.	Name.	Occupation.
1793	1866	Almquist, C. J. L.	Fiction	1842	1919	Retzius, Gustaf	Anthropology
1740	1795	Bellman, C. M.	Poet	1804	1877	Runeberg, J. L.	Poet
1779	1848	Berzelius, Jakob	Chemist	1828	1895	Rydberg, Viktor	Poet, Phil.
1801	1865	Bremer, Fredrika	Fiction	1793	1823	Stagnelius, E. J.	Poet
1860	1911	Froding, Gustaf	Poet	1598	1672	Stiernhielm, Georg	Poet, Phil.
1783	1847	Geijer, E. G.	Poet, Hist.	1849	1912	Strindberg, August	Drama, Fict.
1860	1925	Hansson, Ola	Poet, Fict.	1688	1772	Swedenborg, Emanuel	Philosopher
1707	1778	Linne, Carl von	Botanist	1782	1846	Tegner, Esaias	Poet
1843	1921	Montelius, Oscar	History				

GERMAN AUTHORS.

Born.	Died.	Name.	Subject.	Born.	Died.	Name.	Subject.
1812	1882	Auerbach, Berth	Fiction.	1823	1900	Muller, Max	Philology.
1592	1670	Comenius, J. A. (Bohem.)	Pedagogy.	1789	1850	Neander, J. A	History
1762	1814	Fichte, J. G	Philosophy.	1776	1831	Niebuhr, B. G	History.
1749	1832	Goethe, J. W	Poet.	1844	1900	Nietzsche, Fr. W	Philosophy.
1791	1872	Grillparzer, Franz	Drama.	1795	1886	Ranke, Leop. von	History.
1785	1863	Grimm, J. L	Philosophy.	1810	1874	Reuter, Fritz	Poet.
1786	1859	Grimm, W. K	Philosophy.	1763	1825	Richter, J. P. F	Humor.
1770	1831	Hegel, Geo. W	Philosophy.	1779	1859	Ritter, Carl	Geography.
1797	1856	Heine, Heinrich	Poet.	1788	1866	Ruckert, Friedrich	Poet.
1769	1859	Humboldt, Alex. von	Travel.	1494	1578	Sachs, Hans	Poet.
1724	1804	Kant, Immanuel	Philosophy.	1826	1886	Scheffel, Jos. V. von	Poet.
1791	1813	Korner, Karl Theodor	Poet.	1759	1805	Schiller, Friedrich	Poet.
1646	1716	Leibnitz, G. W	Philosophy.	1767	1845	Schlegel, Wilhelm	Critic.
1729	1781	Lessing, Gotthold E	Drama.	1822	1892	Schliemann, Heinrich	Archaeology.
1483	1546	Luther, Martin	Religion.	1788	1860	Schopenhauer, Arthur	Philosophy.
1817	1903	Mommsen, Th	History.	1857	1928	Sudermann, Hermann	Drama.
1814	1873	Muhlbach, Louise	Fiction.	1787	1862	Uhland, Ludwig	Poet.

SPANISH AUTHORS.

Born.	Died.	Name.	Subject.	Born.	Died.	Name.	Subject.
1180	1247	Berceo, Gonzalo de	Poet	1580	1645	Quevedo, Francisco de	Poet, Prose
1282	1348	Juan Manuel	Prose	1600	1681	Calderon de la Barca, Pedro	Dramatist
1332	1407	Lopez de Ayala, Pero	Poet				
1398	1458	Lopez de Mendoza, Inigo, Marques de Santillana	Poet	1760	1828	Fernandez de Moratin, Leandro	Dramatist
1440	1479	Manrique, Jorge	Poet	1772	1857	Quintana, Manuel Jose	Poet
.....	1510	Rojas, Fernando de	Dramatist	1796	1877	Fernan Caballero (Cecilia Bohl de Faber)	Novelist
.....	1542	Boscan Almogaver, Juan	Poet				
1503	1536	Garcilaso de la Vega	Poet	1803	1839	Heredia, Jose Maria	Poet
1503	1541	Valdes, Juan de	Philosopher	1817	1893	Zorrilla, Jose	Dramatist
1510	1565	Rueda, Lope de	Dramatist	1817	1901	Campoamor, Ramon	Poet
1528	1591	Leon, Luis de	Poet, Prose	1824	1905	Valera, Juan	Novelist
1533	1594	Ercilla y Zuniga, Alonso de	Poet	1833	1891	Alarcon, Pedro Antonio de	Novelist
1547	1616	Cervantes Saavedra, Miguel de	Novelist	1833	1906	Pereda, Jose Maria de	Novelist
				1836	1870	Becquer, Gustavo Adolfo	Poet
1561	1627	Gongora, Luis de	Poet	1843	1920	Perez Galdos, Benito	Novelist
1562	1635	Vega Carpio, Lope Felixde	Dramatist	1852	1921	Pardo Bazan, Emilia	Novelist
1579	1644	Velez de Guevara, Luis	Novelist	1867	1916	Ruben, Dario	Poet
1580	1639	Ruiz de Alarcon, Juan	Dramatist	1867	1928	Ibanez, Vicente Blasco	Novelist.

ITALIAN AUTHORS.

Born.	Died.	Name.	Subject.	Born.	Died.	Name.	Subject.
1749	1803	Alfieri, Vittorio	Poet, Drama.	1564	1642	Galileo, Galilei	Scientist.
1474	1533	Ariosto, Ludovico	Poet.	1798	1837	Leopardi, Giacomo	Poet
1313	1375	Boccaccio, Giovanni	Tales.	1469	1527	Machiavelli, Nic	History.
1500	1571	Cellini, Benvenuto	Memoirs.	1785	1873	Manzoni, Alessandro	Poet
1265	1321	Dante, Alighieri	Poet.	1304	1374	Petrarch, Francesco	Poet.
1846	1908	De Amicis, Edmundo	Fiction.	1773	1842	Sismondi, J. C	History.
1778	1827	Foscolo, Ugo	Poet	1544	1595	Tasso, Torquato	Poet.

NORWEGIAN AUTHORS.

Born.	Died.	Name.	Subject.	Born.	Died.	Name.	Subject.
1684	1754	Holberg, Ludvig	Drama, Hist.	1833	1907	Bugge, Sophus	Folklore.
1808	1845	Wergeland, Henrik	Poet, Drama.	1828	1906	Ibsen, Henrik	Drama.
1807	1874	Welhaven, J. S. C	Poet.	1832	1910	Bjornson, B	Poet, Drama.
1802	1829	Abel, N. H	Mathematics.	1833	1908	Lie, Jonas	Fiction.
1810	1863	Munch, P. A	History.	1849	1906	Kielland, A. L	Fiction.
1835	1918	Sars, J. E	History.	1813	1896	Aasen, Ivar	Poet

ANCIENT AUTHORS, GREEK. (B. C. years are in Italics. Earliest dates are approximate.)

B.	D.	Name.	Subj.	B.	D.	Name.	Subj.	B.	D.	Name.	Subj.
389	*314*	Aeschines	Orat.	...	7	Dionysius	Hist.	*522*	*443*	Pindar	Poet.
525	*456*	Aeschylus	Dram.	...	118	Epictetus	Stoic.	*429*	*347*	Plato	Philos.
...	*550*	Aesop	Tales	*342*	*270*	Epicurus	Philos.	49	120	Plutarch	Biog.
563	*478*	Anacreon	Poet.	*480*	*406*	Euripides	Dram.	*207*	*122*	Polybius	Hist.
287	*212*	Archimedes	Physl.	*484*	*424*	Herodotus	Hist.	*495*	*406*	Sophocles	Dram.
448	*380*	Aristophanes	Dram.	...	*735*	Hesiod	Poet.	*63*	24	Strabo	Geog.
384	*322*	Aristotle	Philos.	*460*	*377*	Hippocrates	Medic.	...	*255*	Theocritus	Poet.
...	194	Athenaeus	Antiq.	*362*	*327*	Homer	Poet.	*332*	*287*	Theophrastus	Philos.
382	*322*	Demosthenes	Orat.	*436*	*338*	Isocrates	Orat.	*471*	*401*	Thucydides	Hist
60	13	Diodorus	Hist	*342*	*292*	Menander	Dram.	*430*	*357*	Xenophon	Hist

ANCIENT AUTHORS, LATIN. (B. C. years are in Italics.)

B.	D.	Name.	Subj	B.	D.	Name.	Subj	B.	D.	Name.	Subj.
330	390	Ammianus, M	Hist	*59*	*17*	Livy	Hist.	35	95	Quintilian	Critic.
125	200	Apuleius	Satir.	38	65	Lucan	Poet.	*86*	*34*	Sallust	Hist.
130	175	Aulus Gellius	Satir.	*180*	*103*	Lucilius	Satir.	*5*	65	Seneca	Moral.
475	524	Boethius	Philos.	*96*	*52*	Lucretius	Philos.	25	100	Silius, Italicus	Poet.
102	*44*	Caesar, Julius	Hist.	43	104	Martial	Poet.	61	96	Statius	Poet.
232	*147*	Cato, the Elder	Orat.	*100*	*30*	Nepos	Hist.	70	150	Suetonius	Biog.
87	*54*	Catullus	Poet.	43	18	Ovid	Poet.	55	117	Tacitus	Hist.
107	*43*	Cicero	Orat.	34	62	Persius	Satir.	*185*	*159*	Terence	Dram.
365	408	Claudian	Poet.	*254*	*184*	Plautus	Dram.	*54*	*18*	Tibullus	Poet.
65	8	Horace	Poet.	23	79	Pliny	Natur.	*70*	*19*	Virgil	Poet.
60	140	Juvenal	Satir.	62	113	Pliny the Youn'r.	Essays.	*70*	*16*	Vitruvius	Arch.

AMERICAN PAINTERS AND SCULPTORS.

B'n.	D'd.	Name.	B'n.	D'd.	Name.	B'n.	D'd.	Name.
1852	1911	Abbey, Edwin A.	1823	1880	Gifford, S. R.	1778	1860	Peale, Rembrandt
1779	1843	Allston, Washington	1825	1857	Glass, James W.	1860	1926	Pennell, Joseph
1814	1893	Beard, Jas. H.	1805	1852	Greenough, Horatio	1805	1873	Powers, Hiram
1882	1925	Bellows, George W.	1828	1901	Hart, James M.	1850	1914	Ream, Vinnie
1828	1902	Bierstadt, Albert	1836	1910	Homer, Winslow	1829	1904	Rogers, John
1833	1905	Boughton, George H.	1824	1879	Hunt, William M.	1848	1907	St.-Gaudens, Augustus
1827	1892	Bradford, William	1816	1906	Huntington, Dan	1856	1925	Sargent, John S.
1847	1928	Bridgman, F. A.	1801	1846	Inman, Henry	1819	1895	Story, Wm. W.
1814	1889	Brown, George L.	1825	1894	Inness, George	1756	1828	Stuart, Gilbert
1843	1926	Cassatt, Mary	1824	1906	Johnson, Eastman	1783	1872	Sully, Thomas
1849	1916	Chase, William M.	1818	1872	Kensett, J. F.	1849	1921	Thayer, Abbott H.
1826	1900	Church, F. E.	1816	1868	Leutze, E.	1756	1843	Trumbull, John
1801	1848	Cole, Thos.	1777	1807	Malbone, Edward G.	1776	1852	Vanderlyn, John
1737	1815	Copley, John	1813	1884	Matteson, T.	1836	1923	Vedder, Elihu
1856	1919	Cox, Kenyon	1828	1891	McEntee, J.	1830	1910	Ward, J. Q. A.
1814	1857	Crawford, Thomas	1815	1883	Mills, Clark	1852	1917	Weir, J. Alden
1848	1919	Duveneck, Frank	1829	1901	Moran, Edward	1803	1889	Weir, Rob. W.
1812	1868	Elliott, Chas. L.	1853	1921	Murphy, J. Francis	1738	1820	West, Benjamin
1844	1917	Ezekiel, Sir Moses	1811	1885	Page, William	1835	1903	Whistler, J. A. M.
1808	1884	Freeman, James E.	1741	1826	Peale, Chas. W.			

ENGLISH PAINTERS AND SCULPTORS.

B'n.	D'd.	Name.	B'n.	D'd.	Name.	B'n.	D'd.	Name.
1833	1898	Burne-Jones, Sir Edw.	1817	1897	Gilbert, Sir John	1836	1916	Poynter, Sir E. J., Bt.
1781	1841	Chantrey, Sir F. L.	1679	1764	Hogarth, William	1756	1823	Raeburn, Sir Henry
1776	1837	Constable, John	1758	1810	Hoppner, John	1723	1792	Reynolds, Sir Joshua
1803	1902	Cooper, Sidney	1802	1873	Landseer, Sir Edwin	1734	1802	Romney, George
1793	1865	Eastlake, Charles	1769	1830	Lawrence, Sir Thomas	1828	1882	Rossetti, D. G.
1787	1849	Etty, William	1830	1896	Leighton, Fred, Lord	1775	1851	Turner, J. M. W.
1755	1826	Flaxman, John	1781	1870	Maclise, Sir Daniel	1817	1904	Watts, Geo. F.
1825	1899	Foster, Birket	1829	1896	Millais, Sir J. E.	1775	1856	Westmacott, Sir R.
1727	1788	Gainsborough, T.	1835	1910	Orchardson, Sir W. Q.	1785	1841	Wilkie, David
1791	1866	Gibson, John	1839	1894	Pettie, John			

FRENCH PAINTERS AND SCULPTORS.

B'n.	D'd.	Name.	B'n.	D'd.	Name.	B'n.	D'd.	Name.
1834	1904	Bartholdi, F. A.	1797	1856	Delaroche, Paul	1815	1891	Meissonier, J. L. E.
1795	1875	Barge, A. L.	1807	1876	Diaz, N. Virgil	1814	1875	Millet, J. F.
1822	1899	Bonheur, Rosa	1833	1883	Dore, Gustave	1594	1665	Poussin, Nicolas
1825	1905	Bouguereau, W.	1811	1889	Dupre, Jules	1758	1823	Prudhon, Pierre
1845	1902	Constant, Benj.	1820	1876	Fromentin, Eugene	1840	1917	Rodin, Aug.
1796	1875	Corot, J. B. C.	1824	1904	Gerome, J. L.	1812	1867	Rousseau, P. E. T.
1819	1877	Courbet, Gustave	1628	1715	Girardon, Fr.	1795	1858	Scheffer, Ary
1817	1878	Daubigny, C. F.	1741	1828	Houdon, J. A.	1810	1865	Troyon, Constant
1748	1825	David, Louis J.	1798	1880	Lemaire, Ph. H.	1789	1863	Vernet, Carlo
1789	1856	David, P. J.	1848	1884	Lepage, J. B.	1714	1789	Vernet, Claude J.
1799	1863	Delacroix, Eugene	1600	1682	Lorrain, Claude	1684	1721	Watteau, Ant.

GERMAN PAINTERS AND SCULPTORS.

B'n.	D'd.	Name.	B'n.	D'd.	Name.	B'n.	D'd.	Name.
1783	1867	Cornelius, Peter von	1808	1874	Kaulbach, Wilm. von	1777	1857	Rauch, C. D.
1805	1882	Drake, Friedrich	1645	1722	Kneller, Godfrey	1804	1861	Rietschel, Ernst
1471	1528	Durer, Albert	1617	1680	Lely, Peter	1828	1899	Schreyer, Adolphe
1497	1543	Holbein, Hans	1840	1884	Makart, Hans	1802	1848	Schwanthaler, L. M.

ITALIAN PAINTERS AND SCULPTORS.

B'n.	D'd.	Name.	B'n.	D'd.	Name.	B'n.	D'd.	Name.
1400	1474	Amadeo, G. A.	1500	1571	Cellini, Benvenuto	1488	1537	Lombardi, Alf.
1487	1531	Andrea del Sarto.	1494	1534	Correggio, A. A.	1483	1520	Raphael (Sanzio)
1475	1517	Bartolommeo, Fra.	1616	1686	Dolci, Carlo	1575	1642	Reni, Guido
1481	1559	Benvenuto, Tisio G.	1581	1641	Domenichino	1400	1481	Robbia, Lucca della
1475	1564	Buonarotti (Michael Angelo).	1449	1494	Domenico (Ghir)	1615	1673	Salvator Rosa
			1400	1486	Fiesole, Minoda	1512	1594	Tintoretto
1697	1768	Canale, Ant.	1477	1511	Giorgione	1477	1576	Titian
1757	1822	Canova, Ant.	1276	1336	Giotto (di Bordone)	1528	1588	Veronese, Paul
1560	1609	Carraci, Annibale	1240	1302	Giovanni (Cimabue)	1452	1519	Vinci, Leonardo da

FLEMISH AND DUTCH PAINTERS AND SCULPTORS.

B'n.	D'd.	Name.	B'n.	D'd.	Name.	B'n.	D'd.	Name.
1836	1912	Alma-Tadema, L.	1632	1691	Meer Jan, van der	1625	1681	Ruysdael, Jacob
1605	1691	Cuyp, Albert	1610	1685	Ostade, Adr. van	1610	1694	Teniers, David
1613	1680	Dou, Gerard	1625	1654	Potter, Paul	1599	1641	Vandyck, Anton
1584	1666	Hals, Frans	1607	1699	Rembrandt, van Rijn	1633	1707	Van de Velde, Wm.
1460	1531	Matsys, Quintin	1577	1640	Rubens, Peter Paul	1366	1440	Van Eyck, Hubert & Jan

SPANISH PAINTERS AND SCULPTORS.

B'n.	D'd.	Name.	B'n.	D'd.	Name.	B'n.	D'd.	Name.
1786	1827	Alvarez, Don Jose	1838	1874	Fortuny, Mariano	1599	1660	Velasquez, Diego
1601	1667	Cano, Alonzo	1618	1682	Murillo, B. E.	1598	1662	Zurbaran, Franc.
1746	1828	Goya y Lucientes, F.	1863	1923	Sorolla y Bastida, J.			

NOTED VIOLINISTS.

1810	1880	Bull, Ole.....	Nor.	1832	1875	Laub, Fred.....	Ger.	1844	1908	Sarasate, P. M...	Span.
1653	1713	Corelli, Arc.....	It.	1697	1764	Leclair, J. M....	Fr.	1815	1894	Sivori, Ern.....	It.
1824	1893	Eichberg, J.....	Ger.	1790	1861	Lipinski, Karl...	Pol.	1692	1770	Tartini, G.....	It.
1716	1796	Giardini, F. di...	It.	1782	1840	Paganini, Nic....	It.	1820	1881	Vieuxtemps, H .	Bel.
1781	1849	Habeneck, F. A..	Fr.	1868	1920	Powell, Maud...	U. S.	1753	1824	Viotti, Jean.....	It.
1831	1907	Joachim, Jos....	Ger.	1830	1898	Remenyi, Edw...	Hung.	1845	1908	Wilhelmj, A.....	Ger.

ROBERT BURNS NOT A DRUNKARD.

(From the Medical Journal and Record, N. Y.)

Those who achieve fame excite envy, and if great men are not otherwise crucified it is whispered that they were either tuberculous, insane or alcoholic.

When one considers the frequency of tuberculous infection, the not uncommon use of alcoholic drinks and the fact that we all get off the hooks at times, such simplicity in accounting for genius loses all its intended force in belittling greatness, but, as Carlyle said, very few persons think and the distinguished are, therefore, often looked upon as altogether abnormal and more or less pariah.

In this centenary of the death of Schubert attention is called by some writers to his habits of living as connected with his early death. Others, in better business, have pointed to the most extraordinary amount, as well as quality, of work he turned out, which could only be the product of a person of unusual vigor.

In fact, his friends were so accustomed to his exuberance that they did not appreciate his condition when he was taken with typhus fever, a disease not particular in respect to its choice of victims.

It is worth noting that two other great persons, Raphael and Mozart, were also carried off in their thirties by this same disease.

Typhus is the "disease of human wretchedness" and at least two of these celebrated persons were allowed by the society which they benefited to live more or less wretchedly.

Tuberculosis and insanity not fitting the case, Robert Burns (another genius who died before forty) was, of course, alcoholic. Dr. H. B. Anderson of Toronto in the *Annals of Medical History* for March has looked into his case and decides that the poet died of rheumatism and heart disease dating from early life, with which alcohol had nothing more to do than in any ordinary man of his time.

Not too much was known of heart lesions in the days of Burns. He had a bodily vigor that might seem to preclude the possession of a bad heart, but every clinician knows that these may exist together, and we know of one professional strong man, capable of holding up six other men, who had a badly leaking blood pump.

Dr. Anderson gives an interesting account of Burns's relation to members of the medical profession, some of whom were fully appreciative of his genius and did much to aid him.

He quotes several credible witnesses to the effect that Burns might have drunk as much as the average run of men of his day, but not more than they, and "it is difficult to believe that a man who rode thirty or forty miles daily as a gauger, of whose work in the Excise no complaint was ever made; who superintended his farm, watched over the education of his children, interested himself in libraries, kept up a large correspondence, collected, rewrote or composed some two hundred and sixty songs with accompanying letters, the last less than a fortnight before his death, was debased and dying from alcoholism."

Dr. Anderson traces the evidence of Burns's illness and states that at the age of 36 he had an attack of rheumatic fever which confined him to bed for over three months.

"Beyond this point the case was an ordinary one of rheumatism with heart complications, shortness of breath, faintness, weakness, rapid irregular pulse and, toward the end, fever, parched tongue and delirium, presumably due to a bacterial endocarditis which developed as a terminal infection."

FAMOUS POEMS AND THEIR AUTHORS.

"Elegy Written in a Country Churchyard," Thomas Gray (1716-1771).

"The Minstrel," James Beattie (1735-1803).

"Rock of Ages," Augustus Montague Toplady (1740-1778).

"The Farmer's Boy," Robert Bloomfield (1766-1823).

"The Burial of Sir John Moore," Charles Wolfe (1791-1823).

"Woodman, Spare that Tree," George P. Morris (1802-1864).

"The Buccaneer," Richard Henry Dana (1789-1879).

"Star Spangled Banner," Francis Scott Key (1790-1843).

"La Marseillaise," Rouget de L'Isle (1760-1836).

"Home, Sweet Home," John Howard Payne (1792-1852).

"From Greenland's Icy Mountains," Reginald Heber (1783-1826).

"Battle Hymn of the Republic," Julia Ward Howe (1819).

"Ben Bolt," Thomas Dunn English (1819).

"Rocked in the Cradle of the Deep," Emma C. Willard (1847-1870).

"Hail, Columbia," Joseph Hopkinson (1770-1842).

POETS-LAUREATE OF ENGLAND.

There is no authentic record of the origin of the office of Poet-Laureate of England. According to Warton, there was a *Versificator Regis*, or King's Poet, in the reign of Henry III. (1216-1272), and he was paid 100 shillings a year. Geoffrey Chaucer (1328-1400) assumed the title of Poet-Laureate, and in 1389 got a royal grant of a yearly allowance of wine. In the reign of Edward IV. (1461-1483) John Kay held the post. Under Henry VII. (1485-1509) Andrew Bernard was the Poet-Laureate, and was succeeded under Henry VIII. (1509-1547) by John Skelton. Next came Edmund Spenser, who died in 1599; then Samuel Daniel, who died in 1619, and then Ben Jonson (app't'd 1619). Sir William Davenant was appointed in 1638. John Dryden was appointed in 1670 but was deposed at the Revolution. The others, with the date of appointment, when known, have been: Thomas Shadwell, 1689; Nahum Tate, 1692; Nicholas Rowe, 1715; the Rev. Laurence Eusden, 1718; Colly Cibber, 1730; William Whitehead, 1758, on the refusal of Gray; Rev. Thomas Warton, 1785, on the refusal of Mason; Henry J. Pye, 1790; Robert Southey, 1813, on the refusal of Sir Walter Scott; William Wordsworth, 1843; Alfred Tennyson, 1850; Alfred Austin, 1896; Robert Bridges, 1913.

GREAT SINGERS.

1823	1894	Alboni, Marietta	It.	1820	1887	Lind, Jenny	Swd'n	1833	1882	Phillips, Adelaide	Eng.
1857	1921	Bispham, David	U. S.	1841	1908	Lucca, Pauline	Ger.	1854	1914	Plancon, Pol	Fr.
1846	1896	Campanini, I	It.	1808	1836	Malibran, Maria	Fr.	1818	1900	Reeves, Sims	Eng.
1873	1921	Caruso, Enrico	It.	1749	1833	Mara, Gertrud	Ger.	1772	1839	Ronconi, Dom	It.
1779	1849	Catalani, Angel	It.	1810	1883	Mario, G	It.	1795	1854	Rubini, Giov	It.
1855	1917	De Reszke, E	Pol.	1848	1923	Maurel, Victor	Fr.	1834	1922	Santley, Sir C	Eng.
1850	1925	De Reszke, Jean	Pol.	1836	1889	Murska, Ilma di	It.	1840	1886	Scaria, Emil	Ger.
1830	1914	Faure, Jean B	Fr.	1831	1917	Niemann, Albert	Ger.	1804	1860	Schroder - Devrient, Wilh	Ger.
1810	1889	Formes, Karl	Ger.	1843	1921	Nilsson, C	Swd'n				
1840	1905	Galli-Marie, C	Fr.	1859	1914	Nordica, Lillian	U. S.	1806	1854	Sontag, Hetty	Ger.
1805	1840	Grisi, Giuditti	It.	1818	1908	Novello, Clara	Eng.	1851	1905	Tamagno, F	It.
1852	1929	Hauk, Minnie	U. S.	1836	1874	Parepa-Rosa, E	Scot.	1753	1833	Todi, Luiza	Port.
1842	1916	Kellogg, Clara L	U. S.	1789	1865	Pasta, Guiditta	It.	1821	1910	Viardot-Garcia, P.	Fr.
1794	1858	Lablache, Luigi	It.	1843	1919	Patti, Adelina	Span.	1836	1910	Whitney, Myron	U. S.
1848	1929	Lehman, Lilli	Ger.								

BLUEBEARD.

The hero of the well-known nursery tale is so named from the color of his beard. The story is widely known in Western Europe, but the form in which it has become familiar is a free translation of that given by Perrault in 1697.

In this story Bluebeard is a Signeur of great wealth, who marries the daughter of a neighbor in the country, and a month after the wedding goes from home on a journey, leaving his wife the keys of his castle, but forbidding her to enter one room.

She can not resist her curiosity, opens the door, to find the bodies of all Bluebeard's former wives, and at once sees the fate to which she herself is doomed. Bluebeard, on his return, discovers from a spot of blood upon the key which could not be cleaned off, that his wife had broken his command and tells her that she must die.

She begs for a short respite to commend herself to God, sends her sister Anne to the top of the tower to seek for help and finally is just on the point of having her head cut off, when her two brothers burst in and dispatch Bluebeard.

There are many versions of the story, all agreeing in essential details. It is found in the German, French, Greek, Tuscan, Icelandic, Esthonian, Gaelic, and Basque folklore.

STAGE FAVORITES.

Name.	Birthplace.	Born.
Adams, Maude	Salt Lake City, Utah	1872
Albani, Emma	Chambly, Canada	1852
Alda, Frances	New Zealand	1882
Allen, Viola	Alabama	1869
Anderson, Mary	Sacramento, Cal.	1859
Anglin, Margaret	Ottawa, Canada	1876
Arbuckle, Maclyn	San Antonio, Tex.	1866
Arliss, George	London	1868
Arthur, Julia	Hamilton, Ontario	1869
Asche, Oscar	Gcelong, Australia	1872
Ashwell, Lena	England	1872
Atwill, Lionel	Croydon, England	1885
Bainter, Fay	Los Angeles	1892
Barker, Granville	London	1877
Barthelmess, Richard	New York	1895
Barrymore, Ethel	Philadelphia	1879
Barrymore, John	Philadelphia	1882
Barrymore, Lionel	Philadelphia	1878
Bates, Blanche	Portland, Ore.	1873
Beecher, Janet	Jefferson City, Mo.	1887
Beery, Wallace	Kansas City	1886
Bellew, Kyrle (Miss.)	Hempstead	1890
Bennett, Richard	Deacon's Mills, Ind.	1873
Benrimo, J. Harry	San Francisco	1874
Bentley, Irene	Baltimore	
Blauvelt, Lillian Evans	Brooklyn	1874
Blythe, Betty	Los Angeles	1897
Boland, Mary	Detroit	1880
Bonci, Alessandro	Cesena, Italy	1870
Bow, Clara	Brooklyn	1903
Brady, Alice	New York	1892
Breese, Edmund	Brooklyn	1871
Brian, Donald	St. John's, N. F.	1877
Bronson, Betty	Trenton, N. J.	1906
Bryon, Arthur	Brooklyn	1872
Buckley, May	San Francisco	1875
Burt, Laura	Isle of Man	1875
Burton, Frederick	Indiana	1871
Busley, Jessie	Albany	1869
Butt, Clara	Southwick, England	1873
Cahill, Marie	Brooklyn	
Calve, Emma	Aveyron, France	1866
Cameron, Beatrice	Troy, N. Y.	1868
Campbell, Mrs. Patrick	London	1863
Carle, Richard	Somerville, Mass.	1871
Carlisle, Alexandra	London	1886
Carter, Mrs. Leslie	Lexington, Ky.	1862
Carus, Emma	Berlin	1879
Cavalieri, Lina	Rome	1884
Cawthorn, Joseph	Cincinnati	1868
Chaney, Lon	Colorado Springs, Col.	1883
Chaplin, Charles S.	London	1889
Chase, Pauline	Washington, D. C.	1885
Chatterton, Ruth	New York City	1893
Cherry, Charles	Greenwich, Kent	1872
Claire, Ina	Washington, D. C.	1892
Clark, Marguerite	Cincinnati	1887
Coburn, Chas. D.	Macon, Ga.	1877
Coghlan, Rose	England	1853
Cohan, George M.	Providence, R. I.	1878
Collier, Constance	Windsor, England	1878
Collier, William	New York	1868
Collinge, Patricia	Dublin, Ireland	1894
Compton, Betty	Salt Lake City	1897
Conquest, Ida	New York	1876
Cornell, Katharine	Buffalo	
Courtenay, William L.	Worcester, Mass.	1875
Courtleigh, William L.	Guelph, Ontario	1869
Courtneidge, Cicely	Sydney, N. S. W.	1893
Cowl, Jane	Boston	1890
Coyne, Joseph	New York	1867
Craven, Frank	Reading, Mass.	1875
Crews, Laura Hope	San Francisco	1880
Crosman, Henrietta	Wheeling, W. Va.	1866
Dale, James	London	1887
Dale, Margaret	Philadelphia	1880
Dalton, Charles	England	1864
Dalton, Dorothy	Chicago	1894
Daniels, Bebe	Dallas, Tex.	1901
Daniels, Frank	Dayton, Ohio	1860
D'Arville, Camille	Holland	1863
Davies, Marion	Brooklyn	1900
Dawn, Hazel	Ogden, Utah	1891
De Angelis, Jefferson	San Francisco	1859
De Cordoba, Pedro	New York	1881
De Merode, Cleo	Paris	1874
Destinn, Emmy	Prague	1878
De Wolfe, Elsie	New York	1865
Doro, Marie	Duncannon, Pa.	1882
D'Orsay, Lawrence	Northampt'shire, Eng.	1860
Dix, Richard	St. Paul	1895
Dixey, Henry E.	Boston	1859
Dressler, Marie	Coburg, Canada	1869
Dupree, Minnie	San Francisco, Cal.	1873
Eagels, Jeanne	Kansas City, Mo.	1894
Eames, Emma Hayden	Shanghai	1867
Earle, Virginia	Cincinnati	1875
Edeson, Robert	New Orleans	1868
Elliott, Maxine	Rockland, Me.	1871
Elliott, William	Boston	1885
Elsler, Effie	Philadelphia	1858
Eltinge, Julian	Boston	1883
Errol, Leon	Sydney, N. S. W.	1881
Evesson, Isabel	St. Louis	1870
Fairbanks, Douglas	Denver	1883
Farnum, William	Buckport, Me.	1876
Farrar, Geraldine	Melrose, Mass.	1882
Faversham, William	London	1868
Fawcett, George	Virginia	1860
Fealy, Maude	Memphis, Tenn.	1883
Fenwick, Irene	Chicago	1887
Ferguson, Elsie	New York	1883
Fernandez, Bijou	New York	
Fields, Lew	New York	1867
Filkins, Grace	Philadelphia	
Fischer, Alice	Indiana	1875
Fiske, Minnie M.	New Orleans	1865
Fontanne, Lynn	London	1862
Forbes-Robertson, Sir J.	London	1853
Frederick, Pauline	Boston	1884
Friganza, Trixie	Cincinnati	1870
Gadski, Johanna	Anklam, Prussia	1872
Galland, Bertha	New York	1877
Galli-Curci, Amelita	Milan, Italy	1889
Garden, Mary	Scotland	1877
Genee, Adeline	Jutland, Denmark	1882
George, Grace	New York	1880
Gillette, William	Hartford, Conn.	1855
Gillmore, Frank	New York	1867
Gilman, Mabelle	San Francisco	1880
Gish, Dorothy	Dayton, Ohio	1898
Gish, Lillian	Springfield, Ohio	1896
Glaser, Lulu	Allegheny City, Pa.	1876
Gluck, Alma	Roumania	1886
Goodrich, Edna	Logansport, Ind.	1883
Gordon, Kitty	England	1878
Gottschalk, Ferdinand	London	1869
Gray, Gilda	Poland	
Greet, Ben	England	1856
Grey, Katherine	San Francisco	1873
Grimwood, Herbert	Walthamstow, Eng.	1875
Grossmith, George	London	1874
Guilbert, Yvette	Paris	1868
Hale, Louise Closser	Chicago	1872
Hampden, Walter	Brooklyn	1879
Hanson, Gladys	Atlanta, Ga.	1887
Harlan, Otis	Zanesville, Ohio	1875
Harned, Virginia	Boston	1868
Hawtrey, Sir Charles	Eton, England	1858
Hayes, Helen	New York	1895
Hedman, Martha	Ostersund, Sweden	1888
Heggie, O. P.	South Australia	1879
Hempel, Frieda	Leipzig	1885
Herne, Chrystal	Boston	1883
Heron, Bijou	New York	1863
Hitchcock, Raymond	Auburn, N. Y.	1870
Hodge, William T.	Albion	1874
Hofmann, Josef	Casimir, Cracow	1877
Holland, Joseph J.	New York	1860
Hopper, De Wolf	New York	1858
Hopper, Edna Wallace	San Francisco	1874
Huban, Eileen	Ireland	1895
Hunter, Glenn	Highland Mills, N. Y.	1896
Irving, Isabel	Bridgeport, Conn.	1871
Irwin, May	Whitby, Ont.	1862
Jackson, Ethel	New York	1877
Janis, Elsie	Delaware, Ohio	1889
Jannings, Emil	Brooklyn	1886
Jeffreys, Ellis	Colombo, Ceylon	1872
Johnstone, Justine	Englewood, N. J.	1899
Jolson, Albert	Washington	1886
Jorn, Carl	Riga, Russia	1873
Kalich, Bertha	Lemberg, Galicia	1874
Keane, Doris	Michigan	1885
Kendal, Mrs. W. H.	Lincolnshire, England	1849
Kennedy, Madge	Chicago	1890
Kidder, Kathryn	Newark	1868
Kreisler, Fritz	Vienna	1875
Kubelik, Jan	Michle, Bohemia	1880
Labia, Maria	Italy	1883
Lackaye, Wilton	Loudoun County, Va.	1862
Lalor, Frank	Washington	1869
Larrimore, Francine	Russia	1888
Lauder, Sir Harry	Portobello, Scotland	1870
Lawrence, Gertrude	England	1898
Lee, Lila	New York	1895
Le Gallienne, Eva	London	1899
Lessing, Madge	London	
Levey, Ethel	San Francisco	1881
Lillie, Beatrice	Toronto, Canada	1898
Lloyd, Harold	Burchard, Neb.	1893
Lloyd, Violet	London	1879
Loftus, Cissie	Glasgow	1876
Lohr, Marie	Sydney	1890
Lorraine, Robert	New Brighton, Eng.	1876
Lord, Pauline	Hanford, Cal.	1890

STAGE FAVORITES—*Continued.*

Name.	Birthplace.	Born.	Name.	Birthplace.	Born.
Love, Bessie	Midland, Tex	1898	Schumann-Heink, E.	Lieben, Austria	1861
Mack, Andrew	Boston	1863	Scott, Cyril	Ireland	1866
Mann, Louis	New York	1865	Scotti, Antonio	Naples	1866
Mannering, Mary	London	1876	Sears, Zelda	Brockway, Mich	1873
Marlowe, Julia	Caldbeck, England	1870	Sembrich, Marcella	Lemberg, Austria	1858
Marshall, Tully	Nevada City, Cal	1864	Shannon, Effie	Cambridge, Mass	1867
Martin, Riccardo	Hopkinsville, Ky	1879	Shattuck, Truly	San Miguel, Cal	1876
Matthison, Edith W	Birmingham, England	1875	Sherman, Lowell	San Francisco	1885
Maude, Cyril	London	1862	Skinner, Otis	Cambridge, Mass	1858
May, Edna	Syracuse	1875	Slezak, Leo	Schonberg, Austria	1876
Mayo, Margaret	Illinois	1882	Sothern, Edward H	New Orleans	1859
McCarthy, Lilah	Cheltenham, England	1875	Spong, Hilda	Australia	1875
McCormack, John	Athlone, Ireland	1885	Stahl, Rose	Montreal	1875
McDonald, Christie	Pictou, N. S	1875	Stanislawski, Constant	Moscow	1863
McIntyre, Frank	Ann Arbor, Mich	1879	Starr, Frances	Oneonta, N. Y	1886
Meighan, Thomas	Pittsburgh, Pa	1884	Stone, Fred Andrew	Denver	1873
Melba, Nellie	Melbourne	1866	Summerville, Amelia	Kildare, Ireland	
Menjou, Adolphe	Pittsburgh, Pa	1891	Swanson, Gloria	Chicago, Ill	1898
Millard, Evelyn	England	1873	Sweet, Blanche	Chicago, Ill	1896
Miller, Marilynn	Findlay, Ohio	1898	Tallaferro, Edith	Boston	1892
Millward, Jessie	England	1861	Tallaferro, Mabel	New York	1887
Munter, Mary Mile	Shreveport, La	1902	Talmadge, Constance	Brooklyn, N. Y	1900
Mitchell, Grant	Columbus, Ohio	1875	Talmadge, Norma	Niagara Falls, N. Y	1897
Mitzi (M. Hajos)	Budapest	1891	Tanguay, Eva	Marbleton, Canada	1878
Mix, Tom	El Paso, Tex	1880	Taylor, Laurette	New York	1887
Murray, Mae	Portsmouth, Va	1889	Tearle, Conway	New York	1878
Naldi, Nita	New York	1898	Tempest, Marie	London	1866
Nash, Florence	Albany	1888	Terriss, Ellaline	Falkland Islands	1872
Nash, Mary	Troy	1885	Tetrazzini, Luisa	Florence, Italy	1874
Nazimova, Alla	Yalta, Crimea, Russia	1879	Teyte, Maggie	Wolverhampton, Eng	1891
Negri, Pola	Poland	1897	Thompson, W. H	Scotland	1852
Neilson, Alice	Nashville	1876	Thursby, Emma	Brooklyn	1857
Neilson-Terry, Phyllis	London	1892	Tilley, Vesta	Worcester, England	1864
Nethersole, Olga	London	1870	Tinney, Frank	Philadelphia	1878
Norris, William	New York	1872	Torrence, Ernest	Edinburgh, Scotland	1878
Norworth, Jack	Philadelphia	1879	Trevor, Norman	Calcutta	1877
Novarro, Ramon	Durango, Mex	1899	Truex, Ernest	Red Hill, Mo	1890
Olcott, Chauncey	Buffalo, N. Y	1860	Tyler, Odette	Savannah, Ga	1869
O'Neil, Nance	Oakland, Cal	1875	Tynan, Brandon	Dublin	1879
Paderewski, Ignace J	Poland	1860	Ulric, Lenore	Milwaukee	1894
Palmer, Minnie	Philadelphia	1860	Vanbrugh, Irene	Exeter, England	1872
Pavlowa, Anna	Russia	1885	Vanbrugh, Violet	Exeter, England	1867
Pawle, Lennox	London	1872	Victoria, Vesta	Leeds, England	1873
Peters, Rollo	Paris, France	1893	Walker, Charlotte	Galveston	1878
Phillips, Frank	Russia	1888	Ward, Fannie	St. Louis	1872
Pickford, Mary	Toronto, Canada	1893	Warde, Frederick	Warrington, England	1851
Post, Guy Bates	Seattle	1875	Ware, Helen	San Francisco	1877
Power, Tyrone	London	1869	Warfield, David	San Francisco	1866
Powers, James T	New York	1862	Waring, Herbert	London	1857
Prince, Adelaide	London	1866	Warner, Henry Byron	London	1876
Rambeau, Marjorie	San Francisco	1889	Warwick, Robert	Sacramento, Cal	1878
Rankin, Phyllis		1874	Weber, Joseph	New York	1867
Reeve, Ada	London	1876	Wheatley, Walter	Joplin, Mo	1885
Richman, Charles J	Chicago	1870	Whiffin, Blanche	London	1845
Ring, Blanche	Boston	1876	Whiteside, Walker	Logansport	1869
Roberts, Florence	New York	1871	Williams, Fritz	Boston	1865
Robson, Eleanor	Wigan, England	1879	Wilson, Francis	Philadelphia	1854
Robson, May	Australia	1868	Wood, Peggy	Brooklyn	1894
Rockwell, Florence	St. Louis	1883	Wright, Huntley	London	1869
Rogers, Will	Oklahoma	1879	Wycherly, Margaret	London	1881
Russell, Annie	Liverpool	1864	Wyndham, Olive	Philadelphia	1886
Sanderson, Julia	Springfield, Mass	1887	Yapp, Cecil	St. Paul, Minn	
Scheff, Fritzi	Vienna	1880	Yohe, May	Pennsylvania	1869

BYGONE STAGE STARS!

B'n.	D'd.	Name.	B'n.	D'd.	Name.	B'n.	D'd.	Name.
1864	1922	Bacon, Frank	1881	1929	Eddinger, Wallace	1857	1907	Mansfield, Richard
1838	1891	Barrett, Lawrence	1876	1929	Farnum, Dustin	1854	1928	Mantell, Robert B.
1847	1904	Barrett, Wilson	1824	1879	Fechter, Charles	1861	1923	Martinot, Sadie
1848	1905	Barrymore, Maurice	1831	1891	Florence, W. J.	1860	1926	Miller, Henry
1880	1928	Bayes, Nora	1806	1872	Forrest, Edwin	1832	1918	Mitchell, Maggie
1855	1911	Bellew, Kyrle	1870	1928	Fuller, Loie	1845	1909	Modjeska, Helena
1863	1927	Bernard, Sam	1716	1779	Garrick, David	1849	1925	Morris, Clara
1845	1923	Bernhardt, Sarah	1859	1919	Goodwin, Nat. C.	1847	1920	O'Neill, James
1869	1927	Bingham, Amelia	1860	1925	Guitry, Lucien	1871	1921	Opp, Julie
1872	1928	Blinn, Holbrook	1869	1926	Hackett, James K.	1821	1858	Rachel, Mlle.
1833	1893	Booth, Edwin	1859	1919	Hall, Pauline	1860	1916	Rehan, Ada
1796	1852	Booth, Junius B.	1844	1921	Hare, Sir John	1836	1903	Robson, Stuart
1821	1890	Boucicault, Dion	1873	1918	Held, Anna	1861	1922	Russell, Lillian
1858	1906	Cayvan, Georgie	1857	1927	Hilliard, Robert C.	1828	1915	Salvini, Tomasso
1861	1923	Chevalier, Alfred	1873	1926	Houdini, Harry	1860	1929	Shaw, Mary
1850	1924	Claxton, Kate	1838	1905	Irving, Sir Henry	1755	1831	Siddons, Mrs. Sarah
1847	1924	Crabtree (Lotta)	1834	1904	Janauschek, Mme.	1882	1928	Stevens, Emily
1845	1928	Crane, William H.	1829	1905	Jefferson, Joseph	1851	1929	Stevenson, Chas. A.
1814	1876	Cushman, Charlotte	1811	1868	Kean, Charles	1848	1928	Terry, Ellen
1875	1927	Daly, Arnold	1787	1833	Kean, Edmund	1834	1911	Thompson, Denman
1850	1898	Davenport, Fanny	1858	1929	Keenan, Frank	1853	1917	Tree, Sir Beerbohm
1857	1923	De Belleville, Fred	1843	1917	Kendall, Wm. H.	1895	1926	Valentino, Rudolph
1865	1928	Ditrichstein, Leo	1852	1929	Langtry, Lily	1819	1888	Wallack, Lester
1856	1924	Dockstader, Lew	1870	1922	Lloyd, Marie	1873	1915	Walsh, Blanche
1820	1897	Drew, Mrs. John	1793	1873	Macready, Wm. Chas.	1838	1922	Ward, Genevieve
1853	1927	Drew, John (her son)	1837	1885	McCullough, John	1865	1928	Wise, Thomas A.
1859	1924	Duse, Eleonora	1867	1927	McRae, Bruce	1841	1919	Wyndham, Sir Chas.

Memorable Dates.

Note—Consult also the various other collections of dates, such as English Channel Swimmers, Fast Ocean Passages, Fast Train Records, Fast Trips Around the World, Coal Mine Disasters, Polar Explorations, Troops Engaged in U. S. Wars, Union Army Losses in the Civil War, Confederate Troops in the Civil War, World War Casualties, Chronology of the Year, Marine Disasters, Chief Political Assassinations, Tables of Rulers, Authors, etc.

THE YEAR 1 B.C.

The year 1 B.C. is the first year before the beginning of the Christian Era, and the year 1 A.D. is the first year of the Christian Era; so that January 1, 1 B.C. is just one year before January 1, 1 A.D.

The elapsed number of years between a date B.C. and the same date A.D. is one less than the sum of the years.

Because of this fact, astronomers use a different method of designating the years before the Christian Era, calling the year 1 B.C. the year 0, the year 2 B.C. the year 1; so that, in astronomical reckoning, the year 70 B.C. is the year —69, and the year 2000 years later will be A.D. 1931 = —69 + 2000.

B. C.

3400 Beginning of the Royal Dynasties in Egypt (Breasted)
3000-1800 (Breasted) Egyptian pyramids built, extending for 60 miles south from Gizeh nearly opposite Cairo.
2267-13 (about) Reign of Hammurabi, founded old Babylonian Empire.
2000-1580 (about) Reign of Shepherd Kings in Egypt.
1700 (about) Israelites descend into Egypt.
1580-1250 Egypt in height of splendor.
1453 First Olympic games.
1350 (?) Death of King Tutankhamen of Egypt.
1300 (about) Exodus of the Israelites.
1193-83 (?) Trojan war; fall of Troy.
1100-850 Tyre at height of its greatness.
1047-17 David King in Jerusalem.
1017-978 Solomon King; building of Temple in Jerusalem.
850 Carthage founded.
776 Olympic Era began.
753 Rome founded.
721 Downfall of Samaria; captivity of the ten tribes.
701 Siege of Jerusalem by Sennacherib.
667 Byzantium founded.
608 Fall of Nineveh; conquest of Assyria.
587 Destruction of the Temple of Jerusalem by Nebuchadnezzar.
585-72 Siege and capture of Tyre.
562-52 (?) Buddha born.
551 Confucius born.
538 Fall of Babylon; conquered by Cyrus, who, in 537, released them from 70 years of captivity.
525 Egypt conquered by Cambyses; end of independence.
510 Expulsion of Tarquin from Rome.
490 Greeks defeat Persians at Marathon.
480 Xerxes defeated Greeks at Thermopylae.
431-04 Peloponnesian War.
401 Cyrus killed by Artaxerxes at Cunaxa.
399 Execution of Socrates.
390 Rome taken by the Gauls.
356 Temple of Diana at Ephesus burned.
336-23 Reign and conquests of Alexander the Great.
334 Alexandrian Library founded; burned 47 B. C. and 640 A. D.
264-41 First Punic War.
218 Hannibal crossed Alps; beginning second Punic War.
201 Scipio dictated peace to Carthage.
149 Third Punic War began.
146 Carthage destroyed by Romans.
60 First triumvirate in Rome; Pompey, Caesar and Crassus.
58-51 Caesar conquered Gaul and Britain.
45 Julian Year established by Julius Caesar. The year had begun on March 1.
44 Assassination of Julius Caesar.
31 Battle of Actium; defeat of Antony.
27 Octavian as Augustus became first Roman Emperor.
4 Birth of Jesus Christ.

A. D.

29 The Crucifixion.
61 Queen Boadicea and her English army captured and burned London and put 70,000 Romans and strangers to the sword; in the same year she was defeated by the Romans, under Suetonius who massacred 80,000; she poisoned herself to death.
64 Burning of Rome; first persecution of Christians.
70 Jerusalem destroyed by Titus.
79 Pompeii and Herculaneum destroyed by eruption of Mt. Vesuvius.
116 Roman Empire at its greatest extent.
313 Constantine converted to Christianity.
323 Council Nicaea; Nicene creed formulated.
330 Roman capital moved to Byzantium, henceforth known as Constantinople.
410 Sacking of Rome by Alaric; Britain abandoned.
451 Huns under Attila defeated at Chalons.
476 End of Western Roman Empire.
481 Kingdom of Franks founded by Clovis
553 Justinian reconquers Italy from Vandals.
570 Mohammed born.
622 Mohammed's flight from Mecca (the Hejira).
624-32 Saracen conquest of Arabia.
632-51 Saracen conquest of Persia.
634-37 Saracen conquest of Syria.
640-46 Saracen conquest of Egypt.
640 Alexandrian library burned.
709 Saracen conquest of Africa completed.
711 Saracens cross into Spain.
732 Saracens defeated at Tours by Charles Martel.
756 Moorish kingdom in Spain founded.
786-809 Haroun-al-Rashed; Eastern Caliphate at height of power.
787 Danes land in England; Danes conquer Norway.
800 Charlemagne (768-814) crowned at Rome.
1000 Leif Ericson, the Norseman, discovered America.
1001 First Mohammedan invasion of India.
1066 Battle of Hastings; Norman conquest of Britain.
1096-99 The first of the Crusades (Godfrey of Bouillon, leader); capture of Jerusalem.
1147-49 The second Crusade (Conrad III.; Louis VII., leaders).
1172 Ireland conquered by Henry II.
1187 Saladin recaptured Jerusalem.
1189-92 The third Crusade (Frederick Barbarossa, Philip II., Richard Coeur de Lion, leaders; Acre captured.
1202-4 The fourth Crusade (Count Baldwin of Flanders).
1206 Jenghis Khan, founder of Mogul Empire, begins his rule; conquers China, 1215; Central Asia, 1221.
1215 King John of England granted Magna Charta (June 19-July 15?) to the Barons. He did not sign the document.
1228-29 The fifth Crusade (Frederick II.).
1233 The Inquisition established in Spain by Pope Gregory IX.; revived there in 1480; suppressed by Napoleon in Spain in 1808; restored in 1814; finally abolished in 1820.
1248-54 The sixth Crusade, under Louis IX. (St. Louis).
1258 Assembly of Knights and Burgesses of England (the "Mad Parliament").
1259-92 Reign of Mongol Emperor, Kublai Khan.
1265 First representative Parliament in England.
1271-95 Marco Polo's travels in Far East.
1291 Origin of Swiss Confederation.
1295 First regular English Parliament; it became a legislative power in 1308.
1338 Beginning of One Hundred Years' War.
1348 Outbreak of the "Black Death" plague in Europe.
1381 Wat Tyler's rebellion, England.
1415 John Huss burned at stake at Constance, July 5.
—— Battle of Agincourt, Oct. 25.
1431 Joan of Arc was burned, May 30, at Rouen.
1450-55 Gutenberg printed, at Mentz, the first book from movable type—the 42-line 2 volume Bible in Latin.
1453 Constantinople taken by the Turks.
1455 The Wars of the Roses began.
1471 Caxton set up his printing press in England.
1486 Bartholomew Dias rounded Cape of Good Hope.
1492 Christopher Columbus discovered America, Oct. 12.
1496 Aldine Press founded, at Venice, by Aldus Manutius.
1497 Cabot discovered east coast of Canada, June 24.
1498 Vasco da Gama reached India by sea.
—— Savonarola burned as heretic, at Florence, Italy, May 23.
1513 Ponce de Leon landed in Florida, April 8.
—— Balboa discovered Pacific Ocean, Sept. 25.
1517 The Reformation began in Germany; persecution of Protestants commenced in France.
1519-21 Conquest of Mexico by Cortes.
1531-35 Pizarro conquered Peru.
1534 Cartier ascended St. Lawrence River.
—— Act of Supremacy makes the King head of the Church of England.

1535 First English Bible printed by Miles Coverdale.
1536-9 Monasteries closed in England.
1545 Council of Trent convened.
1565 Revolt of the Netherlands began.
—— St. Augustine, Fla., settled.
1572 St. Bartholomew massacre, France, Aug. 24.
1582 Gregorian Year (Calendar) established by Pope Gregory XIII; still in use.
1587 Execution of Mary, Queen of Scots, Feb. 8.
—— Virginia Dare, first child of English parents in America, born at Roanoke Island, Va., Aug. 18.
1588 Spanish Armada defeated, July 21-29.
1598 Edict of Nantes, giving toleration to Huguenots, signed April 13.
1602 Capt. Bartholomew Gosnold, of Falmouth, England, (the first known white man to set foot on New England) landed at South Dartmouth, near New Bedford, Mass., May 15.
1603 Crowns of England and Scotland joined, Mch. 24, under James VI of Scotland, who became James I, and on Oct. 24, 1604, was proclaimed "King of Great Britain, France, and Ireland"; legislative union accomplished on May 1, 1707.
1605 Gunpowder plot by Guy Faux (or Fawkes) to blow up British Parliament, discovered, Nov. 4.
1607 Jamestown, Va., settled, May 13, under Capt. John Smith, with 105 Cavaliers in 3 ships. They had left London on Dec. 19, 1606. At Jamestown, on July 30, 1619, they convened the first representative assembly in America.
1609 Henry Hudson, in "Half Moon," went up Hudson River, Sept. 11; discovered Manhattan Island, Sept. 4. Samuel Champlain of France, advancing from the north, discovered Lake Champlain, July 4.
1615 Champlain entered Lake Ontario.
1618 Thirty Years' War in Germany began.
1620 Pilgrims landed at Plymouth Rock, Dec. 21.
1624 The ship New Netherland arrived at what is now N. Y. City in May, let 8 men off to take possession, and went up the Hudson to Albany. In 1626 Peter Minuit arrived at N. Y. City from Holland, and on May 6 he bought the island from the Indians.
1636 Harvard College founded.
1649 King Charles I beheaded at London, Jan. 30.
1661 First ferry between N. Y. City and Jersey City opened, Dec. 22.
1664 New Amsterdam surrendered by Dutch to English, Sept. 8; became New York.
1666 Fire at London, England, covered 436 acres, destroyed 13,200 houses and 89 churches, including St. Paul's, Sept. 2-6.
1668 Triple alliance formed, Jan. 23, by England, Holland and Sweden against France.
1683 William Penn made treaty with Indians, June 23.
1685 Revocation of the Edict of Nantes.
1693 Earthquake and eruption of Mt. Etna, in Sicily, 60,000 killed, Sept.
1694 Founding of the Bank of England.
1701 Capt. William Kidd, American buccaneer, and 9 of his men, hanged at London, May 24, for "murder on the high seas."
1702 First Yale College commencement, Sept. 13.
1703 Earthquake in Japan, 200,000 killed, Feb. 2.
1704 Gibraltar taken by the English, July 24; Battle of Blenheim, Aug. 13.
1707 Union of England and Scotland.
1712 Slave insurrection at N. Y. City, April 6; quickly suppressed; 6 negroes killed themselves; 21 others were executed (some were burned, it is said, others were hanged, one was broken to death on a wheel, and one was hanged alive in chains).
1713 Peace of Utrecht, April 11.
1714 Accession of House of Hanover, Aug. 1.
1715 First Jacobite rebellion in Great Britain; the second in 1745.
1717 Snow fell 10 to 20 ft. deep in New England, Feb. 20-24.
1720 South Sea Bubble burst; financial panic.
1745 Battle of Fontenoy, April 30; siege and capture of Louisburg by New England Colonial troops, June 17.
1754-63 French and Indian War in America.
1755 Earthquake in Portugal, 50,000 killed at Lisbon, Nov. 1.
1756 Black Hole suffocation in Calcutta.
1759 Wolfe captured Quebec, Sept. 13.
1765 Stamp Act enacted by Parliament, March 22.
—— N. Y., R. I., Del., Mass., Conn., N. J., Pa., Md. and S. C. hold Stamp Act Congress at N. Y. City and issue a Declaration of Rights, Oct. 7.
1770 Boston Massacre, March 5.
1772 First Partition of Poland; second, 1793; third, 1795.
—— First written constitution adopted west of the Appalachian Mountains, known as "Articles of the Wautega Association," by settlers in East Tennessee, in the Rogersville district.
1773 Tea destroyed in Boston Harbor, Dec. 16.
1774 First Continental Congress, Sept. 5-Oct. 26, Philadelphia.
1775 First blood of the Revolution shed—Westminster (Vt.) Massacre, March 13.
—— First American Anti-Slavery Society founded by Quakers, April 14, Phila.
—— Battle of Lexington, April 19.
—— Fort Ticonderoga captured by Ethan Allen, May 10.
—— First British flag hauled down at sea in the American Revolution when the sloop Unity, Capt. Jeremiah O'Brien, captured British armed tender, Margaretta, off Machias, Me., May 12.
—— Second Continental Congress agrees on Articles of Confederation, May 20.
—— Mecklenburg, North Carolina, Declaration of Independence, May 20.
—— Washington appointed by Congress head of American Army, June 15.
—— Battle of Bunker Hill, June 17.
1776 Tom Paine published "Common Sense."
—— Declaration of Independence, July 4.
—— Battle of Long Island, Aug. 27.
—— Battle of Harlem Heights, Sept. 16.
—— Nathan Hale executed, Sept. 22.
—— Washington crossed the Delaware River, Dec. 25-26, and defeated British at Trenton.
1777 Washington wins Battle of Princeton, Jan. 3.
—— Stars and Stripes flag adopted by Fourth Continental Congress, June 14.
—— Battle of Bennington, Vt., Aug. 15.
—— Burgoyne's surrender at Saratoga, Oct. 17.
—— Articles of Confederation adopted by Congress, Nov. 15.
1778 Wyoming Valley, Pa., massacre, by Indians and Tories, July 4.
——N. H., Mass., R. I., Conn., N. Y., Va. and S. C. sign the Articles of Confederation, July 9; N. C., July 21; Ga., July 24; N. J., Nov. 26.
—— French fleet arrived in Narragansett Bay July 29.
—— Franklin negotiated U. S. treaty with France, recognizing American independence, Feb. 6.
1779 Delaware signs Articles of Confederation, Feb. 12-May 5.
—— Capt. Cook killed in Hawaii, Feb. 14.
—— Capture of Serapis by Paul Jones, Sept. 23.
1779-80 Long Island Sound frozen over.
1780 Bank of Philadelphia chartered (first in U. S.), March 1.
—— No-Popery riots at London, England, under lead of Lord George Gordon, June.
—— Major Andre captured, Sept. 23; hanged, Oct. 2.
—— Battle of King's Mountain, S. C., in which British were defeated, and Cornwallis returned to the Atlantic Coast.
1781 Congress announces complete ratification of Articles of Confederation, March 1.
—— Prince William, who later became King William IV, a junior officer on Admiral Digby's British battleship, visited ashore at N. Y. City on Sep. 26.
—— Cornwallis surrenders at Yorktown, Oct. 19.
1782 Preliminary peace articles between U. S. and Great Britain signed at Paris, Nov. 30; definitive treaty signed Sept. 3, 1783.
1783 Congress demobilizes American Army, Oct. 18-Nov. 3; British evacuated New York, Nov. 25; Washington delivers his farewell address at Fraunces's Tavern, N. Y., Dec. 4; resigns his army commission, Dec. 23, and retires to Mt. Vernon, Va.
—— Earthquake in Calabria, Italy, 60,000 killed, Feb. 4.
—— First U. S. Government post office opened at N. Y. City, Nov. 28.
—— First free hydrogen balloon ascension, in France, by Charles and Roberts, 1¾ hours, 27 miles, near Paris, Dec. 1. The first balloon flight across the Channel, between Dover and Guignes, Jan. 7, 1785. The first balloon voyage in the United States was made by Blanchard, of France, in George Washington's presence, at Philadelphia, landing at Woodbury, N. J., Jan. 9, 1793.
1784 Congress ratifies peace treaty with Great Britain, Jan. 14.
—— First daily paper in America, Advertiser, issued at Philadelphia.
—— John Fitch operated his steamboat on Delaware River.
1786 Shay's rebellion in Massachusetts.
—— U. S. Mint established at Philadelphia, Oct. 16.

1787 U. S. Constitution drawn up at a convention of delegates from the States at Phila., May 14; ratified by Convention, Sept. 17.
1788 First settlement in Australia, Jan. 26.
—— Warren Hastings, Gov. Gen'l of India, put on trial before The Peers, at London, Feb. 13; acquitted April 23, 1795.
1789 First U. S. Presidential election, February.
—— U. S. Constitution in effect in ratifying States, March 4.
—— First U. S. Congress meets, N. Y., April 6.
—— Washington inaugurated President, April 30.
—— The French Revolution began; Bastile stormed, July 14.
—— U. S. Supreme Court created, September.
1791 Negro rebellion in St. Domingo; hundreds of whites massacred, Aug. 23.
1792 France proclaimed a Republic, Sept. 21.
—— First Canadian Legislature.
—— Thomas Paine, Amer. patriot, accused at London of libeling God in his "Rights of Man"; convicted, Dec. 18. He was absent in the United States.
1793 Canada forbids slave importation.
—— Louis XVI. of France executed, Jan. 21.
—— Cornerstone of National Capital, at Washington, laid by Pres. Washington, Sept. 18.
1795 Triple Alliance formed by Great Britain, Russia and Austria, Sep. 28.
1796 Vaccination discovered by Jenner.
1797 Earthquake on west coast South America, 41,000 killed at Quito, Feb. 4.
—— U. S. Frigate, Constitution, launched at Boston Navy Yard, Oct. 21.
1798 The Irish rebellion.
—— Lord Nelson defeats French fleet in Battle of the Nile, Aug. 1.
1799 Bonaparte declared First Consul, November.
1800 Sixth Congress (2d session) meets (for first time) at Washington, Nov. 17.
—— Battle of Marengo, June 14; Battle of Hohenlinden, Dec. 3.
1801 Union of Great Britain and Ireland, Jan. 1; first Parliament of United Kingdom.
1802 U. S. Military Academy at West Point established, March 16.
1803 England and France renew war.
—— Robert Emmet, convicted of treason. Executed at Dublin, September 19.
—— Louisiana purchased from the French.
1804 Hamilton-Burr duel fought on Palisades, N. J., July 11.
—— Napoleon Bonaparte proclaimed Emperor of France, May 18.
1805 Battle of Trafalgar; death of Nelson, Oct. 21.
—— Battle of Austerlitz, Dec. 2.
1806 End of the Holy Roman Empire.
—— Pikes Peak, Colo., discovered, Nov. 23, by Col. Zebulon M. Pike, U. S. Army; the peak was first climbed to the summit in 1819.
1807 Fulton's first steamboat voyage, New York to Albany, Aug. 11.
1811 Earthquakes in bed of Mississippi River, south of mouth of Ohio River, destroyed small towns and created Reelfoot Lake, 14 miles long. The quakes began on Dec. 16.
—— First Mississippi and Ohio River steamboat left Pittsburgh, Oct. 14.
1812 Second United States war with Great Britain, declared, June 19.
—— Fort Dearborn, at Chicago, evacuated and the garrison massacred by Pottawatomy Indians, Aug. 15.
—— The French expedition to Moscow; city (30,800 houses) burned by the Russians, Sept. 16.
1813 Perry's victory on Lake Erie, Sept. 10; Buffalo, N. Y., burned by Indians, Dec. 29.
—— Russia, Prussia and Austria unite against Napoleon; he wins Battle of Dresden, Aug. 26-29; decisively beaten at Leipzig, Oct. 16-19; Wellington drives the French from Spain.
1814 Allies capture Paris, March 31; Napoleon abdicates, April 11; Louis XVIII. restored to throne, May 3; Congress of Vienna opened, Nov. 3.
1814 British burned White House at Washington, Aug. 24.
—— Battle of Lake Champlain, (Plattsburg) Macdonough's victory, Sept. 11.
—— Treaty of Ghent, Dec. 24.
1815 Jackson defeated British at New Orleans, Jan. 8.
—— Napoleon returned from Elba to France, March 1; the "Hundred Days," March 20-June 22; Napoleon defeated at Waterloo, June 18; sent to St. Helena, Oct. 16.
—— Holy Alliance, so-called, formed by Russia, Austria and Prussia; signed at Paris, Sep. 26.
1819 First steamboat crossed the Atlantic. This was the Savannah, which went from New York to Savannah (March 28-April 12), and went from Savannah to Liverpool (May 22-June 20). Her paddle wheels were unshipped and stowed on deck in windy weather and the sails were used.
— First steam navigation on the Missouri River; the Independence left St. Louis on May 21, and went to Chariton, Mo.
1821 Napoleon died at St. Helena, May 5.
—— Mexico wins independence from Spain.
—— Greek War for independence, achieved in 1829.
1822 Famine in Ireland.
—— Revolution in Portugal; separation of Brazil.
1823 Monroe Doctrine declared, Dec. 2.
—— First steamboat, the Virginia, ascended the Mississippi River as far as Fort Snelling (April 21-May 10; 729 miles).
1824 Visit of Lafayette to America.
1825 Trade unions allowed in England.
—— Erie Canal opened, first boat left Buffalo, Oct. 25, and reached N. Y. City, Nov. 4.
1827 Slavery abolished in N. Y. State, by the Legislature, July 4.
1828 First passenger railroad in United States (the Baltimore and Ohio) was begun, July 4.
—— War between Russia and Turkey.
—— Catholics readmitted to British Parliament.
1829 Welland Canal opened.
1830 Revolution in France, Orleanist succession.
—— First railway abroad opened, between Liverpool and Manchester, England, Sep. 15.
1831 First train drawn in U. S. by steam locomotive, Albany to Schenectady, Aug. 9.
1832 Nullification ordinance in South Carolina, Nov. 19.
—— Black Hawk war in Wisconsin, July—Aug.
1833 Steamship Royal William crossed from Nova Scotia to England.
—— Abolition of slavery throughout British Empire.
1834 Last lottery in England, Aug. 28.
1835 Great fire in New York City, Dec. 16-17; 674 buildings burned.
1836 Massacre of the Alamo, Tex., garrison, Mar. 6.
—— Fire destroyed United States Patent Office, Washington, D. C., with 10,000 models, etc., Dec. 15.
—— The first steamship on the Pacific was the Beaver, launched at London in 1835. She reached Vancouver, B. C., after a voyage of 163 days. The vessel was wrecked in 1888.
1838 Fire destroyed 1,158 buildings at Charleston, S. C., April 27.
—— The Great Western, 236 ft. long, 450 horse-power, 1,340 gross tons, left Bristol, England, on April 8, and arrived at N. Y. City on April 23, the first regular transatlantic steamer. The Sirius, 178 ft. long, 703 tons, left Liverpool on Mch. 28, and Queenstown on April 4, and reached N.Y. City on April 22. She had used steam only.
1839 Earthquake at Martinique; 700 killed.
1840 British opium war with China.
—— Penny postage begun in England, Jan. 10.
—— Lieut. Chas. Miller, U. S. N., discovered the Antarctic Continent, Jan. 19.
1841 Upper and Lower Canada united, Feb. 10.
1842 Fire at Hamburg, Germany, destroyed 1,992 buildings, May 4.
—— Croton Aqueduct opened, June 22.
1843 First telegraph line in U. S., Washington to Baltimore.
1845 Texas annexed.
—— Fire destroyed 1,000 buildings at Pittsburgh, Pa., April 10.
—— Fire destroyed 345 buildings at N.Y., July 19.
—— U. S. Naval Academy at Annapolis, opened, Oct. 10.
1846 War with Mexico began; treaty signed, July 4, 1848.
1847 Battle of Chapultepec, Mexico City, taken by United States troops, Sept. 14.
1848 Louis Philippe dethroned in France; second Republic set up. Revolutionary uprisings in many European countries.
—— Washington Monument, at Washington, D. C., begun July 4.
—— Fire destroyed 3,000 buildings at Constantinople, Aug. 16.
—— Fire at Albany, N. Y., destroys 439 houses, Aug. 17.
—— Gold discovered in California, Jan. 24.
—— Fugitive Slave Law passed.
1849 Astor Place riots at N. Y. City against Macready, an English actor, 34 of mob killed, May 10.
—— Cholera epidemic at N. Y. City, 3,000 died, May.
1850 Jenny Lind's first concert in U. S., at Castle Garden, N. Y., Sept. 11.
1851 Gold discovered in Australia, Feb. 12.
—— Fire destroyed 2,500 buildings at San Francisco, May 3-5; also 500 buildings there June 22.
—— N. Y. Central railroad, N. Y. City to Albany, opened Oct. 8.

—— First International Exhibition, London.
1853 Crimean War began.
—— World's Fair opened at Crystal Palace, N. Y. City, July 14.
1854 Japan opened by Commodore Perry.
1855 Sebastopol falls; Crimean War ends, Sept. 8.
1857 The great mutiny in India; broke out May 10.
—— The Dred Scott decision.
—— First Atlantic cable begun to be laid, Valentia, Ireland, Aug. 5; first messages, Aug. 5, 1858.
—— Mountain Meadow Massacre, 120 emigrants killed by Mormons in Utah, Sept. 16.
1858 East India Company dissolved, Aug. 2; government of India transferred to the British Crown.
1859 John Brown's raid on Harpers Ferry, Va., Oct. 16; his band killed 5, including a negro. Brown was hanged at Charlestown, W. Va., Dec. 2.
—— First petroleum well opened, Titusville, Pa., by Edward L. Drake, Aug. 27.
—— War between Austria and Sardinia (assisted by France); Battle of Magenta, June 4; Battle of Solferino, June 24.
1860 Prince of Wales visited the U. S.
—— Duel near San Francisco between David S. Terry and David C. Broderick, Sept. 13; Broderick died of his pistol wounds, Sept. 18.
—— First Pony-express arrived at San Francisco in 9 days from St. Joseph, Mo., at 1 A. M., April 14.
—— South Carolina seceded, Dec. 20.
1861 Emancipation of the Russian serfs.
—— Southern Confederacy formed, Feb. 4; elected Jefferson Davis President, Feb. 9; inaugurated, Feb. 18; Fort Sumter fired on, April 12, surrendered on April 14; Lincoln called for volunteers, April 15; Queen Victoria's proclamation of neutrality, May 13; Battle of Bull Run, July 21; McClellan given command of Union Army, Nov. 1; Mason and Slidell affair, Nov. 8.
1862 Grant captures Forts Henry and Donelson, Feb. 6 and 16; Monitor defeats Merrimac, March 9; Farragut captured New Orleans, April 25; McClellan's Peninsula Campaign, March-August; Battles of Antietam, Sept. 17; Fredericksburg, Dec. 13.
—— Preliminary proclamation by President Lincoln announcing that on Jan. 1, 1863, slaves would be declared free in territory then in rebellion.
—— International Exposition at London, opened May 1.
1863 Lincoln's Emancipation Proclamation, Jan. 1. In this proclamation he declared free forever the slaves in Ark., Tex., La., (certain parishes excepted); Miss., Ala., Fla., Ga., S. Car., N. Car., and Va. (W. Va. and other portions excepted). About 3,120,000 slaves were thus freed; 830,000 slaves in the excepted parts were not freed under the proclamation.
—— Lincoln's address at Gettysburg, Nov. 19.
—— Hooker defeated at Chancellorsville, May 2-4; Lee defeated at Gettysburg, July 1-3; Grant captures Vicksburg, July 4; Battles of Chickamauga, Sept. 19-20; Lookout Mountain, Nov. 24; Missionary Ridge, Nov. 25.
—— Draft riots at N. Y. City, July 13-16; 1,000 killed.
—— French set up Maximilian, Austrian Archduke, as Emperor of Mexico; on their withdrawal, Feb., 1867, he was captured and executed, June 19.
1864 War between Prussia and Denmark.
—— Grant made Commander-in-Chief, March 12; Battles of the Wilderness, May 5-6; of Spotsylvania, May 8-21; Cedar Creek, Oct. 19; Sherman's March to Atlanta, May-July; he captured Savannah, Dec. 21; U. S. S. Kearsarge sinks the raider Alabama, June 19.
1865 The 1st Artillery fired last shot of Civil War, and Confed. Gen. Lee surrendered at Appomattox, April 9.
—— Lincoln shot by J. Wilkes Booth, at Washington, April 14; died, April 15.
—— Slavery abolished in the U. S. by adoption, by over three-fourths of the states, of the 13th amendment to the Constitution, proclaimed as in effect, Dec. 18.
1866 Fire destroyed centre of Portland, Me., and made 2,000 homeless, July 4.
—— Fenians invaded Canada, near Buffalo, N. Y., May 31; they were repulsed, and reentered the United States, June 2; about 1,000 Fenians from the U. S. attacked St. Armand, Quebec Province, and were routed, June 9.
—— Second Atlantic cable laid; completed, July 27, 1867. First (1857-8) had lasted only a little while.
—— Fire destroyed 2,500 buildings at Quebec, Canada, Oct. 13.
—— Indians rebelled and fought U. S. troops from Fort Philip Kearny, near Big Horn Mountain, Dak. (now Wyo.) and killed and scalped 3 officers and 90 men, Dec. 21.
1867 Alaska purchased from Russia, March 30.
—— The Dominion of Canada established, July 1.
1867-68 Abolition of the Shogunate and restoration of the Mikado in Japan; feudalism abolished in 1871; Constitution promulgated in 1889.
1868 President Andrew Johnson impeached, tried and acquitted, March-May.
—— U. S.-China (Burlingame) treaty, July 4.
—— Earthquake in Peru and Ecuador, 25,000 killed, Aug. 13-15.
1868 Queen Isabella flees from Spain, Sept. 30.
1869 Financial "Black Friday" in New York, Sept. 24; caused by gold corner.
—— Papal infallibility promulgated by the Ecumenical Council.
—— Red River rebellion in Canada.
—— Suez Canal opened, Nov. 17.
1870 Franco-Prussian War begun, July 19; France proclaimed a Republic, Sept. 4.
—— The troops of Victor Emmanuel II, under Gen. Cadorna took possession of Rome, on Sep. 20, in the name of the Kingdom of Italy; Rome and the rest of the Papal State then were annexed by a plebiscite, taken on Oct. 2. On May 13, 1871, the Italian Parliament, which had meanwhile transferred the national capital from Turin to Rome, passed the Law of Guarantees, allowing to the Pope and his successors forever the possession of the Vatican, the Lateran palaces and the Villa of Castel Gandolfo and a yearly allowance of 3,225,000 lire, or then about $645,000, for their upkeep.
1871 The German Empire re-established, Jan. 18; Paris captured, Jan. 28; treaty of Frankfort ended Franco-Prussian War, May 10.
—— The great fire in Chicago, Oct. 9-11; 18,000 bldgs. destroyed; est. loss, $196,000,000. The flames started in Mrs. O'Leary's barn, at 137 de Koven St., either from spontaneous combustion of hay, or from a kick of a cow, upsetting a lantern.
—— Forest fires in Wisconsin killed over 1,000, Oct. 8–10.
1872 Col. Jas. Fisk jr., "King of Wall Street," shot at N. Y. by Edw. S. Stokes, Jan. 6; he died two days later; Stokes got 4 years in prison.
—— The great fire in Boston, Nov. 9; 776 buildings destroyed.
1873 Fifth Avenue Theatre burned, N. Y., Jan. 1.
—— Panic at N. Y. began with bank failures on Sept. 20.
1874 Charley Ross, 4, kidnapped from home in Germantown, Pa., July 1.
—— "Boss" W. M. Tweed at N. Y., convicted of fraud, Nov. 19, and sentenced 12 years in prison; in June, 1875, the court released him from Blackwell's Island prison on a technicality; he was committed to Ludlow St. Jail in a civil suit; escaped, Dec. 4, 1875, and went to Cuba, then to Spain, brought back to N. Y. City in Nov., 1876; he died in Ludlow St. Jail, April 12, 1878.
—— The Tichborne Claimant, convicted at London of perjury in saying he was Sir Roger Tichborne, was sentenced to 14 years in prison; he was released in 1884.
—— Centennial Exhibition at Philadelphia.
1876 Jarrett and Palmer train, New York to San Francisco, left Jersey City, May 31; arrived San Francisco, June 4; time of journey, 83 hours 45 minutes.
—— Battle of Little Big Horn in So. Dak., in Sioux Indian war; massacre of Gen. Geo. A. Custer and 276 soldiers by redskins under Sitting Bull.
—— Telephone invented by Bell; first intelligible message sent, March 10.
—— Hallett's Reef (Hell Gate) blown up, Sept. 2.
—— Brooklyn Theatre fire, Dec. 5; 289 lives lost.
—— Passenger train fell from bridge into ravine at Ashtabula, O.; 84 killed, 60 injured, Dec. 29.
1877 Russia declares war on Turkey, April 24.
—— Fire swept over 600 acres of City of St. John, N. B., June 20; 100 lives lost.
—— Eleven Molly Maguires hanged at Pottsville Pa., for murders in coal region, June 21.
—— Strike on B. and O., Penn., and other railways, troops called, riots, many killed; began July 1.
1878 Congress at Berlin, June 13-July 13, settles the Turkish question. Bulgaria, Montenegro, Serbia and Roumania made independent.
—— "I," opened in New York, April 30.
—— Masked burglars got $2,757,700 at Manhattan Savings Institution, N. Y., Oct. 27.
1879 English massacred at Kabul, Sept. 4.

1880 Dennis Kearney sand-lot squatter riots at San Francisco; several were killed.
1881 East River frozen over, people crossed on foot.
—— President Garfield shot, July 2; died, Sept. 19; Charles J. Guiteau convicted, and hung, June 30, 1882.
—— Fire kills 850 at Ring Theatre, Vienna, Dec. 8.
1882 Panama Canal begun by the French, Jan. 20.
—— Tuberculosis germ discovered by Dr. Koch.
—— Fire destroyed Kingston, Jamaica, Dec. 11.
1883 Triple Alliance of Germany, Austria and Italy. (Renewed in 1887, 1891 and 1896.)
—— Fire killed 70 in the Newhall House, hotel at Milwaukee, Wis., Jan. 10.
—— Brooklyn Bridge opened, May 24; panic on it, May 30; twelve trampled to death, scores injured.
—— Earthquakes and eruptions of the volcano, Krakatoa, on the Island of Java, followed by most of the 45 other volcanoes; many thousands of lives lost and places destroyed, Aug. 25-28.
—— The Metropolitan Opera House opened, at N. Y. City, Oct. 22.
—— Standard time went into effect in U. S., Nov. 18.
1884 Panic at N. Y., failure of Marine Bank and Grant and Ward, May 5-7.
—— Lieut. Greely and six companions, survivors of Arctic Expedition, found, June 22.
—— Bartholdi's Statue of Liberty presented to U. S., at Paris, July 4.
1885 Rebellion in north west Canada begun under leadership of Louis David Riel, March 24; he surrendered, May 15, and, after trial and conviction, he was hanged on Nov. 16.
—— Canadian Pacific Railroad opened, May 18.
—— First electric street railway in U. S., at Baltimore, opened Sept. 1.
—— Hell Gate rocks blown up, Oct. 10.
1886 Haymarket Anarchist riots, Chicago; 7 police killed, 60 wounded, May 4. A jury convicted anarchists August Spies, Adolf Fischer, George Engel, and Albert R. Parsons, and they were hanged on Nov. 11, 1887. Louis Lingg killed himself in jail.
—— Steve Brodie jumped from Brooklyn Bridge, July 23.
—— Charleston, S. C., earthquake, Aug. 31.
—— Statue of Liberty on Bedloe's Island unveiled in presence of 1,000,000 people. The World raised $100,000 to erect pedestal, Oct. 28.
1887 Triple aaliance of Germany, Austria and Italy against France and Russia, Mch. 13. This was a renewal of the Alliance of 1879.
—— Fire kills 200 at Opera Comique, Paris, May 25; and 200 at theatre, Exeter, England, Sept. 4.
—— Flood in Hoang-Ho River, China; 900,000 perish.
1888 Great blizzard at N. Y. City and in eastern part of U. S., March 11-14. Roscoe Conkling was a victim of exposure at N. Y., dying April 18.
1889 Brazil became a republic.
—— Johnstown, Pa., flood, May 31; 2,209 lives lost.
—— World's Fair, at Paris.
1890 First electrocution for crime in N. Y. State. The victim was William Kemmler, who murdered Matilda Ziegler on Mch. 29, 1889. Put to death in the chair at Auburn State Prison, Aug. 6.
—— Ellis Island opened as Immigration Depot, and Castle Garden ceased as such, Dec. 31.
1891 Park Place disaster, N. Y., 64 killed, Aug. 22.
—— Henry L. Norcross, of Somerville, Mass., threw bomb, with poor aim, at Russell Sage, in financier's office, N. Y. City; he blew himself to pieces, Dec. 4.
1892 Fire destroyed 28 lives at Hotel Royal, N. Y., Feb. 6; and 600 in building, St. John's, N. F., July 8.
—— Pinkerton guards killed several steel strikers at Homestead, Pa., July 16.
1893 (World's Fair (Columbian Exposition) at Chicago, opened, May 1.
—— Tornados kill 3,000 at Charleston, Savannah and on the coasts of Louisiana, Aug. 28, and Oct. 2.
1894 Chinese-Japanese War began, July 25; Battle of Yalu, Sept. 17; treaty of Shimonoseki, April 17, 1895, gave Japan Liaotung Peninsula, Formosa and the Pescadores.
—— Strike of mine workers throughout U. S., followed by that of Pullman Car manufactory workers and then by order from Eugene V. Debs for general strike of American Ry. union men; trouble centred at Chicago where, after Federal Court had enjoined strikers, President Cleveland sent Federal troops, July 2. Many died in conflict, vast property loss. U. S. troops withdrawn, July 19; Gov. Altgeld recalled State militia, Aug. 7, a day after union called strike off.
—— Hawaii made a republic, July 4.
—— First gasoline vehicle in operation, July 4.
—— Capt. Dreyfus degraded, Dec. 23; restored to rank, July 12, 1906.
1895 Roentgen ray discovered by W. K. Roentgen, a German physicist.
—— Cuban Revolution began, Feb. 20.
1896 President Cleveland appointed Venezuela Boundary Commission, Jan. 1; treaty signed, Feb. 2, 1897.
—— Defeat of Italian Army by Menelek at Adowa in Abyssinia, March 1.
—— "Greater New York" bill signed, May 11.
—— Tornado killed several hundred at St. Louis, May 27.
1897 The Turkish-Greek War.
—— Fire killed 150 at Charity bazaar, Paris, May 4.
—— Klondike gold rush began, July 1.
1898 U. S. battleship Maine blown up in harbor of Havana, Cuba, Feb. 15; 260 lost.
—— War began between Spain and the United States. Diplomatic relations broken, April 21; Cuban blockade declared, April 22; war declared by Spain, April 24, by United States, April 25.
—— Dewey destroyed the Spanish fleet in Manila Bay, May 1.
—— Battles of San Juan and El Caney, July 1-3.
—— Battle of Santiago de Cuba, Adm. Cervera's Spanish fleet destroyed, July 3.
—— Annexation of Hawaii to U. S., July 7.
—— Peace protocol signed between the United States and Spain, Aug. 12.
—— Peace treaty signed by American and Spanish delegates at Paris, Dec. 10, the U. S. acquiring the Philippines and Porto Rico.
1899 Spanish treaty ratified by U. S. Senate, Feb. 6.
—— Universal Peace Conference at Hague called by Czar, May 18.
—— The South African War began, Oct 11; Gen. Cronje surrendered, Feb. 27; Ladysmith relieved, Feb. 28; Pretoria surrendered, June 5; 1900; war ended, May 31, 1902.
—— Philippine-American War began, Feb. 4.
—— Windsor Hotel Fire (N. Y.), March 17; 45 lost.
—— Cyclone killed over 50 at New Richmond, Wis.
1900 Chicago drainage canal opened, Jan. 2.
—— Paris Exposition opened, April 15.
—— Boxer insurrection in China, June; Peking captured by foreign allies, Aug. 14.
—— Hoboken docks and ships fire, June 30; 145 lives lost; $10,000,000 property destroyed.
—— The Galveston tornado, Sept. 8; 6,000 lives lost.
1901 Death of Queen Victoria, Jan. 22.
—— J. P. Morgan organized U. S. Steel Corp.
—— Aguinaldo captured by Gen. Funston, March 23; U. S. established civil government in the Philippines, May 3.
—— Northern Pacific Railway stock "corner" and panic, May 9.
—— Pan-American Exposition, (Buffalo, N. Y.), May 1-Nov. 2.
—— Jacksonville, Fla., swept by $11,000,000 fire, May 3.
—— Assassination of President McKinley, Sept. 6.
—— Marconi signalled letter "S" across Atlantic from England to Newfoundland, Dec. 12. First radio message sent in Dec., 1902.
1902 St. Pierre, Martinique, destroyed by eruption of Mt. Pelee, May 8; about 30,000 lives lost.
—— The first American dirigible airship, according to the Dept. of Commerce, was the one which Leo Stevens made and in which he ascended on April 9 from the lawn of the Oriental Hotel, Manhattan Beach, Coney Island, N. Y. City.
—— Pennsylvania coal strike of 145,000 anthracite miners, May 12. Settled by President Roosevelt's commission, Oct. 23.
—— Fire destroyed 456 buildings at Paterson, N. J., Feb.; and 115 people at a church, Birmingham, Ala., Sept. 20.
—— Cuban Republic inaugurated, May 20; rights and franchises of France in Panama Canal bought by U. S., June 28.
—— First International Arbitration Court opened, Hague, October.
1903 Kishineff massacre, April 19-20.
—— Alaska boundary treaty ratified by U.S., Feb.11.
—— U. S.-Philippine cable completed, message sent around the world in 12 minutes, July 4.
—— Panama Revolution, Nov. 3; republic recognized by U. S., Nov. 6.
—— First successful mechanical aeroplane flight by the Wright Brothers, Dec. 17, from Kill Devil Hill, on the North Carolina seacoast. 4 miles south of Kitty Hawk. The first flight lasted 12 seconds; the second and third were a little longer; the fourth lasted 59 seconds, covering a distance of 853 feet over the ground, against a 20-mile wind. A monument was placed on the hill, on Dec. 17, 1928.

From 1903 to 1928 the winds, it is stated, had shifted Kill Devil Hill a mile to the north. It is a lot of sand dunes.

—— Fire kills 602 at Iroquois Theatre, Chicago, Dec. 30.

1904 The great fire in Baltimore, Feb. 7; 2,500 buildings destroyed.

—— The Russo-Japanese War began, Feb. 6.

—— St. Louis Exposition (Louisiana Purchase) opened, May 1.

—— The United States occupied Panama Canal Zone.

—— Subway opened, New York, Oct. 27.

1905 Port Arthur surrendered to Japanese, Jan. 2.

—— Peace terms between Japan and Russia agreed on at Portsmouth, N. H., Aug. 25; treaty signed, Sept. 5.

—— Norway dissolved union with Sweden.

—— Earthquake killed 1,500 at Valparaiso, Chile; property loss, $100,000,000.

1906 San Francisco earthquake and conflagration; over 500 lives were lost; property loss, $400,000,000; April 18-19. On April 17, earthquakes in Formosa had killed many thousands; and on Aug. 16, quakes tore down the City of Valparaiso, Chile.

1907 Earthquake killed 1,400, Kingston, Jamaica, Jan. 14. In that month the Italian Volcanoes, Etna and Vesuvius were destructively active, also the Volcano of Mauna Loa, Hawaii.

—— Wall Street's "silent panic," March 14.

—— Coal mine fire killed 400, Fairmount, W. Va.

—— Jamestown (Va.), Exposition opened, April 26.

—— Bridge over St. Lawrence at Quebec collapsed, Aug. 29.

—— U. S. Judge K. M. Landis, Chicago, fined Standard Oil $29,240,000 for rebating, Aug. 3; decision was upset on appeal and fine was dismissed, March 10, 1909.

—— U. S. battleship fleet left Hampton Roads, Va., for cruise around the world, Dec. 16; reached Hampton Roads on return, Feb. 22, 1909.

1908 Interborough tube under East River, at N. Y. City opened, Jan. 9.

—— Fire killed 169 at theatre, Boyertown, Pa., Jan. 13; and 174 at school at Collinwood, Ohio, March 4.

—— Hudson River (McAdoo) tubes, at N. Y. City opened, Feb. 26.

—— Gov. Hughes signed bill abolishing race track gambling in N. Y. State, June 11.

—— Earthquakes in Sicily and Calabria killed 76,000, Messina partly destroyed, Dec. 28.

1909 R. E. Peary, U. S. N., discovered North Pole, April 6.

—— Louis Bleriot flew across the English Channel, from Calais to Dover (31 miles in 37 minutes), July 25.

—— Hudson-Fulton celebration, New York, Sept.-Oct.-Nov.

1910 Republic of Portugal established.

—— Union of South Africa formed, May 31.

1911 U. S. Supreme Court ordered Standard Oil combine dissolved, May 15; same decree as to American Tobacco Co., May 29.

—— The Italian-Turkish War began, Sept. 29.

—— Postal banks established in United States, at N. Y., Chicago, St. Louis and Boston, Aug. 1.

—— Triangle waist factory fire, N. Y., 148 killed, March 25.

—— Flood in Yangtse River, China; 100,000 drowned.

—— President Diaz of Mexico resigned, May 25.

—— C. P. Rogers left N. Y., Sept. 17 in an aeroplane and made the first transcontinental flight, landing at Pasadena, Calif., Nov. 4; actual flying time, 84 hours, 2 minutes.

—— The South Pole discovered, Dec. 14, by Capt. Roald Amundsen.

—— China proclaimed a republic, Oct. 31.

1912 Balkan War began.

—— Equitable Building burned, Jan. 9; 6 lives lost.

—— Steamship Titanic wrecked by iceberg off Canadian coast, April 14-15; 1,517 lost.

—— Herman Rosenthal, gambler, assassinated at N. Y. City, July 16. Police Lieut. Charles Becker, "Gyp the Blood" Horowith, "Lefty Louie" Rosenberg, "Whitey Lewis" Seidenshner, and "Dago Frank" Cirofici were convicted of the murder and executed, at Sing Sing. Becker, on July 30, 1915; the others on April 13, 1914.

1913 Ohio and Indiana floods, March 25-27; 732 lives lost. In Brazos, Tex., floods, 500 died.

—— Peace Palace at Hague dedicated.

—— Mine explosion, Cardiff, Wales, 400 killed, Oct. 14.

—— Zeppelin balloon, Z-2, exploded over Johannisthall, Germany, 28 died, Oct. 17.

1914 World War began in Europe. Archduke Francis of Austria assassinated at Sarajevo, June 28; Austria declared war on Serbia, July 28; Germany invaded France at Cirey, Russian troops invaded Germany, Aug. 2; Germans entered Liege, Aug. 7; British Expeditionary Force landed in France, Aug. 16; Germans occupied Brussels, Aug. 20; Japan declared war on Germany, Aug. 23; Austria declared war on Japan, Aug. 25; Louvain bombarded and damaged, Aug. 25; Battle of the Marne, Sept. 6-10; Germans occupied Antwerp, Oct. 9; De Wet's rebellion in South Africa, Oct. 28; Japanese capture Tsingtau, Nov. 7; First Battle of Ypres, Nov. 9; German cruiser Emden destroyed at Cocos Island, Nov. 10.

—— United States marines landed at Vera Cruz, Mex., April 21.

—— Great fire in Salem, Mass., June 25; 1,000 buildings destroyed.

—— Panama Canal opened, Aug. 15.

1915 British naval victory, North Sea, off Dogger Bank, Jan. 24; German official submarine "blockade" of Great Britain began, Feb. 18; British "Orders in Council" to prevent commodities reaching or leaving Germany, March 1; Second Battle of Ypres, April 22-28 (first poison gas attack of war); Germans invade Baltic provinces of Russia, April 30; Italy renounces treaty of Triple Alliance, May 4; steamship Lusitania sunk by German submarine off Head of Kinsale, Ireland, May 7; 1,198 lives lost, of which 124 were Americans. The submarine was the J-20, commanded by Capt. Schweiger; steamship Arabic sunk, Aug. 19; Allied forces land at Salonica, Oct. 5; Nurse Cavell shot at Brussels, Oct. 12.

—— Panama - Pacific International Exposition opened, (San Francisco), Feb. 20.

—— Wireless communication between Japan and United States established, July 27.

1916 Germans attack Verdun, Feb. 21-28; rebel rising in Dublin, April 24; naval battle off Jutland, May 31; Third Battle of Ypres, June 2; sinking of British warship Hampshire, with Lord Kitchener aboard (12 sailors saved), by German mine in Orkneys, Scotland, June 5; Battle of Somme, July 1-10; Second Battle of Somme, July 14-Aug. 5; Capt. Fryatt executed, July 27; Wilson's peace note published, Dec. 20.

—— Columbus, New Mexico, raided by Villa, March 9; Pershing entered Mexico to punish Villa, March 15; fight at Parral, Mexico, April 12; agreement, May 2; Protocol of withdrawal signed, Nov. 24.

—— Black Tom dock explosion and fire, Jersey City, July 30; 2 killed, $30,000,000 loss.

1917 Germany begins unrestricted submarine warfare, Feb. 1; United States broke off diplomatic relations with Germany, Feb. 3; United States declared a state of war existed with Germany, April 6; Russian Czar abdicates, March 15; first American troops landed in France, June 26; Russia proclaimed a republic, Sept. 15; first American killed in battle in World War by airplane bomb (1st Lieut. W. T. Fitzsimons, M. R. C.) after U. S. entry, Sept. 4; first shot by American troops in France, Oct. 27; first American casualties in France, Nov. 3; Bolshevists under Lenin seize supreme power in Russia, Nov. 7; Battle of Cambrai, Nov. 20-Dec. 4; United States declared a state of war existed with Austria, Dec. 7; Jerusalem captured, Dec. 9; U. S. Gov't took over control of railroads, Dec. 28.

—— King Constantine of Greece abdicated June 12.

—— Halifax disaster, Dec. 6; explosion of a munition ship in harbor in collision caused fire that laid in ruins one-third of the city; killed 1,226, with 400 others missing; destroyed 3,000 houses, with $20,000,000 damage.

1918 President Wilson made 14 Points of Peace speech in Congress, Jan. 8; peace signed at Brest-Litovsk between the Bolsheviks on the one side, and Germany, Austria-Hungary, Bulgaria and Turkey on the other, March 3; peace signed between Germany and Finland, March 7; Battle of the Somme, March 21 to April 6; Paris bombarded by long range guns at distance of 75 miles, March 23; British naval forces raid Zeebrugge and Ostend, April 22; pro-German plot discovered in Ireland, Sinn Fein leaders arrested, May 17; Battle of the Aisne, May 27-June 5; Czar Nicholas of Russia, the Empress, their four daughters and one son, Prince Dolgoroukoff, Dr.

Bodkin, a lady-in-waiting and a nurse were shot by Bolshevik orders at Ekaterinburg, July 16; at Perm, also, July 12, the Bolshevists assassinated the Czar's brother, Grand Duke Michael, and at Alapaievsky, north of Ekaterinburg, they killed the Grand Dukes Sergius Mikhailovitch, Igo Constantinovich and Ivan Constantinovich; German retreat across the Marne begins, July 19; Battle of St. Mihiel, Sept. 12-16; United States troops take St. Mihiel, Sept. 13; Battle of Meuse-Argonne, Sept. 20 to Nov. 11; Franco-American attack in Argonne, Sept. 26; British attack breaks Hindenburg line, Sept. 27; Bulgaria signs armistice and surrenders, Sept. 29; Ferdinand of Bulgaria abdicates, Oct. 5; United States troops capture St. Etienne, Oct. 6.

—— Allies capture Cambrai, le Cateau and Roncroy, Oct. 9; Allies occupy Ostend, Bruges and Lille, Oct. 17; Germans in third peace note accept President Wilson's terms and recall submarines to their bases, Oct. 20; British and Italians cross the Piave, Oct. 27; armistice granted to Turkey, Oct. 30; Hungarian Republic proclaimed in Budapest, and Republic of German-Austria in Vienna, Nov. 1; Austria accepts truce terms, Nov. 4; United States troops reach Sedan, Nov. 7; revolution in Kiel and Hamburg, Nov. 7; Bavaria proclaimed a republic, Nov. 8; the Kaiser abdicates, Nov. 9; he flees to Holland, Nov. 10; armistice in World War signed at Senlis, Nov. 11; German fleet surrenders to British, Nov. 21; United States troops enter Mainz, Dec. 6; American troops crossed Rhine, Dec. 13.

—— Explosion of Aetna chemical plant, near Pittsburgh, Pa., killed 100, May.

—— Malbone St. Tunnel rail (B. R. T.) wreck, 97 killed, 100 hurt, Nov. 2.

1919 Peace Conference opens informally at Paris, Jan. 12; formally inaugurated at Versailles, Jan. 18; treaty signed at Versailles, June 28; by the Treaty Plenipotentiaries of Germany and the Allied Powers; President Wilson gave the treaty to the Senate, July 10; ratified by the German National Assembly, July 10; by the British Parliament, July 25; and by King George, July 31; by the King of Italy, Oct. 7; by France, Oct. 13, and by Japan, Oct. 27; defeated in the United States Senate, Nov. 19.

—— Three U. S. Navy seaplanes left Trepassy, Newfoundland, May 16; one, the N-C 4, reached the Azores, May 17; Lisbon, May 27; Plymouth, England, May 31; Harry G. Hawker and MacKenzie Grieve fell in mid-ocean on an attempted flight, May 18, from Newfoundland to Ireland but were rescued; John Alcock and A. W. Brown made, June 14-15, a non-stop air flight from Newfoundland to Ireland; a British dirigible balloon, R-34, left Scotland, July 2, and descended in Mineola, L. I., July 6. It left for England, July 10, and arrived there July 13. The U. S. transcontinental air flight, New York to San Francisco and return, Oct. 8-18, was won by Lieut. W. B. Maynard and Lieut. Alex. Pearson.

—— Dirigible baloon exploded, falling on Illinois Trust and Savings Bank Building, Chicago, killing 10; July 21.

—— Thirty-one killed, 500 injured, in race riot, at Chicago, July 27.

—— Boston police strike, began Sept. 9.

—— Steel workers strike all over U. S., beginning Sept. 22; railway strike in England began Sept. 27; soft coal miners in U. S. began strike, Oct. 31.

1920 The U. S. transport Buford (Soviet Ark) took to Finland Emma Goldman, Alexander Berkman and 200 other Reds (Dec., 1919-Jan., 1920).

—— The Eighteenth Amendment to the U. S. Constitution, providing for Nation-wide Prohibition, was proclaimed in effect Jan. 16.

—— Frederick A. Parmenter, shoe factory paymaster at South Braintree, Mass., was robbed of $15,000 and shot to death. Nicola Sacco and Bartolomeo Vanzetti, anarchists from Italy were convicted, July 14, 1921, of the murder of Parmenter and were executed Aug. 23, 1927.

—— International Court of Justice adopted by League of Nations, Aug. 2.

—— The Nineteenth Amendment, giving suffrage to women, was proclaimed in effect, Aug. 26.

—— Wall St., N. Y., bomb explosion, killed over 30; injured over 100; did over $2,000,000 property damage, Sept. 16.

—— Earthquakes and landslides in Kansu Province, in western China, bordering Tibet, killed over 100,000 persons.

1921 President Harding signed joint resolution (passed by House, June 30, by Senate July 1) of Congress declaring peace with Germany and Austria, July 2. The treaty was signed Aug. 25, at Berlin, by United States and German representatives; was ratified Sept. 17 by the German National Council; ratified by the United States Senate (66 to 20) on Oct. 18.

—— America's Unknown Soldier was buried at Arlington National Cemetery, near Washington, Nov. 11

—— Sinn Feiners burned Custom House, Dublin, May 25.

—— Arkansas River floods and rain swept away 665 houses at Pueblo, Col., property loss over $20,000,000; 1,500 dead or missing, June 3-4.

—— Collapse and explosion of dirigible balloon, ZR-2, over Hull, England; 42, including U. S. Naval men, were killed, Aug. 24.

—— Explosion of a new gas plant at Oppau, on the Rhine, Germany, killed hundreds and destroyed property worth millions, Sept. 21.

—— Gerald Chapman and George ("Butch") Anderson, on Oct. 24, held up a mail wagon at Broadway and Leonard St., N. Y. City, and stole 4 sacks of registered mail, containing $1,454,129, of which $100,000 was cash or negotiable securities. They escaped, but were caught and convicted, and on Aug. 23, 1922, were sentenced to 25 years in the Federal prison at Atlanta, Ga. They escaped, on Mch. 27, 1923. Anderson, at the time unrecognized, was shot to death in the midwest. Chapman was hanged at the Conn. State Prison, Wethersfield, on April 6, 1926. He had been convicted of killing a policeman in a store robbery at New Britain.

—— Limitation of Armaments Conference met at Washington, Nov. 11; it adjourned Feb. 6, 1922.

1922 Roof of Knickerbocker (movie) Theatre collapsed at Washington, D. C.; 98 died from injuries, Jan. 28.

—— Dirigible balloon Roma exploded descending at Hampton, Va.; 34 died of injuries, Feb. 21.

—— Irish Free State established, Dec. 6.

—— Fourteen republics of Russia combined, in convention at Moscow, as the Union of Soviet Socialistic Republics, Dec. 20.

1923 French and Belgian troops began occupation of the Ruhr, Jan. 11.

—— The World's friendship airplane S-C II, reached Rio Janeiro, from New York, Feb. 8.

—— Earthquake, followed by fires and tidal waves, destroyed part of Tokio and Yokohama, over 100,000 were killed, Sept. 1.

1924 Allies and Germany, in Agreement of London, accepted Dawes Reparation Plan, Aug. 16; French troops began evacuation of Ruhr Aug. 18; the Agreement was formally signed Aug. 30 at London by Germany and the powers concerned, and Owen D. Young of the United States assumed duties as Agent General of Reparation Payments.

—— Nikolai Lenin (V. I. Ulianov), 54, Premier of Soviet Russia, died of apoplexy, near Moscow, Jan. 21.

—— Former President Woodrow Wilson died at his home, Washington, Feb. 3.

—— U. S. Senate, 47 to 34, adopted resolution asking President Coolidge to call for resignation of Sec'y of Navy Denby on account of oil leases, Feb. 11; he resigned, Feb. 18, as of March 10.

—— President Coolidge asked Atty. Gen. Daugherty by letter to resign, which he did March 28.

—— Twenty were killed, sixty injured, and property was destroyed for miles around where explosion destroyed nitration works at Nixon, N. J., on Raritan River.

—— Earthquake partly destroyed San Jose, Costa Rica, March 4.

—— U. S. Senate ratified treaty with Britain on searching of rum running ships off U. S. coasts, March 13.

—— Three army airplanes left Santa Monica, Cal., March 6, on trip around the world; they reached N. Y. City on the return trip, Sept. 8, and landed at Seattle, Wash., Sept. 28.

—— The U. S. Senate adopted the Reed amendment to the Immigration Bill, which bars from ad-

mission to the U. S. any Japanese except Ministers, members of the professions and arts, and students and their wives and children, Apr. 15.

—— Republic of Greece inaugurated at Athens, May 1.

—— N. F. Leopold, jr., 19, and Richard Loeb, 19, kidnapped for ransom and killed Robert Franks, 13, at Chicago, May 22; they pleaded guilty, July 21, and were sentenced to prison for life.

—— The German Reichstag, 247 to 183, accepted the Dawes reparation plan, June 6.

—— President Millerand of France resigned, June 11.

—— Th Prince of Wales began his American tour at N. Y., Aug. 29; and left there for England, Oct. 25.

—— The ZR-3, dirigible, left Friedrichshafen, Germany, Oct. 12, 12:35 A. M.; arrived at New York, Oct. 15, 8:40 A. M.; reached Lakehurst, N. J., 9:55 A. M.

1925 President Coolidge handed down his arbitral award in the controversy between Chile and Peru over possession of Tacna and Arica, calling for a plebiscite by which these provinces shall determine their own nationality, and holding that the town and Province of Tarata shall revert to Peru, March 9. Gen. John J. Pershing was made head of the Plebiscite Commission, but the entire proceedings were abandoned in 1926.

—— Th U. S. Senate ratified, March 13, a treaty recognizing Cuban sovereignty over the Isle of Pines; in effect, March 23.

—— A storm in Missouri, Southern Illinois and Indiana killed over 830 persons, injured 3,800 and destroyed property valued at $10,000,000.

—— 200 were killed by the explosion of bombs in the Cathedral of Sveti Kral, at Sofia, at the funeral of Gen. Georghieff, who was assassinated April 14. The dead included Police Prefect Kissoff, Mayor Paskaleff, ex-War Minister Davidoff, Gens. Naidenoff, Nezrezoff, Loloff, Zlatereff, and Popoff; Dept. Prefect Medelecheff, April 16.

—— Great Britain, by act of Parliament, restored the gold standard, May 5.

—— Earthquakes in Japan killed 381, and caused $50,000,000 property loss, May. 23.

—— Earthquakes partly destroyed the City of Santa Barbara, Cal., June 29.

—— John T. Scopes was found guilty at Dayton, Tenn., of having taught evolution in the high school and was fined $100.

—— The U. S. war fleet visited Australia and New Zealand in July-Oct.

—— The 2 Chinese Nine Power Treaties of the Washington Arms Conference were ratified at Washington by the U. S., France, Japan, Italy, Great Britain, China, Portugal, Belgium and Holland, Aug. 5.

—— The U. S. Navy rigid dirigible airship Shenandoah (which had left Lakehurst, N. J., on Sept. 2, bound for St. Paul) was torn to pieces at 5 A. M., Sept. 3, by a thunder squall while passing over Ava, Ohio; 14 of the crew were killed, including Lieut. Com. Zachary Lansdowne, Sept. 3.

—— The Persian Nat'l Assembly deposed the Shah, head of the Kazar dynasty which had ruled since 1779.

—— Germany ratified the Locarno treaties, Nov. 27. They were ratified by Great Britain, Germany, France, Belgium, Italy, Poland, and Czechoslovakia, at London, Dec. 1. They went into effect on Sept. 14, 1926.

1926 The anthracite coal strike, which began Sept. 1, 1925, was secretly settled, at Philadelphia, Feb. 12; work resumed Feb. 18.

—— Gerald Chapman was hanged at Connecticut State Prison, April 6.

—— A general British strike, due to coal miners strike and lockout, and involving 2,500,000 workers, began May 3; called off May 12, but the coal miners stayed out for months.

—— Lieut. Com. Richard E. Byrd, U. S. N., with Floyd G. Bennett, pilot, in the airplane Josephine Ford, left Kings Bay, Spitzbergen and flew to the North Pole and back, in 15 hours, 51 minutes, May 9. Thence west to Amsterdam Island and home.

—— The airship Norge, carrying the Amundsen-Ellsworth-Nobile expedition from Spitzbergen to Alaska, left Kings Bay at 4.55 A.M. N. Y. time, and crossed the North Pole, May 11, 10.30 P. M. The balloon landed and ended her journey May 14, at Teller, Alaska.

—— The Sesquicentennial Exposition, at Philadelphia, opened, May 31. It closed Nov. 30.

—— The Eucharistic (Roman Catholic) Congress opened, at Chicago, June 20, and closed on June 24.

—— A great earthquake destroyed more than 2,000 houses in the island of Rhodes in the Aegean Sea, June 26.

—— The N. Y. State Baumes anti-crime laws, imposing life sentences on hardened offenders went into effect, July 1.

—— 21 were killed, 80 buildings wrecked, and $85,000,000 of property and ammunitions destroyed by explosions and fires when lightning struck the navy munitions reservations at Lake Denmark, N. J., July 10.

—— The Assembly of the League of Nations, at Geneva, Sept. 8, unanimously admitted Germany to the League and to a permanent Council seat and increased the non-permanent members of the Council from 6 to 9.

—— A tropical hurricane from the ocean swept the east coast of Florida, and into Alabama, and Mississippi, Sept. 18, killing 372; 6,281 were hurt, 17,884 families temporarily made homeless. 5,000 homes were destroyed. The greatest damage was at Miami and its suburbs, Fort Lauderdale, Hollywood, Dania and Hialeah, where the dead numbered 250. 110 bodies were found at Moore Haven. In the Bahamas, at Turks' and Calcos Islands 17 were killed; over10 died at Bimini.

—— Queen Marie of Roumania began, at New York City, on Oct. 18, a tour of the United States and Canada. She left New York for Bucharest, Nov. 24.

—— A hurricane killed over 600 at Havana and other places in Cuba, Oct. 20. On the Isle of Pines, 40 were killed.

—— An earthquake partly destroyed Managua, and Leon, in Nicaragua, Nov. 5.

—— Mrs. Frances Stevens Hall and her brothers, Henry Stevens and Willie Stevens, were acquitted, at Somerville, N. J., on Dec. 3, of the murder of Mrs. Eleanor R. Mills. The charges against Mrs. Hall, Henry Stevens, Willie Stevens and H. de la B. Carpender, in connection with the murder of the Rev. E. W. Hall, were quashed on Dec. 4 and all defendants freed. Hall and Mrs. Mills were found slain, Sept. 14, 1922, in a country lane near New Brunswick, N. J.

1927 600 U. S. marines and several war vessels were ordered to Nicaragua, Jan. 6, to protect American interests; on Jan. 12 Secretary of State Kellogg told the Senate Committee on Foreign Relations that Mexico was stirring up revolution in Nicaragua; fighting began actively there, Feb. 5, between the Government (Conservative) troops and the Liberals; president Coolidge sent more marines, and dispatched ex-Sec. of War. H. L. Stimson with an ultimatum to the so-called Liberals, who laid down arms—all except Gen. Sandino, who in July, began a guerrilla warfare on the marines which lasted through the year.

1927, In Mexico, scattered revolutionary outbreaks against the government of president Calles began early in January in the State of Coahuila, and spread to several other states during the summer. Roman Catholics were charged by Calles with taking part, due to his action in closing churches, convents and schools in accordance with a provision in the constitution separating Church and State. Many Catholics were killed in local clashes and many others were executed by troops and officials. The expulsion of the archbishops and other prelates began in April. Gen. Francisco Serrano, Oct. 3, headed an army revolt, but by Nov. 4, Serrano, Gen. Quijano, Gen. Gomez and a score of other rebel chiefs had been captured and shot.

—— Telephone connection between New York City and London was established, Jan. 7.

—— Gounod's "Faust," sung in the Auditorium, Chicago, was heard by radio at New York City, Jan. 21.

—— Civil war in China caused over 400 British troops to be landed at Shanghai, Jan. 27; 1,200 U. S. marines got there on March 5, and Japan, France, Spain, Portugal and Holland put over 15,000 soldiers ashore. At Nanking, March 23, Cantonese troops shelled the burning Standard Oil plant, and killed several foreigners, including Dr. J. E. Williams of Shawnee, O., Vice President of Nanking University. Bombardment of the city by foreign warships is said to have killed 20,000 Chinese. The northern Chinese troops, April 6, raided the Soviet Embassy at Pekin and executed many Chinese and Russian communists. By April 9, there were 172 foreign warships at

Chinese ports. The civil war continued through the summer, and the end of the year saw no centralized government established.

—— President Coolidge signed the bill establishing a Federal Radio Commission, Feb. 18.

—— The U. S. Supreme Court voided the Doheny leases Feb. 28. President Coolidge cancelled the Naval Reserve oil leases, March 17.

—— The British Privy Council awarded Newfoundland 120,000 square miles of Labrador.

—— Earthquakes in Central Japan killed over 2,500, March 7.

—— The $1,000,000 libel suit of Aaron Sapiro, a Chicago lawyer, against Henry Ford, begun March 15, was settled out of court, at Detroit, Ford later withdrew all charges of his paper the Dearborn Independent, against Jews, and other libel suits against him ended.

—— Albert Snyder, art editor of "Motor Boating" was killed, March 20, at his home, Queens Village, L. I., N. Y. His wife, Ruth Brown Snyder, and her lover, Henry Judd Gray, married, a corset salesman, of E. Orange, N. J., confessed, and were convicted, May 9, of murder. They were executed at Sing Sing, Jan. 12, 1928.

—— The Massachusetts Supreme Court, April 5, refused a new trial to Nicola Sacco and Bartolomeo Vanzetti, who in 1920 killed and robbed. it was alleged, a paymaster and his guard at So. Braintree, Mass. They were executed, Aug. 23, at the State Prison, Charlestown, Mass. Anarchist bomb demonstrations and protest strikes in North and South America, and Europe, preceded and followed the execution.

—— Floods in the Mississippi River and its lower branches began early in April and for six weeks inundated 20,000 square miles in Arkansas, Louisiana, Mississippi, Missouri, Tennessee and Kentucky. The property loss was put at $270,000,000; over 4,400,000 acres of crops were destroyed, also 25,000 horses, 50,000 cattle, 148,000 hogs, 1,300 sheep, and 1,300,000 poultry; 600,000 persons were made for a time homeless, and several hundred were drowned. Tornadoes killed 22 in Illinois, April 19, and 250 on May 9 in Arkansas, Illinois, Iowa, Kansas, Louisiana, Missouri, Texas and Wyoming.

—— Capt. C. M. Nungesser and Maj. Francois Coli left Paris, May 8, in a biplane, bound for New York. They never were heard from. They may have reached the Newfoundland coast.

—— Capt. Charles A. Lindbergh, alone in his monoplane, the Spirit of St. Louis, hopped off, May 10, at San Diego, Calif. He reached St. Louis May 11; left there May 12 and landed the same day at Mineola, N. Y. He left there on May 20, reached Paris May 21, flew to Brussels, May 28; Brussels to London, May 29; England back to Paris, June 3; Paris to Cherbourg, June 4, where he boarded the U. S. Navy Cruiser, Memphis, on the deck of which was the boxed-up Spirit of St. Louis. The ship arrived on June 10 at the Virginia Capes; Lindbergh was welcomed June 11, by President Coolidge, at Washington, at New York City on June 13 by Mayor J. J. Walker and Gov. A. E. Smith; he returned to Washington and on June 16 flew his Spirit of St. Louis to Mineola, N. Y. and was welcomed at Brooklyn. On June 17 he flew to St. Louis. On July 20 he began a 22,350-mile flight from Mineola over the United States in a transcontinental tour in the interest of aviation, backed by the Guggenheim Fund, returning in his plane to Mitchel Field on Oct. 23.

On Dec. 13-14 he made a non-stop flight in his monoplane from Washington to Mexico City, where his mother, going from Detroit by plane, joined him on Dec. 22. Thence he flew to Guatemala City, Dec. 28; to Belize, British Honduras, Dec. 30; to San Salvador, Salvador, Jan. 1, 1928; to Tegucigalpa, Jan. 3; to Managua, Nicaragua, Jan. 5; to San Jose, Costa Rica, Jan. 7; to Panama City, Jan. 9; to Colon, Jan. 12; to Cartegena, Colombia, Jan 26; to Bogota, Jan. 27; to Caracas, Venezuela, Jan. 29; St. Thomas, Virgin Isles, Jan. 31; San Juan, Porto Rico, Feb. 2; Santo Domingo, Feb. 4; Port au Prince, Feb. 6; Havana with mail, Feb. 8; St. Louis, Feb. 13.

—— Andrew Kehoe, a tax-crazed farmer, killed his wife, then blew up the school house at Bath, Mich., and killed 44 and himself, May 18.

—— Clarence D. Chamberlin and Charles A. Levine left Mineola, N. Y., in the monoplane, Columbia, June 4, and landed, out of gas, June 6, near Eisleben, Saxony.

—— Col. Francesco de Pinedo reached Ostia, Italy, June 16, ending his airplane trip to South and North America.

—— Army Lieuts. L. J. Maitland and A. F. Hegenberger left Oakland, Calif., June 28 in an airplane and landed on June 29 at Wheeler Field, Hawaii.

—— Naval Commander R. E. Byrd, Lieut. G.O. Noville, Bert Acosta and Bernt. Balchen, left Mineola, N. Y., June 29, in th monoplane, America, and descended, June 30, on the French sea coast at Ver Sur Mer.

—— Earthquakes in Palestine and Transjordania killed several hundred, July 11.

—— Communists at Vienna, Austria, burned the Palace of Justice, July 15.

—— The International Peace Bridge over Niagara River, Buffalo, N. Y. to Fort Erie, Can., was opened to vehicles, June 6, and was dedicated and officially opened, Aug. 7.

—— The Woolaroc and the Aloha, airplanes in the $35,000 Aerial Derby, left Oakland, Calif., Aug. 16, and landed Aug. 17 at Hawaii. The planes, Miss Doran and Golden Eagle were lost at sea.

—— Paul Redfern left Brunswick, Ga., Aug. 25, in a monoplane, for Brazil; never heard from.

—— Princess Lowenstein-Wertheim, Capt. Leslie Hamilton and Lieut. Col. F. F. Minchin, in the airplane, St. Raphael, left England for New York; never heard from.

—— Capt. Jerry Tully and Lieut. James Medcalf in the monoplane, Sir John Carling, left Harbor Grace, Newfoundland, Sept. 7, for London; never heard from.

—— Philip A. Payne, L. W. Bertaud, and J. D. Hill, left Old Orchard Beach, Maine, Sept. 6, for Rome; never heard from. A part of the plane was found at sea off Newfoundland.

—— A tornado at St. Louis killed 87, injured 1,500, and destroyed 1,000 houses, Sept. 29.

—— Ruth Elder and George Haldeman left Mineola, N. Y., in the airplane, American Girl, Oct. 11, and on Oct. 13 descended to the sea, 350 miles northeast of the Azores, and were rescued.

—— Rains and floods, beginning Nov. 2, and lasting several days, devastated the river valleys of New England, particularly in Vermont, and the Canadian Province of Quebec. Over 120 persons were killed at Montpelier, Barre, Bellows Falls, Brattleboro and other places. Roads and railways, hundreds of houses and thousands of cattle were destroyed.

—— Mrs. Frances W. Grayson, Lieut. Oskar Omdal; Brice Goldsborough, and Fred Koehler, in the hydroplane, The Dawn, left Mineola, N. Y., Dec. 23, for Europe; never heard from. May have fallen into sea off Cape Cod, Mass.

—— Marion Parker, 12, kidnapped and slain at Los Angeles, by W. E. Hickman, 19. Dec. 15-17. He was hanged on Oct. 19.

1928 Pan-American Conference, at Havana, Cuba; opened by President Coolidge, Jan. 16; adjourned Feb. 20.

— Trotsky, Kameneff, Zinovieff, Rakovsky, and Radek exiled by the Soviets from White Russia, Jan. 16.

—— The St. Francis winter-supply dam, 40 miles north of Los Angeles, collapsed; 450 lives lost, 700 houses swept away.

—— The airplane Bremen (Capt. H. Koehl, J. E. Fitzmaurice, and Baron von Huenefeld) left Dublin, April 12, and landed, April 13, on Greenely Island, Straits of Belle Isle, Canada, south of Labrador, where they were rescued, and reached N. Y. City April 27.

—— Capt. G. H. Wilkins and Lieut. C. B. Eielson, went by airplane, from Point Barrow, Alaska, April 15, and in 20 hours and 20 minutes landed on Dead Man's Island, near Spitzbergen.

—— Earthquakes in Bulgaria killed 103 and destroyed 14,000 houses, April 14-28.

—— On her second trial, Mrs. Florence E. S. Knapp, Sec. of State of N. Y., was convicted, May 26, of larceny of the 1925 census funds and was sentenced to 30 days in prison.

—— Gen. Umberto Nobile and his balloon crew left King's Bay, Spitzbergen, on May 23rd. crossed the North Pole on May 24. On the way back the balloon went down on the ice and was destroyed; 7 were lost, the others, Nobile included, were rescued. Roald Amundsen, South Pole discoverer, was lost in one of the rescue expeditions.

—— Capt. C. Kingsford-Smith and 3 others left Oakland, Calif., by airplane, on May 31; and after landing at Hawaii and Fiji, arrived at Brisbane, Australia, June 8.

—— Miss Amelia Earhart and two others left Trespassey, Newfoundland, in a monoplane, June 17, and on June 18 alighted in the harbor of Durry Port, Wales.

—— Capt. Arturo Ferrarin and Maj. Carlo del Prete, in an airplane, left Rome, July 3, made a non-stop flight across the Atlantic, landing on the Brazil coast, on July 5.

—— Capt. Alfred Loewenstein, Belgian financier, jumped or fell from his plane into the English Channel and died, July 4.

—— A hurricane swept over the West Indies and Florida, Sept. 12-17, killing 60 on the Leeward Isles, 660 on Guadeloupe, 200 on Porto Rico, and 1500 to 2500 in Florida. Damage, $85,000,000 in Porto Rico, $25,000,000 in Florida, $7,000,000 elsewhere.

—— The balloon, Graf Zeppelin, under Capt. Hugo Eckener, with crew of 38, and 20 passengers, left Friederichshaven, Germany, on Oct. 11, and on Oct. 15, reached N. Y. City an anchored at Lakehurst, N. J. She left there Oct. 29 and reached Friederichshaven on Oct. 31.

—— Capt. C. B. D. Collyer and Harry Tucker flew by airplane, non-stop, N. Y. City to Los Angeles, Oct. 24, 25—24 h. 51 min.

—— Arnold Rothstein, sporting man, was shot at N. Y. City, Nov. 4, and died Nov. 6.

—— Lava eruptions from Mt. Etna, Sicily, overwhelmed 3 towns, with $18,500,000 loss.

—— The Italian Senate, 181 to 19, made the Fascist Grand Council a part of the Government, Nov. 15.

—— U. S. President-elect Herbert Hoover, wife and party, made a tour of Latin America. They left San Pedro, Calif., on the battleship Maryland, on Nov. 19; on Nov. 26 they visited Honduras and Salvador; Corinto, Nov. 27; San Jose, Nov. 28; Guayaquil, Dec. 1; Callao and Lima, Dec. 5; Valparaiso and Santiago, Dec. 10; thence they crossed the Andes, reaching Buenos Aires on Dec. 13; Montevideo, Dec. 16; boarded the battleship Utah there on Dec. 18; at Rio de Janeiro on Dec. 21, leaving there on Dec. 23, reaching Norfolk and Washington on Jan. 6, 1929.

—— Earthquakes in Chile, on Dec. 1, killed 300, of whom 77 were at Talca, and 78 at Constitucion; loss $20,000,000.

—— King George of England having been sick from pneumonia since Nov. 21, the Cabinet got him to create, on Dec. 4, a Council of State, headed by the Queen, to rule temporarily. The Prince of Wales got back from Africa on Dec. 11, followed on Dec. 21 and Dec. 24 by the two other absent sons.

—— Bolivia and Paraguay fought with troops over their border land, Gran Chaco, Dec. 7-10; but, on request of the Pan-American Conference at Washington, agreed to arbitration.

DIMENSIONS OF THE EARTH; OCEAN DEPTHS.

The superficial area of the earth is 196,950,000 square miles—139,440,000 square miles of water and 57,510,000 square miles of land.

The approximate area, in square miles, by continents, is Africa, 11,500,000; America (North) 8,000,000; America (South); 6,800,000; Asia, 17,000,000; Europe, 3,750,000; Oceania, 4,000,000; Polar Regions, 6,205,000.

Asia, the largest continent, is about 6,000 miles from East to West, and over 5,300 miles from North to South. Africa is 5,000 miles from North to South. Europe is 2,40(miles from North to South, and 3,300 miles from East to West. South America is 4,600 miles from North to South, and 3,200 miles from East to West. North America is 4,900 miles from North to South, and over 4,000 miles from East to West.

The three great oceans comprise the Atlantic, 41,321,000 square miles; Pacific, 68,634,000 square miles, and Indian, 29,340,000 square miles.

There are about 1,000,000 square miles of lake and river surface on the land, and 1,910,000 square miles of islands in the seas.

The equatorial circumference of the earth is 24,902 miles; the meridinal circumference, 24,860 miles.

The length of one degree of longitude along the equator is 69.2 miles. Each degree of longitude represents four minutes of time. The lines of longitude are termed *meridians*.

According to Keith Johnston, a degree of latitude measures 68.7 miles at the equator and increases to 69.4 in the vicinity of the poles.

The weight of the earth has been estimated at six sextillion, 592 quintillion tons, not including the atmosphere, whose weight has been estimated at more than five quadrillion short tons.

The diameter of the earth at the equator is 7,926.677 miles, and through the poles, 7,899.988 miles.

The difference between these two diameters is 26.689 miles, and the ratio for the earth's flattening at the poles is thus 1 part of 297.

The average elevation of the land above sea level is approximately 2,800 feet.

The average depth of the ocean below sea level is 12,500 feet.

The deepest place in the ocean yet found is in the Mindinao Deep, between the Philippines and Japan, where soundings of 35,410 feet have been reported.

The highest mountain is Mount Everest, in the Himalayas, 29,141 feet.

This gives a range of 63,591 feet or more than 11¾ miles between the bottom of the oceans and the top of the land.

The greatest depth in the Atlantic Ocean is near Porto Rico, 27,972 feet; in the Indian Ocean, 22,968; in the Arctic, 13,200; in the Malay, 21,342; in the Caribbean, 20,568; in the Mediterranean, 12,276; in the Bering, 13,422.

The latest estimates of the earth's area place the fertile regions at 33,000,000 square miles; steppes at 19,000,000 square miles; deserts at 5,000,000 square miles.

Areas in square miles of seas; Okhotsk, 580,000; Yellow, 480,000; Japan, 405,000; Andaman, 300,000; North, 220,000; Red, 178,000; Baltic, 160,000; Hudson Bay, 472,000.

POPULATION OF THE EARTH, BY CONTINENTS AND RACES.

All estimates of population are guesses, more or less, based on official or unofficial censuses in the principal countries.

Following are approximate figures—Africa, 145,000,000; America (North) 138,000,000; America (South) 66,000,000; Asia, 950,000,000; Australia, 10,000,000; Europe, 480,000,000; Polar Regions, 50,000 (Rasmussen estimates that there are 33,000 Eskimos); other countries and regions, 167,000,000.

This would give a total world population of 1,906,000,000, which is the figure set in May, 1927, on the basis of data prepared by the secretariat of the League of Nations.

Of the total population approximately 1,580,000,000 persons occupy territory "within the orbit of the league."

According to statistics gathered by Prof. E. M. East of Harvard University, 150,000 persons are born every day, and 100,000 die.

He says United States population will become stationary at 200,000,000 before 2000 A. D.

THE RACES OF MANKIND.

According to Dr. Ales Hrdlicka, curator, Division of Physical Anthropology, United States National Museum, Washington, D. C., three main human races are recognized to-day, which are: 1, the whites; 2, the yellow-browns; and 3, the blacks. Each one of these shows a number of sub-races or types which are often called "races" also. The principal of these are:

Whites: The Mediterraneans, the Alpines and the Nordics.

Yellow-browns: The Mongoloids, the Malays and the American Indian.

Blacks: The Negrito, Negrillos and Bushmen, the Melanesian Negroes and Australians and the African Negroes.

Population of the world by races under a slightly different classification is estimated as follows—Indo-Germanic or Aryan (white), 821,000,000; Mongolian or Turanian (yellow-brown), 645,000,000; Semitic (white), 75,000,000; Negro and Bantu (black), 139,000,000; Malay and Polynesian (brown), 40,000,000; American Indian, north and south (red, half breeds), 28,000,000.

CHIEF POLITICAL ASSASSINATIONS SINCE 1865.

1865—April 14. Abraham Lincoln, President of the United States; died April 15, 1865.
1870—Dec. 28. Prim, Marshal of Spain.
1872—Feb. 8. Richard, Earl of Mayo, Governor General of India.
1876—June 14. Abdul Aziz, Sultan of Turkey.
1881—March 13. Alexander II, of Russia.
—July 2. James A. Garfield, President of the United States; died Sept. 19, 1881.
1893—Oct. 28. Carter H. Harrison, Sr., Mayor of Chicago.
1894—June 24. Marie François Sadi-Carnot, President of France.
1895—July 25. Stanislaus Stambouloff, Premier of Bulgaria.
1896—May 1. Nasr-ed-Din, Shah of Persia.
1897—Aug. 8. Canovas Del Castillo, Prime Minister of Spain.
—Aug. 25. Juan Borda, Pres. Uruguay.
1898—Feb. 18. Jose Barrios, Pres. Guatemala.
—Sept. 10. Empress Elizabeth of Austria.
1899—July 26. General Ulisses Heureuax, President of the Dominican Republic.
1900—Jan. 30. William Goebel, Governor of Kentucky.
—July 29. Humbert, King of Italy.
1901—Sept. 6. William McKinley, President of the United States; died Sept. 14, 1901.
1903—June 11. Alexander, King of Serbia, and his wife, Queen Draga.
1904—June 16. Bobrikoff, Gov-General of Finland.
1905—Feb. 6. Soisalon Soininen, Procurator General of Finland.
—Feb. 17. Sergius, Grand Duke of Russia.
—Dec. 30. Ex-Governor Frank Stuenenberg, Idaho.
1908—Feb. 1. Carlos, King of Portugal.
—Feb. 1. Louis Philippe, Crown Prince of Portugal.
1909—Oct. 26. Prince Ito, of Japan.
1910—Feb. 21. Premier Pasha Ghali, Egypt.
1911—Sept. 14. Stolypin, Premier of Russia.
—Nov. 19. Ramon Caceres, Pres. Domin. Rep.
1912—Nov. 12. Jose Canalejas, Prime Minister of Spain.
1913—Jan. 23. Nazim Pasha, Turkish Minister of War.
—Feb. 23. Francisco I. Madero, President of Mexico.
—Feb. 23. Jose Pino Suarez, Vice-President of Mexico.
—March 18. George King of Greece.
1914—June 28. Archduke Francis Ferdinand of Austria-Hungary and his wife, Countess Sophie Chotek, Duchess of Hohenberg.
—July 31. Jean D. Jaures, French Socialist leader.
1915—July 28. Guillaume Sam, President of Hayti.
1918—July 5. General Count von Mirbach, German Ambassador to Russia, at Moscow.
—July 16. Czar of Russia and family at Ekaterinburg; at Perm, July 12, the Czar's brother, Grand Duke Michael Alexander.
—July 31. German Field Marshal Von Eichhorn, in the Ukraine.
—Oct. 21. Count Karl Sturgkh, Austrian Premier, at Vienna.
—Nov. Count Stephen Tisza, ex-Pres., Hungarian Privy Council, at Budapest.
—Dec. 14. Sidonio Paes, President of Portugal.
1919—Feb. 20. Habibullah Khan, Ameer of Afghanistan, at Laghman.
—"Red Czar," Yankel Sverdlov, at Moscow, early in 1919.
—Feb. 21. Kurt Eisner, Bavarian Premier at Munich.
—April 12. War Minister Neuring at Dresden, Saxony.
—Oct. 8. Hugo Haase, Pres. German Socialist Party at Berlin.
1920—May 20. Gen. Venustiano Carranza, President of Mexico, at Tlaxcaltenago.
—June 13. Essad Pasha, Albanian leader, at Paris.
—Aug. 20. Droubi Pasha, Syrian Premier, near Haifa.
—Dec. 17. Inspector O'Sullivan of British Army, at Dublin Castle.
1921—March 8. Dato, Premier of Spain, at Madrid.
—March 15. Talaat Pasha, Ex-Grand Vizier of Turkey, at Berlin.
—July 21. M. Dras Kovics, Jugo-Slav Minister of Interior, at Delnice, Croatia.
—Aug. 26. Mathias Erzberger, ex-German Vice-Chancellor, by two youths, near Offenberg, Baden.
—Oct. 19. Portuguese Premier Antonio Granjo, Ex-Pres. Machado dos Santos, and two other high officials, Lisbon.
—Oct. 22. Bulgarian Minister of War, M. Demitroff, at Kostendil.
—Nov. 4. Ta Kashi Hara, Japanese Premier, at Tokio, by Korean youth.
1922—Feb. 14. Heikki Ritavowi, Finnish Minister of the Interior, at Helsingfors, by a merchant.
—April 7. Jemal Azmyk Bey, Ex-Gov. of Trebizond and B. E. Chakir, of the Turkish Committee of Union and Progress, by an Armenian, at Berlin.
—June 22. Field Marshal Sir Henry H. Wilson, by two Irishmen, at London.
—June 24. Dr. Walter Rathenau, German Foreign Minister, by two German youths, at Berlin.
—July 25. Djemel Pasha, Ex-Turkish (Unionist) Minister of Marine, Afghan Army Chief of Staff, by two Armenians, at Tiflis, Republic of Georgia.
—Aug. 22. Gen. Michael Collins, Irish Free State Premier, by rebels, near Bandon, County Cork.
—Dec. 16. Gabriel Narutowicz, first President of the Polish Republic; by Capt. Niewadomski, an artist, at Warsaw. The assassin was executed Jan. 31, 1923.
1923—Feb. 8. Metropolitan George, Chief of the Russian Church in Poland; by a Russian monk, Warsaw.
—Feb. 9. Sultan Ishan, anti-Soviet Mussulman leader; by Selim Pasha, in Bokhara.
—May 10. Vaslov Vorovsky, Soviet Russia's Minister at Rome, and one of the uninvited Russian delegation at Near East Conference, by M. A. Contradi, ex-Russian Army officer, Lausanne.
—June 4. Cardinal Soldevilla y Romera, Archbishop of Saragossa, near that city.
—June 15. Ex-Premier Alex. Stamboulisky, shot while fleeing, Vetren, Bulgaria.
—June 29. Gen. J. C. Gomez, 1st Vice-President of Venezuela, killed in bed, at Caracas.
—July 20. Gen. Francisco "Pancho" Villa, ex-rebel leader, at Parral, Mexico.
—Aug. 26. M. Daskaloff, Bulgarian Ambassador to Czecho-Slovakia, by young Bulgarian, at Prague.
—Aug. 27. Gen. Tellini, and two other members of the Italian Commission to delimitize the Albanian frontier, by ambushed soldiers, in Greece.
1924—June 10. Giacomo Matteotti, moderate Socialist leader in Italian Parliament, kidnapped near Rome; slain body found, Aug. 15.
—June 14. M. Petkoff, Bulgar. Agrar. leader, Sofia.
—June 30. Israel de Haan, Executive Sec. Orthodox Agudatle Israel, at Jerusalem.
—Aug. 31. Tudor Alexandroff, head of the Macedonian revolutionaries, near Sofia, Bulgaria.
1925—Feb. 13. Prof. Nicola Mileff, Bulgarian Minister-Designate to the United States, anti-agrarian, at Sofia. This was followed by the slaying of Communist Deputies Strachimiroff and Stoyanoff on Feb. 16 and March 6. These and 37 other killings were the outgrowth of the feud due to the assassination, in May, 1922, of M. Grekoff, editor of the Slovo.
—April 14. Gen. Georghieff, when in the company of King Boris at Sofia.
—April 16. 200 were killed by the explosion of bombs in the Cathedral of Sveti Kral, at Sofia, at the funeral of Gen. Georghieff. The dead included Police Prefect Kissoff, Mayor Paskaleff, ex-War Minister Davidoff; Gens. Naidenoff, Nezrezoff, Loloff, Zlatereff and Popoff; Dept. Prefect Medelecheff.
—Nov. 13. M. Madjariow, Mayor of Sofia, Bulgaria, by a discharged municipal employe.
—Dec. 29. Gen. Hsushu Cheng, at Langfang, China, by Captain in National Army.
1926—May 25. Gen. Simon Petlura, ex-Pres. of Ukrainian Repub., at Paris, by a compatriot.
—June 10. Gregoire Veschapely, former Vice-President of the Georgian Party, at Paris, by a young Georgian Nationalist.
1927—June 7. Peter Lazarevitch Voikoff, Soviet Russian Minister to Poland, at Warsaw, by a 19-yr. Russian monarchist.
—July 10. Kevin O'Higgins, Vice-President of the Irish Free State, near Dublin, on his way to church. The assassins shot him from a passing automobile.
1928—May 20. Gen. Luis Mena, ex-President of Nicaragua, at Ponelova, by a countryman.
—June 20. Stephan Raditch, leader of Croatian Peasant Party, Paul Raditch, his nephew; and Dr. George Basaritchik. The shooting took place in the Chamber of Deputies, Jugo Slav Parliament, Belgrade.
—July 17. Ex-President and President-elect. Gen. Alvaro Obregon of Mexico at a dinner in his honor at San Angel near Mexico City. The assassin Jose de Leon Toral, artist, and Roman Catholic fanatic, was executed by a firing squad on Feb. 9, 1929. A nun, also convicted, was sentenced to prison for life.

NOTABLE MARINE DISASTERS IN 100 YEARS.

(Figures indicate number of lives lost. See note at end of list.)

1829—June 4. U. S. steam frigate, Fulton, destroyed by magazine explosion at Brooklyn Navy Yard; 26.
—Sept. 10—U. S. warship Hornet lost in a gale in the Gulf of Mexico; last heard of off Tampico on date named; 140.
1831—April 9. Brig Billow wrecked on Ragged Island, Nova Scotia; 137.
—Aug. 19. Immigrant ship Lady Sherbrooke, Ireland to Quebec, wrecked off Cape Ray; 273.
—Steam packet, Rothesay Castle, wrecked near Liverpool; 100.
1832—April 9. Steamship Brandywine burned on Mississippi River near Memphis; 110.
1833—May 11. Ship Lady of the Lake, England to Quebec, hit by iceberg; 215.
—Aug. 30. Ship Amphitrite, bound for Australia with British women convicts, wrecked off Boulogne, France; 128.
1836—Oct. 25. Steamboat Royal Tar, burned in Penobscot Bay; 32.
—Nov. 21. American ship Bristol, England to New York, wrecked off Far Rockaway, N. Y.; 77.
1837—Jan. 2. American bark Mexico, England to New York, wrecked on Hempstead Beach, near Point Lookout, N. Y.; 62.
—Feb. 16. British ship Jane and Margaret, England to New York, lost near Isle of Man; 200.
—May 9. Steamer Sherrod burned on Mississippi River; 175.
—Oct. 9. Steamboat Home, New York to Charleston, wrecked off Ocracoke; 100.
—Oct. 29. Steamboat Monmouth sunk in collision on Mississippi River; 234.
1838—April 25. Steamboat Moselle blown up on Ohio River, near Cincinnati, Ohio; 100.
—June 14. Steamboat Pulaski, Savannah to Baltimore, blew up off North Carolina; 140.
—June 16. Steamboat Washington burned on Lake Erie; 50.
—Nov. 25. Steamboat Gen. Brown, blew up on Mississippi River, at Helena, Ark.; 60.
1840—Jan. 13. Steamboat Lexington, New York to Stonington, burned off Edens Neck, L. I.; 140.
—Aug. 9. Brig Florence, Rotterdam to New York, foundered off Newfoundland; 60.
1841—Jan. 4. Steamer Thames, Dublin to Liverpool, wrecked off St. Ives; 56.
—Feb. 19. Ship Governor Fenner, England to New York, sunk in collision off Holyhead, England; 122.
—March 11. Steamer President, New York to Liverpool, with 136 persons on board; never heard from.
—April 19. American ship William Browne, England to Philadelphia, sunk by iceberg; 70.
—Aug. 9. Steamer Erie burned on Lake Erie; 175.
1842—April 14. Steamboat Medora, blew up at Baltimore; 28.
—June 28. Steamboat Edna, burned near mouth of Mississippi River; 33.
—July 9. Steamer Shamrock, blew up on St. Lawrence River; 68.
—Oct. 13. Steamer Eliza strikes snag below mouth of Ohio River, and sinks; 30.
—Nov. 13. East Indiaman Reliance, China to London, wrecked off Boulogne; 109.
1844—Feb. 28. Steamers De Soto and Buckeye collide on Mississippi, Buckeye sinks; 60.
—Oct. 23. Steamer Lucy Walker explodes three boilers at New Albany, Ind.; 50.
—Dec. 14. Steamer Belle of Clarksville run down on Mississippi, by Louisiana and sunk; 30.
1846—Feb. 12. Steamer Tweed lost off Yucatan; 60.
—Feb. 15. Ship John Minturn, from New Orleans for New York, went ashore in Squam Beach, N. J.; 28 lost, including Freeborn the Captain, his family and 20 survivors of the ship, Cherokee, which had burned at New Orleans. A monument to Freeborn stands in Greenwood Cemetery, Brooklyn.
—June 27. Brig Sutley from Pictou, N. S., to Fall River, Mass., wrecked in Vineyard Sound; 30.
—Nov. 28. Sound steamboat Atlantic, New London for N. Y. City, engine disabled, wrecked on Fisher's Island; 42.
—Dec. 8. U. S. Brig Somers struck by squall off Vera Cruz and sunk; 44.
1847—April 28. Emigrant ship Exmouth, Londonderry to Quebec; 200.
—May 19. Brig Carrick, foundered in St. Lawrence River; 170.
—Nov. 19. Steamers Talisman and Tempest in collision on Ohio River; 100.
—Nov. 21. Immigrant (Holland) steamer Phoenix burned on Lake Michigan; 240.
—Dec. 20. British steam frigate Avenger, wrecked off north coast of Africa; 200.
1848—Jan. 8. Boilers of steamer Blue Ridge on Ohio River explode; 30.
—Aug. 24. American emigrant ship Ocean Monarch, from Liverpool, burned off Carnarvonshire, North Wales; 200.
1849—Nov. 15. Steamer Louisiana explodes at New Orleans; 60.
—Nov. 16. Emigrant ship Caleb Grimshaw burned at sea; 60.
1850—March 7. Steamer Orville St. John, burned near Montgomery, Ala.; 30.
—March 30. Steamer Royal Adelaide wrecked off Margate; 400.
—April 27. Steamer Anthony Wayne, Sandusky to Buffalo, on Lake Erie, explodes boiler and sinks; 38.
—June 15. Steamship Orion strikes rock on seashore north of Portpatrick; 50.
—June 17. Steamer Griffith burned on Lake Erie; 300.
—Nov. 12. Emigrant ship Edmund, Limerick to New York, wrecked off coast of Ireland; 100.
1852—Jan. 24. Steamer Amazon burned off Scilly Islands; 100.
—Feb. 26. Troopship Birkenhead, Queenstown to Cape of Good Hope, wrecked; 454.
—July 27. Steamboat Henry Clay, burned on Hudson River; 70.
—Aug. 20. Steamer Atlantic sunk by collision on Lake Erie; 250.
—Sept. 4. Steamboat Reindeer, blew up on Hudson River; 38.
1853—Feb. 15. Steamship Queen Victoria, wrecked near Dublin; 67.
—Feb. 16. The Independence burned off coast Lower California; 140.
—May 3. Immigrant ship William and Mary, sunk in Bahamas; 170.
—May 20. Ship Aurora, from New York, vanished at sea; 25.
—Sept. 29. Emigrant ship Annie Jane wrecked off coast of Scotland; 348.
—Dec. 24. Steamer San Francisco, bound for California with 700 passengers, including 500 of Third Reg., U. S. Artillery, foundered at sea; 240.
—Dec. 30. Ship Staffordshire, Liverpool for Boston, grounded near Seal Island; 178.
1854—Jan. 20. Emigrant ship Tayleur wrecked off Lambay; 380.
—Jan. 28. Steamer Georgia, burned at New Orleans; 60.
—March 5. Steamboat Caroline, burned on Mississippi at mouth of White River; 45.
—March. Steamer City of Glasgow, Liverpool to Philadelphia, with 450 passengers, never heard from.
—April 15. Steamer Secretary blew up in San Pablo, Cal. Bay; 50.
—April 16. Ship Powhatan, Havre to New York, grounded on Long Beach, N. Y.; 311.
—May 10. Troopship Lady Nugent, from Madras, foundered in a storm; 400.
—Sept. 27. Steamer Arctic, from Liverpool, sunk in collision in fog, 40 miles off Cape Race, N. F.; 350.
1855—May 1. Emigrant ship John wrecked off Falmouth; 200.
1856—Jan. 30. Chilian warship Cazador wrecked; 314.
—Sept. 23. Steamer Pacific, Collins Line, vanished at sea; 288.
—Sept. 24. Steamer Niagara, burned on Lake Michigan; 60.
—Nov. 2. Steamer Lyonnais sunk off Nantucket in collision; 260.
1857—Feb. 26. Steamer Tempest, Anchor Line; 150 on board; never heard from.
—May 31. Steamer Louisiana, burned near Galveston, Tex.; 55.
—June 26. Steamer Montreal, Quebec to Montreal, burned; 250.
—Aug. 20. Ship Dunbar wrecked near Sydney, Australia; 120.
—Sept. 12. Steamer Central America, Havana to New York, sunk; 400.
1858—June 13. Steamboat Pennsylvania exploded on Mississippi River, near Memphis; 160.
—Sept. 13. Steamer Austria, Hamburg to New York, burned in midocean; 471.
1859—April 27. American ship Pomona, Liverpool to New York, wrecked; 400.
—Oct. 25. Steamer Royal Charter wrecked on the Anglesea coast; 446.
1860—Jan. 6. Steamer Northerner, wrecked near Cape Mendocino; 38.
—Feb. 19. Steamer Ondine, sunk in collision with Heroine, at Biddeford; 60.
—Feb. 19. American ship Luna wrecked off Barfleur; 100.
—Feb. 19. Steamer Hungaria wrecked near Cape Sable, N. S.; 205.

1860—June 24. Steamer Ben W. Lewis, blew up at Cairo, Ill.; 50.
—Sept. 8. Steamer Lady Elgin sunk by collision on Lake Michigan; 300.
1861—June 4. Steamer Canadian, sunk by ice, Strait of Belle Isle; 35.
1863—Feb. 7. British steamer Orpheus wrecked off coast of New Zealand; 190.
—April 27. Steamer Anglo-Saxon wrecked in fog off Cape Race, N. F.; 237.
1864—Nov. 4. British steamship Racehorse, wrecked off Chefoo, China; 99.
1865—April 27. Steamboat Sultana with exchanged Union prisoners of war aboard, destroyed on Mississippi River, 7 miles above Memphis, by boiler explosion; 1,700 (approximate).
—Aug. 24. Emigrant ship Eagle Speed foundered near Calcutta; 265.
—Dec. 24. Steamer Constitution, wrecked off Cape Lookout; 40.
1866—Jan. 11. Steamer London foundered in Bay of Biscay; 220.
—Jan. 30. Steamer Missouri, boilers exploded on Ohio River; 100.
—Jan. 30. Steamer Miami, boilers exploded on Mississippi River; 150.
—May. Steamer Gen. Grant, wrecked off New Zealand; 87.
—Oct. 3. Steamer Evening Star, New York to New Orleans, foundered; 250.
1867—Oct. 29. Royal mail steamers Rhone and Wye and about fifty vessels driven ashore and wrecked at St. Thomas, West Indies, by a hurricane; 1,000.
1868—March 18. Steamboat Magnolia, blew up on Ohio River; 80.
—April 9. Steamer Sea Bird burned on Lake Michigan; 100.
—April 17. Anchor liner United Kingdom, vanished at sea; 80.
—Dec. 4. Steamboats United States and America, burned on Ohio River, near Warsaw, Ill.; 72.
1869—Oct. 27. Steamer Stonewall burned below Cairo, Ill.; 200.
1870—Jan. 24. American ship Oneida sunk in collision off Yokohama; 115.
—Jan. 28. Inman Line steamer City of Boston, New York to Liverpool, vanished at sea; 177.
—Sept. 7. British warship Captain foundered off Finisterre; 472.
—Oct. 19. Steamer Cambria lost off Inishtrahull; 170.
—Oct. 20. Steamer Varuna, New York for Galveston, sunk off Florida coast; 72.
1871—Jan. 14. Steamer T. L. McGill, burned on Mississippi River; 58.
—Jan. 27. Steamer Kensington collides with bark Templar off Cape Hatteras, both wrecked; 150.
—Jan. 28. Steamer H. R. Arthur explodes; 87.
—July 30. Staten Island ferryboat Westfield's boilers exploded in New York harbor; 100; 200 injured.
—Dec. 20. Steamer Delaware wrecked off Scilly rocks; 45.
—Dec. 23. Steamer America, Buenos Ayres to Montevideo, burned; 60.
1872—April 11. Steamer Oceanus explodes; 40.
—Aug. 30. Steamer Metis sunk in collision on Long Island Sound; 50.
—Oct. 8. Scanderia of Anglo-Egyptian line, left port, never heard from; 38.
—Oct. 22. Steamship Missouri, New York for Havana, burned at sea; 32.
1873—Jan. 22. British steamer Northfleet sunk in collision off Dungeness; 300.
—April 1. White Star steamer Atlantic wrecked off Nova Scotia; 547.
—Aug. 8. Steamboat Wawasset, burned in Potomac River; 75.
—Aug. 23. Steamboat Geo. Wolfe, blew up on Mississippi River; 30.
—Sept. 27. Steamship Ismailia, Anchor liner, lost at sea; 52.
—Nov. 23. French Line steamer Ville du Havre, New York to Havre, in collision with ship Loch Earn and sunk in sixteen minutes; 230.
1874—July 26. Steamboat Pat Rogers, burned on Ohio River; 50.
—Dec. 6. Emigrant ship Cospatrick burned at sea; 470.
1875—May 7. Hamburg mail steamer Schiller, wrecked in fog on Scilly Islands; 200.
—Sept. 9. Steamboat Equinox, wrecked in Lake Michigan; 26.
—Nov. 4. American steamer Pacific sunk by collision off Cape Flattery; 236.
—Nov. 9. Steamer City of Waco, burned off Galveston; 53.
—Dec. 6. Steamer Deutschland, Bremen to New York, wrecked at mouth of the Thames; 157.
1876—Dec. 29. British ship Circassian stranded on Bridgehampton Beach, L. I.; 28.
1877—Jan. 5. American steamer George Cromwell stranded off Cape St. Mary's, Newfoundland; 30.
—July 15. British steamer Eten wrecked off Valparaiso; 100.
—Nov. 24. United States sloop-of-war Huron wrecked off North Carolina coast; 100.
—Nov. Steamer Atacama wrecked off Caldera, Chili; 104.
1878—Jan. 31. Steamer Metropolis wrecked off North Carolina; 100.
—March 24. British training ship Eurydice foundered near the Isle of Wight; 300.
—Sept. 3. British steamer Princess Alice sunk in collision in the Thames; 700.
—Sept. 28. German steamship Hermann Ludwig, vanished at sea; 50.
—Dec. 10. Steamship Emily B. Sonder, sank off Cape Hatteras; 38.
—Dec. 17. British Steamship Homer, vanished at sea; 43.
—Dec. 18. French steamer Byzantin sunk in collision in the Dardanelles; 210.
1879—Jan. 11. British steamship Zanzibar, left port, never heard from; 48.
—Feb. 12-16. Thirteen American fishing schooners foundered off George's Bank, Newfoundland; 144.
—March 19. British steamship Bernicia, left port, never heard from; 45.
—Nov. 7. American steamship Champion wrecked in collision with ship Lady Octavia, 15 miles from Delaware lightship; 31.
—Dec. 2. Steamer Borusia sank off the coast of Spain; 174.
1880—Jan. 31. British training ship Atlanta left Bermuda with 290 men; never heard from.
—June 11. American steamer Narragansett, wrecked in collision near Cornfield Point Shoal, Long Island Sound; 27.
—June 28. Steamboat Seawanhaka, burned in East River off Ward's Island; 24.
—Aug. 29. Steamer City of Vera Cruz foundered off Florida coast; 68.
—Oct. 16. American steamer Alpena foundered on Lake Michigan; 60.
—Nov. 24. French steamer Uncle Joseph sunk by collision off Spezzia; 250.
1881—Jan. 8. British steamship City of Limerick, vanished at sea; 43.
—May 24. Steamer Victoria, capsized in Thames River, Canada; 200.
—Aug. 30. Steamer Teuton wrecked off the Cape of Good Hope; 200.
—Nov. 13. British steamship City of London, vanished at sea; 41.
1882—July 4. Steamer Sciota wrecked in collision on Ohio River; 57.
—Sept. 14. Northwest transit service steamer Asia, foundered between Ontario and Sault Ste. Marie; 98.
1883—Jan. 3. British steamship Straits of Dover, left port, never heard from; 27.
—May 3. Grapples burned near Bute Inlet, Vancouver Island; 70.
—July 3. Steamer Daphne capsized in the Clyde; 124.
—Nov. 14. Steamer Manistee, sank in Lake Michigan; 30.
1884—Jan. 18. American steamer City of Columbus wrecked off Gay Head Light, Mass.; 99.
—April 3. Steamer Daniel Steinman wrecked off Sambro Head, N. S.; 131.
—April 18. Bark Pomena in collision with steamer State of Florida off coast of Ireland, both vessels sunk; 150.
—July 22. Spanish steamer Gigon and British steamer Lexham in collision off Cape Finisterre; both sunk; 150.
—Sept. 22. British gunboat Wasp wrecked off Donegal; 52.
1885—Feb. 15. British steamship Humber left port, never heard from; 56.
—Nov. 7. British steamer Algoma stranded at Isle Royal, Lake Superior; 48.
1886—March 14. Steamer Oregon, Cunard Line, Liverpool to New York, in collision with unknown schooner 18 miles east of Long Island; passengers and crew saved.
—May 30. British steamship Ly-ee-moo wrecked off Australia; 70.
—Oct. 5. Flues of steamer La Mascotte collapsed and vessel burned near Crawford's, Mo. 34.
1887—Jan. 20. Steamer Kapunda in collision with bark Ada Melmore off coast of Brazil; 300.
—July 10. American sloop yacht Mystery on pleasure trip capsizes off Barren Island, Jamaica Bay, N. Y.; 25.
—Oct. 29. American steamer Vernon founders on Lake Michigan; 41.
—Nov. 15. British steamer Wah Yeung burned; 400.
—Nov. 19. Steamer W. A. Scholten sunk by collision in the English Channel; 134.

1888—Jan. 4. American ship Alfred D. Snow stranded off coast of Ireland; 30.
—Feb. 27. American ferryboat Julia explodes boiler at South Vallejo, Cal.; 30.
1888—Aug. 14. Steamship Geiser sunk by collision with the Thingvalla; 105.
—Sept. 12. Italian steamship and steamship La France collide near Canary Islands; 89.
—Dec. 24. Steamer Kate Adams burned near Commerce Landing, Mississippi River; 33.
1889—March 16. United States warships Trenton, Vandalia and Nipsic and German ships Adler and Eber wrecked on Samoan Islands; 147.
—Dec. 31. British steamship Erin of National Line, left port, never heard from; 72.
1890—Jan. 2. Steamer Persia wrecked on Island of Corsica; 130.
—Feb. 17. British steamer Duburg wrecked in China Sea; 400.
—March 1. British steamship Quetta wrecked off Cape York; 124.
—July 13. Steamboat Sea Wing, overturned in storm on Lake Papin, Minn.-Wis.; 97.
—Sept. 19. Turkish frigate Ertogrul foundered off coast of Japan; 540.
—Oct. 29. Steamship Viscaya, New York for Havana, sunk in collision off Barnegat, N. J.; 70.
—Nov. 10. British cruiser Serpent wrecked in storm off coast of Spain; 167.
—Dec. 27. British steamer Shanghai burned in China Sea; 100.
1891—March 17. Steamer Utopia, Anchor Line, sunk by collision off Gibraltar; 574.
—April 16. British ship St. Catharis wrecked off Carolina Island; 90.
—April 22. Chilian warship Blauco Encalada blown up in Caldera Bay; 200.
—Sept. 10. Italian steamship Taormina sunk in collision in Mediterranean; 50.
—Nov. 2. Steamship Enterprise sank in Bay of Bengal; 77.
—Dec. 18. Steamer Abyssinia, Guion Line, burned at sea.
1892—Jan. 13. Steamer Namchow wrecked in China Sea; 414.
—May 22. Brazilian warship sank near mouth of La Plata River; 120.
—Oct. 28. Steamer Roumania, Anchor Line, wrecked off Portuguese coast; 113.
1893—Feb. 8. Steamer Trinacria, Anchor Line, wrecked off coast of Spain; 115.
—Feb. 11. White Star steamer Naronic, Liverpool to N. Y. on maiden voyage; vanished.
—May 29. British steamship Germania foundered in Bay of Bengal; 64.
—June 22. British battleship Victoria sunk by collision with her sister ship Camperdown off Tripoli; 350.
—Nov. 2. Ward Liner, City of Alexandria, Havana for New York, burned at sea; 30.
1894—Feb. 2. United States corvette Kearsarge wrecked on Roncador Reef.
—June 25. Steamship Norge, wrecked on Rockall Reef, North Atlantic; 600.
—Nov. 1. Steamer Wairarapa wrecked off coast of New Zealand; 134.
1895—Jan. 30. German steamer Elbe sunk in collision with British steamer Crathie in North Sea; 335.
—March 11. Spanish cruiser Reina Regenta foundered in the Atlantic at entrance to the Mediterranean; 400.
—May 28. French steamer Dom Pedro wrecked on coast of Galicia; 100.
1896—June 17. Steamer Drummond Castle wrecked off Brest, France; 250.
1898—Feb. 15. United States battleship Maine blown up in Havana harbor; 260.
—July 4. French Line steamer La Bourgogne, in collision with British sailing shipCromartyshire; 560.
—Oct. 14. Steamer Mohegan, Atlantic Transport Line, wrecked off the Lizard; 170.
—Nov. 26-27. Steamer Portland, from Boston, lost off Cape Cod; 157.
1900—June 30. Fire at Hoboken destroyed or damaged several steamships including the Main, the Bremen and the Saale, and damaged North German Lloyd and Hamburg American docks; 145 lives lost; property damage over $10,000,000.
1901—Feb. 22. Pacific mail steamer Rio de Janeiro wrecked in San Francisco harbor; 128.
—April 1. Turkish transport Asian wrecked in Red Sea; 180.
—Sept. Steamship Islander, with $3,000,000 in gold and many miners returning from Alaska, sunk in storm by reef near Douglas Island; 70.
—Dec. 2. British sloop of war Condor vanished off Esquimalt, B. C.; 104.
1902—July 21. Steamer Primus sunk in collision with steamer Hansa, on the Elbe; 112.
1903—June 7. French steamer Libau sunk in collision near Marseilles; 150.
1904—June 15. Steamship General Slocum took fire going through Hell Gate, East River; 1,021.
—June 28. Steamer Norge wrecked off Scottish coast; 646.
—June 29. Russian submarine, Delfine, sunk at Croistadt, hatch left open; 26.
1905—July 21. Boiler explosion on U. S. gun boat, Bennington, San Diego, Calif.; 65.
—Sept. 13. Japanese warship Mikasa sunk by explosion; 599.
1906—Jan. 21. Brazilian battleship Aquidaban sunk near Rio Janeiro by explosion of powder magazine; 212.
—Jan. 22. American steamer Valencia lost off Vancouver Island; 129.
—Aug. 4. Italian emigrant ship Sirio wrecked off Cape Palos; 350.
—Oct. 21. Russian steamer Variag on leaving Vladivostok accidentally struck by a torpedo and sunk; 140.
1907—Feb. 12. Steamer Larchmont sunk in Long Island Sound; 131.
—Feb. 21. British steamer Berlin stranded off the Hook of Holland; 100.
—Feb. 24. Austrian steamer Imperatrix wrecked; 137.
—March 12. Explosion on French battleship Jena killed 117.
—July 20. American steamers Columbia and San Petro collided on the California coast; 100.
—Nov. 26. Turkish steamer Kaptan, foundered in North Sea; 110.
1908—Feb. 3. Steamship St. Cuthbert burned off Nova Scotia; 15.
—March 23. Japanese steamer Matsu Maru sunk in collision near Hakodate; 300.
—April 25. British cruiser Gladiator sunk in collision with American Liner St. Paul off Isle of Wight; 30.
—April 30. Japanese training cruiser Matsu Shima sunk by explosion off the Pescadores; 200.
—July 28. Steamer Ying King foundered off Hongkong; 300.
—Aug. 24. Steamship Folgenender wrecked; 70.
—Nov. 6. Steamer Talsh sunk in storm; 150.
—Nov. 27. Steamer San Pablo sunk off the Philippines; 100.
1909—Jan. 23. Collision between steamer Florida and White Star steamer Republic, latter sunk off Nantucket Lightship during a fog; 6.
—June 12. Russian submarine, Kambala, sunk in collision in Black Sea; 20.
—Aug. 1. British steamer Waratah, from Sydney via Port Natal for London, left Port Natal July 26; never heard from; 300.
—Nov. 14. Steamer Scyne sunk in collision with steamer Onda off Singapore; 100.
1910—Feb 9 French Line steamer General Chanzy wrecked off Minorca; 200.
—May 26. French submarine, Pluviose, sunk in collision with steamer, Pas de Calais, in English Channel; 27.
1911—Feb. 2. Steamship Abenton wrecked; 70.
—April 2. Steamship Koombuna wrecked; 150.
—Sept. 5. Steamship Tuscapel wrecked; 80.
—Sept. 25. French battleship Liberte sunk by explosion at Toulon; 285.
—Nov. 23. Steamship Roumania sunk in Adriatic; 60.
1912—Jan. 11. Russ, Russian steamer, foundered in Black Sea; 172.
—March 5. Spanish steamship Principe de Asturias struck rock off Sebastian Point and sunk; 500.
—March 21. Passenger steamship Cachepol sunk off coast of Peru; British officers, 25 passengers; crew of 45 Chilian sailors; 80.
—March 28. British steamship Koombana lost in typhoon off Australian coast; 130.
—April 8. Nile, excursion steamer, sunk in collision near Cairo, Egypt; 200.
—April 14-15. White Star steamship Titanic sunk after collision with iceberg in North Atlantic; 1,517.
—April 30. Steamer Texas blown up by mine at entrance to Gulf of Smyrna; 64.
—June 8. French submarine, Vendemiaire, sunk in collision; 24.
—Sept. 23. Russian steamer Obnevka sunk in Dvina River; 115.
—Sept. 28. Japanese steamer Kickermaru sunk off coast of Japan; 1,000.
—Nov. 1. Steamer Cecilia sunk in Lake St. Louis, Quebec; 16.
1913—Jan. 2. Steamer El Dorado lost in storm on Atlantic coast; 39.
—March 1. British steamer Calvadas lost in blizzard in Sea of Marmora; 200.
—March 5. German torpedo-boat destroyer S-178 sunk in collision with cruiser Yorck, near Heligoland; 66.
—March 7. British steamer Alum Chive destroyed by dynamite explosion, Baltimore; 50.

1913—May 24. Steamer Nevada sunk by mine in Gulf of Smyrna; 40.
—Aug. 18. Steamer State of California wrecked near Juneau, Alaska; 31.
—Oct. 9. Steamship Volturno wrecked by fire and explosion in midocean; 135.
—Nov. 9. Steamer collier Bridgeport wrecked in St. Lawrence River; 44; also on this day a great storm destroyed, on Lake Superior, the steamer Henry B. Smith, 26; on Lake Huron, the steamers John A. McGean, 23; Charles S. Price, 28; Isaac M. Scott, 26; Hydrus, 24; and Argus, 24, with many small craft.
—Dec. German steamer Acilia wrecked near Terra del Fuego; 98.
1914—Jan. 4. Steamer Oklahoma, foundered in Atlantic; 26.
—Jan. 30. Old Dominion steamship Monroe sunk off coast of Virginia; 41.
—March 31. Sealing steamer Southern Cross wrecked in Belle Isle Strait; 173.
—April 28. Steamer Benj. Noble, off Duluth; 20.
—May 15-21. Steamship J. F. Luckenbach wrecked off coast of South Carolina; 29.
—May 29. Canadian Pacific steamship Empress of Ireland sunk in collision with Danish collier Storstad in St. Lawrence; 1,024.
—Sept. 18. Steam schooner Francis H. Leggett wrecked near mouth of Columbia River, Oregon; 80.
—Oct. 30. British hospital ship Robrilla wrecked on coast near Whitby, England; 54.
1915—March 25. United States submarine F-4 sunk off Honolulu, H. I.; 21.
—April 3. Dutch steamer Prins Maurits lost off Cape Hatteras; 44.
—May 7. Cunnard Line steamship Lusitania, bound from New York to England, sunk in 18 minutes by German submarine boat, shortly after 2 P. M., when going 18 knots an hour, 10 miles off the Old Head of Kinsale, southeast tip of Ireland; 1,198 (including 124 Americans).
—July 24. Steamer Eastland overturned in Chicago River; 812.
—Aug. 13-14. Steamship Marowijne, in Gulf of Mexico; 97.
—Aug. 16. Dredge San Jacinto wrecked off Galveston, Tex.; 50.
—Aug. 16. Dredge Sam Houston wrecked off Galveston, Tex.; 56.
—Aug. 19. White Star liner, Arabic, sunk by German submarine off Ireland; 44.
—Nov. 7. Italian liner, Ancona, sunk in Mediterranean by Austrian submarine; 206.
1916—Jan. 22. Steamship Pollentia foundered in mid-Atlantic.
—Feb. 3. Steamer Daijin Baru sunk in Pacific; 160.
—Feb. 26. French auxiliary cruiser Provence sunk in Mediterranean. Of nearly 4,000 on board but 870 were saved.
—May 9. Steamship Roanoke wrecked off coast of California; 41.
—June 5. River packet Eleanore capsized in Mississippi, north of Memphis, Tenn.; 30.
—June 5. British cruiser Hampshire sunk by German mine in Orkneys; Earl Kitchener and several hundred others lost.
—Aug. 11. Greek steamer Eletheria burned in Aegean Sea; 40.
—Aug. 29. United States cruiser Memphis wrecked at Santo Domingo; 33.
—Aug. 29. Chinese steamer Hsin Yu sunk off coast of China; 1,000.
—Aug. 29. Japanese steamer Wakatsu Maru wrecked on coast of Japan; 105.
—Oct. 20. Steamer Merida lost on Lake Erie; 20.
—Nov. 3. London and N. W. Railway steamship Connemara and British steamship Retriever collided and sank in Irish Sea; 92.
—Nov. 21. British hospital ship, Britannic, sunk in the Aegean Sea by a torpedo; 50.
1917—Jan. 25. British Cruiser, Laurentic, sunk off Ireland, by mine; 350.
—Feb. 8. American merchant ship, Cal'fornia, sunk off Ireland by German submarine; 41.
—April 15. British troopship, Arcadian, sunk in Mediterranean by German submarine; 279.
—May 15. Ship Standard wrecked in Bering Sea; 25.
—July 9. The British warship Vanguard blown up at her dock in a British port; 800.
—July 27. Japanese freighter Koto Hira Maru wrecked on island near Alaska; loss, $1,000,000.
—Oct. 17. U. S. transport, Antilles, torpedoed at sea; 70.
—Dec. 6. U. S. destroyer, Jacob Jones, sunk off Scilly Isles by German submarine; 64.
—Dec. 17. U. S. submarine F-1, sunk in collision off San Diego, Calif.; 19.
—Dec. 30. British transport Aragon, sunk in Mediterranean by torpedo; 610.
1918—Jan. 21. British troop ship, Louvain, sunk in Mediterranean by torpedo; 224.
—Feb. 1. French steamer, La Dive, sunk in Mediterranean by torpedo; 110.
—Feb. 5. Tuscania, British ship with U. S. troops, sunk off Ireland by torpedo; 204.
—Feb. 24. Red Cross liner Florizel wrecked near Cape Race, N. F.; 92.
—Feb. 26. United States naval tug Cherokee lost in storm off Delaware Capes; 23.
—March 18. British steamer Batiscan lost off Nova Scotia; 41.
March 19. U. S. destroyer Manley, collision with British ship, Montagua; 34.
—April 11. U. S. N. cargo boat, Lakemoor, torpedoed by submarine; 46.
—April 25. Chinese steamship Kiang-Kwan sunk in collision off Hankow; 500.
—May 1. American steamship City of Athens sunk in collision off Delaware coast; 66.
—May 10. British troopship, Santa Anna torpedoed in Mediterranean; 638.
—May 23. Moldavia, British ship with U. S. troops sunk in Atlantic by torpedo; 53.
—May 26. Leasowe Castle, British troopship, sunk in Mediterranean by German submarine; 101.
—May 31. U. S. troop transport, President Lincoln, torpedoed by U-boat; 26.
—June. The U. S. S. Cyclops, 19,360 tons displacement, left the Barbados, West Indies, on March 4, 18, and never been heard of since. She had on board 309.
—June 27. British hospital ship, Llandovery Castle, sunk by submarine off England; 234.
—July 6. River steamer Columbia sunk in Illinois River at Wesley City; 87.
—July 12. Japanese battleship Kawachi blown up in Tokayama Bay; 500.
—July 14. British troop ship, Djamnah sunk by torpedo in Mediterranean; 442.
—July 19. U. S. Cruiser, San Diego, sunk by mine, off Fire Island, N. Y.; 50.
—Aug. 3. British hospital ship, Warilda, torpedoed off England; 123.
—Sep. 5. U. S. troop transport, Mt. Vernon, torpedoed by U-boat, made port; 36.
—Sept. 12. British transport, Galway Castle, torpedoed in Atlantic; 189.
—Sept. 26. U. S. ship Tampa, torpedoed off England; 118.
—Sept. 30. U. S. ship, Ticonderoga, torpedoed in Atlantic; 213.
—Oct. 3. American steamer Lake City sunk off Key West, Fla.; 30.
—Oct. 4. American steamer Herman Frasch sunk in collision off Nova Scotia; 23.
—Oct. 6. Otranto, British ship with U. S. troops, sunk in collision off Scotland; 431.
—Oct. 10. Irish mail steamer, Leinster, torpedoed in St. George's Channel; 480.
—Oct. 25. Canadian steamship Princess Sophia sunk on coast of Alaska; 398.
1919—Jan. 1. British steam yacht lost off Stornoway, Scotland; only 30 of 300 saved.
—Jan. 11. Steamer Yuma sunk en route Pedro d'Macoris to New York; 79.
—Jan. 17. French steamer Chaonia lost in Straits of Messina; 460.
—April 4. Italian transport Umbria struck a mine and sank; 100 injured.
—June 4. British submarine, L 55, sunk off Kronstadt by Soviet torpedo boat; 41.
—Nov. 9. American steamship Polar Land vanished off Nova Scotia; 51.
—Dec. 18. Oil tanker J. A. Chansior sunk off Cape de Blanco, Ore.; 37.
—Dec. 18. British steamship Manxman lost off Nova Scotia; 40.
—Dec. 29. Belgian steamship Anton von Driel sunk at St. Mary's Bay, Newfoundland; 26.
1920—Jan. 10. British steamship Troveal sunk in Channel; 35.
—Jan. 12. French steamship sunk in Bay of Biscay; 500.
—April 18. American steamship Wm. O'Brien sunk in Atlantic Ocean in storm; 40.
—Aug. 20. The Superior City, sunk in collision in Lake Superior; 35.
1921—Spanish steamer Santa Isabel storm-wrecked near Villagarcia; 214.
—Feb. 26. U. S. Destroyer Woolsey, by collision off Panama; 16.
—March 18. Steamer Hongkong hit rock near Swatow, China; 1,000.
—March 23. U. S. naval tug Conestoga vanished in Pacific; 43.
1922—Jan. 4. Greek torpedo boat blew up at Piraeus; 55.
—March 23. British submarine sunk by destroyer, in practice, off Gibraltar; 23.

1922—May 20. British steamer Egypt, in collision off France; 98.
—June 4. Excursion steamer Villa Franca sunk off Hohenau, Paraguay; 80.
—June 16. Brazilian liner Avare upset at Hamburg dock; 24.
—Aug. 26. French battleship France, 23,000 tons, hit rock and sank off Quiberon Bay; 3.
—Aug. 26. Japanese cruiser Niitaka sank in storm off Kamchatka; 300.
—Aug. 29. Chilian steamer Itata sank in storm off Coquimbo; 301.
—Sept. 9. German steamer Hammonia sank in storm off Vigo, Spain; 30.
—Dec. 13. Tug Reliance sunk in storm in Lake Superior; 27.
1923—Jan. 25. British oil tanker San Leonardo burned at Tampico, Mexico; 22.
—March 10. Greek transport Alexander sank off Piraeus; 150.
—April 23. Portuguese mail steamer Mossamedes went aground at Cape Frio, Southwest Africa; 220.
—July 13. The Mallory liner Swiftstar left the Gulf end of Panama Canal and never was heard from; 33.
—Aug. 21. Japanese submarine sank at dock at Kobe; 85.
—Aug. 30. Danish excursion steamer Freya foundered off Hoejer, in hurricane; 200.
—Sept. 3. Fleet of seven U. S. destroyers, including the Delphy, S. P. Lee, Chauncey, Fuller, Woodbury, Nicholas, and Young, went on rocks in fog off Honda Point, 75 miles north of Santa Barbara, Cal.; 22.
1924—Jan. 10. British submarine L-24 sunk off Portland, England, in collision with British battleship, Resolute; 48.
—March 11. Ward Line steamship Santiago sunk by storm off Cape Hatteras; 25.
—March 19. Japanese submarine 43 sunk in collision off Sasebo, with Japanese battleship Tatsuta; 49.
—July 11. Irish freight steamer Lismore, off Wexford; 19.
—July 11. Japanese freight steamer Nippon Yusen Kaisha, in gale off Goto Island; 57.
—Dec. 12. Japanese special service ship Kwanto, in storm off Tsuruga; 100.
1925—March 12. Japanese steamer Uwajima Maru lost in gale off Takashima; 103.
—April 21. Japanese freighter Raifuku Maru, Philadelphia for Hamburg, sunk off Nova Scotia in storm; 38.
—May 8. U. S. Army Engineers' steamer Norman upset with excursionists aboard in Mississippi River, 16 miles south of Memphis; 22.
—May 23. Turkish coastal steamer foundered at entrance to the Bosporus; 44.
—Aug. 18. Excursion steamboat Mackinac, returning, on Narragansett Bay, from Newport to Pawtucket, boiler explosion; 47.
—Aug. 26. Italian submarine sunk in naval manoeuvres off Sicily; 50.
—Sept. 25. U. S. submarine S-51 sunk in collision with Amer. steamer, City of Rome, off Block Island, R. I.; 37.
—Nov. 11. British submarine, M-1, sunk in collision in English Channel; 69.
—Nov. 30-Dec. 5. Cargo steamship Cotopaxi vanished in storm on way from Charleston, S. C., to Havana, Cuba; 32.
1926—Jan. 26. British freight steamer Antinoe lost in storm in mid-Atlantic; crew rescued by the Pres. Roosevelt, which lost 2 of her life-boat men in the venture.
—Jan. 27. British freight steamer Laristan sunk in storm in mid-Atlantic; 24.
—Amer. freighter Suduffco left Port Newark March 13, for Pacific Coast, never heard from; 29
—March 22. Brazilian steamer Pas de Carvalh took fire and blew up on Solimoes River, near Manaos; 38.
—April 11. Oil tanker Gulf of Venezuela sunk by explosion at Port Arthur, Tex.; 33.
—April 27. Passenger steamer Chichibu grounded in storm off Horomushiro, Japan; 230.
—Aug. 28. Passenger steamboat Buryvestnik smashed into a river pier near Cronstadt, Russia, and sank; 300.
—Sept. 20. Steamship, sunk in storm off Sundarbans, India; 170.
—Oct. 16. Troop ship blown up in Yangtse River, at Kiukiang, China; 1,200.
—Oct. 20. British navy sloop, Valerian, sunk in storm south of Bermuda; 84. In this storm, over 50 lives were lost in sunken vessels on the Cuban coast. In the previous storm, Sept. 18, over 75 lives were lost among the shipping on the Florida coast.
—Dec. 20. Oil tug, Linseed King, overturned in Hudson River at New York City; 45.
—Dec. 24. French bark, Eugene Schneider, in storm off Portland, England; 24.
1927—Jan. 11. Steamer, John Tracy, off Cape Cod Mass.; 27.
—Feb. 16. Amer. steamer, Elkton, in Pacific, not heard from after date named; 37.
—May 26. Steamship, Negros, carrying native students, near Romblon off Philippine coast; 108.
—Aug. 1. Explosion on Japanese mine layer Tokiwz, ship not sunk; 38.
—Aug. 25. Japanese destroyer Warabi sunk and destroyer Ashi crushed in collisions with cruisers Jiutsu, and Naka, in night manoeuvers off Bungo straits; 129.
—Oct. 25. Italian steamship, Principessa Mafalda blew up and sank off Porto Seguro, Brazil; 314.
—Nov. 15. British Indian steamer, Tukaram, sank in storm off Bombay; 128.
—Dec. 17. U. S. submarine, S-4, sunk off Provincetown, Mass., in collision with Coast Guard destroyer Paulding; 40.
1928—May 7, U. S. Army dredge, Navesink, sunk in collision in N. Y. Harbor; 18.
—July 7. Chilean transport, Angames, wrecked in storm in Bay of Arauco; 291.
—July 17. French Indo-China steamer, Cap Lay foundered at mouth of Songtambo River; 40.
—Aug. 6. Italian submarine, F-14, sunk in collision with destroyer in Adriatic Sea; 31.
—Oct. 3. French submarine, Ondine, down in collision with Greek steamer, off Portugal; 43.
—Oct. 14. American molasses tanker, David C. Reid, sunk in storm near Azores; 45.
—Nov. 12. British steamer Vestris, N. Y. for Barbados and South America, sunk in gale 240 miles off Virginia Capes; 110, of whom 67 were passengers.
1929—Jan. 2. Steamship Malakoff (formerly the Pannonia, in Mediterranean; 40.
—Jan. 21. Chinese steamer, Hongchong (formerly the Sandakan) off East China, 40.
—Feb. 3. German steamer, Deister, in Douro River; 26.
—April 22. Japanese steamer, Toyo Kuni Maru, crashed on Rocky Cape Erino; 103.
—July 9. British submarine, H-47, hull torn open in collision with sister submarine L-12, sunk in 300 feet of water; 21.
—July 16. Chilean transport, Abato, sunk by storm off coast near Topocalma; 48.
—July 17. Russian passenger steamer, Volga, struck by floating World War mine in the Black Sea; 31.
—Aug. 4. Joseph III, excursion steamer, sunk in collision with the Knocke; 50.
—Aug. 18. Spanish steamer, Ogono, sunk in collision with British tug, Kings Cross, off mouth of River Humber, North Sea; 16.
—Aug. 30. Coasting steamer, San Juan, sunk in collision with Standard Oil Tanker, S. C. T. Dodd, off Santa Cruz, Calif.; 70.
—Sep. 7. Coasting steamer, Kuru, upset in gale in Gulf of Finland; 100, mostly children.

Note—The above list does not, with several exceptions, contain the data of combatant and merchant ships lost in the World War by America's foreign allies and by Germany and the other Central Powers.

The total lives lost on United States merchant vessels, Aug. 3, 1914 to Nov. 11, 1918, due to the war approximated 775.

Lives lost in the same period on British merchant ships totaled 15,313.

"S O S" IS SIMPLY A SIGNAL; LETTERS STAND FOR NO WORDS.

Deluged by letters from civilians after every storm took its toll of shipping in the North Atlantic as to the meaning of the radio distress call letters "S O S," U. S. Naval Communications explains that the letters had no meaning in themselves.

Citizens who thought the letters meant "Save Our Ship" or "Save Our Souls," it was stated, were in error.

The letters were selected by the Internationa Radiotelegraph Conference at London in 1912 because the combination of dots and dashes was so simple that even the most inexperienced radio operator would have little difficulty in detecting it.

As expressed in the dot-and-dash code, the S O S signal is . . . — — — . . . (three dots, three dashes, three dots).

Previously the distress call had been "C. Q. D."

THE SEVEN WONDERS OF THE ANCIENT WORLD.

The Pyramids of Egypt—These royal tombs, about 70 in number, lie on the west side of the River Nile, beginning at Ghizeh or Gizeh, opposite Cairo, and extending south for 60 miles or so. "They represent," says Director James H. Breasted of the Oriental Institute, University of Chicago (April 30, 1929), "1200 years of Egyptian history. The earliest of these great monuments was erected not long after 3000 B. C., and the latest a little later than 1800 B.C. The earliest superstructures of stone masonry now known, they represent the origins of architecture in stone, at a time when civilization elsewhere possessed no other architecture than that of wood and sun-dried brick.

"At the same time, a monument like the Great Pyramid of Gizeh, containing about 2,300,000 blocks of stone each weighing some 2½ tons, put together with surface joints almost equalling the accuracy of modern commercial optics, is the product, not only of technical and engineering skill, but is also the result and tangible expression of a social and governmental organization, able to converge all its resources of wealth, labor, mechanical skill, and administrative efficiency upon one supreme achievement, to which there is no suggestion of a parallel in Western Asia until two thousand years later, that is until after the beginnings of the Assyrian Empire in the Eighth Century B.C."

The **Pyramid of Cheops** is 461 feet high, 746 feet square at the base, and covers nearly 15 acres.

The **Sphinx**, near Gizeh, is a great wingless crouching lion hewn out of solid stone, 172.5 feet long, and 66 feet high. Between the two extended paws is a granite altar with inscriptions apparently indicating that it was built in the Fourth Dynasty, possibly 3750 B. C.

South of Luxor (ancient Thebes) is the tomb of King Tutankhamen, which was entered in 1924 and still is being explored.

The Gregorian Calendar had its origin in the calendar devised by the Egyptians. The Egyptian calendar was developed through years of study of the length and direction of the noonday shadows cast by the pyramids, which it is now thought were built for that purpose. As the land in Egypt capable of cultivation was limited to the delta area of the Nile and the two narrow strips on the bank which were inundated annually, the ancient Egyptians were forced to increase their crops by intensive cultivation.

This could only be done by locating and using the precise seasons required in raising the various crops. The range of the seasonal sunrise point from farthest north to farthest south is so narrow in Egypt that the use of this method for determining the seasons gave inaccurate results.

The seasons could best be determined by measuring the length of the shadows cast by the sun at noon. At first the shadow cast by an obelisk was used, but to give a longer shadow a pyramid was built.

The pyramids were made, one by one, higher and higher, in order to give longer shadows, and to give a more perfect slope, until finally the Gizeh Pyramids near Cairo were built. These pyramids were used by the Egyptian astronomers in devising their calendar and their astronomy, which was the beginning of the present astronomy.

The pyramids were used as tombs for the Pharaohs only after each pyramid had been superseded by a more perfectly sloped or higher one. The Great Pyramid has a height of 480 feet, and there is a difference of about four feet in the length of the noonday shadow on two consecutive days near the Equinox.

The Hanging Gardens of Babylon were near the Euphrates River, in the palace of King Nebuchadnezzar, 60 miles south of the present City of Bagdad, and not far from the eastern border of the Syrian Desert of Northern Arabia. The terraced gardens, planted with flowers and small trees, with fountains and refectories interspersed, were 75 to 300 feet above the ground. Water was stored in a reservoir on the top terrace and was piped down to the gardens. They date from about 600 B. C.

The Temple of Diana in Asia Minor, at Ephesus, an ancient but now vanished city on the east side of the Aegean Sea, south of Smyrna, was built in the Fifth Century B. C. by the Ionian cities, as a joint monument, from plans by the architect Ctesiphon. The building was of marble, 425 x 225 feet and the roof was supported by 127 columns of Parian marble each 60 feet high and each weighing about 150 tons. In 356 B. C., the temple was burned by Herostratus, a crank who wanted notoriety.

The Statue of Jupiter Olympus, in the valley of Olympia, province of Elis, 12 miles or so inland from the west coast of the southern peninsula of Greece, which anciently was called the Peloponnesus.

The statue, begun by the Greek sculptor Phidias after he had been banished from Athens in 432 B. C., was of marble encrusted with ivory and the draperies were of beaten gold. The bearded god was in a sitting posture, with an olive wreath on his head. In his right hand was the figure of Victory; in the left, a sceptre.

The Tomb of Mausolus, King of Caria, in Asia Minor, at Halicarnassus, on the eastern side of the Aegean Sea opposite Greece. It was built of marble about 352 B. C., by Queen Artemisia, the widow, was named **Mausoleum**, and was remarkable for its beauty and its magnificent interior. It was destroyed by an earthquake.

The Pharos of Alexandria, a white marble light-house or watch-tower on the island of Pharos, in the port of Alexandria, Egypt, was completed by King Ptolemy Philadelphus 265-247 B. C. The island had been joined by Alexander the Great to the mainland of Egypt by a causeway when he founded Alexandria. The structure cost $850,000. It was over 400 feet high. It was partly razed in the 5th Century, A. D., and was destroyed in 1375 by an earthquake.

The Colossus of Rhodes was a brass statue of the Greek sun-god Apollo 70 cubits (about 109 feet) high erected by Charles of Lindus at the port of the City of Rhodes on the island of Rhodes in the eastern part of the Mediterranean Sea off the coast of Asia Minor north of Alexandria. It took 12 years to build, cost 300 talents ($258.000), was completed about 280 B. C. and was thrown down 224 B. C. by an earthquake There it lay on the ground until 672 A. D. when the Turkish Government, the Saracens having seized Rhodes, sold the statue and it was broken up.

OTHER WONDERS OF THE WORLD.

The Great Wall of China, built in the Third Century B. C., extended along the Northern frontier of that country, from the northern part of the Gulf of Pechili, on the Yellow Sea, north of Peking, in a zigzag course, to Syning, on the border of Turkestan.

Professor Geil, who made a reconnaissance of the wall about 1908, visiting both ends of it and several intermediate points, estimates the total length of the Great Wall, including all known spurs, curves, and loops, at 2,550 miles. He also estimates that there were some 25,000 watch-towers built into the wall and some 15,000 detached watch-towers. The air-line distance between the point where the wall reaches the sea at Shanhaikwan and the western terminus, identified by Professor Geil on the Great White River west of Suchow in the pan-handle of Kansu Province, is 1,145 miles.

The wall which has crumbled into heaps in many places was, at Kalgan, (as measured in 1900 by Col. H. B. Ferguson), 17 feet, 6 inches, thick and 16 feet high, made of two face walls of large brick, filled between with earth and stones. On the Chinese side, the face wall is carried up to form a parapet 3 feet high, and on the Mongolian side the parapet is 5 feet high, cut down at frequent intervals with machicolations. These features are characteristic of the wall wherever it is fully preserved, and enable one to identify the enemy face from the Chinese face in photographs.

There is nothing formidable about the cross-section of the Great Wall. Compared with the many city walls of China it is a modest affair. The walls of the Tartar City of Peking, for example, are 40 feet high and 60 feet thick at the base.

The Tower of Babel, at the Chaldean City of Ur in lower Mesopotamia, has completely disappeared. The base of the tower was 300 x 300 feet, tapering through 7 stages to the Shrine at the top.

The height also was 300 feet.

The smaller sister of the Tower of Babel is the **Ziggurat** at Ur, which is 195 x 130 feet at the base and probably more than 150 feet high.

Stonehenge, an assemblage of huge shaped stones in 3 circles, one within another, on Salisbury Plain, 90 miles or so southwest of London, England. The outer circle is 100 feet in diameter, the next within is 75 feet in diameter, and the circle inside that one has a diameter of 40 feet. Extending around the outer circle is a deep trench 333 feet in diameter. The stones of the outer circle, originally about 30 in number, average 12 x 6 x 3 feet, fastened in couples by blocks fixed across the tops. The stones in the inner circles are smaller. The stones date back to Celtic-Cymric time. The name "stone henge" is a corruption of stan-hengest (stone stallion).

The Catacombs at Rome were the sepulchres of the early Christians, and consisted of more than 40 groups of labyrinths, or galleries and chambers, covering 615 acres, sometimes extending 5 stories (70 feet) below the surface of the ground.

The Circus Maximus, at Rome, built 605 B. C., by King Tarquin and rebuilt and enlarged by Julius Caesar some years before the birth of Christ, was

312 feet high, 1,875 feet long, and 625 feet wide. It then held 150,000 spectators, but the capacity was increased to 385,000 in the Fourth Century A. D. The place was used for games and for horse and chariot races.

The Coliseum, or Colosseum, at Rome, one of the largest amphitheatres in the world, was begun by the Emperor Vespasian and finished by the Emperor Domitian, 82 A. D. In 238 A. D. a fourth story was added. The ruins still stand. The building, elliptical, was 615 x 510 feet, and the floor of the arena was 281 x 176 feet. The walls were stone; the seats, marble; 50,000 persons could sit, 20,000 could stand. The cost was 10,000,000 crowns ($15,000,000). The work of construction was done by 12,000 slaves from Jerusalem. Wild animals were kept in dens under the floor. Thousands of persons, including early Christians, perished in combats with lions and tigers. Gladiators also fought there.

The Mosque of St. Sophia, at Constantinople, was built as a Christian Cathedral by the Roman Emperor Justinian, 531-538 A. D., in the form of a Greek cross, 269 x 143 feet with a flattened dome 180 feet high, set in a cluster of cupolas and minarets. The brick walls are lined on the inside with marble plundered from Greek temples. The Sultan of Turkey, Mohammed II., turned the cathedral into a mosque in 1453 A. D.

The Leaning Tower of Pisa is one of the so-called wonders of the middle ages. It is a round, 8-story bell-tower and was built of marble, in 1154 A. D.; it is 188 feet high, and the top is 16 feet out of the perpendicular. There are leaning towers at St. Moritz, at Ems, at Ulm, at Asinelli, and at Garisenda.

The Porcelain Tower of Nankin was built in that ancient capital of South China in the early part of the 15th Century. It was an octagonal 8-story tower, 261 feet high. The Taiping revolutionists destroyed it in 1853.

The Vatican at Rome is the largest residence in the world, containing several thousand rooms. It stands on the north side of the River Tiber and its nucleus was a house built in the time of the Emperor Constantine. It was enlarged from time to time and has been the only regular home of the Roman Pontiffs since they abandoned their palace at Avignon, France, in 1377.

The Cathedral of St. Peter, at Rome, the largest church in the world, begun in 1506 by Pope Julius, and completed in 126 years; covers 18,000 square yards and is 636 feet long, with a nave, or cross-section, 151 feet long. The top of the cross on the dome is 435 feet above the ground.

Angkor, a ruined City in Siam, the ancient capital of Cambodia, is an Asiatic wonder. Its true name is Nagara Thom. It is also known as Nakhon Thom. The walls of the city, which are 30 feet high, enclose an area 2 miles square. Several miles south of the place stand the ruins of a splendid temple (Angkor Wat, or Nakhon Wat) with 3 Javanese towers.

FAMOUS WATERFALLS OF THE WORLD.

Name and Location.	Hght in Ft.	Name and Location.	Hght in Ft.	Name and Location.	Hght in Ft.
Bridal Veil (Yosemite)	620	Multnomah, Oregon	850	Sutherland, New Zealand	1,904
Chamberlain, Brit. Guiana	300	Murchison, Africa	120	Takkakaw, Brit. Columbia	1,200
Fairy (Rainier Pk.)	700	Nevada (Yosemite)	594	Tequandema, Columbia	450
Gavarnie, France	1,385	Niagara, New York-Ontario	167	Tower (Yellowstone), Mont	132
Gersoppa, India	830	Ribbon, Yosemite Pk., Cal.	1,612	Twin, Idaho	180
Grand, Labrador	316	Rjukan, Norway	780	Vernal (Yosemite), Cal.	317
Granite (Rainier Pk.)	350	Roraima, Brit. Guiana	1,500	Vettis, Norway	950
Iguassu, Brazil	210	Schaffhausen, Switzerland	100	Victoria, Africa	400
Illilouette (Yosemite)	370	Seven Falls, Colorado	266	Voringfos, Norway	600
Kalambo, S. Africa	1,400	Skjaeggedalsfos, Norway	530	Widows' Tears (Yosemite)	1,170
Kaieteur, Brit. Guiana	800	Shoshone, Snake Riv., Idaho	210	Yellowstone (upper), Mont.	110
Minnehaha, Minnesota	50	Sluiskin (Rainier Pk.)	1,300	Yellowstone (lower), Mont.	310
Missouri, Montana	90	Snoqualmie, Washington	268	Yosemite (upper), Cal.	1,430
Montmorenci, Quebec	265	Staubbach, Switzerland	908	Yosemite (lower), Cal.	320

The brink of Niagara Falls has moved seven miles west in 30,000 years; the present rate of erosion is 2¼ to 4 feet a year in the Horseshoe Falls.

Niagara at the lip of the precipice (including Goat Island) has a total width of about 5,300 feet. Victoria, (including Livingstone and Cataract Island), has a total width of about 5,700 feet. Iguassu (including the Island of St. Martin) has a width, estimated, of more than 10,000 feet.

Niagara, as the outlet of the four Western Great Lakes which constitute half of the fresh water of the world, has a volume of water almost unaffected by the seasons. The river below Grand Island is 2¼ miles wide, and descends 52 feet in the last mile. The chasm into which it drops is 1,250 feet wide at the falls, 800 feet wide two miles further down, and less than 300 feet at Whirlpool Rapids.

Charles Blondin, whose real name was Jean Francois Gravelet, crossed Niagara Falls on a wire tight-rope, in 1855, in 1859, and in 1860. Gilarma A. Farini (William Leonard Hunt) crossed on a tight-rope in 1864.

Anna Edson Taylor plunged over the Horseshoe Falls in a barrel Oct. 24, 1901—time in the barrel, 1 hour, 15 minutes.

Bobby Leach went over the Horseshoe Falls in a barrel, July 25, 1911—time in the barrel, 22 minutes. He also navigated the Whirlpool Rapids.

Jean A. Laussier, of Springfield, Mass., on July 4, 1928, went over the Horseshoe Falls in a 758-lb. rubber ball. Laussier started his trip from a point off Cayuga Island, three miles up the river, and traveled the distance including the drop in 50 minutes.

The ice bridge in the Niagara Gorge broke without warning, Feb. 4, 1912, and carried 3 persons to death.

Two men crossed on the ice bridge Feb. 12, 1928.

The Zambezi in flood is about two miles wide. The canyon below the Victoria Falls is from 200 to 300 feet wide and even narrower further down.

Iguassu carries the smallest volume of water of the three great falls. It is swollen tremendously in flood. The upper rapids narrow to one half mile in width just before spreading out, fanlike, for the drop. The Devil's Throat Chasm is more than 200 feet deep and short and narrow.

The Shoshone Falls are 950 feet wide and Montmorenci 150 feet wide.

The Grand Falls in Labrador, are in the course of the Hamilton river, which, in the course of 5 miles, drops 200 feet in tremendous rapids and then, with a roar audible 20 miles away, makes a final plunge of 316 feet into a circular basin.

BIRDS THAT HAVE CROSSED THE ATLANTIC.

(By Frederick C. Lincoln of the U. S. Biological Survey.)

Although most species of migratory birds confine their journeys to flights between northern and southern continents, there are a few that occasionally cross the ocean. These are almost entirely water birds, chiefly gulls and terns, and flights are known from both east and west.

The first American bird for which a definite crossing has been recorded is that of a common tern (*Sterna hirundo*) that was banded at Eastern Egg Rock, Me., on July 3, 1913, and found dead in August, 1917, at the mouth of the Niger River, West Africa.

Two other American terns are known to have made the crossing: An Arctic tern (*Sterna paradisaea*), banded July 22, 1927, on the Red Islands, Turnevik Bay, Labrador, was picked up near La Rochelle, France, on October 1, 1927.

Another Arctic tern, banded at the same place on July 23, 1928, was found dead on the beach at Margate, 15 miles southwest of Port Shepstone, Natal, South Africa, on November 14, 1928.

This last record represents the longest flight known for a banded bird.

A few birds banded in Europe have been recovered on the American side of the Atlantic, as follows: A black-headed gull (*Larus ridibundus*), banded at Rossitten, Germany, on the Baltic Sea, on July 18, 1911, was recovered near Bridgetown, Barbados, British West Indies, during November of the same year.

Another was retaken in February, 1912, near Vera Cruz, Mexico.

At least two kittiwakes (*Rissa tridactyla*) banded at islands off the coast of England have been recaptured on the American side, one on the coast of Labrador and the other in Newfoundland.

A Lapwing (*Vanellus vanellus*), banded in England in 1926, was killed in Newfoundland in the Fall of 1927.

Distances of the World.

TRAVELLING DISTANCES IN EUROPE.

(From the U. S. War Department's *Official Table of Distances:* mostly by rail, some by rail and water, the figures cover, in statute miles, the shortest generally-travelled routes.)

City.	Amsterdam.	Athens.	Berlin.	Berne.	Brussels.	Constantinople.	Copenhagen.	Edinburgh.	Leningrad.	Lisbon.	London.	Madrid.	Christiania (Oslo).	Paris.	Rome.	Stockholm.	Vienna.
Amsterdam	0	1734	402	531	140	1808	526	660	1418	1511	260	1233	929	332	1094	930	754
Athens	1734	0	1563	1269	1792	416	1846	2282	2257	2567	1882	2155	2249	1600	825	2250	1129
Berlin	402	1563	0	611	505	1488	283	1063	1016	1842	663	1564	686	663	1053	687	434
Berne	531	1269	611	0	430	1685	838	1036	1627	1475	636	1063	1241	354	635	1242	631
Brussels	140	1792	505	430	0	1793	640	625	1521	1371	225	1093	1043	192	993	1044	739
Constantinople	1808	416	1488	1685	1793	0	1771	2597	2182	2998	2197	2586	2174	1915	1256	2175	1054
Copenhagen	526	1846	283	838	640	1771	0	1176	1299	1983	776	1705	403	804	1336	404	717
Edinburgh	660	2282	1063	1036	625	2597	1176	0	2079	1861	400	1583	1579	682	1583	1580	1543
Leningrad	1418	2257	1016	1627	1521	2182	1299	2079	0	2858	1679	2580	900	1679	1905	542	1128
Lisbon	1511	2567	1842	1475	1371	2998	1983	1861	2858	0	1461	412	2386	1179	1742	2387	2040
London	260	1882	663	636	225	2197	776	400	1679	1461	0	1183	1179	282	1183	1180	1143
Madrid	1233	2155	1564	1063	1093	2586	1705	1583	2580	412	1183	0	2108	901	1330	2109	1762
Oslo	929	2249	586	1241	1043	2174	403	1579	900	2386	1179	2108	0	1207	1739	358	1120
Paris	332	1600	663	354	192	1915	804	682	1679	1179	282	901	1207	0	901	1208	861
Rome	1094	825	1053	635	993	1256	1336	1583	1905	1742	1183	1330	1739	901	0	1740	777
Stockholm	930	2250	687	1242	1044	2175	404	1580	542	2387	1180	2109	358	1208	1740	0	1121
Vienna	754	1129	434	631	739	1054	717	1543	1128	2040	1143	1762	1120	861	777	1131	0

Oslo is the old name, restored in 1924, for Christiania.
Leningrad formerly was Petrograd and before that, St. Petersburg.

Airway mileage distances in Europe—London to Paris, 225; London to Amsterdam, 260; London to Rotterdam, 225; London to Cologne, 315; London to Brussels, 200; Paris to Basle, 260; Basle to Zurich, 50.

On the Imperial Airways route to Alexandria, Egypt, the mileage between landing fields is—London to Paris, 225; Paris to Basle, 260; Basle to Genoa (rail), 326; Genoa to Rome, 254; Rome to Naples, 138; Naples to Corfu, 405; Corfu to Athens, 257; Athens to Suda Bay, 182; Suda Bay to Tobruk, 265; Tobruk to Alexandria, 357; total mileage—2,669.

On the Imperial Airways route to India, the mileage is—Alexandria to Aboukir, 20; Aboukir to Gaza, 276; Gaza to Bagdad, 607; Bagdad to Basra, 300; Basra to Bushire, 230; Bushire to Lingeh, 304; Lingeh to Jask, 252; Jask to Gwadar, 286; Gwadar to Karachi, 315; total mileage—2,590.

OTHER TRAVELLING DISTANCES IN EUROPE, IN STATUTE MILES.

(From the U. S. War Department's *Official Table of Distances.*)

Berlin, to—*Antwerp,* 454; *Basel,* 545; *Berne,* 611; *Bremen,* 215; *Cologne,* 359; *Dresden,* 108; *Dusseldorf,* 342; *Essen,* 317; *Frankfurt,* 335; *Genoa,* 875; *Geneva,* 702; *Hanover,* 161; *Kiel,* 225; *Konigsberg,* 366; *Leipsic,* 100; *Lubeck,* 162; *Magdeburg,* 88; *Moscow,* 1,200; *Munich,* 406; *Nurnberg,* 301; *Posen,* 158; *Rotterdam,* 422; *St. Gall,* 575; *Saarbrucken,* 466; *Stuttgart,* 438; *The Hague,* 422; *Ulm,* 437; *Warsaw,* 388; *Wiesbaden,* 360.

Constantinople, to—*Adrianople,* 198; *Batum,* 674; *Beirut,* 976; *Brindisi,* 847; *Gibraltar,* 2,099; *Lule Burgas,* 124; *Marseilles,* 1,552; *Moscow,* 2,300; *Naples,* 1,101; *Odessa,* 395; *Smyrna,* 558.

Leningrad, to—*Fusan* (Chosen), 7,723; *Helsingfors,* 272; *Moscow,* 400; *Mukden* (China), 6,971; *Odessa,* 1,205; *Peking* (China), 6,249; *Port Arthur* (Manchuria), 5,930; *Riga,* 365; *Sebastopol,* 1,355; *Vladivostok,* 5,809; *Warsaw,* 694; *Vilna,* 436.

London, to—*Aldershot,* 37; *Bath,* 107; *Bishop's Rock,* 469; *Bremen,* 482; *Brighton,* 51; *Bristol,* 119; *Cambridge,* 53; *Canterbury,* 60; *Chatham,* 34; *Dover;* 78; *Dresden,* 743; *Falmouth,* 307; *Folkestone,* 71; *Genoa,* 2,538; *Gibraltar,* 1,556; *Glasgow,* 402; *Havre,* 234; *Kiel,* 624; *Lisbon,* direct, 1,223; *Liverpool,* 200; *Manchester,* 184; *Moscow,* 1,863; *Naples,* 2,679; *Oxford,* 64; *Plymouth,* 140; *Portsmouth,* 74; *Rotterdam,* 210; *Sheffield,* 163; *Southampton,* 80; *The Hague,* 224; *Yarmouth,* 122.

Madrid, to—*Barcelona,* 425; *Bordeaux,* 538; *Boulogne,* 1,059; *Cadiz,* 439; *Carthagena,* 326; *Gibraltar,* 456; *Malaga,* 383; *Marseilles,* 765; *Moscow,* 2,764; *Oporto,* 381; *Saragossa,* 212; *Valencia,* 304.

Paris, to—*Amiens,* 81; *Antwerp,* 219; *Bordeaux,* 363; *Boulogne,* 158; *Bremen,* 511; *Brest,* 387; *Brindisi,* 1,169; *Calais,* 185; *Chateau-Thierry,* 59; *Cherbourg,* 230; *Cologne,* 304; *Dijon,* 196; *Dover,* 204; *Frankfurt,* 424; *Geneva,* 390; *Genoa,* 591; *Hamburg,* 582; *Havre,* 142; *Kiel,* 652; *Leipsic,* 647; *Lille,* 156; *Lyons,* 318.

Rome, to—*Brindisi,* 394; *Florence,* 196; *Genoa,* 310; *Lausanne,* 640; *Marseilles,* 565; *Milan,* 404; *Moscow,* 2,023; *Naples,* 155; *Pisa,* 207; *Spezia,* 254; *Turin,* 413; *Venice,* 378.

DISTANCES BETWEEN PORTS IN ASIA.

(Statute miles; water routes; data by U. S. Hydrographic Office.)

City.	Amoy.	Batavia.	Canton.	Colombo.	Foochow.	Hongkong.	Manila.	Shanghai.	Singapore.	Swatow.	Vladivostok.	Weihaiwei.	Yokohama.
Amoy	0	2270	430	3724	230	334	777	683	1902	161	1596	1072	1533
Batavia	2270	0	2121	2138	2466	2052	1795	2904	606	2165	3812	3293	3678
Canton	430	2121	0	3570	624	96	822	1077	1748	306	1990	1466	1921
Colombo	3724	2138	3570	0	3914	3496	3399	4367	1825	3618	5280	4756	5167
Foochow	230	2466	624	3914	0	529	906	541	2092	356	1457	930	1401
Hongkong	334	2052	96	3496	529	0	727	981	1674	211	1894	1370	1825
Manila	777	1795	822	3399	906	727	0	1338	1578	717	2202	1725	2023
Shanghai	683	2904	1077	4367	541	981	1338	0	2545	808	1135	534	1199
Singapore	1902	606	1748	1825	2092	1674	1578	2545	0	1796	3458	2934	3345
Swatow	161	2165	306	3618	356	211	717	808	1796	0	1722	1198	1653
Vladivostok	1596	3812	1990	5280	1457	1894	2202	1135	3458	1722	0	1153	1093
Weihaiwei	1072	3293	1466	4756	930	1370	1725	534	2934	1198	1153	0	1274
Yokohama	1533	3678	1921	5167	1401	1825	2023	1199	3345	1653	1093	1274	0

DISTANCES BETWEEN WEST INDIES, CARIBBEAN AND GULF PORTS.

(Statute miles; trade routes; data by U. S. Hydrographic Office.)

CITY.	Cape Haytien.	Cartagena.	Colon.	Curacao.	Galveston.	Havana.	Key West.	LaGuayra.	New Orleans	Pensacola.	Port Royal.	St. Thomas.	Trinidad.	Vera Cruz.
Cape Haytien	0	803	941	774	1576	727	713	864	1368	1255	373	509	1023	1615
Cartagena	803	0	324	544	1823	1315	1301	707	1702	1639	546	934	1054	1739
Colon	941	324	0	805	1719	1155	1226	969	1616	1576	629	1185	1315	1635
Curacao	774	544	805	0	2069	1325	1312	172	1945	1854	668	521	538	2005
Galveston	1576	1823	1719	2069	0	886	872	2233	451	514	1428	2057	2560	717
Havana	727	1315	1155	1325	886	0	106	1488	694	593	874	1207	1720	937
Key West	713	1301	1226	1312	872	106	0	1474	658	533	917	1193	1689	1001
La Guayra	864	707	969	172	2233	1488	1474	0	2129	2016	837	552	408	2174
New Orleans	1368	1702	1616	1945	451	694	658	2129	0	263	1304	1848	2376	919
Pensacola	5125	1639	1576	1854	514	593	533	2016	263	0	1238	1736	2250	957
Port Royal	373	546	629	668	1428	874	917	837	1304	1238	0	805	1152	1367
St. Thomas	509	934	1185	521	2057	1207	1193	552	1848	1736	805	0	597	2129
Trinidad	1023	1054	1315	538	2560	1720	1689	408	2376	2250	1152	597	0	2494
Vera Cruz	1615	1739	1635	2005	717	937	1001	2174	919	957	1367	2129	2494	0

DISTANCES BETWEEN SOUTH AMERICAN (PACIFIC) PORTS.

CITY.	Antofagasta.	Arica.	Caldera.	Callao.	Coquimbo	Esmeraldas.	Guayaquil.	Iquique.	Lota.	Mollendo.	Pacasmayo.	Paita.	Pisco.	Punta Arenas.	Valparaiso.
Antofagasta, Chili	0	374	248	936	456	1961	1693	258	953	480	1289	1496	821	2299	663
Arica, Chili	374	0	601	683	808	1709	1441	1127	1306	158	1035	1244	567	2650	1016
Caldera, Chili	248	601	0	1129	226	2148	1879	484	723	698	1480	1682	1013	2067	433
Callao, Peru	936	683	1129	0	1308	1047	778	759	1762	539	372	582	147	3076	1504
Coquimbo, Chili	456	808	226	1308	0	2319	2051	693	524	901	1655	1853	1193	1869	234
Esmeraldas, Ecuador	1961	1709	2148	1047	2319	0	410	1785	2750	1565	694	484	1176	4037	2509
Guayaquil, Ecuador	1693	1441	1879	778	2051	410	0	1517	2482	1297	426	215	907	3769	2241
Iquique, Chili	258	1127	484	759	693	1785	1517	0	1190	253	1111	1320	645	2535	901
Lota, Chili	953	1306	723	1762	524	2750	2482	1190	0	1392	2097	2284	1649	1371	309
Mollendo, Peru	480	158	698	539	901	1565	1297	253	1392	0	891	1100	423	2734	1108
Pacasmayo, Peru	1289	1035	1480	372	1655	694	426	1111	2097	891	0	232	501	3396	1848
Paita, Peru	1496	1244	1682	582	1853	484	215	1320	2284	1100	232	0	710	3571	2043
Pisco, Peru	821	567	1013	147	1193	1176	907	645	1649	423	501	710	0	2969	1390
Punta Arenas, Chili	2299	2650	2067	3076	1869	4037	3769	2535	1371	2734	3396	3571	2969	0	1656
Valparaiso, Chili	663	1016	433	1504	234	2509	2241	901	309	1108	1848	2043	1390	1656	0

PANAMA CANAL DISTANCES (STATUTE MILES).

COLON TO GULF AND ATLANTIC PORTS.

Baltimore, 2,189; *Bordeaux*, 5,295; *Boston*, 2,484; *Brunswick*, Ga., 1,785; *Buenos Ayres*, 6,276; *Campeche*, 1,344; *Charleston*, S. C., 1,801 *Galveston*, 1,719; *Gibraltar*, 4,989; *Glasgow*, 5,208; *Guantanamo Bay*, 801; *Havana*, 1,155; *Halifax*, 2,668; *Hamburg*, 5,838; *Hampton Roads*, 2,036; *Havre*, 5,313; *Jacksonville*, 1,768; *Key West*, 1,226; *Kingston*, Jamaica, 634; *Liverpool*, 5,237; *Manzanillo*, Cuba, 793; *Maracaibo*, Venez., 691; *Mobile*, 1,604: *Montevideo*, 6,144; *Nassau*, N. P., 1,585; *New Orleans*, 1,616; *New York*, 2,273; *Norfolk*, 2,049; *Para*, 2,659; *Pensacola*, 1,576; *Pernambuco*, 3,774; *Philadelphia*, 2,241; *Plymouth*, England, 5,130; *Ponce*, P. R., 1,074; *Port Arthur*, Tex., 1,710; *Port Limon*, 221; *Port of Spain*, Trinidad, 1,335; *Port Tampa*, 1,396; *Portsmouth*, N. H., 2,504; *Puerto Barrios*, Guatemala, 828; *Puerto Cabello*, Venez., 944; *Puerto Cortes*, Hond., 844; *Rio de Janeiro*, 5,008; *Sabine*, Tex., 1,700; *St. Thomas*, W. I., 1,185; *San Juan*, P. R., 1,143; *Santiago*, Cuba, 786; *Tampico*, 1,710; *Trinidad*, 1,315; *Tuxpam*, Mex., 1,676; *Vera Cruz*, 1,635; *Willemsted*, Curacao, 803; *Wilmington*, N. C., 1,992.

PANAMA ROADS TO PACIFIC PORTS.

Acajutla, Salvador, 959; *Acapulco*, Mex., 1,642; *Amalpa*, Honduras, 858; *Apia*, Samoa, 6,575; *Arica*, Chili, 2,212; *Auckland*, 7,499; *Bombay*, 14,921; *Calcutta*, 13,989; *Callao*, 1,550; *Cape Engano*, Luzon, 10,324; *Colombo*, 13,919; *Guam*, 9,199; *Guayaquil*, 913; *Hongkong*, 10,588; *Honolulu*, 5,395; *Iquique*, 2.288; *Los Angeles*, 3,354; *Magdalena Bay*, 2,608; *Manila*, 10,764; *Melbourne*, 9,130; *Port Townsend*, Wash., 4,589; *Portland*, Ore., 4,455; *Punta Arenas*, Chili, 4,541; *Seattle*, 4,630; *Salina Cruz*, Mex., 1,347; *San Diego*, 3,274; *San Francisco*, 3,737; *Shanghai*, 9,853; *Singapore*, 12,097; *Sydney*, 8,837; *Tacoma*, 4,653; *Valparaiso*, 3,013; *Vancouver*, 4,643; *Vladivostok*, 9,020; *Wellington*, 7,491; *Yokohama*, 8,846.

DISTANCES IN THE PHILIPPINES.

(Statute miles; data by U. S. War Dept.)

Manila (Luzon Is.), to—*Aparri* (Luzon Is.), 441; *Bacolod* (Negros Is.), 395; *Balanga* (Luzon Is.), 30; *Batangas* (Luzon Is.), 70; *Bautista* (Luzon Is.), 101; *Calamba* (Luzon Is.), 35; *Candon* (Luzon Is.), 207; *Catbalogan* (Samar Is.), 397; *Cebu* (Cebu Is.), 451; *Dagupan* (Luzon Is.), 122; *Iba* (Luzon Is.), 117; *Iloilo* (Panay Is.), 391; *Jolo* (Sulu Archipelago), 769; *Laoag* (Luzon Is.), 281; *Legaspi* (Luzon Is.), 411; *Lucena* (Luzon Is.), 87; *Nueva Caceres* (Luzon Is.), 543; *San Fernando* (Luzon Is.), 167; *Santa Cruz* (Luzon Is.), 61; *Tacloban* (Leyte Is.), 429; *Vigan* (Luzon Is.), 161; *Zamboanga* (Mindanao Is.), 671.

Batangas, to—*Cebu*, 356; *Iloilo*, 306; *Jolo*, 684; *Nueva Caceres*, 439; *Tacloban*, 337; *Zamboanga*, 586.

Catbalogan, to—*Cebu*, 145; *Iloilo*, 184; *Jolo*, 532; *Tacloban*, 48; *Zamboanga*, 434.

Cebu, to—*Jolo*, 397; *Iloilo*, 201; *Legaspi*, 236; *Nueva Caceres*, 66; *San Fernando*, 17; *Tacloban*, 171; *Zamboanga*, 290.

Dagupan, to—*Candon*, 98; *San Fernando*, 46; *Santa Cruz*, 71; *Vigan*, 116.

Iloilo, to—*Bacolod*, 28; *Jolo*, 378; *Legaspi*, 260; *Tacloban*, 210; *Zamboanga*, 280.

Jolo, to—*Zamboanga*, 98.

Lucena, to—*Nueva Caceres*, 414; *Santa Cruz*, 78; *Tacloban*, 304; *Zamboanga*, 493.

Nueva Caceres, to—*Legaspi*, 178; *San Fernando*, 4.

San Fernando, to—*Vigan*, 63.

Tacloban, to—*Zamboanga*, 441.

Vigan, to—*Santa Cruz*, 42.

TRAVELLING DISTANCES IN THE UNITED STATES.

(Statute miles; shortest direct routes: data from War Department's *Official Table of Distances.*)

CITY.	Baltimore.	Bismarck.	Boston.	Charleston, S. C.	Chicago.	Cincinnati.	Cleveland.	Denver.	Galveston.	Indianapolis.	Kansas City.	Los Angeles.
Albany	332	1676	201	881	832	742	480	1866	1880	764	1283	3063
Atlanta	689	1577	1108	309	733	488	750	1529	912	598	889	2496
Baltimore	0	1641	419	549	797	593	446	1831	1577	703	1210	2990
Boston	419	1877	0	968	1033	943	681	2067	1996	965	1484	3264
Buffalo	396	1369	498	945	525	445	183	1559	1583	467	969	2749
Charleston, S. C.	549	1859	968	0	1015	730	992	1838	1221	840	1198	2805
Chicago	797	844	1033	1015	0	285	357	1034	1148	184	451	2231
Cincinnati	593	1129	943	730	285	0	262	1257	1157	110	617	2397
Cleveland	446	1201	681	992	357	262	0	1391	1400	284	757	2537
Dallas	1618	1453	1903	1130	970	977	1222	834	322	927	517	1459
Denver	1831	1115	2067	1838	1034	1257	1391	0	1146	1159	636	1422
Detroit	617	1116	750	990	272	260	171	1306	1352	276	715	2495
El Paso	2177	1894	2462	1993	1466	1584	1706	779	886	1486	949	812
Galveston	1577	1742	1996	1221	1148	1157	1400	1146	0	1105	806	1698
Houston	1520	1685	1939	1164	1100	1109	1352	1074	48	1057	749	1641
Indianapolis	703	1028	965	840	184	110	284	1159	1105	0	519	2299
Jacksonville	795	1932	1214	268	1088	822	1084	1869	1031	932	1233	2615
Kansas City, Mo.	1210	936	1484	1198	451	617	757	636	806	519	0	1780
Key West	1317	2454	1736	790	1610	1344	1606	2391	1553	1454	1755	3137
Los Angeles	2990	1900	3264	2805	2231	2397	2537	1422	1698	2299	1780	0
Louisville	702	1150	1057	707	306	114	376	1192	1043	112	552	2332
Memphis	971	1329	1390	727	534	494	756	1120	663	492	484	1966
Milwaukee	882	771	1118	1100	85	370	442	1119	1233	269	536	2316
Montgomery	864	1593	1283	484	749	605	867	1468	737	603	832	2321
Nashville	811	1289	1243	597	445	300	562	1241	895	298	601	2198
New Orleans	1158	1742	1577	802	930	836	1098	1349	419	899	868	2003
New York	187	1753	232	736	909	751	579	1943	1764	812	1331	3111
Norfolk	184	1796	579	391	952	667	638	1923	1509	777	1283	3063
Oklahoma City	1458	1279	1760	1214	835	882	1079	737	551	784	343	1492
Omaha	1285	817	1521	1334	488	773	845	538	1000	672	194	1821
Philadelphia	95	1661	324	644	817	660	487	1851	1672	720	1239	3019
Pittsburgh	314	1312	673	811	468	311	135	1502	1476	371	890	2670
Portland, Me	528	1936	109	1077	1142	1052	790	2176	2105	1074	1593	3373
Portland, Ore	3050	1437	3286	3119	2253	2538	2610	1376	2522	2437	1979	1129
Richmond	156	1709	575	393	865	580	553	1836	1461	690	1196	2976
St. Louis	932	1024	1217	920	284	339	536	918	864	241	278	2058
St. Paul	1195	446	1431	1413	398	683	755	909	1296	582	490	2192
San Diego	3117	2027	3319	2932	2358	2524	2664	1549	1825	2426	1907	127
San Francisco	3068	1862	3304	3117	2271	2556	2628	1374	2173	2455	1977	475
Savannah	658	1871	1077	115	1027	743	1005	1823	1075	853	1183	2659
Seattle	2995	1458	3231	3248	2198	2483	2555	1559	2827	2382	2050	1312
Toledo	559	1088	794	932	244	202	113	1278	1301	225	662	2442
Washingt'n, D.C.	40	1631	459	509	787	553	437	1810	1537	663	1170	2950

CITY.	Min'eapolis.	New Orleans.	New York.	Philadelphia.	Portland, Me.	Portland, Ore.	Richmond, Va.	St. Louis.	San Francisco.	Seattle	Washingt'n, D. C.
Albany	1240	1490	145	237	310	3085	488	1016	3103	3030	372
Atlanta	1141	493	876	784	1217	2810	549	611	2808	2939	649
Augusta, Me	1611	1747	402	494	61	3456	745	1387	3474	3401	629
Baltimore	1205	1158	187	95	528	3050	156	932	3068	2995	40
Birmingham	1061	355	990	898	1331	2684	736	435	2682	2813	763
Boston	1441	1577	232	324	101	3286	575	1217	3304	3231	459
Buffalo	933	1281	396	416	607	2778	552	719	2796	2723	436
Charleston, W. Va	904	944	614	522	955	2749	369	549	2767	2694	387
Chicago	408	930	909	817	1142	2253	865	284	2271	2198	787
Cincinnati	693	836	751	660	1052	2538	580	339	2556	2483	553
Cleveland	765	1098	579	487	790	2610	553	536	2628	2555	437
Dallas	1017	515	1739	1647	2012	2210	1370	686	1934	2515	1378
Denver	919	1349	1943	1851	2176	1376	1836	918	1374	1559	1810
Des Moines	270	1058	1267	1175	1500	1931	1223	340	1929	2055	1145
Detroit	680	1096	648	668	859	2525	724	488	2543	2470	608
El Paso	1449	1191	2298	2206	2571	1941	2163	1245	1287	2124	2137
Galveston	1306	419	1764	1672	2105	2522	1461	864	2173	2827	1537
Houston	1249	362	1707	1615	2048	2450	1404	816	2079	2755	1480
Indianapolis	592	899	812	720	1074	2437	690	241	2455	2382	663
Jackson	1123	183	1239	1147	1580	2615	985	535	2339	2747	1012
Jacksonville	1496	612	982	890	1323	3165	639	966	3058	3294	755
Kansas City, Mo	500	868	1331	1239	1593	1979	1196	278	1977	2050	1170
Key West	2018	1134	1504	1412	1845	3687	1161	1488	3580	3816	1277
Little Rock	937	471	1291	1199	1675	2506	1037	349	2293	2577	1064
Los Angeles	2202	2003	3111	3019	3373	1129	2976	2058	475	1312	2950
Louisville	714	787	865	774	1166	2473	644	274	2471	2504	662
Madison, Wis	278	1016	1039	947	1272	2093	995	371	2248	2052	917
Memphis	893	396	1158	1066	1499	2463	904	305	2441	2534	931
Milwaukee	335	1015	994	902	1227	2168	950	369	2356	2113	872
New Haven	1392	1420	75	167	266	3237	418	1128	3255	3182	302
New Orleans	1306	0	1345	1253	1686	2725	1042	718	2446	2918	1118
New York	1317	1345	0	92	341	3162	343	1053	3180	3107	227
Oklahoma City	843	752	1596	1504	1869	2113	1391	543	1803	2344	1418
Omaha	381	1062	1397	1305	1630	1785	1353	414	1783	1909	1275
Pensacola	1320	243	1214	1122	1555	2990	887	791	2689	3119	987
Philadelphia	1225	1253	92	0	433	3070	251	961	3088	3015	135
Pittsburgh	876	1147	441	349	782	2721	418	612	2739	2666	302
Portland, Me	1550	1686	341	433	0	3395	684	1326	3413	3340	568
Portland, Ore	1815	2725	3162	3070	3395	0	3118	2199	772	133	3040
Richmond	1273	1042	343	251	684	3118	0	918	3136	3063	116
St. Louis	588	718	1053	961	1326	2199	918	0	2197	2328	892
St. Paul	10	1296	1307	1215	1540	1825	1263	578	2154	1784	1185
San Francisco	2164	2446	3180	3088	3413	772	3136	2197	0	955	3058
Seattle	1774	2918	3107	3015	3340	183	3063	2328	955	0	2985
Washington, D. C	1195	1118	227	135	568	3040	116	892	3058	2985	0

AIR-LINE DISTANCES BETWEEN STATE CAPITALS.

(Compiled in statute miles by the U. S. Geological Survey.)

CAPITAL.	Albany.	Annapolis.	Atlanta.	Augusta.	Austin.	Baton Rouge	Bismark	Boise.	Boston.	Carson.	Charleston.	Cheyenne.	Columbia
Albany	0	291	842	230	1575	1279	1350	2119	139	2385	509	1592	716
Annapolis	291	0	568	505	1345	1020	1336	2067	378	2299	281	1499	426
Atlanta	842	568	0	1068	817	459	1244	1833	936	1988	353	1227	193
Augusta	230	505	1068	0	1803	1508	1500	2279	149	2561	739	1778	931
Austin	1575	1345	817	1803	0	391	1155	1369	1693	1389	1073	849	1010
Baton Rouge	1279	1020	459	1508	391	0	1242	1643	1383	1721	770	1060	642
Bismarck	1350	1336	1244	1500	1155	1242	0	782	1485	1092	1143	441	1358
Boise	2119	2067	1833	2279	1369	1643	782	0	2256	357	1826	606	1990
Boston	139	378	936	149	1693	1383	1485	2256	0	2523	621	1731	791
Carson	2385	2299	1988	2561	1389	1721	1092	357	2523	0	2040	800	2162
Charleston	509	281	353	739	1073	770	1143	1826	621	2040	0	1243	302
Cheyenne	1592	1499	1227	1778	849	1060	441	606	1731	800	1243	0	1388
Columbia	716	426	193	931	1010	642	1358	1990	791	2162	302	1388	0
Columbus	514	354	436	740	1066	803	1008	1718	642	1945	133	1145	426
Concord	119	390	952	116	1693	1393	1441	2215	63	2488	625	1699	816
Denver	1626	1517	1209	1820	771	1008	533	638	1765	789	1253	97	1377
Des Moines	1017	918	739	1215	815	782	506	1155	1156	1382	672	582	862
Dover	259	53	618	463	1398	1071	1374	2111	322	2346	334	1546	469
Frankfort	660	456	307	889	914	644	1003	1669	782	1872	176	1078	360
Harrisburg	231	91	611	458	1359	1051	1274	2016	335	2258	286	1458	489
Hartford	83	278	845	228	1602	1291	1425	2190	92	451	529	1656	703
Helena	1883	1860	1694	2030	1362	1576	533	290	2018	645	1638	520	1834
Indianapolis	674	519	427	895	926	704	880	1565	805	1782	262	984	389
Jackson	1147	896	351	1376	487	141	1148	1609	1255	1717	638	1012	542
Jefferson City	1004	844	547	1221	655	565	717	1294	1137	1479	570	693	696
Lansing	540	437	620	739	1133	928	850	1595	678	1849	336	1053	630
Lincoln	1187	1077	833	1385	731	780	462	1014	1325	1222	820	423	979
Little Rock	1134	919	455	1362	444	304	944	1414	1256	1542	640	813	643
Madison	791	728	698	981	997	878	614	1343	929	1595	521	801	772
Montgomery	986	714	146	1212	680	318	1257	1791	1081	1922	489	1187	324
Montpelier	126	417	962	139	1676	1392	1368	2146	152	2425	622	1640	840
Nashville	826	596	215	1055	752	470	1030	1633	942	1806	321	1021	358
Oklahoma	1362	1179	755	1582	359	505	802	1140	1492	1246	899	557	940
Olympia	2387	2373	2196	2522	1771	2036	1040	402	2519	567	2153	983	2343
Phoenix	2159	2007	1588	2366	869	1240	1097	736	2295	582	1729	664	1777
Pierre	1332	1281	1124	1502	984	1084	171	789	1470	1060	1053	318	1253
Providence	132	332	900	190	1664	1350	1482	2250	40	2513	591	1719	752
Raleigh	542	250	355	752	1168	814	1372	2051	609	2248	242	1458	183
Richmond	403	112	470	614	1265	926	1349	2059	474	2276	236	1478	317
Sacramento	2488	2399	2082	2663	1465	1805	1191	442	2625	101	2139	900	2257
St. Paul	975	945	901	1143	1045	1007	392	1144	1112	1418	746	647	991
Salem	2424	2393	2180	2571	1703	1996	1074	350	2559	433	2161	954	2334
Salt Lake	1954	1869	1580	2134	1074	1359	693	295	2093	431	1612	370	1748
Santa Fe	1778	1627	1229	1986	605	927	813	771	1914	794	1350	381	1414
Springfield	848	705	509	1063	801	652	739	1389	982	1599	442	802	622
Tallahassee	1025	737	230	1242	802	411	1434	1966	1102	2086	568	1363	311
Topeka	1169	1028	726	1378	617	646	595	1108	1305	1288	758	504	884
Trenton	176	125	693	389	1461	1142	1373	2122	243	2367	399	1568	552
Washington, D. C.	311	29	543	523	1317	993	1316	2043	393	2273	252	1474	405

CAPITAL.	Columbus	Concord	Denver	Des Moines	Dover	Frankfort	Harrisburg	Hartford	Helena	Indianapolis	Jackson	Jefferson City
Albany	514	119	1626	1017	259	660	231	83	1883	674	1147	1004
Annapolis	354	390	1517	918	53	456	91	278	1860	519	896	844
Atlanta	436	952	1209	739	618	307	611	845	1694	427	351	547
Augusta	740	116	1820	1215	463	889	458	228	2030	895	1376	1221
Austin	1066	1693	771	815	1398	914	1359	1602	1362	926	487	655
Baton Rouge	803	1393	1008	782	1071	644	1051	1291	1576	704	141	565
Bismarck	1008	1441	533	506	1374	1003	1274	1425	533	880	1148	717
Boise	1718	2215	638	1155	2111	1669	2016	2190	290	1565	1609	1294
Boston	642	63	1765	1156	322	782	335	92	2018	805	1255	1137
Carson	1945	2488	789	1382	2346	1872	2258	451	645	1782	1717	1479
Charleston	133	625	1253	672	334	176	286	529	1638	262	638	570
Cheyenne	1145	1699	97	582	1546	1078	1458	1656	520	984	1012	693
Columbia	426	816	1377	862	469	360	489	703	1834	389	542	696
Columbus	0	642	1345	1035	440	107	1035	1523	1711	477	1035	1035
Concord	642	0	1765	1156	322	782	335	92	2018	805	1255	1137
Denver	1345	1765	0	640	1707	1267	1707	1857	1180	1170	1020	1020
Des Moines	1035	1156	640	0	1047	627	1047	1197	1180	530	1020	1020
Dover	440	322	1707	1047	0	680	180	270	2018	1170	1255	1137
Frankfort	107	782	1267	627	680	0	1047	1197	1180	530	1020	1020
Harrisburg	1035	335	1707	1047	180	1047	0	270	2018	1170	1255	1137
Hartford	1523	92	1857	1197	270	1197	270	0	2018	1170	1255	1137
Helena	1711	2018	1180	1180	2018	1180	2018	2018	0	1170	1255	1137
Indianapolis	477	805	1170	530	1170	530	1170	1170	1170	0	1255	1137
Jackson	1035	1255	1020	1020	1255	1020	1255	1255	1255	1255	0	1137
Jefferson City	1035	1137	1020	1020	1137	1020	1137	1137	1137	1137	1137	0
Lansing	1035	1255	1020	1020	1255	1020	1255	1255	1255	1255	1255	1137
Lincoln	1035	1255	1020	1020	1255	1020	1255	1255	1255	1255	1255	1137
Little Rock	1035	1255	1020	1020	1255	1020	1255	1255	1255	1255	1255	1137
Madison	1035	1255	1020	1020	1255	1020	1255	1255	1255	1255	1255	1137
Montgomery	1035	1255	1020	1020	1255	1020	1255	1255	1255	1255	1255	1137
Montpelier	1035	1255	1020	1020	1255	1020	1255	1255	1255	1255	1255	1137
Nashville	1035	1255	1020	1020	1255	1020	1255	1255	1255	1255	1255	1137
Oklahoma	1035	1255	1020	1020	1255	1020	1255	1255	1255	1255	1255	1137
Olympia	1035	1255	1020	1020	1255	1020	1255	1255	1255	1255	1255	1137
Phoenix	1035	1255	1020	1020	1255	1020	1255	1255	1255	1255	1255	1137
Pierre	1035	1255	1020	1020	1255	1020	1255	1255	1255	1255	1255	1137
Providence	1035	1255	1020	1020	1255	1020	1255	1255	1255	1255	1255	1137
Raleigh	1035	1255	1020	1020	1255	1020	1255	1255	1255	1255	1255	1137
Richmond	1035	1255	1020	1020	1255	1020	1255	1255	1255	1255	1255	1137
Sacramento	1035	1255	1020	1020	1255	1020	1255	1255	1255	1255	1255	1137
St. Paul	1035	1255	1020	1020	1255	1020	1255	1255	1255	1255	1255	1137
Salem	1035	1255	1020	1020	1255	1020	1255	1255	1255	1255	1255	1137
Salt Lake	1035	1255	1020	1020	1255	1020	1255	1255	1255	1255	1255	1137
Santa Fe	1035	1255	1020	1020	1255	1020	1255	1255	1255	1255	1255	1137
Springfield	1035	1255	1020	1020	1255	1020	1255	1255	1255	1255	1255	1137
Tallahassee	1035	1255	1020	1020	1255	1020	1255	1255	1255	1255	1255	1137
Topeka	1035	1255	1020	1020	1255	1020	1255	1255	1255	1255	1255	1137
Trenton	1035	1255	1020	1020	1255	1020	1255	1255	1255	1255	1255	1137
Washington, D. C.	1035	1255	1020	1020	1255	1020	1255	1255	1255	1255	1255	1137

CAPITAL.	Lansing	Lincoln	Little Rock	Madison	Montgomery	Montpelier	Nashville	Oklahoma	Olympia	Phoenix	Pierre	Providence	Raleigh	Richmond	Sacramento	St. Paul	Salem	Salt Lake	Santa Fe	Springfield	Tallahassee	Topeka	Trenton	Washington, D. C.
Albany	540	1187	1134	791	986	126	826	1362	2387	2159	1332	132	542	403	2488	975	2424	1954	1778	848	1025	1169	176	311
Annapolis	437	1077	919	728	714	417	596	1179	2373	2007	1281	332	250	112	2399	945	2393	1869	1627	705	737	1028	125	29
Atlanta	620	833	455	698	146	962	215	755	2196	1588	1124	900	355	470	2082	901	2180	1580	1229	509	230	726	693	543
Augusta	739	1385	1362	981	1212	139	1055	1582	2522	2366	1502	190	752	614	2663	1143	2571	2134	1986	1063	1242	1378	389	523
Austin	1133	731	444	997	680	1676	752	359	1771	869	984	1664	1168	1265	1465	1045	1703	1074	605	801	802	617	1461	1317
Baton Rouge	928	780	304	878	318	1392	470	505	2036	1240	1084	1350	814	926	1805	1007	1996	1359	927	652	411	646	1142	993
Bismarck	850	462	944	614	1257	1368	1030	802	1040	1097	171	1482	1372	1349	1191	392	1074	693	813	739	1434	595	1373	1316
Boise	1595	1014	1414	1343	1791	2146	1633	1140	402	736	789	2250	2051	2059	442	1144	350	295	771	1389	1966	1108	2122	2043
Boston	678	1325	1256	929	1081	152	942	1492	2519	2295	1470	40	609	474	2625	1112	2559	2093	1914	982	1102	1305	243	393
Carson	1849	1222	1542	1595	1922	2425	1806	1246	567	582	1060	2513	2248	2276	101	1418	433	431	794	1599	2086	1288	2367	2273
Charleston	336	820	640	521	489	622	321	899	2153	1729	1053	591	242	236	2139	746	2161	1612	1350	442	568	758	399	252
Cheyenne	1053	423	813	801	1187	1640	1021	557	983	664	318	1719	1458	1478	900	647	954	370	381	802	1363	504	1568	1474
Columbia	630	979	643	772	324	840	358	940	2343	1777	1253	752	183	317	2257	991	2334	1748	1414	622	311	884	552	405
Columbus	1035	1255	1035	1035	1035	1035	1035	1035	1035	1035	1035	1035	1035	1035	1035	1035	1035	1035	1035	1035	1035	1035	1035	1035
Concord	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255
Denver	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020
Des Moines	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020
Dover	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255
Frankfort	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020
Harrisburg	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255
Hartford	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255
Helena	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255
Indianapolis	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255
Jackson	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255
Jefferson City	1137	1137	1137	1137	1137	1137	1137	1137	1137	1137	1137	1137	1137	1137	1137	1137	1137	1137	1137	1137	1137	1137	1137	1137
Lansing	0	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255
Lincoln	1255	0	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255
Little Rock	1255	1255	0	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255
Madison	1255	1255	1255	0	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255
Montgomery	1255	1255	1255	1255	0	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255
Montpelier	1255	1255	1255	1255	1255	0	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255
Nashville	1255	1255	1255	1255	1255	1255	0	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255
Oklahoma	1255	1255	1255	1255	1255	1255	1255	0	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255
Olympia	1255	1255	1255	1255	1255	1255	1255	1255	0	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255
Phoenix	1255	1255	1255	1255	1255	1255	1255	1255	1255	0	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255
Pierre	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	0	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255
Providence	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	0	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255
Raleigh	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	0	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255
Richmond	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	0	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255
Sacramento	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	0	1255	1255	1255	1255	1255	1255	1255	1255	1255
St. Paul	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	0	1255	1255	1255	1255	1255	1255	1255	1255
Salem	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	0	1255	1255	1255	1255	1255	1255	1255
Salt Lake	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	0	1255	1255	1255	1255	1255	1255
Santa Fe	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	0	1255	1255	1255	1255	1255
Springfield	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	0	1255	1255	1255	1255
Tallahassee	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	0	1255	1255	1255
Topeka	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	0	1255	1255
Trenton	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	0	1255
Washington, D. C.	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	1255	0

AIRWAY MILEAGE DISTANCES IN THE UNITED STATES.

(Compiled by the Department of Commerce; distances shown are averages from one airway to another.)

New York City (Newark, N. J.) to Cleveland, 405; Toledo, 86; South Bend, Ind., 227; Chicago, 89.

New York City (Newark, N. J.) to, Philadelphia, 81; Washington, 120; Richmond, Va., 98; Greensboro-Winston Salem, N. C., 176; Spartanburg, 140; Atlanta, 176.

New York City (Newark, N. J.) to, Hartford, Conn., 106; Boston, 95.

New York City (Newark, N. J.) to, Albany, 142; Montreal, 192.

Atlanta to, Macon, Ga., 77; Jackson, Fla., 210; Miami, Fla., 335; Key West, 147; Havana, 105; Santa Clara, Cuba, 162; Camague y, Cuba, 142; Santiago, Cuba, 167.

Atlanta to, Birmingham, Ala., 138; Mobile, Ala., 213; New Orleans, 132; Houston, Tex., 320; Laredo, Tex., 295.

Albany to, Schenectady, 15; Syracuse, 114; Rochester, 74; Buffalo, 65; Cleveland, 177.

Cleveland to, Columbus, O., 143; Dayton, 65; Cincinnati, 48; Louisville, 89.

Chicago to, Terre Haute, 165; Evansville, 99; Nashville, 137; Chattanooga, 115; Atlanta, 107.

Chicago to, Milwaukee, 81; Madison, Wis., 75; La Crosse, 105; St. Paul, 121; Fargo, N. Dak., 218.

Evansville to, St. Louis, 145; Kansas City, 235.

Chicago to, Iowa City, 198; Des Moines, 103; Omaha, 129; North Platte, 261; Cheyenne, 216; Rock Springs, 253; Salt Lake City, 168; Elko, Nev. 199; Reno, Nev., 232; Sacramento, 102; San Francisco, 88.

Chicago to, Moline, 150; St. Joseph, Mo., 256; Kansas City, 48; Wichita, 173; Ponca City, 69; Oklahoma City, 89; Ft. Worth, Tex., 180; Waco, Tex., 82; Houston, 158.

Waco to, Austin, Tex., 95; San Antonio, 74; Laredo, 142.

Chicago to, Peoria, 122; Springfield, Ill., 65; St. Louis, 81.

Salt Lake City to, Pocatello, 147; Butte, Mont., 225; Helena, 44; Great Falls, 73.

Salt Lake City to, Boise, 300; Pasco, 240.

Salt Lake City to, Los Vegas, 368; Los Angeles, 265.

San Francisco to, Medford, 316; Portland, Oreg., 233; Tacoma, 122; Seattle, 31; Victoria, B. C., 77.

San Francisco to, Fresno, 157; Bakersfield, 110; Los Angeles, 111; San Diego, 115.

Los Angeles to, Phoenix, Ariz., 360; Tucson, 106.

DISTANCES BY WATER FROM NEW ORLEANS.

Barbados	2,468	Cape Town	9,392	New York	2,001
Belize	979	Charleston, S. C.	1,363	Pensacola	263
Bermuda	1,946	Cienfuegos	1,008	Philadelphia	1,967
Bluefields	1,393	Havana	694	Port au Prince	1,404
Boston	2,285	Key West	658	Port Royal	1,304
Buenos Ayres	7,233	London	5,582	Progreso	640
Campeche	749	Montevideo	7,102	Quebec	3,371
Cape Haytien	1,368	Naples	6,412	Rio de Janeiro	5,965

St. John, N. B.	2,477	Santiago	1,302
St. John's, N. F.	3,021	Santo Domingo	1,737
San Juan, P. R.	1,768	Tampico	819
Santiago	1,302	Trinidad	2,376
Santo Domingo	1,737	Vera Cruz	999

AIR-LINE DISTANCES BETWEEN STATE CAPITALS—*Continued*

Capital.	Columbus.	Concord.	Denver.	Des Moin's	Dover.	Frankfort.	Harrisburg.	Hartford.	Helena.	Indianapolis.	Jackson.	Jefferson City.
Albany	514	119	1626	1017	259	660	231	83	1883	674	1147	1004
Annapolis	354	390	1517	918	53	456	91	278	1860	519	896	844
Atlanta	436	952	1209	739	618	307	611	845	1694	427	351	547
Augusta	740	116	1820	1215	463	889	458	228	2030	895	1376	1221
Austin	1066	1693	771	815	1398	914	1359	1602	1362	926	467	655
Baton Rouge	803	1393	1008	782	1071	644	1051	1291	1576	704	141	565
Bismarck	1008	1441	533	506	1374	1003	1274	1425	533	880	1148	717
Boise	1718	2215	638	1155	2111	1669	2016	2190	290	1565	1609	1294
Boston	642	63	1765	1156	322	782	335	92	2018	805	1255	1137
Carson	1945	2488	789	1382	2346	1872	2258	2451	645	1782	1717	1479
Charleston	133	625	1253	672	334	176	286	529	1638	262	638	570
Cheyenne	1145	1699	97	582	1546	1078	1458	1656	520	984	1012	693
Columbia	426	816	1377	862	469	360	489	703	1834	489	542	696
Columbus	0	633	1163	566	402	159	324	553	1521	168	664	500
Concord	633	0	1746	1128	348	779	342	115	1974	792	1262	1121
Denver	1163	1746	0	610	1565	1083	1482	1687	591	998	971	690
Des Moines	566	1128	610	0	965	519	876	1078	975	409	669	221
Dover	402	348	1565	965	0	509	105	234	1900	569	948	895
Frankfort	159	779	1083	519	509	0	451	691	1493	129	505	396
Harrisburg	324	342	1482	876	105	451	0	243	1801	492	921	823
Hartford	553	115	1687	1078	234	691	243	0	1953	718	1163	1050
Helena	1521	1974	591	975	1900	1493	1801	1953	0	1378	1518	1147
Indianapolis	168	792	998	409	569	120	492	718	1378	0	563	332
Jackson	664	1262	971	669	948	505	921	1163	1518	563	0	448
Jefferson City	500	1121	690	221	895	396	823	1050	1147	332	448	0
Lansing	205	650	1087	478	524	315	424	602	1377	224	787	498
Lincoln	723	1298	442	170	1125	656	1040	1246	861	560	690	286
Little Rock	623	1253	779	478	972	474	922	1165	1313	483	207	265
Madison	394	898	839	239	769	412	673	856	1132	283	746	343
Montgomery	555	1097	1158	753	763	409	755	990	1675	511	227	541
Montpelier	610	90	1681	1076	384	763	353	173	1900	762	1258	1085
Nashville	333	943	1020	524	649	175	607	850	1485	251	330	340
Oklahoma	851	1480	504	473	1232	723	1170	1404	1075	688	473	365
Olympia	2035	2473	1028	1487	2413	2006	2313	2463	514	1892	1995	1651
Phoenix	1664	2274	586	1155	2059	1553	1988	2211	908	1496	1270	1165
Pierre	937	1432	398	391	1324	908	1227	1402	586	793	997	582
Providence	618	95	1751	1141	284	755	305	65	2016	783	1223	1115
Raleigh	374	637	1459	900	289	382	324	523	1873	495	703	769
Richmond	343	499	1489	904	152	408	191	386	1804	495	807	804
Sacramento	2045	2590	887	1482	2446	1970	2359	2552	732	1882	1805	1577
St. Paul	618	1073	705	233	984	631	884	1046	918	503	887	442
Salem	2048	2515	986	1490	2434	2007	2337	2499	541	1899	1958	1639
Salt Lake	1513	2059	371	951	1915	1446	1827	2020	402	1353	1334	1057
Santa Fe	1283	1893	284	780	1678	1174	1606	1830	815	1115	932	784
Springfield	353	964	813	241	754	280	676	897	1216	185	519	159
Tallahassee	662	1127	1330	929	781	537	797	1015	1853	654	371	719
Topeka	678	1284	499	207	1078	586	1001	1221	976	510	558	192
Trenton	435	265	1592	986	84	559	112	153	1903	603	1016	934
Wash'gt'n, D.C	328	412	1491	893	82	428	97	303	1838	493	868	817

DISTANCES BY WATER FROM SAN FRANCISCO.

Acajutla	2,817	Port Townsend	887
Acapulco	2,111	Prince Rupert	1,387
Amapala	2,978	Punta Arenas	7,132
Antofagasta	5,484	Salaverry	4,319
Arica	5,241	Salina Cruz	2,459
Caldera	5,636	San Blas	1,632
Callao	4,591	San Diego	521
Chimbote	4,381	San Jose	2,758
Coquimbo	5,766	Santa Barbara	332
Corinto	3,009	Seattle	926
Dutch Harbor	2,748	Seward	1,959
Esmeralda	3,849	Sitka	1,499
Guayaquil	4,047	Sydney	7,766
Guaymas	1,716	Tacoma	951
Hongkong	7,262	Talcahuano	6,069
Honolulu	2,408	Tientsin	6,815
Magdalena Bay	1,154	Tumaco	3,864
Manila	7,164	Valdivia	6,227
Nagasaki	6,068	Valparaiso	5,919
Pago Pago	4,779	Vancouver	935
Pisagua	5,289	Victoria, B. C	858
Pisco	4,718	Yokohama	5,223

DISTANCES BY WATER FROM KEY WEST.

Apalachicola	416	Havana	106
Barbados	1,680	Halifax	1,845
Bermuda	1,240	Hampton Roads	1,066
Boston	1,594	Liverpool	4,606
Campeche	728	Mobile	585
Cape Haytien	713	Montevideo	6,446
Charleston	673	New York	1,310
Cienfuegos	621	Pensacola	533
Curacoa	1,312	Philadelphia	1,276
Galveston	872	San Juan, P. R	1,112
Gibraltar	4,583	Vera Cruz	1,001

DISTANCES BY WATER FROM LOS ANGELES.

Adelaide	8,544	Portland, Ore	1,139
Auckland	5,515	Saigon	8,525
Bangkok	9,163	San Diego	112
Batavia	9,117	San Francisco	423
Bombay	12,251	Shanghai	6,859
Colombo	11,235	Singapore	9,058
Freemantle	9,817	Sydney	7,498
Hongkong	7,493	Tahiti	4,112
Honolulu	2,566	Tientsin	7,164
Manila	7,520	Tsingtau	6,933
Melbourne	8,097	Vladivostok	5,747
Monterey	331	Wellington	6,746
Nagasaki	6,416	Yokohama	5,572

DISTANCES BY WATER FROM SEATTLE.

Bellingham	89	Portland, Ore	415
Dutch Harbor	1,966	Shanghai	6,316
Hongkong	6,943	Sitka	932
Honolulu	2,774	Tacoma	29
Los Angeles	1,320	Vancouver	135
Manila	6,923	Vladivostok	5,029
Nome	2,635	Yokohama	4,900

WATER ROUTES FROM PORTLAND, ME.

Bahia	4,711	New York, via Canal	345
Baltimore	790	Newport News	646
Bermuda	841	Pernambuco	4,261
Boston	113	Philadelphia	600
Buenos Ayres	6,763	Port Castries, S. L	2,137
Charleston	1,026	Quebec	1,229
Havana	1,677	Rio de Janeiro	5,495
Halifax	389	St. Johns, N. B	248
Key West	1,610	St. Thomas, W. I	1,793
Montevideo	6,632	St. Vincent, C. V	3,229
Nassau, N. P	1,401	Savannah	1,110

AIR-LINE DISTANCES BETWEEN STATE CAPITALS—*Continued*

CAPITAL.	Lansing.	Lincoln.	Little Rock.	Madison.	Montgom'y.	Montpelier.	Nashville.	Oklahoma.	Olympia.	Phoenix.	Pierre	Providence.
Albany	540	1187	1134	791	986	126	826	1362	2387	2159	1332	132
Annapolis	487	1077	919	728	714	417	596	1179	2373	2007	1281	332
Atlanta	620	833	455	698	146	962	215	755	2196	1588	1124	900
Augusta	739	1385	1362	981	1212	139	1055	1582	2522	2366	1502	190
Austin	1133	731	444	997	690	1676	752	359	1771	869	984	1664
Baton Rouge	928	780	304	878	318	1392	470	505	2036	1240	1084	1350
Bismarck	850	462	944	614	1257	1368	1030	802	1040	1097	171	1482
Boise	1595	1014	1414	1343	1791	2146	1633	1140	402	736	789	2250
Boston	678	1325	1256	929	1081	152	942	1492	2519	2295	1470	40
Carson	1849	1222	1542	1595	1922	2425	1806	1246	567	582	1060	2513
Charleston	336	820	640	521	489	622	321	899	2153	1729	1053	591
Cheyenne	1053	423	813	801	1187	1640	1021	557	983	664	318	1719
Columbia	630	979	643	772	324	840	358	940	2343	1777	1253	752
Columbus	205	723	623	394	555	610	333	851	2035	1664	937	618
Concord	650	298	1253	898	1097	90	943	1480	2473	2274	1432	95
Denver	1087	442	779	839	1158	1681	1020	504	1028	586	398	1751
Des Moines	478	170	478	239	753	1076	524	473	1487	1155	391	1141
Dover	524	1125	972	769	763	384	649	1232	2413	2059	1324	284
Frankfort	315	656	474	412	409	763	175	723	2006	1553	908	755
Harrisburg	424	1040	924	673	755	353	607	1170	2313	1988	1227	305
Hartford	602	1246	1165	856	990	173	850	1404	2463	2211	1402	65
Helena	1377	861	1313	1132	1675	1900	1485	1075	514	908	586	2016
Indianapolis	224	560	483	283	511	762	251	688	1892	1496	793	783
Jackson	787	690	207	746	227	1258	330	473	1995	1270	997	1223
Jefferson City	498	286	265	343	541	1085	340	365	1651	1165	582	1115
Lansing	0	648	696	254	723	601	471	863	1889	1627	806	665
Lincoln	648	0	484	408	819	1246	625	372	1365	985	307	1310
Little Rock	696	484	0	596	381	1234	324	300	1795	1135	791	1228
Madison	254	408	596	0	758	842	497	682	1646	1393	554	918
Montgomery	723	819	381	758	0	1105	263	677	2167	1493	1122	1046
Montpelier	601	1246	1234	842	1105	0	933	1448	2396	2228	1366	178
Nashville	471	625	324	497	263	933	0	603	1990	1443	911	912
Oklahoma	863	372	300	682	677	1448	603	0	1532	840	634	1469
Olympia	1889	1365	1795	1646	2167	2396	1990	1532	0	1097	1100	2519
Phoenix	1627	985	1135	1393	1493	2228	1443	840	1097	0	981	2276
Pierre	806	307	791	554	1122	1366	911	634	1100	981	0	1463
Providence	665	1310	1228	918	1046	178	912	1469	2519	2276	1463	0
Raleigh	570	1038	772	762	497	667	456	1059	2386	1899	1287	570
Richmond	513	1055	849	736	615	529	525	1122	2378	1958	1280	436
Sacramento	1950	1322	1634	1696	2013	2526	1902	1336	589	634	1161	2615
St. Paul	460	339	706	225	942	1007	691	695	1430	1284	359	1106
Salem	1914	1356	1763	1665	2140	2441	1978	1488	145	985	1112	2557
Salt Lake	1418	793	1146	1164	1527	1997	1390	862	698	506	637	2083
Santa Fe	1248	613	774	1018	1146	1848	1071	474	1173	382	668	1895
Springfield	340	378	377	227	546	927	296	524	1727	1314	632	962
Tallahassee	850	999	552	917	179	1149	421	841	2344	1638	1301	1064
Topeka	642	134	351	430	699	1241	526	267	1472	990	439	1286
Trenton	527	1150	1029	779	839	301	709	1280	2413	2099	1333	207
Wash'gt'n, D.C.	468	1051	890	706	688	436	567	1151	2352	1979	1258	358

DISTANCES BY WATER FROM BOSTON.

Amsterdam	3,721	Havana	1,629
Antwerp	3,693	Halifax	438
Aux Cayes	1,878	Hamburg	3,995
Baltimore	737	Liverpool	3,372
Bangor, Me	224	London	3,641
Barcelona	4,076	Mobile	2,173
Batavia	11,844	Montreal	1,436
Bath, Me	137	Norfolk	597
Belfast, Me	193	Philadelphia	547
Bermuda	792	Progreso	2,117
Bombay	9,206	Queenstown	3,106
Bordeaux	3,528	Rio de Janeiro	5,460
Brunswick, Ga	1,110	St. John, N. B.	329
Buenos Ayres	6,727	St. Johns's, N. F.	1,019
Calcutta	11,130	St. Thomas, W. I.	1,742
Cape Town, S. Afr.	7,723	San Juan, P. R.	1,711
Charleston, S. C.	973	Sandy Hook	287
Constantinople	5,582	Santiago	1,779
Copenhagen	4,317	Savannah	1,057
Galveston	2,437	Singapore	11,531
Gibraltar	3,487	Tampico	2,589
Glasgow	3,290	Vera Cruz	2,554

DISTANCES BY WATER FROM NORFOLK.

Algiers	4,358	Puerto Mexico	2,007
Baltimore	198	Quebec	1,745
Belize	1,731	Rio de Janeiro	5,439
Boston	597	Rotterdam	4,090
Key West	1,067	San Juan, P. R.	1,442
Liverpool	3,768	St. Thomas	1,492
Malta	5,012	Santa Marta	1,829
Marseilles	4,672	Savannah	575
New York	336	Vera Cruz	2,066
Philadelphia	299	Washington, D. C.	198
Port Said	6,088	Wilmington, N. C.	412

DISTANCES BY WATER FROM PHILADELPHIA.

Amsterdam	4,033	Liverpool	3,743
Antwerp	4,064	London	4,012
Bahia	4,763	Marseilles	4,650
Baltimore	109	Mobile	1,875
Barbados	2,118	Naples	4,981
Belize, Brit. Hond.	1,928	Norfolk	299
Bermuda	841	Pernambuco	4,313
Buenos Ayres	6,815	Port Castries	2,019
Cadiz	3,793	Trinidad	2,232
Charleston, S. C.	687	Puerto Cortez	2,003
Copenhagen	4,688	Rio de Janeiro	5,547
Curacao	2,026	St. Helena	5,952
Ft. de France	1,985	St. Vincent, C V. Is.	3,470
Genoa	4,840	San Juan, P. R.	1,606
Gibraltar	3,858	Sandy Hook	258
Glasgow	3,661	Santo Domingo	1,703
Havana	1,331	Savannah	772
Halifax	803	Tampico	2,296
Hamburg	4,365	Trieste	5,799
Havre	3,840	Vera Cruz	2,249
Jacksonville	876	Wilmington, N. C.	609
Key West	1,264		

DISTANCES BY WATER FROM BALTIMORE.

Amsterdam	4,521	Constantinople	6,113
Antwerp	4,229	Copenhagen	4,853
Bahia	4,794	Fayal	2,774
Barcelona	4,608	Genoa	5,002
Bermuda	896	Gibraltar	4,019
Bluefields	2,220	Havana	1,275
Buenos Aires	6,846	Halifax	1,049
Cape Haytien	1,413	Hamburg	4,530
Cartagena	2,050	Havre	4,005
Charleston	631	London	4,177
Colombo	10,237	Vera Cruz	2,065

AIR-LINE DISTANCES BETWEEN STATE CAPITALS—*Continued*

Capital.	Raleigh.	Richmond.	Sacramento.	St. Paul.	Salem.	Salt Lake.	Santa Fe.	Spr'g-field.	Tallahassee.	Topeka.	Trenton.	Washingt'n. D. C.
Albany	542	403	2486	975	2424	1954	1778	848	1025	1169	176	311
Annapolis	250	112	2399	945	2393	1869	1627	705	737	1028	125	29
Atlanta	355	470	2082	901	2180	1580	1229	509	230	726	693	543
Augusta	752	614	2663	1143	2571	2134	1986	1063	1242	1378	380	528
Austin	1168	1265	1465	1045	1703	1074	605	801	802	617	1461	1317
Baton Rouge	814	926	1805	1007	1990	1359	927	652	411	646	1142	993
Bismarck	1372	1349	1191	392	1074	693	813	739	1434	595	1373	1316
Boise	2051	2059	442	1144	350	295	771	1389	1966	1108	2122	2043
Boston	609	474	2625	1112	2559	2093	1914	982	1102	1305	243	393
Carson	2248	2276	101	1418	433	431	794	1599	2086	1288	2367	2273
Charleston	242	236	2139	746	2161	1612	1350	442	568	758	389	252
Cheyenne	1458	1478	900	647	954	370	381	802	1363	504	1568	1474
Columbia	133	317	2257	991	2334	1748	1414	622	311	884	552	405
Columbus	374	343	2045	618	2048	1515	1283	353	662	678	435	328
Concord	637	499	2590	1073	2515	2059	1893	964	1127	1284	265	412
Denver	1459	1489	887	705	986	371	284	813	1330	499	1592	1491
Des Moines	900	904	1482	233	1490	951	780	241	929	207	986	893
Dover	289	152	2446	984	2434	1915	1678	754	781	1078	84	82
Frankfort	382	408	1970	631	2007	1446	1174	280	537	586	559	428
Harrisburg	324	191	2359	884	2337	1827	1606	676	797	1001	112	97
Hartford	523	386	2552	1046	2499	2020	1830	897	1015	1221	153	303
Helena	1873	1864	732	918	541	402	815	1216	1853	976	1903	1838
Indianapolis	495	495	1882	503	1899	1353	1115	185	654	510	603	493
Jackson	703	807	1805	887	1958	1334	932	519	371	558	1016	868
Jefferson City	769	804	1577	442	1639	1057	784	159	719	192	934	817
Lansing	570	513	1950	460	1914	1418	1248	340	850	642	527	468
Lincoln	1038	1055	1322	339	1356	793	613	378	999	134	1150	1051
Little Rock	772	849	1634	706	1763	1146	774	377	552	351	1029	890
Madison	762	736	1696	225	1665	1164	1018	227	917	430	779	706
Montgomery	497	615	2013	942	2140	1527	1146	546	179	699	839	688
Montpelier	667	529	2526	1007	2441	1997	1848	927	1149	1241	301	436
Nashville	456	525	1902	691	1978	1390	1071	296	421	526	709	567
Oklahoma	1059	1122	1336	695	1488	862	474	524	841	267	1280	1151
Olympia	2386	2378	589	1430	145	698	1173	1727	2344	1472	2413	2352
Phoenix	1899	1958	634	1284	985	506	382	1314	1638	990	2099	1979
Pierre	1287	1280	1161	359	1112	637	668	632	1301	439	1333	1258
Providence	570	436	2615	1106	2557	2083	1895	962	1064	1286	207	358
Raleigh	0	139	2346	987	2389	1825	1527	662	493	960	372	233
Richmond	139	0	2375	959	2391	1848	1580	677	628	993	235	96
Sacramento	2346	2375	0	1520	447	532	878	1698	2176	1386	2468	2373
St. Paul	987	959	1520	0	1456	992	929	397	1111	428	985	924
Salem	2389	2391	447	1456	0	633	1100	1727	2315	1454	2440	2370
Salt Lake	1825	1848	532	992	633	0	476	1171	1698	866	1936	1843
Santa Fe	1527	1580	878	929	1100	476	0	933	1303	609	1718	1599
Springfield	662	677	1698	397	1727	1171	933	0	714	326	787	678
Tallahassee	493	628	2176	1111	2315	1698	1303	714	0	878	862	715
Topeka	960	993	1386	428	1454	866	609	326	878	0	1113	1001
Trenton	372	235	2468	985	2440	1936	1718	787	862	1113	0	151
Wash'gt'n, D.C.	233	96	2373	924	2370	1843	1599	678	715	1001	151	0

ALASKA DISTANCES.

(From the War Department's Official Table of Distances; statute miles.)

Fort Davis, to—*Cape Nome*, 4; *Dawson*, B. C., 1,725; *Dutch Harbor* (Unalaska), 757; *Ft. Egbert*, 1,594; *Ft. Gibbon*, 1,019; *Portland*, Ore., 2,928; *Rampart City*, 1,094; *San Francisco*, 3,700; *Seattle*, 2,745; *Ft. St. Michael*, 119; *Vancouver Barracks*, Wash., 2,918.

Fort Egbert, to—*Dawson*, B. C., 130; *Ft. Gibbon*, 575; *Seattle*, 1,811; *Skagway*, 695; *Ft. St. Michael*, 1,475; *Valdez*, 1,559.

Fort Liscum, to—*Dutch Harbor*, 935; *Fairbanks* (winter), 538; (summer), 2,412; *Juneau*, 752; *Portland*, Ore., 1,858; *Port Valdez*, 3; *Ft. St. Michael*, via Dutch Harbor, 1,741; *Seattle*, 1,675; *Seward*, 168; *Skagway*, 867; *Vancouver Barracks*, 1,848; *Ft. Seward*, 847.

Fort St. Michael, to—*Anvil City*, 115; *Barr's Harbor*, 310; *Boundary*, 1,500; *Cape Nome*, 115; *Cape York*, 221; *Cape Topok*, 102; *Circle City*, 1,330; *Dawson*, B. C., 1,605; *Dutch Harbor*, 806; *Eagle City*, 1,475; *Fairbanks*, 1,134; *Ft. Yukon*, 1,255; *Ft. Gibbon*, 900; *Kaltag*, 625; *King Is.*, 219; *Kokrines*, 800; *Koserefski*, 410; *Koyukuk*, 700; *Porcupine River's Mouth*, 1,245; *Nome*, 115; *Port Clarence*, 232; *Port Hamilton*, 1,035; *Postoltk* (mouth of Yukon River), 65; *Rampart City*, 975; *Rapids*, 935; *Russian Mission*, 320; *Seattle*, via Dutch Harbor, 2,794; *Selkirk*, B. C., 1,781; *Skaguay*, 2,170; *Tanana River* (mouth of), 900; *White Horse*, B. C., 2,058; *White River*, B. C., 1,686.

Skagway, to—*Bennett*, B. C., 41; *Cape Nome*, via Dawson, 2,285; *Circle City*, 840; *Ft. Davis*, via Dawson, 2,289; *Dawson*, 565; *Dutch Harbor*, via Valdez, 1,796; *Eagle City*, 695; *Ft. Selkirk*, B. C., 383; *Ft. Yukon*, 915; *Ft. Gibbon*, 1,270; *Juneau*, 115; *Ft. Liscum*, 867; *Portland*, Ore., 1,299; *Port Townsend*, *Wash.*, 1,068; *Rampart City*, 1,195; *Ft. St. Michael*, via Dawson, 2,170; *San Francisco*, 2,071; *Seattle*, 1,116; *Sitka*, 219; *Valdez*, 864; *Vancouver Barracks*, 1,289; *Ft. Seward*, 20; *White Horse*, B. C., 111; *Wrangell*, 365.

PORTO RICAN DISTANCES (STATUTE MILES).

Ponce, to—*Aguadilla*, 84; *Arecibo*, 122; *Arroyo*, 48; *Bayamon*, 163; *Cayey*, 43; *Coamo*, 20; *Nayaguez*, 54; *San Juan*, by rail, 175; by land, 81; by water, 149; *Santurce*, 78; *Vieques*, 92; *Yauco*, 21.

San Juan, to—*Aguadilla*, 91; *Aibonito*, 51; *Arecibo*, 53; *Arroyo*, 58; *Bayamon*, 7; *Caguas*, 24; *Camuy*, 62; *Carolina*, 14; *Cayey*, 38; *Coamo*, 61; *Faiardo*, 40; *Humacoa*, 43; *Lares*, 78; *Las Marias*, 118; *Manati*, 36; *Mayaguez*, 121; *New York City*, 1,559; *Rio Pedras*, 7; *St. Thomas*, W. I., 83; *San German*, 133; *Utuardo*, 73; *Vieques*, 57; *Yauco*, 154.

CUBAN DISTANCES (STATUTE MILES).

Santiago de Cuba, to—*Baracoa*, 167; *Batabano*, 576; *Cape Mayst*, 136; *Cienfuegos*, 399; *Guantanamo*, 69; *Havana*, 532; *Key West*, Fla., 636; *Kingston*, Jamaica, 198; *Manzanillo*, 198; *New York City*, 1,512; *Nuevitas*, 240; *Siboney*, 12.

DISTANCES IN THE PANAMA CANAL ZONE.

Colon, to—*Amador, Ft.*, 48; *Ancon*, 47; *Balboa*, 46; *Bas Obispo*, 50; *Bohio*, 18; *Caimito*, 26; *Corozal*, 44; *Culebra*, 45; *Darien*, 25; *Gamboa*, 30; *Gatun*, 7; *Gold Hill*, 36; *Las Cascadas*, 48; *Miraflores Lock*, 42; *New Culebra*, 35; *New Gatun*, 6; *Panama*, 48; *Paraiso*, 41; *Quebrancha*, 12; *Summit*, 44.

AUTOMOBILE TOURING DISTANCES IN THE UNITED STATES AND CANADA.

(Compiled and Published by the American Automobile Association, Washington, D. C.)

NEW YORK—SAN FRANCISCO.

Miles.		*Miles.*
0	New York, N. Y.	3,265
14	Newark, N. J.	3,251
65	Trenton, N. J.	3,200
96	Philadelphia, Pa.	3,169
160	Lancaster	3,105
184	York	3,081
213	Gettysburg	3,052
259	McConnellsburg	3,006
293	Bedford	2,972
360	Greensburg	2,905
392	Pittsburgh	2,873
424	Rochester, Pa.	2,841
442	East Palestine, Ohio	2,823
462	Salem	2,803
476	Alliance	2,789
495	Canton	2,770
503	Massillon	2,762
525	Wooster	2,740
557	Mansfield	2,708
572	Galion	2,693
595	Marion	2,670
622	Kenton	2,643
648	Lima	2,617
679	Van Wert, Ohio	2,586
713	Fort Wayne, Ind.	2,552
787	Plymouth	2,478
838	Valparaiso, Ind.	2,427
863	Dyer, Ind.	2,402
871	Chicago Heights, Ill.	2,394
894	Joliet	2,371
916	Aurora	2,349
925	Geneva	2,340
966	Rochelle	2,299
993	Dixon	2,272
1,007	Sterling	2,258
1,033	Fulton, Ill.	2,232
1,036	Clinton, Iowa	2,229
1,119	Cedar Rapids	2,146
1,197	Marshalltown	2,068
1,234	Ames	2,031
1,279	Jefferson	1,986
1,406	Council Bluffs, Iowa	1,859
1,411	Omaha, Neb.	1,854
1,480	Lincoln	1,785
1,589	Hastings	1,676
1,639	Kearney	1,626
1,749	North Platte	1,516
1,825	Big Spring, Neb.	1,440
1,886	Sidney, Neb.	1,379
1,983	Cheyenne, Wyo.	1,282
2,035	Laramie	1,230
2,155	Rawlins	1,110
2,282	Green River	983
2,381	Evanston, Wyo.	884
2,464	Salt Lake City, Utah	801
2,659	Wells, Nev.	606
2,711	Elko	554
2,849	Winnemucca	416
2,983	Wadsworth	282
3,017	Reno	248
3,051	Truckee, Calif.	214
3,128	Auburn	137
3,164	Sacramento	101
3,233	Vallejo	32
3,263	Oakland	2
3,265	San Francisco	0

NEW YORK—ERIE.

Miles.		*Miles.*
0	New York, N. Y.	450
5	Jersey City, N. J.	445
15	Montclair	435
46	Netcong	404
55	Hackettstown, N. J.	395
82	Del. Water Gap, Pa.	368
85	Stroudsburg	365
101	Mt. Pocono	349
133	Scranton	317
153	Osterhout	297
199	Towanda	251
222	Troy	228
239	Mansfield	211
254	Wellsboro	196
277	Galeton	173
297	Coudersport	153
314	Port Allegheny	136
331	Smethport	119
345	Mt. Jewett	105
357	Kane	93
384	Warren	66
415	Corry	35
426	Union City	24
450	Erie	0

WASH'GT'N—LOS ANGELES.

Miles.		*Miles.*
0	Washington, D. C.	2,993
43	Frederick, Md.	2,950
0	Baltimore, Md.	2,996
46	Frederick	2,950
70	Hagerstown	2,923
135	Cumberland, Md.	2,858
197	Uniontown, Pa.	2,766
234	Washington, Pa.	2,759
265	Wheeling, W. Va.	2,728
314	Cambridge, Ohio	2,679
334	Zanesville	2,655
392	Columbus	2,601
436	Springfield	2,557
462	Dayton	2,531
487	Eaton, Ohio	2,506
503	Richmond, Ind.	2,490
569	Indianapolis	2,424
640	Terre Haute, Ind.	2,353
656	Marshall, Ill.	2,337
706	Effingham	2,287
739	Vandalia	2,254
798	Collinsville	2,195
808	E. St. Louis, Ill.	2,185
813	St. Louis, Mo.	2,180
832	St. Charles	2,161
937	Columbia	2,056
964	Boonville	2,029
1,075	Kansas City, Mo.	1,918
1,122	Lawrence	1,871
1,149	Topeka	1,844
1,212	Manhattan	1,781
1,232	Junction City	1,761
1,282	Salina	1,711
1,318	McPherson	1,675
1,382	Great Bend	1,611
1,470	Dodge City	1,523
1,523	Garden City, Kans.	1,470
1,634	Lamar, Colo.	1,359
1,694	La Junta	1,299
1,783	Trinidad, Colo.	1,210
1,807	Raton, N. M.	1,186
1,924	Las Vegas	1,069
1,994	Santa Fe	999
2,061	Albuquerque	932
2,085	Los Lunas	908
2,236	Gallup, N. M.	757
2,380	Holbrook, Ariz.	613
2,484	Maine	509
2,499	Williams	494
2,519	Ash Fork	474
2,624	Kingman, Ariz.	369
2,694	Needles, Calif.	299
2,846	Daggett	147
2,855	Barstow	138
2,891	Victorville	102
2,933	San Bernardino	60
2,983	Pasadena	10
2,993	Los Angeles	0

BUFFALO—WASHINGTON.

Miles.		*Miles.*
0	Buffalo, N. Y.	417
20	East Aurora	397
47	Warsaw	370
81	Dansville	336
112	Bath	305
131	Painted Post, N. Y.	286
159	Mansfield, Pa.	258
209	Williamsport	208
222	Muncy	195
236	Milton	181
247	Northumberland	170
255	Selins Grove	162
303	Harrisburg	114
340	Gettysburg, Pa.	77
350	Emmitsburg, Md.	67
374	Frederick	43
402	Rockville, Md.	15
417	Washington, D. C.	0

MONTREAL—BOSTON.

Miles.		*Miles.*
0	Montreal, P. Q.	372
51	Philipsburg, P. Q.	321
98	Burlington, Vt.	274
137	Montpelier	235
174	St. Johnsbury, Vt.	198
205	White Mountains, N. H.	167
250	Plymouth	122
168	Bristol	104
281	Franklin	91
299	Concord	73
317	Manchester, N. H.	55
345	Lawrence, Mass.	27
372	Boston, Mass.	0

FLORIDA—SAN DIEGO

Miles.		*Miles.*
0	Jacksonville, Fla.	2,799
61	Lake City	2,738
114	Madison	2,685
143	Monticello	2,656
173	Tallahassee	2,626
246	Marianna	2,553
306	De Funiak Springs	2,493
381	Pensacola, Fla.	2,418
432	Mobile, Ala.	2,367
472	Pascagoula, Miss.	2,327
499	Biloxi	2,300
512	Gulfport	2,287
520	Pass Christian	2,279
565	Slidell, Miss.	2,234
604	New Orleans, La.	2,195
661	Houma	2,138
700	Morgan City	2,099
757	New Iberia	2,042
778	La Fayette	2,021
803	Crowley	1,996
859	Lake Charles, La.	1,940
899	Orange, Texas	1,900
922	Beaumont	1,877
969	Liberty	1,830
1,013	Houston	1,786
1,069	Rosenberg	1,730
1,102	Columbus	1,697
1,128	Schulenberg	1,671
1,172	Gonzales	1,627
1,208	Seguin	1,591
1,248	San Antonio	1,551
1,282	Boerne	1,517
1,322	Kerrville	1,477
1,380	Junction	1,419
1,445	Sonora	1,354
1,484	Ozona	1,315
1,600	Ft. Stockton	1,199
1,655	Balmorhea	1,144
1,735	Van Horn	1,064
1,769	Sierra Blanca	1,030
1,846	Ysleta	953
1,859	El Paso, Texas	940
1,900	Mesilla Park, N. M.	899
1,968	Deming	831
2,031	Lordsburg, N. M.	768
2,092	Apache, Ariz.	707
2,133	Douglas	666
2,158	Bisbee	641
2,184	Tombstone	615
2,264	Tucson	535
2,334	Florence	465
2,371	Apache Junction	428
2,394	Tempe	405
2,403	Phoenix	396
2,485	Gila Bend	314
2,612	Yuma, Ariz.	187
2,663	Holtville, Calif.	136
2,674	El Centro	125
2,788	La Mesa	11
2,799	San Diego	0

BUFFALO—NEW YORK.

Miles.		*Miles.*
0	Buffalo, N. Y.	398
21	East Aurora	377
38	Varysburg	360
48	Warsaw	350
61	Leicester	337
66	Mt. Morris	332
81	Dansville	317
88	Wayland	310
113	Bath	285
131	Painted Post	267
134	Corning	264
152	Elmira	246
168	Waverly	230
187	Owego	211
209	Binghamton	189
225	Windsor	173
240	Deposit	158
254	Hancock	144
281	Roscoe	117
297	Liberty	101
309	Monticello	89
326	Bloomingburg	72
334	Middletown	64
342	Goshen	56
355	Harriman	43
363	Tuxedo	35
370	Suffern, N. Y.	28
373	Ramsey, N. J.	25
378	Hohokus	11
384	Arcola	14
387	Hackensack	11
392	Ridgefield, N. J.	6
398	New York	0

BOSTON—PORTLAND, ORE.

Miles.		*Miles.*
0	Boston	3,813
44	Worcester	3,769
94	Springfield	3,719
104	Westfield	3,709
151	Pittsfield	3,662
187	Albany, N. Y.	3,626
324	Syracuse	3,489
350	Auburn	3,463
364	Seneca Falls	3,449
375	Geneva	3,438
391	Canandaigua	3,422
441	Batavia	3,372
479	Buffalo	3,334
539	Westfield, N. Y.	3,274
569	Erie, Pa.	3,244
612	Ashtabula, O.	3,201
668	Cleveland	3,145
725	Sandusky	3,088
784	Toledo	3,029
845	Bryan, Ohio	2,968
935	Elkhart, Ind.	2,878
950	South Bend	2,863
985	Michigan City	2,828
1,009	Gary, Ind.	2,804
1,039	Chicago, Ill.	2,774
1,079	Elgin	2,734
1,128	Rockford	2,685
1,153	Freeport, Ill.	2,660
1,318	Dubuque, Iowa	2,495
1,415	Waterloo	2,398
1,465	Charles City	2,348
1,497	Mason City	2,316
1,606	Spencer	2,207
1,629	Spirit Lake, Iowa	2,184
1,726	Sioux Falls, S. D.	2,087
1,802	Mitchell	2,011
1,878	Chamberlain	1,935
2,124	Rapid City	1,689
2,172	Custer	1,641
2,206	Hot Springs, S. D.	1,607
2,315	Lusk, Wyo.	1,498
2,364	Douglas	1,449
2,418	Casper	1,395
2,522	Shoshoni	1,291
2,576	Lander	1,237
2,755	Yellowstone Park (South Entrance.)	1,057
2,820	Yellowstone Park (West Entrance.)	980
2,915	St. Anthony, Idaho	885
2,944	Idaho Falls	856
2,999	Pocatello	801
3,133	Twin Falls	667
3,281	Boise	519
3,381	Welser	419
3,450	Baker, Idaho	350
3,560	Pendleton, Ore.	240
3,699	The Dallas	101
3,730	Hood River	70
3,800	Portland, Ore.	0

NEW YORK—JACKSONVILLE.

Miles.		*Miles.*
0	New York	1,406
9	Newark	1,344
14	Elizabeth	1,282
29	Plainfield	1,234
40	Somerville	1,152
74	Easton	1,119
91	Allentown	1,024
127	Reading	962
180	Harrisburg	882
230	Chambersburg	774
251	Hagerstown	640
293	Winchester	569
345	New Market	478
388	Staunton	424
424	Lexington	388
478	Roanoke	345
640	Bristol	251
774	Asheville	230
882	Murphy	180
962	Gainesville	127
1,024	Atlanta	91
1,119	Macon	74
1,152	Perry	40
1,282	Valdosta	14
1,344	Lake City	9
1,406	Jacksonville	0

BOSTON—SEATTLE.

Miles.		*Miles.*
0	Boston	3,439
18	Concord	3,421
47	Fitchburg	3,392
59	Gardner	3,380
98	Greenfield	3,341
136	Williamstown, Mass.	3,298
141	North Adams	3,303
181	Troy, N. Y.	3,258
195	Schenectady	3,244
211	Amsterdam	3,228
271	Utica	3,168
293	Oneida—(Outskirts)	3,146
321	Syracuse	3,118
408	Rochester	3,031
494	Niagara Falls, N. Y.	2,945
508	St. Catherines, Ont.	2,931
544	Hamilton	2,895
623	London	2,816
692	Chatham	2,747
747	Windsor, Ont.	2,692
748	Detroit, Mich.	2,691
779	Ypsilanti	2,660
858	Coldwater, Mich.	2,581
918	Elkhart, Ind.	2,521
934	South Bend	2,505
970	Michigan City	2,469
994	Gary, Ind.	2,445
1,023	Chicago, Ill.	2,416
1,065	Waukegan, Ill.	2,374
1,082	Kenosha, Wis.	2,357
1,092	Racine	2,347
1,120	Milwaukee	2,319
1,188	Fond Du Lac	2,251
1,206	Oshkosh	2,233
1,293	WisconsinRapids	2,146
1,351	Abbotsford	2,088
1,419	Eau Claire, Wis.	2,020
1,508	St. Paul, Minn.	1,931
1,517	Minneapolis	1,922
1,619	Olivia	1,820
1,723	Ortonville, Minn.	1,716
1,844	Aberdeen, S. D.	1,595
1,947	Mobridge	1,492
2,065	Lemmon, S. D.	1,374
2,132	Buffalo Springs, N. D.	1,307
2,172	Marmarth, N. D.	1,267
2,214	Baker, Mont.	1,225
2,262	Fallon	1,177
2,315	Miles City	1,124
2,362	Forsyth	1,077
2,471	Billings	968
2,601	Livingston	838
2,630	Bozeman	809
2,740	Butte	699
2,782	Deer Lodge	657
2,796	Garrison	643
2,874	Missoula, Mont.	565
3,004	Wallace, Idaho	435
3,060	Coer D'Alene, Idaho	379
3,096	Spokane, Wash.	343
3,132	Davenport	307
3,177	Almira	262
3,242	Waterville	197
3,269	Wenatchee	170
3,337	Cle Elum	102
3,404	Fall City	35
3,439	Seattle	0

NORFOLK—ATLANTA.

Miles.		*Miles.*
670	Norfolk	0
596	Franklin	44
528	Murfreesboro	65
491	Weldon	98
474	Rocky Mount	138
446	Wilson	156
414	Smithfield	188
369	Dunn	211
328	Fayetteville	237
270	Lumberton	270
237	Florence	328
211	Sumter	369
188	Columbia	414
156	Batesburg	446
138	Aiken	474
98	Augusta	491
65	Thomson	528
44	Athens	596
0	Atlanta	670

NEW YORK—JACKSONVILLE.

Miles		*Miles.*
0	New York	1,079
9	Newark	1,001
14	Elizabeth	974
32	New Brunswick	954
58	Trenton	890
90	Philadelphia	815
194	Baltimore	798
234	Washington	738
291	Fredericksburg	704
350	Richmond	646
373	Petersburg	623
433	South Hill	566
520	Raleigh	460
566	Sanford	433
623	Rockingham	373
704	Camden	291
738	Columbia	234
798	Aiken	194
815	Augusta	90
890	Swainsboro	58
954	Baxley	32
974	Alma	14
1,001	Waycross	9
1,079	Jacksonville	0

The autoist from New York City bound for Jacksonville can, when he reaches Petersburg, proceed thence by way of Emporia, Weldon, Rocky Mount, Wilson, Smithfield, Fayettesville, Lumberton, Dillon, Florence, Charleston, Savannah, and Brunswick.

NEW YORK—JACKSONVILLE.

Miles.		*Miles.*
0	New York	1,241
9	Newark	1,151
14	Elizabeth	1,071
32	New Brunswick	940
47	Princeton	828
58	Trenton	759
90	Philadelphia	700
117	Wilmington	609
138	Elkton	575
191	Baltimore	489
231	Washington	446
288	Fredericksburg	412
412	Lee Hall	288
446	Norfolk	231
489	Elizabeth City	191
575	Washington	138
609	New Bern	117
700	Wilmington	90
759	Chadbourn	58
828	Florence	47
940	Charleston	32
1,071	Savannah	14
1,151	Brunswick	9
1,241	Jacksonville	0

QUEBEC—PORTLAND.

Miles.		*Miles*
0	Quebec P. Q.	268
1	Levis	267
11	St. Henri	257
52	Beauceville	216
80	Armstrong P. Q.	188
106	Moose River, Me.	162
108	Jackman	160
119	Lake Parlin	149
158	Bingham	110
181	Skowhegan	87
199	Waterville	69
218	Augusta	50
225	Gardiner	43
242	Brunswick	26
268	Portland, Me.	0

WILMINGTON—NORFOLK.
(via Del.—Md. Peninsula).

Miles.		*Miles.*
0	Wilmington	201
45	Dover	201
101	Salisbury	129
129	Pocomoke	101
201	Cape Charles	45
201	Norfolk	0

(Cape Charles to Norfolk by ferry.)

THE OLD OAKEN BUCKET

On a hot and dusty auto trip a drink of cool water from the old-oaken-bucket type of well looks attractive, but from a sanitary viewpoint such open and exposed water supplies are the ones to be shunned.

Investigation of these kinds of water supplies for the primary purpose of protecting automobile tourists was started in Ohio a number of years ago, when a "Seal of Safety" campaign was inaugurated.

Water supplies readily accessible to travelers on the main highways were examined, and those found or made satisfactory had attached to them a seal called "The Seal of Safety."

Since that time many other States have initiated this work, and now some device indicating suitable drinking water supplies may be found attached to pumps along most of the principal highways of the country.

AUTO TOURING MILEAGE IN EAST AND SOUTH

(Data compiled by The American Automobile Association)

City.	Albany	Atlantic City	Baltimore	Bangor	Boston	Buffalo	Charleston	Chicago	Cincinnati	Cleveland	Columbus	Dayton	Detroit	Erie, Pa.	Evansville
Albany, N. Y.	0	280	356	421	183	292	752	848	776	497	666	735	563	397	1034
Atlantic City	280	0	141	604	355	442	569	855	674	458	564	633	619	460	933
Baltimore	356	141	0	679	429	443	428	719	527	373	417	486	538	393	785
Bangor, Me.	421	604	679	0	250	713	1040	1269	1197	918	1087	1156	1094	973	1454
Boston	183	355	429	250	0	475	790	1031	947	668	837	906	844	565	1204
Buffalo	292	442	443	713	475	0	489	558	445	189	335	404	277	89	703
Charleston, W. Va.	752	569	428	1040	790	489	0	518	200	300	189	219	386	400	408
Chicago	848	855	719	1269	1031	558	518	0	318	367	331	291	285	466	301
Cincinnati	776	674	527	1197	947	445	200	318	0	256	110	51	260	355	269
Cleveland	497	458	373	918	668	189	300	367	256	0	146	215	179	100	508
Columbus, O.	666	564	417	1087	837	335	189	331	110	146	0	69	197	246	379
Dayton	735	633	486	1156	906	404	219	291	51	215	69	0	155	315	299
Detroit	563	619	538	1094	844	277	386	285	260	179	197	155	0	279	480
Erie	397	460	393	973	565	89	400	466	355	100	246	315	279	0	608
Evansville, Ind.	1034	933	785	1454	1204	703	408	301	269	508	379	299	480	608	0

City.	Ft. Wayne, Ind.	Gettysburg, Pa.	Grand Rapids	Hagerstown, Md.	Harrisburg, Pa.	Huntington, W. Va.	Indianapolis	LakeGeorge, N. Y.	Lexington, Ky.	Louisville	Mackinaw City	Montreal	New Haven	New York	Norfolk, Va.
Albany, N. Y.	712	326	680	360	290	802	845	67	858	917	850	263	129	146	593
Atlantic City	688	178	737	217	158	619	744	347	756	816	931	543	197	123	271
Baltimore	551	52	656	72	75	478	596	423	619	668	850	619	271	198	238
Bangor, Me.	1211	699	1065	732	662	1157	1266	543	1279	1338	1078	348	407	481	809
Boston	961	451	863	485	415	907	1016	250	1029	1088	1033	375	157	231	559
Buffalo	413	368	394	353	368	489	514	360	527	586	704	470	421	399	610
Charleston, W. Va.	343	408	509	369	444	50	310	819	196	274	697	959	633	559	446
Chicago	167	667	187	646	708	468	207	915	405	327	452	885	980	906	927
Cincinnati	162	517	328	457	517	150	110	843	82	142	550	915	672	598	646
Cleveland	227	321	298	300	339	300	319	564	338	398	490	659	595	521	566
Columbus, O.	164	407	324	347	407	139	180	733	192	253	509	805	532	488	635
Dayton	224	476	290	416	476	169	110	802	133	93	508	874	601	557	665
Detroit	168	486	151	465	504	335	291	630	342	402	310	600	774	700	730
Erie	327	340	398	325	340	400	419	464	438	498	590	559	543	469	492
Evansville	314	744	460	723	785	358	189	100	213	135	705	1173	941	867	854

City.	Philadelphia	Pittsburgh	Portland, Me.	Providence	Quebec, Can.	Richmond	Rochester, Pa.	Scranton	Springfield, Mass.	St. Louis	Syracuse, N. Y.	Toledo, O.	Toronto, Can.	Washington D. C.	White Mountains
Albany, N. Y.	252	480	285	174	443	505	224	190	93	1092	137	595	403	397	228
Atlantic City	61	378	468	312	723	290	391	188	261	991	324	560	560	182	463
Baltimore	102	231	543	387	799	149	338	220	335	843	356	478	566	41	537
Bangor	576	901	143	292	245	828	645	615	344	1513	558	1034	701	720	208
Boston	326	651	113	42	422	578	407	375	94	1263	320	784	586	470	168
Buffalo, N. Y.	382	243	588	467	649	521	69	255	385	761	155	305	117	413	537
Charleston, W. Va.	530	279	904	748	1139	358	559	577	697	551	713	326	606	387	899
Chicago	805	488	1133	1023	1065	838	627	793	941	308	713	253	531	716	1076
Cincinnati	614	296	861	787	1095	558	514	586	736	357	598	200	562	524	1004
Cleveland	436	137	782	671	839	477	259	404	590	566	344	119	306	369	725
Columbus, O.	504	186	751	677	985	547	404	476	626	427	488	138	452	414	894
Dayton	573	255	820	746	1054	577	473	545	695	357	557	207	521	483	963
Detroit	601	302	848	737	780	642	342	581	656	638	426	60	247	534	791
Erie	437	154	682	571	739	403	159	325	490	606	244	219	206	395	625
Evansville	887	565	1319	1208	1353	765	772	855	1127	195	897	422	820	793	1262

Motorists who wish to spend longer than 90 days in Canada must deposit $25 and sign a bond in approved form for double the amount of the estimated duties on the vehicle, or secure a special bond of an incorporated guarantee company authorized to do business in Canada.

American customs regulations do not require registration of automobiles owned in the United States entering Canada. Returning to the United States, the tourists' State registration card is accepted as establishing American ownership and origin of the car.

AUTO TOURING MILEAGE IN EAST AND SOUTH *(Continued)*

City.	Fort Wayne, Ind.	Gettysburg, Pa.	Grand Rapids	Hagerstown, Pa.	Harrisburg, Pa.	Huntington, W. Va.	Indianapolis	LakeGeorge N. Y.	Lexington, Ky.	Louisville,	Mackinaw City	Montreal, Can.	New Haven	New York	Norfolk, Va.
Fort Wayne, Ind.	0	499	166	478	540	301	124	779	244	244	411	768	726	652	790
Gettysburg, Pa.	499	0	602	38	36	458	543	393	604	682	788	588	284	210	274
Grand Rapids, Mich.	166	602	0	581	641	459	257	747	410	377	270	716	797	723	956
Hagerstown, Md.	478	38	581	0	70	419	526	427	178	644	771	627	322	248	267
Harrisburg, Pa.	540	36	641	70	0	494	579	357	640	718	833	552	248	174	310
Huntington, W. Va.	301	458	459	419	494	0	260	869	146	78	632	1009	683	609	496
Indianapolis	124	543	257	526	579	260	0	871	325	247	516	984	711	667	775
Lake George, N. Y.	779	393	747	427	357	869	871	0	925	1003	1064	196	196	213	552
Lexington, Ky.	244	604	410	178	640	146	325	925	0	78	632	997	829	755	642
Louisville, Ky.	244	682	377	644	718	78	247	1003	78	0	692	1067	814	740	720
Mackinaw City	411	788	270	771	833	632	516	1064	632	692	0	730	1125	1103	1038
Montreal	768	588	716	627	552	1009	984	196	997	1067	730	0	392	410	857
New Haven	726	284	797	322	248	683	711	196	829	814	1125	392	0	74	402
New York	652	210	723	248	174	609	667	213	755	740	1103	410	74	0	328
Norfolk, Va.	790	274	956	267	310	496	775	552	642	720	1138	857	402	328	0

City.	Philadelphia	Pittsburgh	Portland, Me.	Providence, R. I.	Quebec, Can.	Richmond, Va.	Rochester, N. Y.	Scranton, Pa.	Springfield, Mass.	St. Louis	Syracuse, N. Y.	Toledo, O.	Toronto, Can.	Washington D. C.	White Mountains
Fort Wayne, Ind.	637	620	1074	887	948	701	486	640	805	371	571	108	415	548	940
Gettysburg, Pa.	117	179	564	409	768	186	300	170	348	791	306	417	485	78	619
Grand Rapids, Mich.	747	421	976	854	896	867	460	711	773	504	547	179	363	651	908
Hagerstown, Md.	156	158	602	447	806	178	334	208	386	770	340	455	523	70	657
Harrisburg, Pa.	97	220	528	373	732	222	264	134	312	827	270	453	584	115	583
Huntington, W. Va.	580	329	954	798	1189	408	609	627	747	501	763	277	656	437	949
Indianapolis	683	365	930	856	1164	668	583	655	805	247	667	232	631	593	1073
Lake George, N. Y.	319	547	275	230	376	572	256	257	148	1159	169	662	437	464	180
Lexington, Ky.	726	475	1100	944	1177	554	755	596	1023	355	682	282	644	583	1086
Louisville, Ky.	756	438	1003	929	1237	632	656	728	878	277	740	342	704	661	1146
Mackinaw City, Mich.	930	613	1014	1171	910	956	722	959	1089	763	807	371	630	847	912
Montreal, Can.	515	713	284	437	180	769	316	390	356	1231	253	660	353	660	182
New Haven, Conn.	170	506	270	115	480	420	353	216	64	958	266	714	538	312	266
New York	96	402	344	190	554	347	332	145	138	640	264	914	516	238	340
Norfolk, Va.	233	445	672	517	882	109	575	360	466	997	497	670	727	197	668

City.	Ft. Wayne, Ind.	Gettysburg, Pa.	Grand Rapids, Mich.	Hagerstown Md.	Harrisburg, Pa.	Huntington, W. Va.	Indianapolis	LakeGeorge N. Y.	Lexington, Ky.	Louisville, Ky.	Mackinaw City	Montreal, Can.	New Haven	New York	Norfolk, Va.
Philadelphia	637	117	747	156	97	580	683	319	726	756	930	515	170	96	233
Pittsburg, Pa.	320	179	421	158	220	329	365	547	475	438	613	713	506	402	445
Portland, Me.	1074	564	976	602	528	954	930	275	1100	1003	1014	284	270	344	672
Providence, R. I.	887	409	854	447	373	798	856	230	944	929	1171	437	115	190	517
Quebec, Can.	948	768	896	806	732	1189	1164	376	1177	1237	910	180	480	554	882
Richmond, Va.	701	186	867	178	222	408	668	572	554	632	956	769	420	347	109
Rochester, N. Y.	486	300	460	334	264	609	583	256	755	656	722	316	353	332	575
Scranton, Pa.	640	170	711	208	134	627	655	257	596	728	959	390	216	145	360
Springfield, Mass.	805	348	773	386	312	747	805	148	1023	878	1089	356	64	138	466
St. Louis	371	791	504	829	770	501	247	1159	355	277	763	1231	958	640	997
Syracuse, N. Y.	571	306	547	340	270	763	667	169	682	740	807	253	266	264	497
Toledo, O.	108	417	179	455	453	277	232	662	282	342	371	660	714	914	670
Toronto, Can.	415	485	363	523	485	656	631	437	644	704	630	353	538	516	727
Washington, D. C.	548	78	651	70	115	437	593	464	583	661	847	660	312	238	197
White Mountains	940	619	908	657	583	949	1073	180	1086	1146	912	182	266	340	668

VELOCITY OF SOUND.

"How far away was that flash of lightning?" is a common question. The answer is that sound travels through hot summer air (100°) at 1,266 feet a second. In zero weather sound flies through dry air at 1,088 to 1,150 feet a second.

Speed of sound (feet per second) in other mediums—ice-cold vapor, 4,708; vapor at 60 degrees, 5,657; ice-cold water, 4,938; granite, 12,960; iron (hot), 15,480 to 17,390; steel, cast, 16,360; wood (oak), 12,620; brick, 11,980; glass, 16,410 to 19,690; clay rock, 11,420; gold, 5,717 to 6,890; silver, 8,658.

AUTO TOURING DISTANCES (*Continued*)

City.	Philadelphia	Pittsburgh, Pa.	Portland, Me.	Providence, R. I.	Quebec, Can.	Richmond, Va.	Rochester, N. Y.	Scranton, Pa.	Springfield, Mass	St. Louis, Mo.	Syracuse, N. Y.	Toledo, O.	Toronto, Can.	Washington D. C.	White Mountains
Philadelphia, Pa.	0	317	440	286	649	251	331	127	234	930	264	541	499	143	436
Pittsburgh, Pa.	317	0	646	492	893	350	313	290	540	612	398	241	360	256	742
Portland, Me.	440	646	0	156	357	691	509	488	201	1376	422	880	637	583	102
Providence, R. I.	286	492	156	0	471	693	398	262	82	1103	113	769	577	428	226
Quebec, Can.	649	893	357	471	0	948	496	570	416	1411	433	840	533	840	255
Richmond, Va.	251	350	691	692	948	0	487	370	485	909	529	591	638	108	687
Rochester, N. Y.	331	313	509	398	496	487	0	204	317	830	87	378	180	378	452
Scranton, Pa.	127	290	488	262	570	370	204	0	250	802	137	523	372	261	452
Springfield, Mass.	234	540	201	82	416	485	317	250	0	1052	230	688	496	376	202
St. Louis, Mo.	930	612	1376	1103	1411	909	830	802	1052	0	910	479	885	840	1320
Syracuse, N. Y.	264	398	422	311	433	529	87	137	230	910	0	463	263	420	365
Toledo, O.	541	241	880	769	840	591	378	523	688	479	463	0	307	497	844
Toronto, Can.	499	360	637	577	533	638	180	372	496	885	263	307	0	530	535
Washington, D. C.	143	256	583	428	840	108	378	261	376	840	420	497	530	0	578
White Mountains	436	742	102	226	255	687	452	452	202	1320	365	844	535	578	0

The distances in all of the auto touring routes are subject to slight variations on account of detours.

THE PARIS OF THE ROMANS.

(By George Slocombe in the New York Herald Tribune.)

The city which of all modern cities most frequently has been compared to the Babylon of the ancients is almost the youngest of the capitals of the Old World.

While the Greeks and the Egyptians were still marveling at the monuments bequeathed to them by a remote and magnificent antiquity the southern coast of Gaul lay bare indeed to the greedy gaze and ravishing hand of the Phoenicians. The ruddy coast, bathed by the familiar blue waters of that inland sea which washed the shores of all the charted world, tempted them to land, and land they did, from their dark galleys.

Their swarthy skins, their flashing eyes, may yet be identified in the people of the coast between Marseilles and Nice. But behind the smiling hills lay all Gaul, a land hidden with dark forests, a dim and murmurous unknown. And the adventure of piercing those secret places, of subduing the wild races that inhabited them, the Phoenicians left to the Romans. The traders retreated before a peril that the soldiers braved.

When Marseilles had long been a Roman city, and before it a Phoenician city, the Paris that the Romans later knew as Lutetia was but at most a collection of fishermen's huts near a ford on the Seine.

Provence was already a thriving colony of traders and cultivators, whose crops of wheat and oil and wine went annually by galley across the smooth and treacherous sea to Rome, or were stored in secret places, in silo or earthen jar, along the important new lines of communication rapidly extending northward along the Rhone, and northwestward along the Loire to Brittany.

In the shadow of the beautiful old castle of Amboise, in Touraine, a wine merchant will still show you the enormous brick-lined silos cut out of the rocky hill by the first Roman garrison.

They were entered from above, and the narrow aperture of each bottle-shaped granary was sealed and hidden in the paved floor of the fortress. The silos have served various and strange purposes in the twenty centuries since they were first constructed by a prudent garrison commander foreseeing a day of peril.

They have served as dungeons, into which a luckless man was lowered and forgotten. And more cheerfully as wine cellars. Even at this late day they are in perfect preservation.

When, in the course of the first century before Christ, the Romans came up the Marne to its confluence with the Seine, they found a settlement of Gauls already in existence on the narrow island in the Seine between the four hills of Montmartre, the Buttes, Chaumont, Montparnasse and Sainte Genevieve.

In the year 53 B. C. Caesar mentioned the settlement of Lutetia, whose inhabitants he described as Parisii. It was to the island city that he summoned the leaders of the Gaulish tribes to receive their submission.

And when in that year, the Parisii, true forerunners of the Parisians of the eighteenth and nineteenth centuries, rebelled against the domination of the alien armies, they were crushed by Caesar's general, Labienus, in a battle in which the protagonists, like Paris students 2,000 years later, struggled on the slopes of what is now the Boulevard Saint Michel.

For the curious history of the Boul' Mich' goes farther back than Murger.

The Romans, like the Gauls, at first confined their city to the narrow island which still bears that name, the Ile de la Cite. And there they built a palace which harbored several emperors and from which Julian set out to battle with Constantine. The island was then fortified with ramparts.

It contained, besides the palace of the emperors, the barracks of the garrison and the houses of the merchants, a temple to Jupiter, on whose altar traders and passing boatmen sacrified offerings of wine and corn.

For there was good wine grown in Paris then. The hillsides of Auteuil and Suresnes yielded a nectar that appealed even to the fine palate of the Emperor Julian, jaded perhaps with the heavy aromatic wines of the Capri or the Greek Islands, and the heavy, harsh wines of Rome.

At Suresnes to this day, on the hillside which contains the American Cemetery, a red wine is grown that the Mayor and Municipal Council offer with considerable pride to visitors. It is the last of the wines of Paris.

Under Constantine, Lutetia extended on the left bank of the Seine. The Roman legionaries, faithful to their passion for public games, built a large amphitheater, of which the relics may still be seen in the Arenes de Lutéce.

The rich traders and the Roman notables gradually deserted the little island fortress on the river for the clearer air and wider view to be enjoyed on the hill of Sainte Genevieve.

And their white villas, Roman in pattern like everything that they built, in their unescapable loyalty of the Roman in exile, rapidly covered the heights which looked northwards to the Temple of Mars, on the crest of what is now Montmartre.

For some notable or other, and legend has it for the Emperor Julian himself, the Romans or their enslaved Gauls built a great palace at the present junction of the Boulevards St. Michel and St. Germain. It was such a palace as had never been built in Gaul before or since, a palace with the magnificent baths of the Romans.

Of all that splendor only the ruins of the baths remain. Their blackened stones may be seen in the space adjoining the Cluny Museum.

Their discoloration bears tribute to the sacrifice that the sun loving legionaires made when they marched northward into exile out of the white cities of the Mediterranean into exile and the mists, the rain, the gray skies of the barbarian.

DISTANCES BY WATER FROM NEW YORK CITY.

The data used in the following table of distances by water from New York City to the ports named are compiled from the records of the United States Hydrographic Office, Navy Department.

TABLE OF DISTANCES FROM NEW YORK CITY (THE BATTERY) TO:

Place—Route and Season.	Miles. Naut.	Stat.
Aarhus, Den.—Winter; E. bound	3,654	4,208
Summer; E. bound	3,824	4,404
Acajutla, Sal.	2,850	3,282
Acapulco, Mex.—Via Panama Canal	3,443	3,965
Via Magell. Str.	11,524	13,270
Adelaide, Aust. — Via Panama, Tahit., Syd., & Melb.	10,904	12,557
Via St. Vincent & Cape Town	12,650	14,567
Aden, Arabia—Winter; E. bound	6,521	7,509
Summer; E. bound	6,539	7,530
Ajaccio, Corsica—Winter: E. bound	3,965	4,566
Summer; E. bound	3,983	4,587
Akkra, Africa—Via St. Vincent, C. Verde Is.	4,674	5,382
Algiers, Algeria—Winter; E. bound	3,622	4,171
Summer; E. bound	3,640	4,192
Amapala, Honduras—Via Panama Canal	2,762	3,181
Ambrose Light.—Via Ambrose Channel	20	23
Via Main Channel	24	28
Via Swash Channel	21	24
Amsterdam, Neth.—Winter; E. bound	3,410	3,927
Summer; E. bound	3,511	4,043
Angra, Azores—Winter; E. bound	2,181	2,512
Summer; E. bound	2,178	2,508
Antilla, Cuba—Via Crooked I. Pass.	1,226	1,412
Antofagasta, Chile — Via Panama Canal	4,157	4,787
Antwerp, Belg.—Winter; E. bound	3,386	3,899
Summer; E. bound	3,487	4,015
Aquin Bay, Haiti—Via Crooked I. & Windward Passages	1,444	1,663
Arica, Chile—Via Panama Canal	3,938	4,535
Auckland, N. Z.—Via Panama Canal	8,529	9,821
Aux Cayes, Haiti—Via Crooked I. & Windward Passages	1,447	1,666
Bahia, Brazil	4,089	4,709
Bahia Blanca, Argentina	6,154	7,087
Bahia Honda, Cuba—S. bd; outside	1,226	1,412
Baltimore, Md., U. S. A.	413	476
Barbados (Bridgetown), W. I.	1,829	2,106
Barcelona, Spain—Winter; E. bound	3,719	4,283
Summer; E. bound	3,737	4,303
Basse Terre, Guadeloupe, W.I. Via Anegada Passage	1,624	1,870
Basse Terre, St. Christ. I., W. I. Via Anegada Passage	1,531	1,763
Belize, B. H.—Via Str. of Fla; S. bd.	1,704	1,962
Bermuda (Five Fath. Hole Anch.)	681	784
Bishop's Rock (lat. 49° 50′ No., long. 6° 27′ W.)—Winter; E. bd.	2,934	3,379
Summer; E. bound	3,035	3,495
Bluefields, Nicaragua—Via Crooked I. and Wind. Pass.	2,001	2,304
Bocas del Toro, Panama — Via Crooked I. and Wind. Pass.	2,048	2,358
Bombay, India—Winter; E. bound; Via Suez Canal	8,174	9,413
Summer; E. bound; Via Suez Canal	8,192	9,434
Bordeaux, Fr.—Winter; E. bound	3,243	3,735
Summer; E. bound	3,318	3,821
Boston, Mass., U. S. A.—Via Cape Cod Canal & L. I. Sound	234	269
Via Ambrose Ch. Vineyard Sd., & Pollock Rip Slue	305	351
Outside Nantucket Light Vessel	378	435
Via. L. I. & Vineyard Sounds & Pollock Rip Slue	290	334
Boulogne, Fr.—Winter; E. bound	3,250	3,743
Summer; E. bound	3,351	3,859
Bremen, Germ.—Winter; E. bound	3,628	4,178
Summer; E. bound	3,729	4,294
Brunswick, Ga., U. S. A.	746	859
Buenaventura, Col.—Via Panama Canal	2,369	2,728
Buenos Aires, Arg.—Direct	5,871	6,761
Via Pernambuco, Bahia, Rio de Janeiro, & Montevideo	6,004	6,914
Cadiz, Sp.—Winter; E. bound	3,151	3,629
Summer; E. bound	3,169	3,649
Calcutta, Ind.—Winter; E. bound; Via. Suez Can.; S. of Sokotra I.	9,816	11,304
Summer; E. bound; Via Suez Can.; S. of Sokotra I.	9,834	11,324
Caldera, Chile—Via Panama Can.	4,319	4,973
Callao, Peru—Via Panama Can.	3,363	3,873
Via Magellan Str.	9,613	11,070
Cape Haitien, Haiti	1,283	1,478
Cape Town, Af.—Direct	6,786	7,814
Via St. Vincent, Cape Verde Is.	6,856	7,895
Caragues River, Ecuad.—Via Panama Canal	2,588	2,980
Cartagena, Col.—Via Crooked Is. & Windward Pass.	1,853	2,134
Carupano, Ven.—Via Virgin Pass.	1,893	2,180
Cattaro, Aust.—Winter; E. bound	4,626	5,327
Summer; E. bound	4,644	5,348
Cayenne, Guiana	2,447	2,818
Charleston, S. C., U. S. A.	627	722
Charlottetown, P. E. I.—Via Gut of Canso	832	958
Cherbourg, Fr.—Winter; E. bound	3,125	3,599
Summer; E. bound	3,226	3,715
Christiania, Nor.—Winter; E. bound	3,601	4,147
Summer; E. bound	3,771	4,342
Christiansted, St. Croix, S. I.—Via Virgin Passage	1,465	1,687
Cienfuegos, Cuba—Via Crooked I. & Windward Pass.	1,682	1,937
Colombo, Cey.—Winter; E. bound, Via Suez Canal; S. of Sokotra I.	8,607	9,911
Summer; E. bound, Via Suez Canal; S. of Sokotra I.	8,625	9,932
Colon, C. Z.—Via Crooked I. & Windward Pass.	1,974	2,273
Constantinople, Tur.—Winter; E. bound	5,026	5,788
Summer; E. bound	5,044	5,809
Copenhagen, Den.—Winter; E. bound	3,928	4,523
Summer; E. bound	4,029	4,639
Via Pentland Firth (Winter)	3,675	4,232
Via Pentland Firth (Summer)	3,845	4,428
Coquimbo, Ch.—Via Panama Canal	4,468	5,145
Corfu, I. of Corfu—Winter; E. bound	4,516	5,200
Summer; E. bound	4,534	5,221
Corinto, Nic.—Via Panama Canal	2,700	3,109
Coronel, Ch.—Via Panama Canal	4,839	5,572
Via Magellan Str.	8,135	9,368
Culebra I. (The Sound), W. I.	1,422	1,638
Cumana, Ven.—Via Mona Pass.	1,901	2,189
Curaçao (Santa Ana Hbr.) W. I.—Via Mona Pass.	1,769	2,037
Danzig, Ger.—Winter; E. bound	4,053	4,667
Summer; E. bound	4,223	4,863
Demarara River, Brit. Guiana	2,217	2,553
Dominica I. (Roseau, W. I.)—Via Anegada Pass.	1,670	1,923
Dover, Eng.—Winter; E. bound	3,249	3,741
Summer; E. bound	3,350	3,858
Esmeraldas, Ecu.—Via Panama Canal	2,491	2,868
Eten, Peru—Via Panama Canal	3,029	3,488
Fall River, Mass., U. S. A.—Via Long Island Sound	159	183
Famagusta, Cyprus I.—Winter; E. bound	5,178	5,963
Summer; E. bound	5,196	5,983
Fastnet (lat. 51° 20′ N., long. 9° 36′ W.)—Winter; E. bound	2,812	3,238
Summer; E. bound	2,924	3,367
Fayal (Horta), Azores—Crossing Long. 47° W. in Lat. 40° 30′ N.	2,115	2,436
Fernandina, Fla., U. S. A.	757	872
Fishguard, Wales—Winter; E. bound	2,992	3,445
Summer; E. bound	3,104	3,574
Fiume, A. H.—Winter; E. bound	4,848	5,583
Summer; E. bound	4,866	5,604
Fort de France, Martinique, W. I.—Via Anegada Pass.	1,717	1,977
Fort Pond Bay, N. Y., U. S. A.—Via Long Island Sound	110	127
Fortune Island, Bahamas	1,093	1,259
Funchal, Madeira—Great Circle	2,765	3,184
Galveston, Tex., U. S. A.—S. bound; Outside, S. of Dry Tortugas	1,887	2,173
Galway, Ire.—Winter; E. bound	2,839	3,269
Summer; E. bound	2,964	3,414
Genoa, It.—Winter; E. bound	4,060	4,675
Summer; E. bound	4,078	4,696
Georgetown, Brit. Guiana	2,217	2,553
Gibraltar—Winter; E. bound	3,207	3,693
Summer; E. bound	3,225	3,714
Gibraltar, Str. of (lat. 35° 57′ N., long 5° 45′ W.)—Winter; E. bound	3,183	3,665
Summer; E. bound	3,201	3,686
Glasgow, Scot.—Winter; E. bound	3,036	3,496
Summer; E. bound	3,175	3,656
Goteborg, Swed.—Winter; E. bound	3,570	4,111
Summer; E. bound	3,740	4,307
Greenport, N. Y., U. S. A.	102	117

Place—Route and Season.	Miles. Naut.	Stat.
Guantanamo Bay (Caimanera) Cuba Via Crooked I. & Wind. Pass.	1,319	1,519
Guayaquil (Puna), Ecu.—Via Panama Canal	2,810	3,236
Via Magellan Str.	10,215	11,763
Habana, Cuba (Custom House Wharf)—Inside: S. bound	1,227	1,413
Outside: S. bound	1,186	1,366
Halifax, Nova Scotia	596	686
Hamburg, Ger.—Winter; E. bound	3,648	4,201
Summer; E. bound	3,749	4,317
Hampton Roads, Va., U. S. A.	281	324
Havre, Fr.—Winter; E. bound	3,192	3,676
Summer; E. bound	3,293	3,792
Hongkong—Winter; E. bound, Via Suez Canal; S. of Sokotra I.	11,605	13,364
Summer; E. bound: Via Suez Canal: S. of Sokotra I.	11,623	13,384
Via Panama, San Francisco, Yokohama & Shanghai	11,691	13,463
Via Panama, Honolulu, Yokohama and Shanghai	11,989	13,806
Via Panama, Honolulu, Guam & Manila	12,171	14,015
Via Suez Canal, Colombo, & Singapore; Winter; E. bound	11,646	13,411
Via Suez Canal, Colombo, Singapore; Summer; E. bound	11,664	13,432
Honolulu, Haw.—Via Panama Canal	6,702	7,718
Via Magellan Str.	13,312	15,329
Via Isthmus of Tehuantepec	5,691	6,554
Iquique, Ch.—Via Panama Canal	4,004	4,611
Via Magellan Str.	9,143	10,529
Jacksonville, Fla., U. S. A.	792	912
Jacmel, Haiti—Via Crooked I. & Windward Pass.	1,489	1,715
Kalamata, Gr.—Winter; E. bound	4,559	5,250
Summer; E. bound	4,577	5,271
Key West, Fla., U. S. A.—Outside; S. bound	1,128	1,299
Inside; S. bound	1,171	1,348
Kingston, Jamaica—Via Crooked I. & Windward Pass.	1,474	1,697
Kristiansand, Nor.—Winter; E. bound	3,448	3,971
Summer; E. bound	3,618	4,166
La Guaira, Ven.—Via Mona Pass.	1,847	2,127
La Pallice, Fr.—Winter; E. bound	3,176	3,658
Summer; E. bound	3,255	3,748
La Palmas, Canary Is.	2,965	3,414
La Union, Salvador—Via Panama Canal	2,765	3,184
Liverpool, Eng.—Winter; E. bound	3,107	3,578
Summer; E. bound	3,219	3,707
Livingston, Guat.—Via Straits of Florida; S. bound	1,796	2,068
London, Eng.—Winter; E. bound	3,341	3,847
Summer; E. bound	3,442	3,964
Los Angeles, Cal., U. S. A.—Via Panama Canal	4,930	5,677
Via Magellan Str.	12,818	14,761
Malta (Valetta Harb.)—Winter; E. bound	4,190	4,825
Summer; E. bound	4,208	4,846
Manila, P. I.—Via Panama Canal & Balintang Channel	11,364	13,086
Via Panama, San Francisco, G. C., & Yokohama	11,555	14,533
Via Panama, Honolulu, Yokohama, Shanghai & Hongkong	12,620	14,533
Via Panama, Honolulu & Yokohama	11,853	13,649
Via Panama, Honolulu & Guam	11,540	13,289
Winter; E. bound, Via Suez Canal; S. of Sokotra I.	11,521	13,267
Summer; E. bound; Via Suez Canal; S. of Sokotra I.	11,539	13,288
Via Suez Canal, Aden, Colombo, & Singapore: Winter; E. bound	11,572	13,326
Via Suez Canal, Aden, Colombo, & Singapore; Summer; E. bound	11,590	13,346
Via Suez Canal, Colombo, & Singapore: Winter; E. bound	11,562	13,314
Via Suez, Colombo, & Singapore: Summer; E. bound	11,580	13,335
Manta, Ecu.—Via Panama Canal	2,611	3,007
Maracaibo, Ven.—Via La Guaira & Curaçao	2,228	2,566
Via Mayaguez, P. R., La Guaira & Curaçao	2,256	2,598
Mare Island (Navy Yard), Cal., U. S. A.—Via Panama Canal	5,280	6,080
Margarita I. (La Mar Bay), Ven.—Via Virgin Pass.	1,879	2,164
Marseilles, Fr.—Winter; E. bound	3,895	4,485
Summer; E. bound	3,913	4,506
Mathew Town, Great Inagua I., W. I., Via Crooked I. Passage	1,205	1,388

Place—Route and Season.	Miles. Naut.	Stat.
Mayaguez, P. R.	1,402	1,614
Mazatlan, Mex.—Via Panama Canal	4,023	4,632
Melbourne, Aust.—Via Cape of Good Hope	12,838	14,784
Via Magellan Str.	12,891	14,845
Via Panama Canal	9,945	11,452
Via Panama & Tahiti	10,194	11,739
Via Panama, Tahiti & Sydney	10,392	11,967
Via St. Vincent & Cape Town	12,933	14,893
Via St. Vincent, Cape Town & Adelaide	13,162	15,157
Winter; E. bound: Via Suez Canal	12,975	14,941
Summer; E. bound; Via Suez Canal	12,993	14,962
Mobile, Ala., U. S. A.—Outside: S. bound	1,658	1,909
Mollendo, Peru — Via Panama Canal	3,813	4,391
Mona Pass. (lat. 18° 3′ N; long. 67° 47′ W.), W. I.	1,401	1,613
Monte Cristi, D. R.	1,265	1,457
Montevideo, Uruguay—Direct	5,757	6,630
Via Barbados, Pernambuco, Bahia & Rio de Janeiro	6,111	7,037
Naples, It.—Winter; E. bound	4,182	4,815
Summer; E. bound	4,200	4,837
Nassau, N. P. I.—Via NE. Providence Channel	962	1,108
New Orleans, La., U. S. A.—S. bound; Outside; S. of Dry Tortugas, & via S. W. Pass.	1,727	1,989
S. bound; Outside; S. of Dry Tortugas & via S. Pass.	1,711	1,970
Newport, R. I., U. S. A.—Via Long Island Sound	138	159
Outside Long Island	158	182
Newport News, Va., U. S. A.	289	333
Norfolk, Va., U. S. A.	292	336
Neuvitas, Cuba—Via Crooked I. Pass.	1,274	1,467
Odessa, Rus.—Winter; E. bound	5,353	6,164
Summer; E. bound	5,371	6,185
Paiti, Peru—Via Panama Canal	2,874	3,310
Panama, C. Z.—Via Crooked I. & Windward Pass.	2,017	2,323
Para, Brazil—Great Circle	2,946	3,392
Paramaribo, Guiana	2,334	2,688
Pensacola, Fla., U. S. A.—S. bound; Outside; S of Dry Tortugas	1,618	1,863
Pentland Firth (lat. 58° 42′ N.; long. 3° 20′ W.)—Winter; E. bound	3,077	3,543
Summer; E. bound	3,247	3,739
Pernambuco, Brazil	3,698	4,258
Via Barbados, Crossing Equator in long. 37° W.	3,927	4,522
Philadelphia, Pa., U. S. A	235	271
Plymouth, Æng.—Winter; E. bound	3,033	3,493
Summer; E. bound	3,134	3,609
Pointe a Pitre, Guadaloupe, W. I.	1,652	1,903
Ponce, P. R.—Via Mona Pass.	1,462	1,684
Port Antonio, Jamaica — Via Crooked I. & Windward Pass.	1,423	1,639
Port au Prince, Haiti—Via Crooked I. Passage	1,372	1,580
Port Banes, Cuba—Via Crooked I. Pass.	1,216	1,400
Port Buenaventura, Col.—Via Crooked I. & Windward Passages, Panama Canal & Balboa	2,371	2,730
Port Castries, St. Lucia, W. I.—Via Anegada Pass.	1,747	2,012
Port Draco (Piraeus) Gr.—Winter; E. bound	4,699	5,411
Summer; E. bound	4,717	5,432
Port Gibrara, Cuba—Via Crooked I. Pass.	1,216	1,400
Port Limon, C. R.—Via Crooked I. & Windward Pass.	2,047	2,357
Port Lobos, Mex.	1,992	2,394
Port Natal (Durban), Af.	7,577	8,725
Port of Spain, Trinidad, W. I.—Via Virgin Pass.	1,939	2,233
Via Barbados	2,032	2,340
Port Said, Egypt—Winter; E. bound	5,125	5,922
Summer; E. bound	5,143	5,922
Port Townsend, Wash., U. S. A.—Via Panama & San Francisco	6,032	6,946
Via Magellan Str. & San Francisco	13,905	16,012
Portland, Me., U. S. A.—Via Ambrose Channel; Vineyard Sound & Pollock Rip Slue	349	402
Outside; Nantucket Lightvessel	419	483
Portland, Ore., U. S. A.—Via Panama Canal	5,886	6,778
Via Magellan Strait	13,760	15,845
Porto Plata, Dom. Rep.—Via Turks I. Pass.	1,270	1,453
Portsmouth, N. H., U. S. A.—Outside Nantucket Lightvessel	395	455

Place—Route and Season.	Miles. Naut.	Stat.
Preston, Cuba—Via Crooked I. Pass.	1,219	1,404
Progreso, Mex.	1,609	1,853
Provincetown, Mass., U. S. A.	347	400
Via Ambrose Channel, Vineyard Sound & Pollock Rip Slue	274	316
Puerto Barrios, Guat.—Via Straits of Florida; S. bound	1,804	2,077
Puerto Cabello, Ven.—Via San Juan, P. R., Curaçao & La Guaira	2,103	2,422
Puerto Cortes, Hon.—Outside; S. bound; Via Straits of Florida	1,769	2,037
Puerto Mexico, Mex.	1,944	2,239
Punta Arenas, C. R.—Via Panama Canal	2,488	2,865
Punta Arena, Chile—E. of S. A.	6,947	8,000
Via Panama Canal	5,960	6,863
Quebec, Can.—Via Gut of Canso	1,321	1,521
Queenstown, Ire.—Winter; E. bound	2,876	3,312
Summer; E. bound	2,988	3,441
Rio de Janeiro, Br.	4,770	5,493
Roseau, Dominica	1,670	1,924
Rotterdam, Neth.—Winter; E. bound	3,387	3,900
Summer; E. bound	3,488	4,016
St. George, Gren.	1,842	2,121
St. John, N. B.—Via L. I. Sound	486	560
Via Nantucket Lightvessel	545	628
St. Johns Harb., Antigua, W. I.—Via Anegada Pass.	1,572	1,810
St. Pierre, Martinique, W. I.—Via Anegada Pass.	1,750	1,963
St. Thomas, W. I.	1,434	1,651
St. Vincent (Porto Grande), Cape Verde Is.	2,914	3,356
Samana Bay, Dominican Rep., W. I.	1,334	1,536
San Diego, Cal., U. S. A.—Via Panama Canal	4,860	5,597
Via Magellan Str.	12,743	14,674
San Francisco, Cal., U. S. A.—Via Panama Canal	5,262	6,059
Via Magellan Str.	13,135	15,126
Via Cape Horn	13,328	15,348
San Jose, Guat.—Via Panama Canal	2,903	3,343
Via Magellan Str.	11,238	12,941
San Juan, P. R.	1,399	1,611
San Juan del Norte (Greytown), Nic.—Via Crooked I. & Windward Pass.	2,032	2,340
Outside; S. bound; Via Straits of Florida	2,047	2,357
Salaverry, Peru—Via Panama Canal	3,126	3,600
Sanchez, Dominican Rep., W. I.	1,350	1,555
Santa Marta, Col.—Via Crooked I. & Windward Pass.	1,783	2,053
Santiago, Cuba—Via Crooked I. & Windward Pass.	1,362	1,568
Santo Domingo, D. R.—Via Mona Pass.	1,489	1,715
Santos, Brazil	4,957	5,709
Savanilla, Col.—Via Crooked I. & Windward Pass.	1,800	2,073
Savannah, Ga., U. S. A.	700	806
Seattle, Wash.—Via Panama Canal	6,038	6,953
Via Magellan Str.	13,914	16,023
Shanghai, China—Via Cape of Good Hope	14,427	16,614
Via Panama Canal & Osumi (Van Diemen) Str.	10,667	12,284
Via Panama & Tsugaru Str.	10,573	12,176
Via Panama, San Francisco & Tsugaru Str.	10,649	12,263
Via Pan., Honol. & Yokoh.	11,137	12,825
Via Suez Canal; Winter; E. bound	12,361	14,234
Via Suez Canal; Summer; E. bound	12,379	14,255
Via Suez Canal, Colombo, Singapore & Hongkong; Summer; E. bound	12,498	14,392
Via Suez Canal, Colombo, Singapore and Hongkong; Summer; E. bound	12,516	14,413
Singapore, Str. Settl.—Via Cape of Good Hope	12,409	14,290
Via Panama Canal & San Bernardino Str.	12,522	14,420
Via Suez Canal; Winter; E. bound	10,154	11,693
Via Suez Canal; Summer; E. bound	10,172	11,714

Place—Route and Season.	Miles. Naut.	Stat.
Sitka, Alaska—Via Panama & San Francisco	6,564	7,559
Via Magellan Str. & San Francisco	14,437	16,625
Sparrow Point, Md., U. S. A.	397	457
Sydney, Aust.—Via Cape of Good Hope	13,306	15,322
Via Magellan Str.	12,779	14,716
Via Panama & direct	9,691	11,160
Via Panama & Tahiti	9,811	11,298
Via St. Vincent & Cape Town	13,402	15,433
Via St. Vincent, Cape of Good Hope, Adelaide & Melbourne	13,734	15,826
Via Suez Canal; Winter; E. bound	13,437	15,473
Via Suez Canal; Summer; E. bound	13,455	15,494
Tacoma, Wash. — Via Panama Canal	6,058	6,976
Via Magellan Str.	13,934	16,046
Talcahuano, Chile — Via Panama Canal	4,822	5,553
Tientsin, China—Via Panama, San Francisco, Yokohama, Inland Sea & S. of Quelport I.	11,263	12,970
Trinidad (Dragon's Mouth; lat. 10° 43′ N., long. 61° 45′ W.), W. I.—Via Anegada Pass.	1,921	2,212
Tumaco, Col.—Via Panama Canal	2,439	2,809
Tuxpam, Mex.—Via Habana, Progreso and Tampico	2,183	2,514
Valdivia, Chile—Via Panama Canal	5,000	5,758
Valparaiso, Chile—Via Panama Canal	4,633	5,335
Via Magellan Str.	8,380	9,650
Vancouver, B. C.—Via Panama Canal	6,049	6,966
Via Magellan Str.	13,920	16,030
Vera Cruz, Mex.—Via Habana, Cuba & Progreso, Mexico	2,017	2,323
Vera Cruz, Mex.—Direct	1,995	2,297
Vigo, Sp.—Summer; E. bound	2,968	3,415
Winter; E. bound	2,920	3,363
Virgin Pass. (lat. 18° 20′ N., long. 65° 07′ W.), W. I.	1,422	1,638
Valdivostok, Siberia—Via Panama Canal & Tsugaru Str.	9,850	11,343
Washington, D. C., U. S. A.	419	482
Wellington, N. Z.—Via Cape Town & Rhumb	14,034	16,161
Via Cape Town and Composite	13,302	15,318
Via Magellan Str.	11,344	13,064
Via Panama Canal & Direct	8,522	9,814
Via Panama & Tahiti	8,851	10,192
Via St. Vincent & Cape Town	14,129	16,270
Via St. Vincent, Cape Town & Melbourne	14,441	16,630
Via Suez Canal; Winter; E. bound	14,356	16,532
Via Suez Canal; Summer; E. bound	14,374	16,552
Wilmington, N. C., U. S. A.	559	644
Windward Passage (lat. 20° 10′ N., long. 74° 00′ W.), W. I.—Via Crooked I. Pass.	1,240	1,428
Yokohama—Via Cape of Good Hope	15,099	17,388
Via Panama Canal	9,699	11,169
Via Panama & San Francisco	9,798	11,283
Via Panama & Honolulu	10,096	11,626
Via Suez Canal; Winter; E. bound	13,056	15,035
Via Suez Canal; Summer; E. bound	13,074	15,055
Via Suez Canal, Colombo, Singapore, Hongkong & Shanghai; Winter; E. bound	13,539	15,591
Via Suez Canal, Colombo, Singapore, Hongkong & Shanghai; Summer; E. bound	13,557	15,612
Yucatan Channel (lat. 21° 50′ N., long. 85° 03′ W.), W. I.—Outside; S. bound; Via Straits of Florida	1,366	1,573
NEW YORK (NAVY YARD), N. Y., to—		
Boston, Mass. (Navy Yard)—Via Pollock Rip Slue, L. I. & Vineyard Sounds	288	332
Georgetown, S. C., U. S. A.	591	681
New London, Conn. (Naval Station), Via Long I. Sound	103	119
Philadelphia, Pa., U. S. A. (Navy Yard)	231	266

Mail-time distances in the United States—These are subject to frequent changes owing to air-mail routes which are being extended in every direction, and also owing to different routings of train mail.

A letter by an all-rail route may go from New York City to San Francisco in 83 hours (3½ days). It can go by air route in half the time.

The all-rail mail time New York to Chicago is 21 hours; to St. Louis, 23 hours; to New Orleans, 39 hours; to Austin, Tex., 49 hours; to Vancouver, Brit. Col., 88 hours; to Halifax, Nova Scotia, 43 hours.

The famous dirigible balloon, Graf Zeppelin, in August, 1929, brought passengers, mail, and freight from Frederichshafen to Lakehurst, N. J., in 93 hours, or less than 4 days, by way of the Azores.

The same balloon took mail, etc., from Lakehurst to Frederichshafen, on the return trip, in 55 hours and 24 minutes, or considerably less than 3 days.

A letter by airplane and steamship in 1929 went from Berlin to New York City in 7 days.

IMPORTANT TUNNELS OF THE WORLD.

(For New York City Tunnels see elsewhere.)

UNITED STATES.

Baltimore—The first use of electric motive power on the railroads in this country was on the *Baltimore and Ohio Railroad* in 1895 at Baltimore, Md. The main line of this railroad passes under the principal business portion of the city in tunnels which were completed in 1894.

The main tunnel under Howard Street is over 7,000 feet in length and represents one of the pioneer efforts leading up to present subway systems. Methods were originated of supporting adjacent structures and of controlling quicksand and underground streams encountered during construction. Through the quicksand areas, the adjacent ground was solidified by forcing large quantities of cement grout into it.

Electrical motive power was adopted to eliminate objectionable smoke and gases in the tunnels. Power was, at first, supplied from overhead wires, but in 1902 this was replaced by a third-rail system.

The electrified section totals about seven miles in length.

The Pennsylvania Railroad has 2 tunnels under Baltimore: *Union Tunnel*, north of Union Station built by the Union Railroad Company of Baltimore in 1871; a two-track tunnel, 3,400 ft. long, located under the bed of Hoffman Street from Bond Street to Greenmount Avenue. *Baltimore Potomac Tunnels*, south of Union Station, built by the Baltimore and Potomac Railroad Company in 1873; two-track tunnels under Wilson Street from North Avenue to Pennsylvania Avenue, 4,960 ft. long and under Winchester Street from Fremont Avenue to Gilmore Avenue, 2,190 ft., a total length of 7,150 ft.

Big Bend—Drains the Feather River in California, 2 miles; opened 1886.

Bitter Root Mountains (Montana and Idaho)—10,100 feet long.

Busk-Ivanhoe Tunnel on the Colorado Midland R. R., 9,600 feet long, single track, under the Continental Divide, in Lake and Pitkin Counties.

Cascade Mountain—Through the Cascade Mountains in Washington, 41,142 feet; opened in 1929.

Catskill Aqueduct—92 miles to N. Y. City, and 35 miles of distributing tunnels deep down under the city itself; partly opened 1915, completely, 1917. The *Shandaken Tunnel*, a part of the Catskill water supply system, is used to deliver the water of Schoharie Creek to the Ashokan reservoir. It is 18.1 miles long, the longest tunnel in the world. It is concrete-lined, 10½ feet wide and 11½ feet high, with a capacity of 600,000,000 gallons a day; put in service Feb. 9 1924.

Croton Aqueduct—33⅓ miles to N. Y. City; opened 1888.

Cumberland—Under Cumberland Mountains, Tennessee, 8,000 feet long.

Detroit (Mich. Central Ry.)—Under Detroit River.

Gallitzin Tunnel, through the Alleghany Mountains at Gallitzin, 11 miles west of Altoona, Pa., is 3,600 ft. long; was built in 1854, for two tracks of the Pennsylvania Railroad. In 1904 a new single track tunnel was built parallel with the old tunnel, through which is operated one westbound track, another westbound track being operated through the old tunnel, replacing the original two tracks in order to give added clearance. The two eastbound tracks through the mountain use what is known as New Portage Tunnel, 1,610 ft. long, which was built by the State of Pennsylvania in 1855, and purchased by the Pennsylvania Railroad Company in 1857.

Gunnison—Southwestern Colorado, 6 miles; opened 1909.

Hoosac—Through Hoosac Mountain, Mass., 4¾ miles; opened 1873.

Moffat—This tunnel pierces the Rocky Mountains at the so-called Continental Divide, in Grand and Gilpin Counties, Colo. It is on the line of the Denver and Salt Lake Railway, with it's Eastern portal 50 miles west of Denver; and it shortens by 23 miles the traveling distance between those cities. The bore, 39,560 ft. long, begun in 1923 and holed-through on Feb. 18, 1927, was opened to train traffic in February, 1928. The tracks at the eastern end, near Tolland, are 9,198 ft. above sea level, and 9,085 feet at the western opening, near Irving. The dimensions of the main tunnel are 24 feet high by 16 feet wide. The bore carries a single track, laid with 110-pound rail on treated oak ties with rock ballast. The project was started by David H. Moffat, railway builder, who died in 1911.

Mt. Roberts—From Gastineau Channel at Juneau, Alaska, into Silver Bow Basin, 1 1-3 miles.

St. Clair—Under St. Clair River from Sarnia, Ont., to Port Huron, Mich., 2 miles; opened 1891.

Southern Pacific and Central Pacific Railroad tunnels: *Chatsworth Park*, through Coast Range Mountains, in Los Angeles County, Cal., 1.4 miles; *San Fernando*, through Spur 1.32 miles.

Strawberry—Through the Wasatch Mountains.

Sutro—Drains the Comstock Lode in Nevada, 4½ miles; opened 1879.

CANADA.

Connaught—Through Selkirk Mountains, under Rogers Pass, British Columbia; on Canadian Pacific Railway, double track, five miles long; completed 1916.

Spiral—The tunnels on the Canadian Pacific Railway, between Hector and Fields, B. C., consist of two spiral tubes, the westerly, 3,255 feet long, under Cathedral Mountain; and the easterly, 2,921 feet long, under Mt. Ogden, with the Kicking Horse River between.

EUROPE.

A tunnel under the English Channel, connecting Britain with France, and also one under the Strait of Gibraltar, between Spain and Africa, were proposed by European financiers in 1929. The Strait is 9 miles wide; the channel, 22 miles. The cost of a channel tube was estimated at $150,000,000:

Alps.—Alberg—Under the Alps at the Arl Mountains and extends from Langen to St. Anton, 6¾ miles; opened 1884.

Col. des Montets—On the narrow-gauge electric railway from Fayet, France, to the Swiss frontier; length, 1882 meters (about 1⅛ miles); opened in 1918.

Loetschberg—Through the Alps, in Oberland Switzerland, 47,685 feet; opened June 20, 1913, costing nearly $10,000,000.

Mont Cenis—Italy to France, under the Col de Frejus, 42,150 feet; opened 1871. The line is electrified between Modane and Culoz.

Mont d'Or—Between France and Switzerland, was bored through October 2, 1913. The tunnel pierces the Jura Mountains from Fresne to Vallorbe, and is 3¾ miles long.

Nice-Cuneo—Under the Alps; opened for rail traffic in 1928. There are 2 tunnels on the line; one of 5,939 metres, at the Col de Braus; one of 3,888 metres under Mont Grazian. The entire route is 76½ miles in length.

The French and Italian Governments arrived (1927) at an agreement to pierce a tunnel under Mont Blanc for the construction of a new railway line 32 miles long, from Aosta to St. Didier.

Samport—In the Pyranees Mountains, from Pau, France, to Canfranc, in Spain; over 4 miles; opened in 1928.

St. Gothard—Through the Alps, connects Goschenen with Airolo, in Switzerland, 48,927 feet; opened 1881; now electrified.

Simplon—Through the Alps, 64,971 feet; opened 1905; twin tunnel opened in 1921; both are electrified.

Wasserfluh—In the Alps, between Bunnadern and Lichtensteig, Switz., 2 miles, opened 1909.

England.—Blackwell—Under River Thames, England, 1⅓ miles; opened 1897.

Severn—From Monmouthshire to Gloucestershire, England, 4½ miles; opened 1886.

Totley—England, 3¾ miles.

Woodhead—Liverpool to Birkenhead, England, under the River Mersey, 11,380 feet (vehicular).

France.—Rove—The southern section of the Marseilles-Rhone canal in France. This piece of engineering, declared the largest accomplished since the building of the Panama Canal, was formally opened late in April, 1927, by the President of the Republic. The underground canal, which passes through a rocky ridge for a distance of 4½ miles, has cost about 135,000,000 francs. Its greatest width is 72½ feet, and the width of the water channel is 60 feet. The roof is 37½ feet above the water. Two 1,500-ton barges can pass it without difficulty. The "Tunnel du Rove" is only part of the 50-mile canal which is eventually to join the Rhone River (at Arles) to Marseilie. The canal will be at sea level throughout its entire length, except for a single lock at Arles.

OTHER TUNNELS.

Trans-Andine Ry. (South America) Tunnel—3,463 yards long, 10,512 feet above sea level and affords direct communication between Valparaiso and Buenos Ayres; opened April 5, 1910.

Khojak Pass—India, Quetta to Landsbar, 2 miles.

Otira—In New Zealand, 5½ miles.

NOTABLE BRIDGES.

River.	Location.	Channel Span.	Completed.
		Feet.	
CANTILEVER.			
St. Lawrence	Quebec	1,800	1917
Firth of Forth	Scotland	1,710	1890
East	Queensboro	1,182	1909
Monongahela	Pittsburgh	812	1904
Mississippi	Memphis	790	1892
Ohio	Sciotoville, O.	775	1918
Ohio	Beaver, Pa.	769	1910
Ohio	Sewickley, Pa.	750	1910
Ohio	Mingo Junc't, O.	769	1910
Mississippi	Thebes, Ill.	671	1905
Colorado	Red Rock, Cal.	660	1890
SUSPENSION.			
Delaware	Philadelphia	1,750	1926
Hudson (Bear Mt.)	Peekskill	1,632	1924
East	Williamsburg	1,600	1904
East	Brooklyn	1,596	1883
Hudson	Poughkeepsie	1,500	*
East	Manhattan	1,470	1909
Rondout	Kingston, N. Y.	705	1921
Ohio	Cincinnati	1,057	1867,1898
Ojuela, Mex.	Mampimi	1,030	1900
Ohio	Wheeling	1,010	1849,1862
Cauca, Colombia	Colombia	940	1894
STEEL ARCH.			
Sydney Harbor	Australia	1,650	*
East	Hell Gate, N. Y.	978	1917
Niagara	Niagara Falls	840	1898
Colorado	Topock, Ariz.	592	1916
Cuyahoga	Cleveland	591	1917
Niagara	Niagara Falls	550	1897
Connecticut	N. Walpole, N. H.	540	1905
Mississippi	St. Louis (Eads)	520	1874
Harlem	Wash'gt'n B'dge	509	1889
Mississippi	St. Louis	502	1874
SIMPLE TRUSS.			
Hudson	Castleton, N. Y.	1,008	1924
Ohio	Metropolis, Ill.	720	1917
Mississippi	St. Louis	668	1918
St. Lawrence	Quebec	640	1917
Miami	Elizb'thtown, O.	586	1906
Ohio	Louisville, Ky.	546	1894
Ohio	Cincinnati	542	1889
Delaware	Philadelphia	533	1896
Ohio	Cairo, Ill.	523	1889
Niagara River	Buffalo-Ft. Erie, Can.	360	1927
BASCULE DRAWSPAN.			
Chicago River	16th Street	260	1920
St. Mary's Canal	St. Ste Marie, M.	336	1913
Manatee River	Florida	75	1927

*Under construction.

The Kingston, N. Y. bridge carries a reinforced concrete deck that provides a roadway 22 feet wide between curbs and two sidewalks each 5 feet wide. The roadway is designed for the heaviest motor trucks, that is to say, for the heaviest highway traffic. A clearance of 90 feet for a width of 200 feet over the channel of Rondout Creek is provided.

This structure forms a link, between Kingston and Sleightsburg, in the system of highways built by the State of New York adjacent to the west shore of the Hudson River. It is the first suspension bridge to be built by the State of New York and also the first of that type built since the completion, in 1909, of the Manhattan Bridge over the East River.

The International Peace (toll) Bridge over the Niagara River, from Fort Porter, at Buffalo, N. Y., to Fort Erie, in the Province of Ontario, Canada, was formally opened on Aug. 7, 1927.

The bridge, of steel with five granite covered concrete piers, is 4,400 feet long, with a vertical clearance of 100 feet above the river, and a horizontal clearance of about 345 feet above Black Rock Canal, which parallels the Niagara.

The Mid-Hudson Bridge, which is under construction, leaves the junction of Church and Union Streets, Poughkeepsie, and crosses the Hudson River to the Town of Lloyd, Ulster County.

The caisson on the east side was sunk 12 feet too far to the west, This discovery was made after months of work in righting it to a vertical position. The caisson then was 135 feet below the surface of the water.

To move this great weight of steel and concrete ten feet to the east through stiff clay was an impossibility, and any method of adding ten additional feet to the east side of the caisson would have required at least another year, with consequent inconvenience to highway traffic for that time and a loss of revenue to the State from tolls estimated at not less than $1,000,000.

It was finally agreed to move the east tower five feet to the west, so that the bridge could be completed with a saving in time of at least one year and the only structural change necessary would be the shortening by two and one-half feet of a few of the steel members at the center of the bridge and a slight change in the steel construction at the east abutment.

Total length of the structure—4,072 feet.

The main span is 1,500 feet clear between piers with a 750 foot approach span on each side.

Clearance above mean high water—135 feet.

Height of towers above mean high water—308.5 feet.

Diameter of cables—sixteen and three-quarter inches.

Estimated cost—approximately $6,000,000.

The corner stone was laid at Poughkeepsie by Gov. Smith, Oct. 9, 1925.

The only highway bridge across the Hudson River south of Albany is the one 3½ miles north of Peekskill, which extends from Anthony's Nose on the east side of the river to Bear Mountain Park on the west shore. It is a toll bridge and built by private capital.

Construction was begun in May, 1923. The span was opened to public traffic on Nov. 27, 1924. Total length, 2,257 ft.; length of span, 1,632 ft.; diameter of cables, 18 in. Width of roadway, 38 ft.; width of each sidewalk 5 ft.; number of wires in each cable, 7,252; height of towers, 350 ft.; clear height above river, 155 ft.; steel in bridge, 12,552 tons.

The highway bridge over the Delaware River, connecting Philadelphia, Pa., and Camden, N. J., was begun Jan. 6, 1922, and was opened to the public by the Delaware River Bridge Joint Commission of Pennsylvania and New Jersey on July 4, 1926. It is a toll bridge—the world's largest suspension bridge

In 1929 the State of New York completed a toll bridge over Lake Champlain, between Crown Point, N. Y., and Chimney Point, Vt. The structure, costing about $1,200,000, is 2,200 feet long, with 800 feet in approaches. It affords a direct link between the Adirondack and the Green and the White Mountains.

The suspension bridge over the Menai Straits, Wales, between the Isle of Anglesea and the Caernarvonshire coast, was commenced in 1819 and opened in Jan. 1826.

A chain-bridge was erected across the Tees, near Middleton, in Yorkshire, England, about the year 1741.

In 1796, a suspension-bridge was erected over Jacob's Creek, near Greensburgh, Westmoreland County, Penn., and this seems to be the first important bridge of this nature in modern times.

The first timber bridge in Europe was built by Julius Caesar.

The first iron bridge ever constructed was over the Severn, at Colebrook-dale in Shropshire, England. The metal for it was cast at the Colebrook-dale foundries by Abraham Darby in 1777. The chord was 100 feet, and the arch nearly a semi-circle, composed of five iron ribs.

A wooden bridge was built over the Rhine, at Schauffhausen, in 1758. It was 364 feet long and 18 feet wide. The French destroyed it in 1799.

The Roman Emperor, Trajan, built a stone bridge over the Danube, near Warhel, in Hungary. It rested on 20 piers and about 4,500 feet long.

One of the most ancient bridges of Modern Europe is that on the Rhone at Avignon. It was constructed by a religious society called "The Brethren of the Bridge"; which was established upon the decline of the second, and the beginning of the third, race of the kings of France, when the state fell into confusion, and no protection was afforded to travellers, especially in passing rivers. The bridge was commenced 1176, and completed in 1188. It consisted of 18 arches—the span of the largest arch was 110 ft. 9 in., and it was 45 ft. 10 in. high.

In the same year that witnessed the commencement of this bridge, was old London Bridge begun by Peter of Colechurch who was probably a member of the widely dispersed fraternity of the "Brethren of the Bridge." Previous to the erection of this structure, which was completed in the reign of John, A.D. 1209, a bridge of wood existed, built in the reign of Etheired II., between the years 993 and 1016. In 1163, it was rebuilt of timber.

The art of bridge-building was cultivated in Britain from an early period. The oldest structure of this kind is the Gothic triangular bridge at Croyland, in Lincolnshire; built, it is said, in 860.

GREAT DAMS OF MODERN TIMES.

Name and Location of Dam; When Opened.	Height.	Length	Storage Cap.	Cost.
	Feet.	*Feet.*	*Million Gals.*	*Dollars.*
Built by Engineers' Corps, U. S. Army, for Navigation—				
Twin City (Mississippi River, below Minneapolis) . . 1917	38	574	.....	1,368,000
No. 17 (Black Warrior River, Ala.) 1915	81	1,170	.....	3,106,000
Built by Engineers' Corps, U. S. Army, for Power and Navigation—				
Wilson (Muscle Shoals); Tennessee River . . . . Unfinished	142	4,500	.....	51,000,000
Built by the City of New York for Water Supply—				
Ashokan (Olive Bridge, N. Y., Catskill Watershed) . 1915	252	4,650	130,400	30,500,000
Schoharie(SchoharieCo.,N.Y., Catskill Watershed) . 1924	182	2,000	20,000	12,300,000
Kensico (Westchester Co., N. Y., Bronx and Byram Watershed) 1915	307	1,825	38,000	15,000,000
Croton Falls (Westch'r Co., N. Y., Croton W't'rsh'd) . 1911	167	1,900	15,753	4,319,000
Croton Lake (Westch'r Co., N. Y., Croton W't'rsh'd) . 1905	297	2,168	33,815	9,337,000
Built by U. S. Government for Irrigation Purposes—				
Roosevelt (Ariz., Salt River) 1911	280	1,080	533,515	3,890,000
Arrowrock (Idaho, Boise River) 1915	349	1,100	91,238	4,328,000
Pathfinder (Neb.-Wyo., No. Platte River) 1922	218	432	348,660	1,755,000
Elephant Butte (N. Mex.-Tex., Rio Grande River) . . 1916	306	1,155	860,000	4,149,000
Tieton (Wash., Yakima River) 1925	222	905	65,985	3,756,000
Shoshone (Wyo., Shoshone River) 1910	328	200	148,783	1,439,000
American Falls (Idaho, Snake River) 1927	78	4,971	553,946	3,060,000
Coolidge (Gila River, south of Globe, Ariz.) ..... 1928 (The reservoir is 24 miles long with a maximum width of 4 miles; irrigates 100,000 acres, of which half are Indian lands.)	250	600	391,021	5,500,000
Built by Turlock and Modesto Irrigation District—				
Don Pedro (Cal., Tuolumne River) 1923	283	1,040	95,000	3,750,000
Built by Merced Irrigation District—				
Exchequer (California) 1926	330	930	91,000	3,270,000
Built for Power or Drinking Purposes—				
Los Angeles, Calif., Flood Control District 1929	265	570	3,900	2,500,000
San Gabriel (under construction)	435	2,400	78,204	25,000,000
Keokuk (Mississippi River, Keokuk, Iowa) 1913	53	4,360	.....	24,000,000
Hales Bar (Tennessee River, near Chattanooga) 1913	60	1,200	.....	6,924,000
Wachusett (Mass.)	207	1,476	.....	2,378,000
Boonton (N. J.)	103	2,150	.....	1,700,000
Conowingo (Md., Susquehanna River)	105	4,633	107,000	52,000,000
Tallapoosa River (Ala.) at Cherokee Bluffs	160	1,248	80,000	16,000,000
Foreign—				
Dnieper River, Europe (under construction)	200	2,500	291,800	.....
Assouan (Egypt, River Nile) 1912	113	6,400	281,338	17,000,000
Sennar (on the Blue Nile, Sudan, near Makwar) 1926	128	9,900	140,000	43,000,000
Burrinjuck (Australia, New South Wales)	148	784	251,317	3,680,000
Tansa (India)	118	8,800	.....	988,000
Poona (India)	108	5,136	.....	630,000
Krishnaraja (India)	124	8,600	45,000	13,000,000
Barberine, Switzerland (Simplon Alps Tunnel) 1921	271	933	82,809	.....
Mohne (Germany)	...	1,346	.....	5,000,000
Vyrnwy (Wales)	136	1,350	.....	2,957,000
Van Ryneveld's Pass (South Africa)	152	1,170	203,600	.....

Cost figures for the dams built by the U. S. Government for irrigation purposes include dam, spillway, and outlet works, but do not include auxiliary features, such as right of way, roads, etc.

MUSCLE SHOALS.

The installed power capacity at the Dam in August, 1928, was 260,000 horsepower, but the output was limited by the transformer capacity to 110,000 K. W. The ultimate capacity is to be 612,000 horsepower.

The installed horsepower at Keokuk Dam is 154,000; at Twin City, 19,200; at Hales Bar, 56,000.

BOULDER DAM PROJECT.

The Boulder Canyon Project Act, approved by the President on Dec. 21, 1928, was declared, by proclamation, effective on June 21, 1929, it having been approved by California, Colorado, Nevada, New Mexico, Utah, and Wyoming.

The advocates of Boulder Dam propose to locate it in Boulder Canyon, in the Valley of the Colorado River, on the Arizona-Nevada boundary, 90 miles north of Needles, Calif., near the big bend in the river.

It is asserted that enough water for irrigation purposes in the vast region below Boulder Canyon can be impounded without backing the river so as to flood the Grand Canyon of the Colorado.

The southern portion of the basin is relatively low in elevation, with a scanty rainfall and of great summer heat, 115 deg. to 120 deg. being not unusual temperatures over much of this southern area in the months of June, July, and August.

The General Land Office, U. S. Dept. of the Interior, has issued a statement saying:

"There are no lands immediately around or for many miles distant from Boulder Dam that have any agricultural value. The lands that lie in Nevada are too high to receive any water from the Boulder Dam reservoir.

"In California and Arizona no waters will carry to a height of more than 650 feet above sea level. The base of the proposed Boulder Dam is about 1,100 feet above sea level. The waters that are to be stored in the dam will be sent through turbines for the generation of hydro-electric power. The waters will then flow back into the channel of the river and be carried many miles below there and diverted for irrigation purposes.

"There are 7,000,000 acres of vacant government lands in the southern California land district, and it is safe to say that more than 90 per cent of this land will never be irrigated by waters from any stream or river."

CELEBRATED AQUEDUCTS.

Built.	Miles.	Place Supplied.	Built.	Miles.	Place Supplied.
B. C.			1837-1842	38	New York City.
312	11	Rome.	1859	35	Glasgow.
269	43	Rome.	1869	83	Paris.
144	61¾	Rome.	1869-1873	56	Vienna.
125	11	Rome.	1875-1878	16	Boston.
33	15½	Rome.	1875-1881	7	Baltimore.
27	25	Nismes, France.	1882-1885	16	Venice.
A. D.			1881-1889	564	Indian Irrigation.
38	45	Rome.	1880-1891	68	Liverpool.
52	62	Rome.	1879-1894	96	Manchester, England.
109	36½	Rome.	1892-1904	74	Birmingham, England.
360	10	Paris.	1899-1906	60	Leicester, etc.
1550	8	Constantinople.	1905-1917	110	New York City.
1801-1822	60	Paris.	1908-1913	250	Los Angeles.
			1915-1919	97	Winnipeg & environs.

For other particulars of Croton and Catskill aqueducts and dams see Index.

CANALS IN THE UNITED STATES.

(Data by U. S. Census Bureau. Canals in italics are ship canals.)

Class, State and Name.	Points Connected.	Opened.	Total Length.	Canal Length.	Width.	Depth.	Cost
NEW YORK.		*Year.*	*Miles.*	*Miles.*	*Feet.*	*Feet.*	*Dollars.*
Erie (Barge)	Troy-Tonawanda	1825	340.40	122.40	150	12	140,535,167
Champlain	Whitehall-Troy	1822	62.66	23.55	125	12	
Oswego	Oswego-Three Rivers	1828	23.50	23.50	200	12	
Cayuga and Seneca	Mays Pt.-Ith's-M't'r F'll	1839	92.23	.....	200	12	8,338,062
Barge Canal Terminals							$25,986,728
Total Cost Erie Canal and Branches							$174,859,957
NEW JERSEY.							
Delaware and Raritan	N. Brunsw'k-Bordent'n.	1834	44.00	44.00	80	8	5,113,749
PENNSYLVANIA.							
Schuylkill Nav. Co	Phila.-Port-Clinton	1825	89.88	.....	58	6	11,055,557
Leh'h Coal and Nav. Co.	Coalport-Easton	1821	47.46	.....	60	6	4,633,109
Del. Division Canal	Easton-Bristol	1916	60.00	.....	45	6	2,433,350
NORTH CAROLINA.							
Fairfield	Fairfield-Alligator River.	1868	3.50	3.50	26	7	60,000
Lake Landing	Lake Landing-Wyesock-ing Bay	.....	2.50	2.50	40	6	50,000
Sladesville	Sladesville-Pungo River	.....	.40	.40	35	6	2,175
Swan Quarter	Swan Qtr.-Swan Qtr. Bay	.....	.50	.50	35	5	.....
Outfall Canal	Lake Ldg.-Pamlico Sd.	.....	7.50	7.50	35	5	.....
Clubfoot & Harlowe	Clubfoot Ck.-Harlow Ck.	.....	3.20	3.20	40	2½	.....
ILLINOIS.							
Illinois and Michigan	Chicago-La Salle	1848	95.00	95.00	60	4½	9,429,606
Chicago Drain. and Ship.	Chicago-Lockport	1900	38.60	32.35	160	22	55,208,889
MICHIGAN.							
Torch Lake	Torch Lake-Torch Bay	1875	4.00	4.00	110	20	597,075
LOUISIANA.							
New Basin	N. Or.-L. Ponchartrain	1836	6.50	6.50	100	10	1,384,634
Old Basin	N. Or.-St. Johns Bayou	1794	5.50	2.00	84	5	227,352
Lake Borgne	Miss. R.-Lake Borgne	1900	7.00	7.00	100	6	350,000
St. Charles Harbor	Sabine-Calcasieu River	1926	30.	.....	125	30	.....

The U. S. War Dept. took over the Cape Cod Canal, Mar. 31, 1928, and abolished tolls.

GOVERNMENT CANALS.

(Length is in miles unless otherwise stated.)

State and Name.	Points Connected.	Opened.	Total Length.	Canal Length.	Width.	D'th.	Cost
MASSACHUSETTS.		*Year.*	*Miles.*	*Miles.*	*Feet.*	*Feet.*	*Dollars.*
Cape Cod Ship	Buzzard-Cape Cod Bay	1914	13.00	7.68	200	25	13,500,000
NEW YORK.							
Black Rock Canal	East Bank, Niagara Riv. at Buffalo	1914	3.20	3.20	200	20	5,905,630
DELAWARE.							
Waterway	Delaware-Rehoboth Bays	1916	12	12	40-50	6	252,790
Chesapeake and Del. Can.	Del. Riv.-Chesap'k Bay	96% com.	29.63	13.63	90	12	10,060,017
NORTH CAROLINA.							
Waterway	Swan Q'rt'r Bay-Deep Bay	1911	5,500 ft.	5,500 ft.	50	6	8,551
Waterway	Beaufort-Cape Fear River-Jacksonville	Partially	108	.....	40–90	3-12	198,807
Thoroughfare	Thoroughfare Bay-Cedar Bay	.....	1.50	1.50	200	4	17,000
Dismal Swamp (Lake Drummond)	Deep Creek-Turners Club	.....	22.4	22.4	70	9	3,301,000
Waterway	Norfolk, Va.-Beaufort Inlet, N. C.	88% com.	206.28	.....	90-250	12	6,158,592
SOUTH CAROLINA.							
Estherville-Minim C'k Ca.	Santee Riv.-Winyah Bay	1906	5	5	70	6	174,620
Florida Waterway	Jacksonville-Miami	Partially	383	.....	75	8	94,775
LOUISIANA.							
The Louisiana and Texas Inter-coast Waterway:							
New Orleans - Sabine River Section	.....	Partially	348.97	.....	100	9	2,122,233
Sabine River - Corpus Christi Section	.....	"	300	.....	100	9	555,307
TEXAS.							
Sabine Neches Waterway	Beaumont-Orange-Port Arthur-Gulf of Mexico	87% com.	56	23	125-450	30-33	8,660,570
ILLINOIS.							
Illinois and Miss. Canal	LaSalle,Ill.,-Miss. Riv.	1906	75	75	35	7	7,547,278
IOWA.							
LeClaire Canal	LeClaire to foot of Smith Island, Miss. Riv.	1922	3.6	3.6	80	7	2,206,741
ALABAMA.							
Colbert Shoals Canal	Colbert Shoals, Tenn. Riv.	1911	8.06	8.06	80	7	2,313,000
Muscle Shoals Caual	Muscle Shoals & Elk Riv. Shoals, Tenn. Riv	1890	11.2	11.2	57	5	3,191,726
MICHIGAN.							
St. Marys Falls, Canal, S.	Around Falls, St. Marys R.	1896	7,400 ft.	7,400 ft.	80	24½	26,413,737
St. Marys Falls, Canal, N.	Around Falls, St. Marys R.	1919	7,515 ft.	7,515 ft.	80	24½	
Keweenaw Waterway	Lake Superior-Portage Bay Keweenaw Bay	1926	25	25	120	20	1,973,348
WISCONSIN.							
Sturgeon Bay Ship Canal	Sturgeon Bay-Lake Mich.	1919	7,200 ft.	7,200 ft.	160-250	19	566,642
KENTUCKY.							
Louisville & Portland Canal	Around Ohio Riv. Falls at Louisville	1830	2	2	200	9	6,960,920
OREGON.							
Willamette River	Willamette Falls near Oregon City	1873	3,500 ft.	3,500 ft.	40	6	677,122

GOVERNMENT CANALS—*Continued.*

STATE AND NAME.	Points Connected.	Opened.	Total Length.	Canal Length.	Width.	D'th.	Cost
		Year.	*Miles.*	*Miles*	*Feet.*	*Feet.*	*Dollars.*
Cascades Canal	At the Cascades, Columbia River	1896	3,000 ft.	3,000 ft.	90	8	3,903,780
Dalles-Celilo	The Dalles-Celilo Falls, Columbia Riv.	1915	8.50	8.50	65	8	4,717,660
WASHINGTON.							
Waterway	Port Townsend-Oak Bays	1916	4,800 ft.	4,800 ft.	75	15	73,322
Lake Washington Canal	Puget Sound-Lake Wash'n	1916	8	8	.....	34	3,797,042

CANALIZED RIVERS.

CLASS, STATE AND NAME.	Points Connected.	Opened.	Total Navig. Length.	Dimensions of Locks.	Width of Channel.	D'th of Channel.	Cost
		Year.	*Miles.*	*Feet.*	*Feet.*	*Feet.*	*Dollars*
NEW YORK.							
Hudson River	Waterford-Hudson	49% com.	155	45x492.5	200–400	12	11,928,229
PENNSYLVANIA.							
Monongahela River	Pittsb'gh-Fairm't, W.Va.	1897	130	56x360	420–900	5.5-8	12,693,944
Allegheny River	Pittsb'gh-N. Y. State line	only partially com.	214	56x360	150–300	7-8	4,083,247
Ohio River Lock) and Dam construction)	Pittsburgh-Cairo	1929	968.5	110x600	890–5910	9	100,012,093
WEST VIRGINIA.							
Kanawha Rive	Mouth-Loup Creek	about 1875	90	55x313	600–700	6	4,244,612
Little Kanawah	Mouth-Creston	1874	48	23x125	125–300	4	259,082
NORTH CAROLINA.							
Cape Fear River	Kings Bluff-Browns L'dg	1916	136	40x200	.....	8	1,248,200
SOUTH CAROLINA.							
Congaree River	Columbia-Granby	1904	51	55x170	390	4	281,000
FLORIDA.							
Oklawaha River	Mouth-Lisebure	74% com.	94	30x125	50–200	6	237,913
ALABAMA.							
Black Warrior, Warrior and Tombigbee Rivers	Mouth-Sanders Ferry & Nichols Shoals	1895	398.5	52x286	140–1000	6	10,475,914
Coosa River	Rome, Ga.–Mouth	1890	282	40x176	600	2.5-4	2,574,912
LOUISIANA.							
Bayou Plaquwmine	Plaquemine, La	1909	10.6	55x298	55–360	10	1,844,936
Bayou Teche	Mouth-New Iberia	1913	125	36x183	50–80	6–8	757,945
MISSISSIPPI.							
Big Sunflower River	Mouth-Pentecost	1918	124.5	36x160	150–400	3–5	560,026
ARKANSAS.							
Upper White River	1 mi. below Batesville to Guion	1904	33	36x147	625	3	815,196
Ouachita River	Mo. of Black R.-10 mi. above Camden	1915	360	55x268	500	6.5	5,240,619
OHIO.							
Muskingum	Mouth-Dresden	1840	91	55x360	600	6	3,290,530
KENTUCKY.							
Kentucky River	Mouth-Beattyville	1844	255	37x145 32x148	250–400	6	4,175,640
Green and Barren Rivers	G.R.-mo-Mammoth C.	1841	196	35x139	.....	5	5,478,560
	B.R.-mo.-Bowling Gr.		29.5	35x138			
Big Sandy River	Mouth-Forks						
Tug Fork	Mouth-Calf Creek	1897	...	55x158	250–400	6	1,584,736
Levisa Fork	Mouth-Whitehouse						
Rough River	Mouth-Hartford	1896	29.5	27x125	.....	4	145,141
TENN., KY. & ALA.							
Cumberland River							
Below Nashville	Nashville-Smithland, Ky.	1904	129.6	52x280	400—500	4.5-6	4,716,227
Above Nashville	Nashville-Burnside	1904	326.1	52x280	300	4–6	4,111,416
Tennessee River: (Note)							
Below Chattanooga	Chatta-Mo. at Paducah	1894	464.1	60x267	1200M	3–6	5,941,063
Above Chattanooga	Chatta.-Junc. of French Broad & Halston Rivs.	1894	188	60x265	700	1–4	2,350,128
ILLINOIS.							
Illinois River	LaSalle-Grafton	1889	223	73x300	600–1400	6–7	2,518,659
INDIANA.							
Washbash River	Mouth-Terre Haute, Ind.	1893	12	52x214	450–1300	3.5	260,000
WISCONSIN.							
Fox River	Portage-Depere	1856	176	35x36 35x148	300–3000	4–6	3,974,408
Mississippi River, Missouri River-Minneapolis	Lock and dam at—						
	Keokuk, Iowa	1913	664	110x358	300–1400	4–6	40,777,273
	Moline, Ill	1907		80x350			
	LeClaire Canal	1922		80x320			
MISSOURI.							
Osage River	Mouth-Linn Creek	1906	109	42x220	600	2–3	671,315
OREGON.							
Yambill River	Mouth-McMinnville	1900	18	40x210	60	4	72.165

Note—Tennessee River data exclude Colbert Shoals and Muscle Shoals Canals, which are shown in the table above, under the heading "Government Canals."

ORIGIN OF SPEECH.

Primitive man, says Sir Richard Paget, anthropologist, would sing, grunt, or roar to express his emotions, just as animals did.

He would pantomime with his face and limbs to express his ideas to his fellows, and as he pantomimed with his hands his tongue would follow suit.

But as he came to occupy his hands more and more in his crafts he would have to rely more on gestures of his face, tongue, and lips.

Then it would come about that the pantomimic action would be recognized by sound as well as by sight, and speech was thus born.

THE HOUSTON SHIP CANAL.

The Houston, Texas, Ship Channel, 50 miles long, completed to 30 ft. depth September 1925; width of 250 feet across Galveston Bay, 25 miles and 150 feet wide from Morgan's Point up San Jacinto River and Buffalo Bayou to harbor at Houston.

Total cost, including public terminals, about $21,000,000; thirteen public wharves, berthing space for seventeen vessels; fifteen private wharves with berthing space for thirty-two vessels; additional terminals under construction.

The port is operated by the Navigation and Canal Commission of five members, R. S. Sterling, Chairman; B. C. Allin, Director of the Port.

Total commerce during 1928 totaled 12,979,826 short tons valued at $598,724,008.

CANALS IN CANADA.

Name.	Cost to '28.	L'gth.	Depth.
	Dollars.	*Miles.*	*Feet.*
St. Lawrence System:			
Lachine Canal	24,173,251	8.5	14
Soulanges Canal	10,854,606	14	15
Beauharnois	3,077,106	11.25	9
Lake St. Louis	298,176	16	...
Lake St. Francis	102,935	31	...
Cornwall Canal	12,272,748	11.25	14
Williamsburg Canals	12,999,502	12.21	14
River reaches	3,748,764	19	...
Welland Canal	46,866,262	26.75	14
Welland Ship Canal	90,301,957	25	27
Sault Ste. Marie Canal	6,787,623	1.41	19
Ottawa River System:			
Ste. Anne's Lock	1,835,510	.12	9
Carillon & Grenv'le Cl.	6,664,989	6.50	9
Chambly Canal	4,701,925	12	6.5
St. Ours Lock	643,879	1.12	7
St. Peter's Canal	1,737,425	.49	18
Rideau Canal	10,835,174	133.25	5
Murray Canal	1,725,874	5.17	12
Trent Canal	25,787,372	236	6
St. Andrew's Lock	1,941,112	215 ft.	17

The tons of freight carried on the Canadian Canals in 1927 totaled—St. Lawrence Canals, 7,912,952; Welland, 7,247,459; Sault Ste. Marie, 1,470,551; Chambly, 204,526; Murray, 712; Trent, 27,754; Rideau, 57,951; St. Peter's, 46,306; Ottawa Canals, 455,759; St. Andrews Lock, 64,331.

POWER CANAL

On the Canadian side of the Niagara River there are three large hydro-electric developments at Niagara Falls: The plant of the Canadian Niagara Power Company, with a nominal operating capacity of 100,000 horsepower; the plant formerly owned by the Ontario Power Company, with an operating capacity of 180,000 horsepower, and the plant formerly owned by the Toronto Power Company, with an operating capacity of 125,000 horsepower.

The Ontario Power Company and its plant and the Toronto Power Company and its plant were subsequently purchased by the Hydro-Electric Power Commission on behalf of the co-operating municipalities of Ontario.

In addition to its two plants at Niagara Falls which utilize only the head available in the immediate vicinity of the falls, the Hydro-Electric Power Commission has constructed what is known as the Queenston-Chippawa power development.

This development—the largest single hydro-electric development in the world—utilizes a head of 305 feet, the maximum effective head developable from the fall of 327 feet in the Niagara River between lakes Erie and Ontario.

The main canal is 48 feet wide and lined with concrete. The depth of water is from 35 to 40 feet.

The power house, situated in the gorge, contains nine units with an aggregate capacity of about 550,000 horsepower; total cost, $80,000,000.

SOME FOREIGN CANALS.

	Length, Miles.	Depth, Feet.	Width, Feet.	Estimated Cost.
Suez—Mediterranean and Red Seas (1869)	104½	36	150	$127,000,000
Cronstadt—Leningrad (1890)	19.8	20½	350	10,000,000
Manchester—Manchester and Liverpool (1894)	35½	28	120	85,000,000
Kaiser Wilhelm (Kiel Canal)—Baltic and North Seas (1895)	61	36	72	40,000,000
Elbe and Trave (1900)	41	10	72	6,000,000
Berlin-Stettin (Hohenzollern Canal)	136	9.8	32–39	12,500,000
Marseilles—River Rhone	60	60	82	20,000,000
Odense—Denmark	5	20	.....	1,321,000
Maas-Waal, Holland	8	13	108–162	5,000,000

SUEZ CANAL STEAM VESSEL TRAFFIC.

Year.	No. of Vessels.	Net Tonnage.	Year.	No. of Vessels.	Net Tonnage.	Year.	No. of Vessels.	Net Tonnage.
1870	486	436,609	1914	4,802	19,409,495	1921	3,975	18,118,999
1880	2,026	3,057,421	1915	3,708	15,266,155	1922	4,345	20,743,245
1890	3,389	6,890,094	1916	3,110	12,325,347	1923	4,621	22,730,162
1900	3,441	9,738,152	1917	2,353	8,368,918	1924	5,122	25,109,882
1910	4,533	16,581,898	1918	2,522	9,251,601	1925	5,337	26,761,935
1911	4,969	18,324,794	1919	3,986	16,013,802	1926	4,980	26,060,377
1912	5,373	20,275,120	1920	4,009	17,574,657	1927	5,545	28,962,048
1913	5,085	20,033,884				1928	6,084	31,906,000

The Suez Canal has no locks. It was originally 26 feet deep, and now is being deepened to 40 feet. The width of the bottom (at a depth of 32 feet 10 inches) is to be increased at least to 200 feet.

The surface width now varies from 350 to 500 feet. The minimum surface width is to be 400 feet.

There are four towns along the canal—Port Fuad and Port Said, on the shore of the Mediterranean, population 100,000; Ismailia, situated near the mid-length of the canal; and Port Tewfik, at the Red Sea outlet and two miles from the town of Suez. Port Said is the industrial centre of the canal zone; Ismailia is the seat of administrative headquarters.

Marseilles-Rhone Canal. The Canal's length, from Arles to the Mediterranean is 51 miles. The normal width, outside the Tunnel du Rove, is 81¼ feet and the depth 9⅞ feet from Marseilles to Port-de-Bouc, and 8⅛ feet thence to Arles. The dimensions of the Tunnel du Rove, which are the limiting measurements for the Marseilles-Rhone Canal are: length 4½ miles, depth 60 feet, width 72½ feet, cost 135,000,000 francs.

Mittelland Canal in Germany leaves the Rhine at Ruhrort and runs in a northeast direction to the Eeser and thence to Hanover. Ultimately it will connect with the canal systems farther east.

Ludwig Canal, together with several small rivers, connects the Danube with the Rhine, thus bringing together the east and the west of Europe, the north and the south, the Black Sea and the North Sea. Work is in progress on the $100,000,000 Rhine-Main-Danube Canal System, of which this is a part.

The general scheme is to link the navigable Rhine at its junction with the Main, with the Danube at Kelheim just above Ragensburg, and form a water route across Europe from the North Sea to the Black Sea capable of taking 1500-ton barges.

It is estimated that it will take about 23 years to complete the entire system.

The 1927 traffic on the Rhine approximated 66,000,000 tons.

Some of the Roman Emperors attempted to cut through the isthmus which connects the Peloponnesus or Morea with the rest of Greece. In Boeotia traces of canals are found, originally cut for the purpose of carrying off the water from the flooded lands. The aqueducts of the Romans were a species of canal; and they also had many canals for drawing off the water from flooded lands.

There was also a canal between the Nile and the Red Sea, commenced by Necos, and continued by Darius; but a fear arose that all Egypt would be inundated, and the plan was abandoned. The second Ptolemy proceeded with the undertaking, and completed it.

THE PANAMA CANAL.

(Opened for Navigation Aug. 15, 1914. Headquarters, Balboa Heights, C. Z.)

The Panama Canal was built between latitude 8 and 9 N. across the Isthmus of Panama at its narrowest part but one. The saddle through which it crosses the continental divide was originally 312 feet above sea level. Gold Hill, the highest point immediately alongside the channel of the Canal, rises 662 feet above sea level. The Canal has a length of 44.08 nautical miles or 50.45 statute miles from deep water in the Atlantic to deep water in the Pacific. The Canal extends at sea level from its starting point in Limon Bay to Gatun, 6¾ miles. At Gatun the sea level section ends in a flight of three pairs of locks, forming the steps to Gatun Lake, with its normal elevation 85 feet above the sea.

Gatun Lake was formed by damming the Chagres Valley, and excess water, wasted through the spillway, finds its way to sea through the old course of the Lower Chagres. The Canal proceeds up the valley of the Chagres 23¾ miles to Gamboa, and in this section relatively little excavation was required. At Gamboa begins the real drive through the divide, the famous Culebra Cut. It is 8 miles long, 300 feet wide at bottom, and extends to Pedro Miguel lock and dam, on the Pacific slope of the divide. Here one lock lowers the ship to Miraflores Lake, a small body about a mile long, with its surface 55 feet above the sea. At the south end of this lake are Miraflores locks, which, in two steps, lower the ship to the Pacific. A sea level channel 8 miles long carried past Balboa and out into the Pacific.

The minimum depth of the channel is 41 feet, and in parts of Gatun Lake it is about 80 feet deep. The lock chambers have a clear width of 110 feet and length of 1,000 feet, giving ample handling room for the largest ship yet built. Gatun dam, by which Gatun Lake was formed, is a big, gently sloping mound, built by pumping sand and clay into the space between two ridges of rock and earth. It is 1½ miles long and ½ mile wide at its base. Its crest is 105 feet above sea level and the width of the dam at the top is 100 feet.

The Panama Railroad extends between Colon and Panama on the eastern side of the Canal.

The Canal Zone is the strip of land extending five miles on either side of the axis of the Canal, but not including the cities of Panama and Colon, which remain within the Republic of Panama. It has an area of 553.9 square miles, including land and water It was granted to the United States by the treaty made with Panama, February 26, 1904. The United States paid $10,000,000 for the Zone, and makes an annual payment in addition of $250,000.

Some years ago a part of the total cost of constructing the Panama Canal was written off to national defense.

The total thus written off, which now stands at $113,127,338 (June 30, 1929) represents the cost of features and additional facilities (not including fortifications, military posts, submarine base, etc.) included in the design of the Canal for military or naval reasons, which might have been omitted if there had been none but commercial interests to serve. It includes $40,000,000 paid to the French.

This leaves a balance of $237,751,564 as the investment in the Canal proper (Canal fixed property), and an additional sum of $6,336,147 invested in equipment (Canal transit equipment).

There is also $32,620,286 invested in auxiliary business enterprises other than those conducted with funds of the Panama Railroad Company.

In 1929 (fiscal year) the net income of the Panama Canal from tolls, taxes, licenses, fees, fines, postal receipts, etc., was $17,729,775, and the net profit on auxiliary business operations was $737,850.

COMMERCIAL TRAFFIC IN YEARS ENDED JUNE 30.

Year.	No. Ships.	Canal Net Tonnage.	Cargo Tons.	Tolls.	Year.	No. Ships	Canal Net Tonnage.	Cargo Tons.	Tolls.
1915....	1,075	3,792,572	4,888,454	$4,367,550	1923....	3,967	18,605,786	19,567,875	17,508,415
1916....	758	2,396,242	3,094,114	2,408,090	1924....	5,230	26,148,878	26,994,710	24,290,964
1917....	1,803	5,798,557	7,058,563	5,627,563	1925....	4,673	22,855,151	23,958,836	21,400,524
1918....	2,069	6,574,073	7,532,031	6,438,853	1926....	5,197	24,774,591	26,037,448	22,931,055
1919....	2,024	6,124,990	6,916,621	6,172,829	1927....	5,475	26,227,815	27,748,215	24,228,830
1920....	2,478	8,546,044	9,374,499	8,513,933	1928....	6,456	29,458,634	29,630,709	26,944,500
1921....	2,892	11,415,876	11,599,214	11,276,890	1929....	6,413	29,837,794	30,663,006	27,127,377
1922....	2,736	11,417,459	10,884,910	11,197,832					

In the year ended June 30, 1929, in addition to the above, 553 U. S. Government vessels transited the canal, and also 40 ships for repairs, 21 Panama Government vessels, 2 Colombian Government vessels, and 167 launches, each under 20 tons net—a total of 7,196 ships and a total of $27,128,889 in tolls.

The non-commercial ships carried 119,369 long tons of cargo, which made the total canal cargo tonnage 30,782,375.

CANAL TRAFFIC FROM DATE OF OPENING TO JUNE 30, 1928.

The Canal from Aug. 15, 1914, to the close of business, June 30, 1929, transited 53,246 commercial toll-paying vessels, on which a total of $220,435,105 in tolls was paid.

The aggregate net tonnage of these vessels was 233,975,382 tons. Panama Canal measurement, and, the total cargo carried was 245,949,205 long tons.

In addition to the commercial traffic listed above a total of 4,714 vessels, operated by the United States Government, exclusive of craft in the service of the canal, were passed through the canal without payment of tolls.

CANAL TRADE EAST AND WEST.

ATLANTIC TO PACIFIC				PACIFIC TO ATLANTIC			
Commodity.	1926-7.	1927-8.	1928-9.	Commodity.	1926-7.	1927-8.	1928-9.
Mfd. Goods (incl.) iron, textiles, etc.)	2,341,638	2,527,695	3,252,791	Oils, Mineral.....	7,143,165	5,619,076	5,197,813
Oils, mineral.....	649,379	717,080	806,744	Lumber.....	3,139,113	3,673,832	3,311,875
Metals, various....	254,327	157,797	205,112	Nitrates.....	1,174,384	2,565,572	2,554,565
Cement.....	222,817	280,032	379,968	Wheat.....	1,477,376	3,035,884	2,365,555
Coal and coke.....	186,522	252,740	227,883	Ores, various.....	1,524,265	1,635,412	1,750,548
Sulphur.....	211,625	207,257	238,231	Canned goods, var..	673,743	771,793	921,217
Autos and access...	180,946	173,605	341,265	Metals, various....	441,533	626,683	671,500
Cotton, raw.....	361,241	259,225	331,652	Sugar.....	427,035	577,781	717,931
				Barley.....	344,341	287,262	260,142
Other and total..	8,583,327	8,310,134	9,882,520	Other and total..	19,164,888	21,320,575	20,780,486

Commercial traffic includes all ocean-going vessels paying tolls. Vessels in the direct service of the United States Government, including merchant vessels chartered by the Government, do not pay tolls. Shipping Board vessels in commercial service pay tolls.

PRINCIPAL RIVERS OF THE UNITED STATES.

River.	Outflow.	Miles.	River.	Outflow.	Miles.
Alabama	Mobile River	350	Mobile	Mobile Bay	50
Alleghany	Ohio River	315	Mohawk	Hudson River	160
Androscoggin	Kennebec River	210	Monongahela	Alleghany River	300
Arkansas	Mississippi River	1,460	Neches	Sabine Lake, Tex.	350
Atchafalaya	Gulf of Mexico	200	Neosho	Arkansas River	400
Big Black	White River, Ark.	400	Neuse	Pamlico Sound	300
Big Horn	Yellowstone River	500	Ocmulgee	Altamaha River	280
Black	Lake Ontario	190	Oconee	Ocmulgee River	270
Black Warrior	Tombigbee River	300	Ohio	Mississippi River	968
Brazos	Gulf of Mexico	950	Osage	Missouri River	460
Canadian	Arkansas River	760	Passaic	Newark Bay	100
Cape Fear	Atlantic Ocean	250	Pearl	Gulf of Mexico	350
Chattahoochee	Apalachicola River	500	Pecos	Rio Grande	800
Cheyenne	Missouri River	500	Pedee (Yadkin)	Winyaw Bay, S. C.	300
Chickasawha	Pascagoula River	200	Penobscot	Penobscot Bay	260
Cimarron	Arkansas River	650	Platte	Missouri River	1,260
Colorado	Matagorda Bay	650	Powder	Yellowstone River	400
Colorado	Gulf of California	1,650	Potomac	Chesapeake Bay	420
Columbia	Pacific Ocean	1,270	Rappahannock	Chesapeake Bay	155
Conecuh	Escambia River, Fla.	175	Red	Mississippi River	1,275
Connecticut	Long Island Sound	390	Red (of North)	Nelson River	355
Coosa	Alabama River	350	Rio Grande	Gulf of Mexico	1,650
Cumberland	Ohio River	650	Roanoke	Albemarle Sound	240
Delaware	Delaware Bay	350	Rock	Mississippi River	330
Des Moines	Mississippi River	450	Sabine	Gulf of Mexico	400
Dolores	Grand River	250	Sacramento	Suisun Bay	400
Edisto	Atlantic Ocean	150	St. Croix	Mississippi River	200
Flint	Apalachicola River	350	St. Francis	Mississippi River	460
Fox	Green Bay	250	St. John's	Atlantic Ocean	400
Genesee	Lake Ontario	145	St. Joseph	Lake Michigan	260
Gila	Colorado River	605	San Joaquin	Sacramento River	225
Grand	Missouri River	200	Santee	Atlantic Ocean	150
Grand	Lake Michigan	280	Savannah	Atlantic Ocean	450
Grand	Green River	350	Schuylkill	Delaware River	130
Great Kanawha	Ohio River	450	Scioto	Ohio River	225
Green	Ohio River	350	Shenandoah	Potomac River	200
Greenbrier	Great Kanawha River	175	Snake	Columbia River	940
Gunnison	Grand River	200	Sunflower (Big)	Yazoo River	200
Hackensack	Newark Bay	50	Susquehanna	Chesapeake Bay	256
Holston	Tennessee River	350	Susquehanna	Susquehanna River	250
Housatonic	Long Island Sound	150	Suwanee	Gulf of Mexico	250
Hudson	New York Bay	315	Tallahatchee	Yazoo River	240
Humboldt	Humboldt Lake	375	Tallapoosa	Coosa River	250
Illinois	Mississippi River	435	Tar (Pamlico)	Pamlico Sound	220
Indian	Atlantic Ocean	100	Tennessee	Ohio River	950
James	Chesapeake Bay	420	Tombigbee	Mobile River	500
Kalamazoo	Lake Michigan	200	Trinity	Galveston Bay	535
Kansas	Missouri River	300	Wabash	Ohio River	550
Kaskaskia	Mississippi River	320	Waccamaw	Great Pedee River	550
Kennebec	Atlantic Ocean	250	Washita	Red River	550
Kentucky	Ohio River	250	White	Mississippi River	690
Menominee	Green Bay	125	Willamette	Columbia River	275
Merrimac	Atlantic Ocean	150	Wisconsin	Mississippi River	400
Minnesota	Mississippi River	475	Yazoo	Mississippi River	300
Mississippi	Gulf of Mexico	2,486	Yellowstone	Missouri River	800
Missouri	Mississippi River	2,945	Yukon	Bering Sea	2,100
Miss.-Mo	Gulf of Mexico	4,221			

The Missouri River connects with the Mississippi 20 miles above St. Louis.

PRINCIPAL FOREIGN RIVERS.

River.	Outflow.	Lg'th M's.	River.	Outflow.	Lg'th M's.	River.	Outflow	Lg'th M's.
Albany	Hudson Bay	610	Jordan	Dead Sea	200	Red	Lake Winnipeg	355
Amazon	Atlantic Ocean	3,900	Kazan	Hudson Bay	445	Rhine	North Sea	700
Amu Darya	Aral Sea	1,500	Koksoak	Hudson Bay	535	Rhone	Gulf of Lyons	500
Amur	Gulf Tartary	2,900	Kootenay	Columbia Riv	400	Rio Negro	Amazon Riv	1,400
Assiniboine	Red Riv. of N.	450	La Plata	Atlantic Ocean	2,300	Riv. of Doubt	Riv. Madeira	950
Athabaska	Arctic Ocean	765	Lena	Arctic Ocean	2,600	Saguenay	St. Law. Riv	405
Backs	Arctic Ocean	605	Liard	Arctic Ocean	550	St. John	Bay of Fundy	500
Brahm'putra	Bay of Bengal	1,680	Loire	Bay of Biscay	650	St. Lawrence	Gulf St. Law	2,150
Bug	Dneiper Riv	500	Mackenzie	Beaufort Sea	2,525	St. Maurice	St. Law. Riv	325
Churchill	Hudson Bay	1,000	Madeira	Amazon Riv	2,000	Salwin	Gulf of Martaban	1,750
Columbia	Pacific Ocean	1,150	Magdalena	Caribbean Sea	950	S. Francisco	Atlantic Ocean	1,200
Congo	Atlantic Ocean	2,900	Manikugan	St. Lawr. Riv	310	Sask'tch'wan	Lake Winnipeg	1,205
Coppermine	Arctic Ocean	525	Maros	Theiss River	500	Seine	English Chan.	475
Danube	Black Sea	1,725	Marne	Seine River	310	Severn	Hudson Bay	420
Darling	Murray River	1,160	Mekong	China Sea	2,500	Shannon	Atlantic Ocean	250
Dnieper	Black Sea	1,400	Meuse (Ms)	North Sea	575	Si	China Sea	900
Dniester	Black Sea	800	Murray	Indian Ocean	2,310	Souris	Hudson Bay	450
Drave	Danube Riv	450	Nelson	Hudson Bay	1,660	Tagus	Atlantic Ocean	550
Dubawnt	Hudson Bay	580	Niger	Gulf of Guinea	2,900	Thames	North Sea	215
Ebro	Mediterranean	400	Nile	Mediterranean	4,000	Theiss	Danube Riv.	800
Elbe	North Sea	700	Nottaway	Hudson Bay	400	Tigris	Euphrates	1,150
English	Hudson Bay	330	Ob	Gulf of Ob	3,200	Ural	Caspian Sea	1,400
Euphrates	Persian Gulf	1,700	Oder	Baltic Sea	550	Vistula	Gulf of Danzig	630
Fraser	Pacific Ocean	695	Orange	Atlantic Ocean	1,100	Volga	Caspian Sea	2,300
Gambia	Atlantic Ocean	500	Orinoco	Atlantic Ocean	1,600	Weser	North Sea	300
Ganges	Bay of Bengal	1,500	Ottawa	St. Law. Riv	685	Winnipeg	Hudson Bay	475
Garonne	Bay of Biscay	385	Paraguay	Parana River	1,500	Yangtse	Yellow Sea	3,100
Hamilton	Esquimau Bay	350	Parana	Atlantic Ocean	2,450	Yenisei	Arctic Ocean	2,800
Hwang (Yellow)	Gulf Pechili	2,700	Peace	Arctic Ocean	1,065	Yukon	Bering Sea	1,765
Indus	Arabian Sea	1,700	Pilcomayo	Paraguay Riv	1,000	Zambezi	Indian Ocean	1,600
Irawadi	Bay of Bengal	1,250	Po	Adriatic Sea	420			

The Ottawa River, in its upper course, north of Pembroke, is over 5,000 feet deep.

GREAT OCEAN STEAMSHIPS.

(This list is compiled from Lloyd's 1929-30 Register of Shipping.)

Note—Length between perpendiculars means the length from the stem to the fore part of the rudder post.

Name.	Registered Tonnage.	L'gth Bet. Perp'dic.	Breadth.	Depth.
		Ft.In.	*Ft.In.*	*Ft.In.*
Leviathan, U. S.	59,957	907 6	100 3	58 2
Majestic, Br.	56,621	915 5	100 1	58 2
Berengaria, Br.	52,226	883 6	98 3	57 1
Olympic, Br.	46,439	852 5	92 5	59 5
†Bremen, Ger.	46,000	.....	.....	.....
†Europa, Ger.	46,000	.....	.....	.....
Aquitania, Br.	45,647	868 7	97 0	49 7
Ile de France, Fr.	43,153	763 7	92 0	55 9
Paris, Fr.	34,569	735 4	85 3	59 1
Homeric, Br.	34,351	751 0	83 3	48 6
*Augustus, It.	33,650	710 9	82 8	46 5
Roma, It.	32,583	705 6	82 8	47 2
Columbus, Ger.	32,354	749 6	83 1	49 4
Mauretania, Br.	30,696	762 2	88 0	57 1
Statendam, Holl.	29,511	670 4	81 4	49 4
Cap Arcona, Ger.	27,561	643 6	84 6	41 9
Belgenland, Br.	27,132	670 4	78 4	44 7
Britanic, Br.	26,400	.....	.....	.....
Empress of Scotland, Br.	25,160	677 5	77 3	50 2
Conte Grande, It.	25,661	652 2	78 3	27 2
Adriatic, Br.	24,553	709 2	75 5	52 6
Conte Biancamano, It.	24,416	650 9	76 1	27 5
Duilio, It.	24,281	602 4	76 3	46 3
Rotterdam, Hol.	24,149	650 5	77 4	43 5
*Vulcania, It.	23,970	631 4	79 8	24 4
*Saturnia, It.	23,940	631 4	79 8	24 4
Baltic, Br.	23,884	709 2	75 6	52 6
George Washington, U. S.	23,788	699 1	78 2	50 1
France, Fr.	23,769	390 1	75 6	48 5
Alcantara, Br.	22,181	630 5	78 5	40 5
Asturias, Br.	22,181	630 5	78 5	40 5
Pennsylvania, U. S.	22,000	586 0	.....	.....
New York, Ger.	21,455	602 5	72 4	42 1
Minnetonka, Br.	21,998	600 8	80 4	49 4
Empress of Australia, Br.	21,833	589 9	75 2	41 5
Minnewaska, Br.	21,716	600 8	80 4	49 4
Giulio Cesare, It.	21,657	602 4	76 5	46 3
Empress of Canada, Br.	21,517	627 0	77 9	41 8
Lafayette, Fr.	21,500	574 1	77 0	50 0
America, U. S.	21,329	668 8	74 3	47 8
Cedric, Br.	21,227	680 9	75 3	44 1
Hamburg, Ger.	21,133	602 5	79 0	42 1
Duchess of Bedford, Br.	20,123	581 9	75 2	41 7
Duchess of Atholl, Br.	20,119	582 0	75 2	41 7
Mooltan, Br.	20,847	600 8	73 4	48 6
Maloja, Br.	20,837	600 8	73 4	48 6
Albert Ballin, Ger.	20,813	600 4	72 2	41 9
Virginia, U. S.	20,773	586 4	80 3	52 0
Deutschland, Ger.	20,607	602 5	78 7	41 9
Cap Polonio, Ger.	20,518	637 7	72 4	39 5
California, U. S.	20,325	574 4	80 3	52 0
Carinthia, Br.	20,277	600 7	73 8	40 7
Franconia, Br.	20,175	601 3	73 7	40 6
*Carnarvon Castle, Br.	20,063	630 7	73 5	41 5
Otranto, Br.	20,032	632 0	75 3	33 0
Duchess of Richmond, Br.	20,022	581 9	75 2	41 7
Duchess of York, Br.	20,021	581 9	75 2	41 7
Oronsay, Br.	20,001	633 6	75 2	33 0
Orontes, Br.	20,000	632 0	75 2	33 0
Oxford, Br.	19,941	632 2	75 4	33 1
Reliance, Ger.	19,802	590 4	80 5	39 7
Caronia, Br.	19,782	650 0	72 2	40 2
Orama, Br.	19,777	632 0	75 2	32 9
Scythia, Br.	19,761	600 7	73 8	40 7
Laconia, Br.	19,695	601 3	73 7	40 6
Resolute, Ger.	19,692	590 0	72 2	40 2
Samaria, Br.	19,597	601 5	73 7	40 7
Carmania, Br.	19,566	650 4	72 2	40 0
Agamemnon, U. S.	19,361	684 3	72 3	40 2
Taj Mahal, Br.	19,300	582 7	76 0	45 5
Bermuda, Br.	19,086	525 9	74 1	39 6
Arundel Castle, Br.	19,023	630 5	72 5	41 5
Windsor Castle, Br.	18,967	632 4	72 5	41 6
Albertic, Br.	18,940	590 8	72 0	37 6
Conte Verdi, It.	18,765	570 2	74 2	35 0
Laurentic, Br.	18,724	578 2	75 4	40 6
Lapland, Br.	18,565	605 8	70 4	37 4
Kosmos, Nor.	18,500	552 7	77 4	49 6
Ceramic, Br.	18,493	655 1	69 4	43 8
Mount Vernon, U. S.	18,372	658 4	72 2	40 5
Empress of France, Br.	18,357	571 5	72 4	41 7
*Rangitane, Br.	18,000	531 0	70 2	31 8
*Rangitata, Br.	18,000	531 0	70 2	31 8
*Marnix Van St. Aldegonde, Hol	18,000	580 0	74 0	47 3
Republic, U. S.	17,910	599 0	68 2	48 3
De Grasse, Fr.	17,759	522 1	71 4	42 3
*Gripsholm, Swed.	17,716	553 0	74 3	47 7
*Aorangi, Br.	17,491	580 1	72 2	43 4
Montnairn, Br.	17,282	590 1	68 3	38 4
Minnekahda, U. S.	17,281	520 5	66 4	47 3
Malolo, U. S.	17,232	554 0	83 0	54 0
Nieuw Amsterdam, Hol.	17,149	600 3	68 9	35 6
Conte Rosso, It.	17,048	570 2	74 2	35 0
Caledonia, Br.	17,046	550 0	70 4	38 7
Tuscania, Br.	16,991	552 3	58 2	38 6
Chichitu Maru, Jap.	16,920	560 0	74 0	42 5
Rangitiki, Br.	16,755	531 0	70 2	38 1
Cleveland, Ger.	16,971	588 9	65 3	46 7
Transylvania, Br.	16,923	552 4	70 3	30 3
Empress of Asia, Br.	16,909	570 1	70 3	42 0
Empress of Russia, Br.	16,810	570 2	68 2	42 0
Asama Maru Jap.	16,800	560 0	72 0	42 5
California, Br.	16,792	550 0	70 4	38 8
Arabic, Br.	16,786	590 2	69 7	38 9
St. Louis, Ger.	16,732	543 8	72 4	42 1
Ranchi, Br.	16,650	548 3	71 3	43 2
Rawalpindi, Br.	16,619	547 7	71 3	43 4
Ranpura, Br.	16,601	548 3	71 3	43 2
Narkunda, Br.	16,572	581 4	69 4	27 7
Rajputana, Br.	16,568	547 7	71 3	43 4
Mongolia, Br.	16,504	551 6	72 0	38 5
Regina, Br.	16,500	575 3	67 8	41 2
Doric, Br.	16,484	575 5	67 9	41 2
Moldavia, Br.	16,449	552 4	71 7	38 4
*C. O. Stillman, Br.	16,436	565 7	75 6	44 5
Montcalm, Br.	16,418	549 5	70 2	40 2
Montrose, Br.	16,402	548 7	70 2	40 3
Pennland, Br.	16,322	575 4	67 8	41 2
Montclare, Br.	16,314	549 5	72 2	40 2
Cameronia, Br.	16,297	552 4	70 4	38 8
Lancastria, Br.	16,243	552 8	70 4	38 8
Naldera, Br.	16,088	580 9	67 2	44 4
Calgaric, Br.	16,063	550 3	67 3	43 0
Bermuda, Br.	16,000	525 0	73 9	41 0
Maldera, Br.	15,993	580 9	67 2	44 4
*Christiaan Huggens, Hol.	15,673	551 5	68 8	36 2
Montroyal, Br.	15,646	548 8	65 7	36 7
Andes, Br.	15,620	570 3	67 3	33 3
Almazora, Br.	15,551	570 0	67 3	33 3
Orduna, Br.	15,507	550 3	67 3	43 0
Orbita, Br.	15,495	550 3	67 3	43 0
Veendam, Hol.	15,450	550 2	67 3	41 1
Manchuria, U. S.	15,445	600 0	65 3	31 1
Mongolia, U. S.	15,442	600 0	65 3	31 1
Volendam, Hol.	15,434	550 2	67 3	32 6
G. Harrison-Smith, Br.	15,371	550 6	72 3	44 1
Massilia, Fr.	15,363	577 1	64 1	37 0
*Amerikaland Swed	15,355	561 3	72 2	44 1
*Svealand, Swed.	15,357	561 3	72 2	44 1
Berlin, Ger.	15,286	549 3	69 2	34 8
Chitral, Br.	15,248	526 3	70 3	42 3
Minnedosa, Br.	15,186	520 0	67 2	41 8
Melita, Br.	15,183	520 0	67 2	50 3
Comorin, Br.	15,132	523 5	70 2	42 3
Cathay, Br.	15,121	523 5	70 2	42 3
D'Artagnan, Fr.	15,105	543 5	65 0	41 4
Athos II, Fr.	15,276	541 3	66 2	41 7
Pieter C'r'n, Hooft, Hol.	15,000	541 3	67 8	46 5
Euripides, Br.	14,947	550 7	67 4	44 1
Arlanza, Br.	14,930	570 3	65 3	33 3
Megantic, Br.	14,878	550 4	67 3	41 2
Ormonde, Br.	14,853	580 5	66 7	40 5
Chenonceaux, Fr.	14,825	541 3	65 1	41 1
Dresden, Ger.	14,690	550 0	67 3	35 1
Lutetia, Fr.	14,654	579 0	64 1	36 7
Ulysses, Br.	14,652	563 2	68 4	40 2
*Highland Hope, Br.	14,400	523 4	69 4	37 1
*Highland Princess, Br.	14,400	523 4	69 4	37 1
President Lincoln, U. S.	14,187	516 5	72 2	27 8
President Madison, U. S.	14,187	516 5	72 2	27 8
President Roosevelt, U. S.	14,187	516 5	72 2	27 8
President Jefferson, U. S.	14,174	516 5	72 2	27 8
*Highland Monarch, Br.	14,137	523 4	69 4	37 1
Highland Brigade, Br.	14,131	523 4	69 4	37 1
*Highland Chieftain, Br.	14,131	523 4	69 4	37 1
President McKinley, U. S.	14,127	516 5	72 2	27 8
President Wilson, U. S.	14,127	516 5	72 2	27 8
President Jackson, U. S.	14,124	517 0	72 2	27 8
President Cleveland, U. S.	14,123	517 0	72 2	36 8
President Pierce, U. S.	14,123	517 0	72 2	27 8
President Taft, U. S.	14,123	517 0	72 2	27 8
President Grant, U. S.	14,119	517 0	72 2	27 8

* Motor ships.

†The North German Lloyd line gives the following tonnage and dimensions—

Bremen	49,854	938 0	98 0	89 0
Europa	50,000	938 0	98 0	89 0

THE MERCHANT FLEETS OF THE WORLD.

(The figures on this and the next page, by Lloyd's Register of Shipping, cover all vessels of 100 tons or over.)

On July 1.	No. of Ships.	Gross Tonnage.	On July 1.	No. of Ships.	Gross Tonnage.	On July 1.	No. of Ships.	Gross Tonnage.	On July 1.	No. of Ships.	Gross Tonnage.
1890	32,174	21,118,528	1900	27,840	28,957,358	1910	30,053	41,912,520	1920	31,595	57,314,065
1891	32,277	22,912,753	1901	28,209	30,479,971	1911	30,082	43,144,909	1921	33,206	61,974,653
1892	31,983	23,672,698	1902	28,630	32,302,412	1912	30,316	44,600,677	1922	33,935	64,370,786
1893	31,926	24,236,865	1903	28,901	33,501,855	1913	30,591	46,970,113	1923	33,507	65,166,238
1894	30,640	24,547,597	1904	29,283	34,786,132	1914	30,836	49,089,552	1924	32,956	64,023,567
1895	30,288	25,086,199	1905	29,750	35,998,180	1915	30,720	49,261,769	1925	32,916	64,641,418
1896	29,801	25,593,186	1906	30,087	37,550,477	1916	30,167	48,683,136	1926	32,615	64,784,370
1897	28,280	25,889,044	1907	30,197	39,435,788	1917	.....	.....	1927	32,175	65,192,910
1898	27,982	26,543,360	1908	30,524	40,920,551	1918	.....	.....	1928	32,408	66,954,659
1899	27,816	27,613,851	1909	30,536	41,447,825	1919	29,255	50,919,273	1929	32,482	68,074,312

GROSS TONNAGE OF MERCHANT FLEETS OF CHIEF NATIONS.

On July 1.	U. S.	Gr. Brit.	Germany	France.	Japan.	Norway.	Holland.	Italy.	Belgium.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1870	4,246,507	5,617,693	982,355	1,072,241	.....	1,022,515	389,526	1,012,164	30,149
1880	4,068,034	6,574,513	1,181,525	919,298	89,309	1,518,658	328,281	999,196	75,666
1890	4,424,497	7,978,538	1,433,413	944,013	145,692	1,705,699	255,711	820,716	75,946
1900	5,164,839	9,304,108	1,941,645	1,037,726	863,830	1,508,118	346,923	945,008	113,259
1905	6,456,543	10,735,582	2,469,292	1,387,220	1,273,467	1,482,094	411,307	1,025,603	199,733
1910	7,508,082	11,555,663	2,903,570	1,451,648	1,647,629	1,526,156	534,275	1,107,187	191,132
1911	7,638,790	11,698,508	3,023,725	1,462,639	1,833,354	1,646,030	565,613	1,320,653	166,420
1912	7,714,183	18,213,620	4,628,983	2,052,518	1,344,991	2,292,596	1,129,906	1,298,582	271,684
1913	7,886,551	18,696,237	5,082,061	2,201,164	1,500,014	2,457,890	1,309,849	1,521,942	304,386
1914	7,928,688	19,256,766	5,459,296	2,319,438	1,708,386	2,504,722	1,496,455	1,668,296	352,124
1915	8,389,429	19,541,368	4,706,027	2,285,728	1,826,068	2,529,188	1,522,547	1,736,545	276,427
1916	8,469,649	19,134,857	4,151,552	2,216,643	1,847,453	2,771,022	1,508,916	1,896,534	272,160
1917	8,871,037	19,637,418	3,156,008	2,152,524	2,059,001	2,307,164	1,552,382	1,757,605	233,606
1918	9,924,518	21,035,149	3,225,294	2,029,884	2,299,405	1,806,576	1,288,245	1,283,790	193,538
1919	12,907,300	16,555,471	3,503,380	2,233,631	2,325,266	1,857,829	1,591,911	1,370,097	313,276
1920	16,324,024	18,330,424	672,671	3,245,194	2,995,878	2,114,190	1,848,348	2,406,958	464,659
1921	17,026,002	19,571,554	717,450	3,652,249	3,354,806	2,584,058	2,225,787	2,650,573	551,031
1922	16,986,196	19,295,637	1,887,408	3,845,792	3,586,918	2,600,861	2,632,713	2,866,335	.....
1923	16,952,018	19,281,549	2,590,073	3,737,244	3,604,147	2,551,912	2,625,741	3,033,742	605,050
1924	15,956,967	19,105,838	2,953,671	3,498,233	3,842,707	2,505,393	2,556,417	2,832,212	560,597
1925	15,377,480	19,440,713	3,073,713	3,511,984	3,919,807	2,680,642	2,600,831	3,028,661	542,583
1926	14,797,717	19,399,797	3,110,918	3,490,606	3,967,617	2,841,905	2,664,904	3,240,630	507,473
1927	14,585,300	19,309,022	3,363,046	3,469,980	4,033,304	2,824,225	2,654,003	3,483,383	499,229
1928	14,537,958	19,875,350	3,777,251	3,344,465	4,139,815	2,968,207	2,816,705	3,428,817	492,609
1929	14,377,114	20,166,331	4,092,552	3,378,663	4,186,652	3,224,493	2,939,067	3,284,660	529,043

Tonnage of other countries (1929)—Argentina, 296,236; Brazil, 560,680; Chili, 154,563; China, 319,224; Cuba, 45,270.

Danzig, 132,366; Denmark, 1,055,867; Estonia 60,383; Finland, 298,323; Greece, 1,266,685.

Honduras, 87,490; Jugoslavia, 281,396; Latvia, 150,159; Mexico, 53,883; Panama, 62,434; Peru, 62,160.

Portugal, 246,368; Roumania, 68,647; Soviet Russia, 440,506; Spain, 1,161,591; Turkey, 172,096, Venezuela, 59.674.

SHIPBUILDING IN THE WORLD SINCE 1911.

Year.	United Kingd.		Dominions.		Aust. H'g'y		Denmark.		France.		Germany.		Holland.	
	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.
1911	772	1,803,844	62	19,662	16	37,836	18	18,689	79	125,472	154	255,532	113	93,050
1912	712	1,738,514	84	34,790	12	38,821	22	26,103	80	110,734	165	375,317	112	99,439
1913	688	1,932,153	91	48,339	17	61,757	31	40,932	89	176,095	162	465,226	95	104,296
1914	656	1,083,553	80	47,534	11	34,335	25	32,815	33	114,052	89	387,192	130	118,153
1915	327	650,919	31	22,014	.....	.....	23	45,198	6	25,402	.....	.....	120	113,075
1916	306	608,235	40	31,571	.....	.....	28	35,277	9	22,752	.....	.....	201	180,197
1917	286	1,162,896	105	94,471	.....	.....	23	20,445	6	18,828	.....	.....	146	148,779
1918	301	1,348,120	206	279,904	.....	.....	13	26,150	3	13,715	.....	.....	74	74,026
1919	612	1,620,442	263	358,728	.....	.....	46	37,766	34	32,633	.....	.....	100	137,086
1920	618	2,055,624	103	203,644	.....	.....	30	60,669	50	93,449	.....	.....	99	183,149
1921	426	1,538,052	54	129,675	.....	.....	37	77,238	65	210,663	242	509,064	98	232,402
1922	235	1,031,081	39	62,765	.....	.....	23	41,016	62	184,509	195	575,264	60	163,132
1923	222	645,651	44	41,263	.....	.....	24	49,479	27	96,644	109	345,062	35	65,632
1924	494	1,439,885	31	44,879	.....	.....	33	63,937	26	79,685	108	175,113	41	63,627
1925	342	1,084,633	51	46,078	.....	.....	21	73,268	35	75,569	121	406,374	47	78,823
1926	197	639,568	42	33,678	.....	.....	25	72,108	34	121,342	60	180,548	47	93,671
1927	371	1,225,873	29	30,250	.....	.....	20	72,038	22	44,335	105	289,622	68	119,790
1928	420	1,445,920	48	23,693	.....	.....	31	138,712	20	81,416	81	376,416	74	166,754

Year.	Italy.		Japan.		Norway.		Sweden.		United States.		Oth'r C'ntr's.		World Total.	
	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.
1911	14	17,401	109	44,359	71	35,435	11	9,427	142	171,569	38	17,864	1,599	2,650,140
1912	27	25,196	168	57,755	89	50,255	22	13,968	174	284,223	52	46,654	1,719	2,901,769
1913	38	50,356	152	64,664	74	50,637	25	18,524	205	276,448	83	43,455	1,750	3,332,882
1914	47	42,981	32	85,861	61	54,204	26	15,163	94	200,762	35	36,148	1,319	2,852,753
1915	30	22,132	26	49,408	59	62,070	27	20,319	84	177,460	10	13,641	743	1,201,638
1916	10	56,654	55	145,624	52	42,458	34	26,769	211	504,247	18	14,296	964	1,688,080
1917	11	38,906	104	350,141	44	46,103	34	26,760	326	997,919	27	32,538	1,112	2,937,786
1918	15	60,791	198	489,924	51	47,723	36	39,583	929	3,033,030	40	34,478	1,866	5,447,444
1919	32	82,713	133	611,883	82	57,578	53	50,971	1,051	4,075,385	16	26,725	2,483	7,144,549
1920	82	133,190	140	456,642	30	38,855	46	63,823	509	2,474,253	52	96,368	1,759	5,861,666
1921	85	164,748	43	227,425	35	51,458	27	65,911	173	1,006,413	78	63,465	1,377	4,341,679
1922	42	101,177	49	83,419	23	32,391	14	30,038	59	119,138	45	27,881	852	2,467,084
1923	21	66,523	44	72,475	48	42,619	10	20,118	83	172,817	14	6,097	701	1,643,181
1924	19	82,526	31	72,757	34	25,139	12	31,211	79	139,463	12	21,673	924	2,247,751
1925	31	142,046	23	55,784	48	28,805	17	53,750	101	128,776	14	15,165	855	2,193,404
1926	27	220,021	26	52,405	25	9,237	14	53,518	78	150,613	11	18,970	600	1,674,977
1927	25	101,076	19	42,359	12	5,363	18	67,361	66	179,218	34	80,802	802	2,285,679
1928	29	58,640	37	103,663	12	10,401	20	106,912	63	91,357	24	67,260	869	2,699,239

WORLD MERCHANT FLEET TOTAL, BY KINDS, JULY 1, 1929.

	Steel.		Iron.		Wood and Compos.		Total.	
	No.	*Gr. tonnage.*	*No.*	*Gr. tonnage.*	*No.*	*Gr. tonnage.*	*No.*	*Gr. tonnage.*
Steamers	23,167	58,315,989	1,729	949,605	1,470	513,697	26,366	59,779,291
Motor Ships	2,244	6,363,076	51	25,075	951	239,951	3,246	6,628,102
Sailing Vessels	641	583,381	118	94,271	2,111	989,267	32,482	68,074,312
Total								

There are tankers of a thousand tons and up, to the number of 1.236. of 6.987.922 gross tons.

There were, also, 3,787 steamers fitted for burning oil fuel.

MERCHANT SHIPS, BY KINDS, CHIEF COUNTRIES, JULY 1, 1929.

	Steamers.				Motor Ships.				Sailing Vessels.			
	Steel.		Total.		Steel.		Total.		Steel.		Total.	
	No.	*Gr. Tons.*	*No.*	*Gr. Tons.*	*No.*	*Gr. Tons.*	*No.*	*Gr. Tons.*	*No.*	*Gr. Tons.*	*No.*	*Gr. Tons.*
United K'g'm	6,842	18,003,391	7,318	18,123,887	405	1,912,704	465	1,922,383	270	96,680	389	120,061
Canada	478	1,076,060	629	1,131,791	31	94,403	97	107,978	23	28,580	197	94,899
United States	2,820	12,682,518	3,341	13,025,482	181	509,427	294	566,321	125	261,170	748	890,219
Argentina	211	239,380	232	246,035	38	26,774	41	28,665	31	18,981	38	21,536
Belgium	224	481,212	229	483,525	9	38,498	11	39,093	2	4,773	4	6,425
Brazil	299	466,958	319	489,683	28	55,017	31	56,012	9	3,446	41	14,985
China	177	285,536	207	313,443	....	....	4	1,195	....	....	7	4,586
Denmark	474	714,709	490	725,715	88	299,988	124	307,629	4	5,175	78	23,123
Finland	125	196,759	192	215,094	9	4,070	43	16,354	15	31,556	113	66,875
France	1,322	3,193,824	1,422	3,234,270	30	62,561	56	68,414	20	23,757	184	75,979
Germany	1,647	3,432,625	1,704	3,467,878	376	581,469	401	589,779	15	33,146	22	34,895
Greece	416	1,210,617	504	1,261,024	5	1,396	12	5,661	....	....	....	....
Holland	938	2,530,624	988	2,545,221	326	386,362	332	387,199	12	4,991	19	6,647
Italy	829	2,680,653	948	2,742,594	117	461,950	157	472,733	11	2,712	275	69,333
Japan	1,458	3,809,179	1,826	3,958,317	83	202,502	233	228,335	....	....	206	....
Norway	1,305	2,196,195	1,488	2,254,268	206	939,194	304	963,527	6	3,663	15	6,698
Russia	262	308,037	334	330,630	31	103,858	39	106,479	1	2,453	6	3,397
Spain	518	976,051	697	1,058,245	32	67,262	85	78,051	7	4,898	95	25,265
Sweden	737	908,399	1,027	1,071,080	112	387,157	232	409,109	4	3,699	126	29,963

There are 59 steamers and motorships in Lloyd's Register each of 20,000 or over gross tons; 88 of 15,000 to 20,000 tons; 280 of 10,000 to 15,000 tons; 564 of 8,000 to 10,000 tons; and so on down.

SHIPS OF CHIEF COUNTRIES LOST AT SEA.

Year.	United Kingdom.		United States.		Germany.		France.		Japan.		Italy.		World Total.		Pct. of All Ships
	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	
1902	82	108,786	7	8,796	19	36,021	9	8,505	12	7,178	5	9,643	232	308,182	1.23
1903	109	155,071	11	12,307	22	19,379	13	20,037	13	9,200	2	1,232	237	298,376	1.14
1904	98	166,826	16	15,671	21	42,446	11	8,899	34	69,718	10	17,769	280	424,175	1.54
1905	106	155,603	14	14,742	19	36,071	13	14,147	30	33,125	5	11,518	297	407,975	1.42
1906	115	168,793	15	14,988	26	37,354	8	11,894	21	17,451	9	19,649	284	367,176	1.21
1907	90	150,893	11	35,004	27	46,405	14	16,190	27	33,644	4	4,865	273	408,328	1.26
1908	114	181,988	8	10,342	21	46,058	12	21,129	29	25,082	7	7,859	304	419,806	1.24
1909	83	182,836	14	20,706	30	43,896	10	10,191	15	10,162	3	6,153	256	393,770	1.14
1910	102	190,135	14	15,800	26	31,594	14	15,900	22	21,505	3	8,060	293	421,549	1.20
1911	112	187,062	10	13,409	20	29,408	11	9,894	20	17,946	6	14,313	305	449,087	1.23
1912	108	245,358	8	4,085	19	38,741	14	16,926	33	27,553	8	16,265	292	450,675	1.18
1913	93	182,248	20	21,583	21	39,235	15	25,948	25	25,514	13	29,127	295	445,265	1.09
1914	194	410,965	18	24,329	32	89,056	13	13,837	22	28,897	9	11,671	437	773,934	1.97
1915	544	1,092,924	19	39,730	32	74,880	46	113,011	20	43,041	20	53,930	968	1,867,386	4.29
1916	571	1,411,429	27	57,255	25	39,596	57	148,051	28	81,068	82	228,290	1,274	2,714,982	6.31
1917	1,384	4,093,717	60	166,630	24	19,750	144	355,007	36	92,113	128	398,790	2,596	6,602,478	....
1918	661	1,974,182	90	308,742	18	13,249	92	186,083	30	61,829	50	184,173	1,288	3,330,354	....
1919	84	140,941	54	114,752	47	19,152	22	32,250	42	43,829	2	366	415	514,234	1.12
1920	86	123,861	45	112,040	17	9,061	25	50,874	29	41,988	9	13,020	357	510,794	0.99
1921	65	65,718	22	60,392	12	7,035	21	27,899	20	51,185	15	28,069	310	458,992	0.81
1922	77	119,297	24	54,842	27	24,380	23	23,770	64	54,136	15	31,059	351	428,756	0.72
1923	84	138,744	28	65,939	29	35,710	20	12,936	33	58,548	22	49,629	324	494,364	0.82
1924	67	108,077	26	42,445	20	15,542	13	23,908	42	70,933	12	38,125	292	440,404	0 74
1925	54	61,778	11	27,416	23	18,370	16	12,949	38	42,788	17	37,726	280	327,748	0 55
1926	55	111,780	20	29,547	21	24,512	13	26,981	43	44,576	19	47,905	298	428,240	0.71
1927	52	64,419	25	71,862	17	27,353	16	29,428	42	76,212	19	53,442	280	449,700	0.74
1928	67	119,724	15	46,890	22	13,935	18	54,008	35	69,416	18	28,836	288	484,629	0.77

Ships *broken up* in 1928, as distinguished from those *lost*, numbered 296, of 735,547 gross tons.

Figures for the United States do not cover losses on the Great Lakes.

MANKIND OF THE FUTURE.

Dr. Hrdlicka, in an address in 1929 before the American Philosophical Society, said that the infancy of the human race covers 300,000 of the 350,000 years of man's past existence on earth, and that he arose from the nearest sub-human forms and under the exciting influences of environmental conditions.

Up to the end of the last main glaciation, man progressed evidently but very slowly in numbers. In general he did seemingly but slightly better than to sustain himself. His spread was slow and sparse. But after the main part of the last glacial invasion he begins to multiply much more effectively and as his numbers increase there follows gradually a spread all over the habitable earth, with an accentuated differentiation of types and races.

The latter all proceeded, according to the best evidence, from but one human species, and those now living date all from the later, post-glacial, parts of human prehistory: earlier strains, such as doubtless there were, can no more be traced among living men.

The man and woman of the future will be handsomer, they will have thinner skulls, with wider and higher heads, handsomer faces, eyes deeper set, bigger and narrower noses, more pominent chins, smaller and fewer teeth, less hair, smaller appendixes, a more rapid pulse and respiration, higher temperature of the body, and a greater tendency to mental derangements. The feet will trouble.

Due to prolonged life, heart troubles, apoplexies, cancer, and senile weaknesses of all sorts, will tend to be more commonon, until mastered by medicine.

The stature of the human race is increasing.

FAST OCEAN PASSAGES.

A nautical mile = American, 6,080.27 ft.; British, 6,080 ft.; German, 6,076 ft. A statute mile, commonly called a land mile, = 5,280 ft.

Sailing Ships—Columbus, in 1492, sailed from Spain (Palos) to the Gulf of Mexico in 70 days, Aug. 3 to Oct. 12. His second voyage, in 1493, from Cadiz, Spain, to Dominica, in the West Indies (Sept. 25-Nov. 3) was made in 40 days; his third, to Trinidad (May 30-July 31), in 1497, in 62 days, his fourth and last, to Honduras, in 1502 (May-July) in about 62 days.

The American-built clipper, the Lightning, of the Black Ball (British Australian Line, on March 1 1854, sailed 435 nautical miles, on way from Boston to Liverpool, on her maiden voyage. A gale was blowing and the ship's log showed a speed as high as 18½ miles an hour. The clipper Donald McKay, Black Ball Line, on Feb. 25, 1855, sailed 421 nautical miles on maiden voyage from Boston to Liverpool.

The fastest day's record of a clipper ship on any sea—437 miles—was made by the Sovereign of the Seas, on a passage from New York to San Francisco. She was 258 feet long, 44 feet wide, of 2.421 tons. The Flying Cloud made 433½ miles in one day, New York to San Francisco.

The quickest passage of a clipper ship across the Atlantic was made from New York to Queenstown, Ireland, in 9 days, 17 hours, by the Dreadnaught. The clipper Red Jacket, built at Rockland, Me., sailed from Sandy Hook, N. Y., to Liverpool in 13 days 1 hour 25 minutes.

The packet ship, Yorkshire, in Nov., 1846, sailed from Liverpool to New York in 16 days.

The fastest trans-Atlantic yacht voyage is that of the Atlantic, which, in the race for the German Emperor's Cup, in 1905, sailed from Sandy Hook to the Lizard, England, in 12 days 4 hours 1 minute and 19 seconds, 3,013 nautical miles, average speed 10.31 knots. The best day's run was 341 nautical miles.

Steamships—The first steamship to cross the Atlantic was the Savannah, 350 tons, built at New York City, which left Savannah, Ga., on May 24, 1819, and reached Liverpool in 26 days, during eighteen of which she used her side-paddles.

The Great Western, on her maiden voyage, from Bristol, England, to New York, covered the distance in April, 1838, in 15 days.

The Sirius, in April, 1838, went from England to New York in 18½ days.

The Britannia, first Cunard liner, in July, 1840, came from Liverpool to New York in 14 days 8 hours. The Great Western's best record across the ocean was 10 days 10 hours 15 minutes.

In May, 1851, the Pacific reduced the Atlantic record to 9 days 19 hours 25 minutes.

The Persia, in 1856, did it in 9 days 1 hour 45 minutes; the Scotia, in 1866, in 8 days, 2 hours 48 minutes; the City of Brussels, in 1869, in 7 days 22 hours 3 minutes; the Baltic, in 1873, in 7 days 20 hours 9 minutes; the City of Berlin, in 1875, in 7 days 15 hours 48 minutes; the Arizona, in 1880, in 7 days 7 hours 23 minutes; the Alaska, in 1882, in 6 days 18 hours 37 minutes; the Etruria, in 1888, in 6 days 1 hour 55 minutes; the Majestic, in 1891, in 5 days 18 hours 8 minutes; the Lucania, in 1894, in 5 days 7 hours 23 minutes; the Lusitania, in 1908, in four days 15 hours; the Mauretania, in 1910, in 4 days 10 hours 41 minutes. at the rate of 26.06 knots an hour.

The foregoing records, since and including 1856, are between New York and Queenstown, 2,780 miles.

The Hamburg-American liner, Fuerst Bismarck, in April, 1892, went from Southampton to New York in 6 days, 11 hours, 44 minutes.

The Deutschland, in Sept., 1900, went from Sandy Hook, New York, to Plymouth, England, in 5 days 7 hours 38 minutes.

The Leviathan, Oct. 4-10, went from New York to Cherbourg in 5 days, 6 hours, 21 minutes, at an average speed of 24.67 knots.

The Bremen, of the North German Lloyd Line, on her maiden voyage, went in 1929 (July 18-22) from the Breakwater at Cherbourg, France, to the Ambrose Channel Lightship, New York Harbor (approximately 3.163 nautical miles) in 4 days, 17 hours, 42 minutes, at an average speed of 27.83 knots, or nautical miles, an hour. Her days' runs were, in knots, 687, 704, 705 and 713. Her average speed, in statute miles, was over 32 per hour. Going from New York, east, she made Eddystone Light, Plymouth, England, in 4 days, 14 hours, 30 minutes. She went, later, from N. Y., to Cherbourg in 4 days, 14 hours.

The Mauretania in Aug., 1929, went from New York to Plymouth in 4 days 17 hours 49 minutes.

In May, 1928, the Nova Scotia of the Furness Line, steamed from Liverpool to St.Johns, N.F., in 5 days, 13 hours.

The quickest run from New York to San Francisco, via Straits of Magellan, was made by the Santa Catalina, an oil burner, in 1914, in 45 days 21 hours 50 minutes.

The light cruiser Omaha, of the U. S. Navy, in 1923 (May 8-11), steamed from Diamond Head, Oahu, Hawaii, to the San Francisco Light Vessel, a distance of 2,091 miles, in 3 days 3 hours 40 minutes 40 seconds. The average speed was 27.76 miles an hour.

The U. S. S. Saratoga, naval airplane carrier, in Dec., 1928, in her acceptance trial, off the California coast, averaged 34.99 nautical miles an hour. Her sister ship, the Lexington, had averaged 34.8 nautical miles an hour. The Saratoga developed 213,000 horsepower.

The power boat, Miss America VII, at Miami, Fla., in March, 1929, covered a one-mile course in Indian Creek, at a speed average of 93.123 miles an hour. In one of the heats the speed reached 94.12 miles.

The dirigible balloon, Graf Zeppelin, in Aug., 1929, flew from Lakehurst, New Jersey, to Friedrichshafen, Germany. 4,200 miles, in 55 hours, 24 minutes.

CARLOAD WEIGHTS OF VARIOUS COMMODITIES.

The following table, compiled by the Interstate Commerce Commission, gives the average weight of a carload of each commodity.

Commodity.	Aver. per Car.
	Short Tons.
PRODUCTS OF AGRICULTURE.	
Wheat	40.93
Corn	37.31
Oats	32.00
Flour and meal	24.42
Hay, straw, alfalfa	12.54
Tobacco	10.68
Cotton	11.15
Cotton seed	23.33
Citrus fruits	16.00
Other fresh fruits	13.45
Potatoes	17.71
Other fresh vegetables	12.40
Dried fruits, vegetables	24.45
ANIMALS AND PRODUCTS.	
Horses and mules	11.53
Cattle and calves	11.55
Sheep and goats	9.68
Hogs	9.55
Fresh meats	12.55
Poultry	11.05
Eggs	11.22
Butter and cheese	12.61
Wool	12.78
Hides and leather	20.34
PRODUCTS OF MINES.	
Anthracite coal	49.17
Bituminous coal	52.37
Coke	34.70
Iron ore	54.70
Clay, sand, stone	50.42
Crude petroleum	35.66
Asphaltum	34.67
Salt	27.94
PRODUCTS OF FORESTS.	
Logs, posts, poles and cord wood	30.51
Ties	29.20
Pulp wood	30.00
Lumber, timber	26.29
MANUFACTURES & MISCELLANEOUS.	
Refined petroleum and products	28.28
Vegetable oils	27.43
Sugar sirup, molasses	28.00
Iron, pig and bloom	50.82
Rails and fastenings	41.44
Bar and sheet iron, structural iron, pipe	31.73
Other metals, pig, bar, sheet	36.59
Castings, machinery, boilers	19.63
Cement	37.85
Brick, artificial stone	36.12
Lime and plaster	25.22
Sewer pipe and drain	17.36
Agric. impiements and vehicles, excl. auto	14.85
Auto. and autotrucks	8.38
Household goods and old furniture	9.82
Furniture (new)	8.80
Beverages	19.03
Ice	25.68
Fertilizers (all kinds)	23.28
Paper, print, books	24.14
Chem. and expl	30.27
Textiles	11.74
Canned goods	23.02

RAILROAD TRAIN SPEED.

The year 1929 brought a revolution in travel—a combination or alternation of railway trains and airplanes in covering long distances by land. Thus, the time between New York City and the Pacific Coast was shortened, in July, that year, to 48 hours.

Before the airplane-train mode of travel was inaugurated, the quickest special train time between the two coasts was made by Mrs. Alfred H. Smith, wife of the President of the New York Central Lines, who left Los Angeles on March 9, 1924, in a special train on the Santa Fe system and arrived at Chicago in 49 hours and 17 minutes. Another special train took her 961.5 miles to New York City in 19 hours 54 minutes. The cross-continent record run thus was made in 69 hours 7 minutes.

The Jarrett and Palmer special theatrical train, Jersey City to Oakland (San Francisco), 3,311 miles, May 31-June 4, 1876, 83 hours 45 minutes; average speed, 39.53 miles per hour.

In May, 1906, the "Harriman Special" train made the run from Oakland, Cal., to N. Y. City in 71 hours 27 minutes.

The record time between Los Angeles and Chicago, via the Santa Fe Lines, 2,230 miles, is 44 hours and 54 minutes (46 miles an hour) made by the "Scotty"-the-Miner special in July, 1905.

In November, 1925, an oil electric engine-car on the Canadian National Railways ran from Montreal to Vancouver, 2,937 miles in 67 hours, without a stop, averaging 43.50 miles per hour.

On Nov. 16-17, 1925, a Penn. Railroad Special carried Guy Waggoner from St. Louis to N. Y. City in 20 hours 26 minutes.

On June 28-29, 1926, a Penn. Railroad Special carried Mrs. Cyrus H. McCormick from N. Y. City to Chicago in 16 hours 55 minutes.

One of the fastest long-distance runs less than 440 miles was on the New York Central R. R., Sept. 11, 1895, from New York to Buffalo, 436½ miles, in 407 minutes actual time. Average speed, 64¼ miles an hour, with two stops and 28 slow-ups, and on Jan 1, 1903, from Albany to Buffalo, 302 miles, in 295 min.

FAST RECORDED TRAIN RUNS FOR SHORT DISTANCES.

DATE.	Railroad.	Run.	Miles.	Time, M. S.	M. P. Hour.
May, 1893	N. Y. Central & H. R	Crittenden—"Empire State Exp."	1	0.32	112.5
Aug., 1895	Pennsylvania	Landover—Anacosta	5.1	3.00	102
Jan., 1899	Burlington Route	Siding—Arlon	2.4	1.20	108
Mar., 1901	Plant System	Run from Fleming to Jacksonville	5	2.30	120
Jan., 1903	N. Y. Central & H. R	Palmyra—Macedon	7.29	4.00	109.35
April, 1904	Michigan Central	Crisman—Lake	3.73	2.00	111.90
July, 1904	Philadelphia & Reading	Egg Harbor—Brigantine Junction	4.8	2.30	115.20
Oct., 1904	N. Y. Central & H. R	Croton—Ossining	3.51	2.00	105

DATE.	Railroad.	Run.	Miles.	Time, H. M.	M. P. Hour.
May, 1848	Great Western (England)	London—Didcot	53.25	0.47	68
April, 1895	Pennsylvania	Camden—Atlantic City	58.3	0.45	76.50
Aug., 1895	London & Northwestern	London—Aberdeen	540	8.32	63.28
Sept., 1895	N. Y. Central "World Flyer"	Albany—Syracuse	148	2.10	68.3
Oct., 1895	Lake Shore & Michigan Southern	Chicago-Buffalo	525		64.8
April, 1897	Lehigh Val., Black Diamond Exp.	Alpine, N. Y.—Geneva Junc., N. Y	43.96	0.33	80
Mar., 1902	Burlington Route	Eckley—Wray	14.8	0.9	98.7
Mar., 1903	Atlantic Coast Line	Jacksonville—Savannah	172	2.32	70.7
April, 1904	Michigan Central	Niagara Falls—Windsor	225.66	3.11	70.74
July, 1904	Great Western (England)	Paddington—Bristol	118.5	1.24	84.6
June, 1905	Pennsylvania	Chicago—Pittsburgh	468	7.20	63.53
June, 1905	Lake Shore & Michigan Southern	Buffalo—Chicago	525	7.50	69.69
June, 1905	New York Central	Chicago—New York	960.5	15.56	60.28
July, 1905	Pennsylvania	Washington, Ohio—Fort Wayne	81	1.4	75.84
Feb., 1911	Pennsylvania	Altoona—Philadelphia	235	3.29	67.2
April, 1911	"20th Century Ltd.," on L. Shore	Toledo—Elkhart	133	1.46	75.28
May, 1912	"20th Century Ltd.," on L. Shore	Elkhart—Toledo	133	1.47	74.26
July, 1923	Photo Special	New York—Boston	234	4.5	57.3
Aug., 1924	Great Northern, silk train	Seattle—St. Paul	1783	38.50	45.9
Mch., 1924	Santa Fe-N. Y. Central	Los Angeles-New York City	3197	69.7	46.25
Mch., 1925	New York Central	New York City—St. Louis	1158	22.10	52.2
June, 1925	Michigan Central	Windsor, Ont.—Niagara Falls	224	3.18	67.8
Nov., 1925	Pennsylvania	St. Louis—New York City	1053	20.26	51.5
July, 1925	Fishermen's Special, P. R. R	Camden, N. J.—Cape May, N. J	81	1.12	67.5
April, 1927	Florida East Coast	Miami—St. Augustine	310	5.8	60.4
June, 1927	Pennsylvania	Washington, D. C.—N. Y. City	224.5	3.7	72.0
Sept., 1927	Pennsylvania	New York City—Atlantic City	143	2.48	51.1
Jan., 1928	C. C. C. and St. Louis	St. Louis—Cleveland	536.1	8.29	63.2
Jan., 1928	New York Central Special	Granite City, Ill.-Berea, O.	536.1	8.29	67.3
May, 1928	London & Northeastern	London-Edinburgh (Fly'g Scotsman)	392.5	8 3	49.1

The June, 1927, train (see above table) from Washington to New York carried Lindbergh films which were developed on the way. The time includes 7 minutes stoppage. From Holmesburg Junction, Pa., to South St., Newark, N. J., 66.6 miles, the speed was 85 miles an hour.

The Flying Scotsman trains began in May, 1928, non-stop runs between London and Edinburgh.

On Sept. 8, 1927, a Pennsylvania Special, ran from New York City terminal to Atlantic City, 143 miles in 165 minutes. It made the 60 miles from Camden to Atlantic City, in 53 minutes.

First-class German and French trains now average between 50 and 60 miles an hour over runs covering several hundred miles.

ALL'S WELL THAT ENDS WELL.

A friend of mine was married to a scold;
To me he came, and all his troubles told.
Said he, "She's like a woman raving mad."
"Alas! my friend," said I, "that's very bad!"
"No, not so bad," said he; "for, with her, true
I had both house and land, and money, too."
"That was well," said I;
"No, not so well," said he;
"For I and her own brother
Went to law with one another;
I was cast, the suit was lost,
And every penny went to pay the cost.
"That was bad," said I;
"No, not so bad," said he;
"For we agreed that he the house should keep.
And give me foursome of Yorkshire sheep,
All fat, and fair, and fine they were to be."
"Well, then," said I, "sure that was well for thee?"
"No, not so well," said he;
"For, when the sheep I got,
They every one died of the rot."
"That was bad," said I:
"No, not so bad," said he;
"For I had thought to scrape the fat
And keep it in an oaken vat;
Then into tallow melt for winter store."
"Well, then," said I, "that's better than before?"
"'Twas not so well," said he;
"For, having got a clumsy fellow
To scrape the fat and melt the tallow;
Into the melting fat the fire catches,
And, like brimstone matches,
Burnt my house to ashes."
"That was bad," said I;
"No, not bad," said he; "for, what is best,
My scolding wife is gone among the rest."

HIGHEST LATITUDES REACHED IN POLAR EXPLORATIONS.

(Tables Prepared by Nat'l. Geographic Soc., Washington, D. C., Gilbert Grosvenor, L.L.D.)

ARCTIC EXPLORATION (*Represents new records.)

Commander.	Date.	No. Lat.	Locality.	Nationality.
*John Davis	1587	72° 12′	West Greenland	Great Britain
*William Barents	1596	79° 49′	Spitsbergen and Greenland Sea	Holland
*Henry Hudson	1607	80° 23′	Spitsbergen and Greenland Sea	Holland
*Henry Hudson	1616	77° 45′	Ellesmere Island	Great Britain
*Capt. J. C. Phipps	1773	80° 48′	Spitsbergen and Greenland Sea	Great Britain
*Scoresby the Elder	1806	81° 30′	Spitsbergen and East Greenland	Great Britain
*Sir William Edward Parry	1827	82° 45′	North of Spitsbergen	Great Britain
Wm. Morton, E. K. Kane Expedition	1854	78° 45′	Cape Constitution	United States
Sir Edward A. Inglefield	1859	78° 28′	Smith Sound	Great Britain
Dr. Isaac I. Hayes	1861	81° 35′	Cape Lieber, Grinnell Land	United States
Baron Nordenskiold	1868	81° 42′	Spitsbergen	Sweden
Capt. Charles F. Hall	1871	82° 11′	Near Thank God Harbor	United States
J. Payer	1873	81° 50′	Franz Josef Land	Austria
*A. H. Markham, Nares Expedition	1875	83° 20′	Northeast Grinnell Land	Great Britain
*J. B. Lockwood and Gen. D. L. Brainard, Gen. A. W. Greely Expedition	1882	83° 24′	Greenland Coast	United States
*Admiral Robert E. Peary	1892	83° 27′	Greenland Coast	United States
*Fridtjof Nansen	1893–5	86° 14′	North of Franz Josef Land	Norway
Frederick G. Jackson	1894–7	81° 20′	Franz Josef Land	Great Britain
*Capt. Cagni, Duke of Abruzzi's Exped'n	1900	86° 34′	North of Franz Josef Land	Italy
Admiral Robert E. Peary	1902	84° 17′	Grinnell Land	United States
Ziegler Polar Expedition	1904	82° 4′	Franz Josef Land	United States
*Admiral Robert E. Peary (Apr. 21)	1906	87° 6′	North of Greenland	United States
*Admiral Robert E. Peary (Apr. 6)	1909	90°	The North Pole	United States
Capt. Roald Amundsen (June 15)	1925	87° 44′	North of Greenland	Norway
Lieut. Com. R. E. Byrd, Jr., U. S. N. Ret. (By airplane, May 9)	1926	90°	Spitsbergen and return	United States
Amundsen-Ellsworth-Nobile Expedition (By dirigible, May 12)	1926	90°	Spitsbergen to Alaska	
Capt. Sir George H. Wilkins (By airplane, April 15)	1928	84°	Point Barrow to Spitsbergen	United States
Gen. Umberto Nobile (By dirigible, May 23)	1928	90°	Spitsbergen to North Pole	

Roald Amundsen and Rene Guilbaud left Tromso in a seaplane June 18 to go to Nobile's aid but never have been heard from.

In the afternoon of Sunday, July 11, 1897, the Swedish aerial engineers, Andree, Strindberg, and Fraenkel, departed from Virgo, Spitsbergen, on board the balloon Ornen for the North Pole. Whatever their fate they were never seen.

Two soundings taken at latitude 87°41′ north, longitude 10° 20′ west, by Amundsen and Ellsworth in 1926, revealed that the depth of the Polar Sea there was 12,375 feet.

ANTARCTIC EXPLORATION.

Commander.	Date.	Latitude.	Longitude.	Nationality.
Capt. James Cook (Jan.30)	1774	71° 10′ S.	106° 54′ W.	Great Britain.
James Weddell	1823	74° 15′ S.	34° 17′ W.	Great Britain.
Admiral Charles Wilkes Expedition	1839	70° S.	105° W.	United States.
Capt. James Clark Ross (Feb. 22)	1842	78° 10′ S.	161° 27′ W.	Great Britain.
Carstens E. Borchgrevink (Feb.)	1900	78° 50′ S.	165° 50′ W.	Great Britain.
Capt. Robert F. Scott (Dec. 30)	1902	82° 17′ S.	163° E.	Great Britain
Sir Ernest Shackleton (Jan. 9)	1909	88° 23′ S.	162° E.	Great Britain.
Roald Amundsen (Dec. 14)	1911	90°		Norway.
Capt. Robert F. Scott (Jan. 18)	1912	90°		Great Britain.

Admiral Charles Wilkes first saw the Antarctic Continent on January 16, 1840, at 158° E. longitude.

THE GREAT LAKES.

(Revised by United States Lake Survey Office, War Department.)

	Superior.	Michigan.	Huron.	Erie.	Ontario.
Length in miles	350	307	206	241	193
Breadth in miles	160	118	101	57	53
Deepest soundings in feet	1,180	870	750	210	738
Area (sq. miles) water surface—U. S.	20,710	22,400	9,110	4,990	3,560
Can.	11,110	.....	13,900	4,950	3,980
Total	31,820	22,400	23,010	9,940	7,540
Area (sq. miles) entire drainage basin—U. S.	37,570	69,040	24,850	23,570	18,710
Can.	43,330	.....	47,570	11,110	15,920
Total.	80,900	69,040	72,420	34,680	34,630
Mean surface above mean sea level in feet	602.22	580.94	580.94	572.42	246.09
Latitude, north	46° 25′	41° 37′	43° 00′	41° 23′	43° 11′
	49° 00′	46° 06′	46° 17′	42° 53′	44° 15′
Longitude, west	84° 22′	84° 45′	79° 43′	78° 51′	76° 03′
	92° 06′	88° 02′	84° 45′	83° 29′	79° 53′
Boundary line in miles	282.8	None	260.8	251.5	174.6
United States shore line in miles	1,182	1,304	581	404	303

Figures for mean surface above mean sea level are the average for 68 years—1860-1927.

In April, 1929, the Great Lakes were unusually high above sea level—Superior, 602.60 ft.; Michigan-Huron, 581.39 ft.; Erie, 573.56 ft.; Ontario, 247.28 ft.

Maximum and minimum elevations of the surface of the Great Lakes above sea level—

Superior, 604.08 ft. (Sep., 1869); 599.99 ft. (April, 1926).

Huron, 583.66 ft. (July, 1876); 577.44 ft. (Feb., 1926).

Erie, 574.80 ft. (July, 1862); 569.73 ft. (Feb., 1926).

Ontario, 248.83 ft. (May, 1870); 243.34 ft. (May, 1895).

Montreal Harbor, 40.22 ft. (Jan., 1886); 18.34 ft. (Oct., 1911); mean level (1860-1928) 26.81 ft. In the season of navigation at Montreal (May-Nov., inclusive), the mean level (1860-1928) is 23.42 ft.

Average annual total rainfall on the Great Lakes—Superior, 28 in.; Huron, 30 in.; Erie, 34 in.; Ontario, 33 in.

The level of Lakes Erie and Ontario usually starts to recede in July, Lake Huron in August, and Lake Superior in August or September.

The level of the St. Lawrence River to Lake St. Louis conforms with Lake Ontario.

In Montreal harbor high water occurs in the early part of the year due to the ice conditions, and on the clearing thereof the elevation of the river steadily lowers, being checked somewhat by the flood conditions in the Ottawa River about the end of May, reaching a minimum in September or October.

This condition of affairs extends to Tidewater.

The higher the elevation of the water in the Great Lakes, the greater the discharge, and therefore the greater the effect upon the St. Lawrence Tidewater.

GREAT INVENTIONS.

AMERICAN.

Invention.	Inventor.	Date.
Lightning rod	Franklin	1752
Steamboat	Fitch	1784
Steamboat	Fulton	1793
Nail machine	Perkins	1787
Cast-iron plough	Newbold	1797
Cotton gin	Whitney	1793
Carding (textile) machine	Whittemore	1797
High-pressure steam engine	Evans	1799
Screw propeller	Stevens	1804
Tack machine	Blanchard	1806
Electro-magnet	Henry	1828
Revolver (pistol)	Colt	1835
Electric telegraph	Morse	1835
Phosphorus friction match	Phillips	1836
Vulcanized rubber	Goodyear, Chas.	1839
Sewing machine	Howe	1846
Electric locomotive	Vail	1851
Monitor (warship)	Ericsson	1861
Machine gun	Gatling	1861
Block signals (railway)	Hall	1867
Refrigerator r'y freight car	Davis	1868
Airbrake	Westinghouse	1869
Celluloid	Hyatt	1870
Welt machine	Goodyear	1871
Automatic car-coupler	Janney	1873
Typewriter	Sholes	1873
Quadruplex telegraph	Edison	1874
Water gas	Lowe	1875
Mowing machine (differential gear)	Eickemeyer (R.)	1876
Telephone	Bell	1876
Talking machine	Edison	1877
Incandescent lamp	Edison	1878
Arc lamp	Brush	1879
Gasoline motor (auto)	Selden (Pat'd)	1879
Automatic knot-tying harvester machine	Appleby	1880
Chrome tanning	Schulz	1884
Trolley car	Van Depoele & Sprague	1884-87
Type-bar casting (linotype)	Mergenthaler	1885
Electric furnace reduction	Cowles	1885
Split-phase induction motor	Tesla	1887
Single-type composing machine	Lanston	1887
Rotary converter	Bradley	1887
Recording adding machine	Burroughs	1888
Transp'rent photograph film	Eastman	1888
Calcium carbide	Willson	1888
Electric welding	Thomson	1889
Electrolytic alkali prod'ction	Castner	1890
Carborundum	Acheson	1891
Harveyized armor plate	Harvey	1891
Alternate-current motor	Tesla	1892
Motion-picture machine	Edison	1893
Dry-air process, blast furnace	Gayley	1894
Disk ploughs (modern type)	Hardy	1896
High-speed steel	Taylor & White	1901
Aeroplane	Orville & Wilbur Wright	1903
Hydro-aeroplane	Glenn H. Curtiss	1911
Gas engine (compound)	Eickemeyer (C.)	1921

Smithsonian Institution officials say the principle of the telephone was discovered on June 2, 1875; the first conversation over the telephone was held on March 7, 1876; the patent was granted on March 10, 1876.

In March, 1898, at N. Y. City, at the Centenary dinner of the American Institute, Dr. Thomas A. Watson, the associate of Alexander Graham Bell, displayed the original telephone which he had constructed in accordance with the instructions of Mr. Bell in 1875 and used it to transmit to the audience the first voice ever carried by wire—Alexander Graham Bell's: "Mr. Watson, come here; I want you."

On Jan. 28, 1928, a bronze tablet was unveiled at New Haven, commemorating the fiftieth anniversary of the opening, there, of the first commercial telephone exchange in the world.

In 1879, Carl Benz, of Germany, invented the 2-stroke motor, and in 1886 he drove the "world's first motor car" through the streets of Munich—a 3-wheel vehicle now in the Museum at that city. His first auto was built at Mannheim. Benz died April 3, 1929.

In 1892 (April 19), the first gasoline automobile in the U. S. was operated by its inventor, C. A. Duryea, who also won the first American contest, in Chicago, Nov. 1895.

On July 4, 1894, Elwood Haynes drove at Kokomo, Ind., a gasoline automobile of his own invention. Both machines are on exhibition at the Smithsonian Institution, Washington, D. C.

"1896. May 6. Flight of Langley Model. Aeroplane No. 5, a tandem monoplane, flew and maintained automatic equilibrium for more than a half mile over the Potomac River at Quantico, Va., at a speed of 20-25 miles an hour. The model, of steel tubing, weighed about 30 pounds. The machine was launched by a catapult system from the roof of a houseboat. This was the first sustained flight ever made in the world's history with self contained power plant other than one of rubber bands."—*From a 1929 bulletin of the U. S. Dept. of Commerce.*

In 1878 an arc light, operated without mechanism, invented by Paul Jablochkoff, was placed in use on the streets of Paris, France.

In 1891 Clement Ader is said to have made, in France, a flying machine in secret. "No definite information concerning it, however, is available," says Secretary Charles D. Walcott of the Smithsonian Institution, "nor did he continue his work after his initial efforts in 1891.

"In 1896 Prof. S. P. Langley of the Smithsonian Institution made the first extended flights of heavier-than-air experimental flying machines propelled by their own power.

"Many consider that he was the first to design and build a machine capable of carrying a man, and that the Wright Brothers were the first to design, build and fly a machine which carried a man."

In the United States National Museum at Washington, there is a model of an electric motor and car invented in 1847 by Moses G. Farmer.

FOREIGN.

Invention.	Date	Inventor.	Nationality.
Printing (block)	593	Unknown	Chinese
Flying shuttle	1733	Kay	English
Spinning jenny	1764	Hargreaves	English
Steam engine	1765	Watt	English
Leyden jar	1745	Dean von Kleist	German
Coal gas for lighting	1790	Murdock	English
Voltaic pile	1800	Volta	Italian
Stethoscope	1816	Laennec	French
Phosphorus match	1831	Sauria	French
Electro-mag. telegraph	1836	Wheatstone	English
Photography	1839	Daguerre and Niepce	French
Duplex telegraphy	1853	Gintl	Austrian
Dynamite	1867	Nobel	Swedish
Siphon recorder	1874	Thompson	English
Gas engine, Otto cycle	1877	Otto	German
Centrifugal creamer	1880	De Laval	Swedish
Manganese steel	1884	Hadfield	English
Smokeless powder	1886	Vielle	French
Mantle burner	1890	Welsbach	Austrian
By-product coke oven	1893	Auer Hoffman	Austrian
Wireless teleg. (low frequency)	1895	Preece	English
Wireless teleg. (high frequency)	1896	Marconi	Italian
Electric steel	1900	Heroult	French
Diesel oil motor	1900	Diesel	German
Depth bomb	1903	W. T. Unge	Swedish

Movable types were invented in China in the tenth century; by Coster, in Europe, in 1438. Cut metal types were invented by Gutenberg, German, about 1450.

Xylographic printing, long believed to have been discovered in Germany during the fifteenth century, had existed in China during the seven previous centuries, according to the address delivered by M. Pelliot before the French Academy of Inscriptions at Paris, Feb. 17, 1928.

This method owed its origin to the use of seals, rather than to development from prints, according to the French savant. He placed the making of the first paper in the year 105 A. D. and the discovery of ink about the year 500 A. D. Classical texts, he said, were produced in printed form in China in the year 932 A. D., but various printed manuscripts, chiefly magic Buddhist formulas, were printed as early as 764 A. D.

The invention of gunpowder cannot be definitely attributed to one man. It is claimed for Berthold Schwartz, a German monk, in 1320-1354; he is generally credited with having invented the first firearms.

AVERAGE HEIGHT AND WEIGHT OF MEN AND WOMEN.

COMPILED BY THE ASSOCIATION OF LIFE INSURANCE MEDICAL DIRECTORS AND THE ACTUARIAL SOCIETY OF AMERICA.

The weights are for persons with shoes on, and without coat and vest, which weigh from 3 to 7 pounds, depending on height of individual and season of year.

	MEN.								WOMEN.							
Age Group.	Hgt. and Wgt.	Hgt. and Wgt.	Hgt. and Wgt.	Hgt. and Wgt.	Hgt. and Wgt.	Hgt. and Wgt.	Hgt. and Wgt.	Hgt. and Wgt.	Hgt. and Wgt.	Hgt. and Wgt.	Hgt. and Wgt.	Hgt. and Wgt.	Hgt. and Wgt.	Hgt. and Wgt.	Hgt. and Wgt.	Hgt. and Wgt.
	5′	5′ 1″	5′ 2″	5′ 3″	5′ 4″	5′ 5″	5′ 6″	5′ 7″	4′ 11	5′	5′ 1″	5′ 2″	5′ 3″	5′ 4″	5′ 5″	
15–19	113	115	118	121	124	128	132	136	110	112	114	117	120	123	126	
20–24	119	121	124	127	131	135	139	142	113	115	117	120	123	126	129	
25–29	124	126	128	131	134	138	142	146	116	118	120	122	125	129	132	
30–34	127	129	131	134	137	141	145	149	119	121	123	125	128	132	136	
35–39	129	131	133	136	140	144	148	152	122	124	126	129	132	136	140	
40–44	132	134	136	139	142	146	140	154	126	128	130	133	136	139	143	
45–49	134	136	138	141	144	148	152	156	129	131	133	136	139	142	146	
50–54	135	137	139	142	145	149	153	157	131	133	135	138	141	144	148	
	5′ 8″	5′ 9″	5′ 10″	5′ 11″	6′	6′ 1″	6′ 2″	6′ 3″	5′ 6″	5′ 7″	5′ 8″	5′ 9″	5′ 10″	5′ 11″	6′	
15–19	140	144	148	153	158	163	168	173	130	134	138	141	145	150	155	
20–24	146	150	154	158	163	168	173	178	133	137	141	145	149	153	157	
25–29	150	154	158	163	169	175	181	187	136	140	144	148	152	155	159	
30–34	154	158	163	168	174	180	186	192	140	144	148	152	155	158	162	
35–39	157	162	167	172	178	184	191	197	144	148	152	156	159	162	165	
40–44	159	164	169	175	181	187	194	201	147	151	155	159	162	166	169	
45–49	161	166	171	177	183	190	197	204	151	157	162	166	170	170	173	
50–54	162	167	172	178	184	191	198	205	152	157	162	166	170	174	177	

U. S. GOV'T TABLE OF HEIGHTS AND WEIGHTS OF CHILDREN.

AGE.	BOYS.		GIRLS.		AGE.	BOYS.		GIRLS.	
	Height, Inches.	Weight, Pounds.	Height, Inches.	Weight, Pounds.		Height, Inches.	Weight, Pounds.	Height, Inches.	Weight, Pounds.
Birth.....	20.6	7.6	20.5	7.16	33 months...	36⅛	30⅝	35⅝	29⅛
3 months....	23½	13	....	....	34 months...	36½	31⅛	36½	30⅛
6 months....	26½	18	25⅞	16¾	35 months...	36¾	31⅞	36½	30¼
7 months....	27¼	19⅛	26½	17⅜	36 months...	37⅛	32¼	36¾	30½
8 months....	27⅝	19¾	27	18¼	37 months...	37⅜	32¼	36¾	30¾
9 months....	28⅛	20⅜	27⅝	19⅛	38 months...	37½	32⅝	37	31
10 months...	28½	20⅞	27⅞	19½	39 months...	37⅞	33⅛	37¼	31⅛
11 months...	29	21¾	28⅜	20¼	40 months...	38⅛	33½	37½	32
12 months...	29⅜	21⅞	28⅞	20¾	41 months...	38⅝	33⅝	37¾	32¼
13 months...	29⅞	22⅞	29⅜	21	42 months...	38⅝	33¾	38	32½
14 months...	30¼	23	29½	21⅝	43 months...	38¾	33¾	38¼	32¾
15 months...	30¾	23⅝	30⅛	21⅞	44 months...	38⅞	34¼	38½	33
16 months...	31⅛	24⅛	30½	22⅝	45 months...	39	34½	38½	33¼
17 months...	31⅝	24½	30¾	22⅞	46 months...	39	34¾	38¾	33½
18 months...	31¾	24⅝	31⅛	23⅜	47 months...	39¼	35¾	38⅞	33½
19 months...	32¼	25½	31½	23¾	48 months...	39½	35⅞	39	33¾
20 months...	32⅝	25¾	32	24½	5 years.....	41.6	41.1	41.3	39.7
21 months...	32⅞	25¾	32¼	24¾	6 years.....	43.8	45.2	43.4	43.3
22 months...	33¼	26⅛	32⅝	25¼	7 years.....	45.7	49.1	45.5	47.5
23 months...	33⅝	27	32⅞	25⅝	8 years.....	47.8	53.9	47.6	52.0
24 months...	33¾	27⅛	33⅜	26⅛	9 years.....	49.7	59.2	49.4	57.1
25 months...	34	27⅞	33¾	26⅞	10 years.....	51.7	65.3	51.3	62.4
26 months...	34⅛	28¼	33⅞	27¼	11 years.....	53.3	70.2	53.4	68.8
27 months...	34¾	29	33⅞	27¼	12 years.....	55.1	76.9	55.9	78.3
28 months...	35⅛	29⅛	34⅝	27¾	13 years.....	57.2	84.8	58.2	88.7
29 months...	35⅜	29¼	34¾	27¾	14 years.....	59.9	94.9	59.9	98.4
30 months...	35⅜	29½	34⅞	28¼	15 years.....	62.3	107.1	61.1	106.1
31 months...	35½	30½	35⅛	28¾	16 years.....	65.0	121.0	61.6	112.0

WEST POINT CADET MEASUREMENTS.

The authorities at the United States Military Academy, at West Point, N. Y., have decided that cadets, at seventeen years of age, whose range in height varies from 64 to 71 inches should weigh from 110 to 128 lbs.; their chest measure should be from 29 to 30¾ inches, and the chest expansion should range from 2 to 2½ inches.

At other ages, the ranges are:

Eighteen years—Height, 64 to 72 inches; weight, 117 to 136 lbs.; chest measure, 30¾ to 32 inches; chest expansion, 2 to 3 inches.

Nineteen years—Height, 64 to 73 inches; weight, 121 to 149 lbs.; chest measure, 30¾ to 32¾ inches; chest expansion, 2 to 3 inches.

Twenty years—Height, 64 to 74 inches; weight, 121 to 154 lbs.; chest measure, 31 to 33¼ inches; chest expansion, 2 to 3½ inches.

Twenty-one years—Height, 64 to 75 inches; weight, 121 to 167 lbs.; chest measure, 31¼ to 33¾ inches; chest expansion, 2 to 3½ inches.

Twenty-two years—Height, 64 to 76 inches; weight, 123 to 174 lbs.; chest measure, 31½ to 34¼ inches; chest expansion, 2 to 4 inches.

HOW TO WRITE BILLIONS, TRILLIONS, ETC.

(From Commerce and Finance.)

The strain on the Arabic notation that is involved in writing the enormous figures of European currency circulations and debts has driven many writers to fall back on "plain English" in writing round numbers, as, for instance, we ourselves last week described the German mark circulation as having increased to "496.5 quintillions."

Of course we used the word "quintillion" in its American sense, which happens to be also its French sense, but in Great Britain and the other European countries the word has a very different meaning.

We set down herewith the numerals and their nomenclature in this country and France on the one hand and in Great Britain and the rest of Europe on the other, which it were well to keep in mind:

	U. S. and France.	Gt. Britain & Rest of Europ.
1,000,000	million	million
1,000,000,000*	billion	1,000 millions
	milliard	milliard
1,000,000,000,000	trillion	billion
1,000,000,000,000,000	quadrillion	1,000 billions
1,000,000,000,000,000,000	quintillion	trillion

* Our billion is called a milliard all over the European Continent. In Great Britain it is called indifferently a milliard or a thousand millions.

Thus while in France and this country the notation advances in periods of three figures, in Great Britain and the rest of Europe it advances in periods of six, our sextillion being there a thousand trillions, and so on.

CLASSIFICATION OF ROCKS AND DIVISIONS OF GEOLOGIC TIME.

(Prepared by the U. S. Geological Survey.)

The rocks composing the earth's crust are grouped by geologists into three great classes—igneous, sedimentary, and metamorphic.

The igneous rocks have solidified from molten state.

Those that have solidified beneath the surface are known as intrusive rocks.

Those that have flowed out over the surface are known as effusive rocks, extrusive rocks, or lavas.

The term volcanic rock includes not only lavas but bombs, pumice, tuff, volcanic ash and other fragmental materials thrown out from volcanoes.

Sedimentary rocks are formed by the accumulation of sediment in water—aqueous or eolian (wind-borne) deposits.

The sediment may consist of rock fragments or particles of various sizes (conglomerate, sandstone, shale); of the remains or products of animals or plants (certain limestones and coal); of the product of chemical action or of evaporation (salt, gypsum, &c.); or of mixtures of these materials.

A characteristic feature of sedimentary deposits is a layered structure known as bedding or stratification.

Metamorphic rocks are derivatives of igneous or sedimentary rocks produced through mechanical or chemical activities in the earth's crust.

The unaltered sedimentary rocks are commonly stratified, and it is from their order of succession and that of their contained fossils that the fundamental data of historical geology has been deduced.

Era and Length in Years.	Period and length in Years.	Epoch.	Characteristic Life.
Cenozoic (Recent Life.) 2,100,000 to 93,400,000 yrs.	Quaternary. 100,000 to 1,500,000 yrs.	Recent. Pleistocene, or Glacial.	"Age of man." Animals and plants of modern types.
	Tertiary. 2,000,000 to 63,500,000 yrs.	Pliocene. Miocene. Oligocene. Eocene.	"Age of mammals." Possible first appearance of man. Rise and development of highest orders of plants.
Mesozoic. (Intermediate Life.) 6,300,000 to 191,500,000 yrs.	Cretaceous. 3,800,000 to 85,000,000 yrs.	Upper Lower	"Age of reptiles." Rise and culmination of huge land reptiles (dinosaurs). First appearance of birds and mammals; and palms and hardwood trees.
	Jurassic. 800,000 to 72,600 yrs.	Upper Middle Lower	
	Triassic. 1,700,000 to 87,500,000 yrs.	Upper Middle Lower	
Paleozoic. (Old Life.) 12,480,000 to 470,000,000 yrs.	Carboniferous. 4,700,00 to 140,000,000 yrs.	Permian. Pennsylvanian. Mississippian.	"Age of amphibians." Dominance of tree ferns and huge mosses. Primitive flowering plants and earliest cone-bearing trees. Beginnings of backboned land animals. Insects.
	Devonian. 1,900,000 to 125,000,000 yrs.	Upper. Middle. Lower.	"Age of fishes." Shellfish (mollusks) also abundant. Rise of amphibians and land plants.
	Silurian. 1,500,000 to 56,000,000 yrs.		Shell-forming sea animals dominant. Rise of fishes and of reef-building corals.
	Ordovician 1,700,000 to 130,000,000 yrs.	Upper. Middle. Lower.	Shell-forming sea animals. Culmination of the buglike marine crustaceans known as trilobites. First trace of insect life.
	Cambrian. 2,600,000 to 110,000,000 yrs.	Upper. Middle. Lower.	Trilobites, brachiopids and other sea shells. Seaweeds (algae) abundant. No trace of land animals.
Proterozoic. (Primordial Life.) 27,500,000 to 710,000,000 yrs.	Algonkian 17,500,000 yrs.	Keeweenawan Huronian	First life that has left distinct record. Crustaceans, brachiopods and seaweeds.
	Archean. 10,000,000 yrs.	Crystalline Rocks	No fossils found.

Estimates of the age of the earth range from the Scriptural, of less than 6,000 years, to 1,710,000,000 years; a guess put forth by Barrell, based on radioactivity.

A composite of the geologic estimates of Williams (1893), Schuchert (1910), and Matthew (1914) fixes the age at 48,380,000 years to 94,110,000 years.

How long has man existed on the globe? The geologists say from 100,000 to 1,500,000 years, provided he did not appear before the Quaternary Period of the Cenzoic Era.

The late John M. Clarke, New York State Geologist, in an article prepared for the Almanac and printed on page 772 of the 1928 issue, estimated the age of the earth at 1,497,000,000 years. Of this span 667,000,000 years represented the period of the unchanged rocks. His argument is as follows—

Life began in simple unicellular expressions: out of such initiative expressions have come, by combination and adjustment, all subsequent and consequent multi-cellular animals and plants. The earliest records of the rocks should show a preponderance of the elementary forms of life, so far as the sediments making those rocks have been competent to preserve them.

Terrestrial life, both animal and plant, came out of the sea. It is the opinion of paleobotanists that the plant life which emerged from the sea to the land, "the flora of transmigration," made its trek in days before the Cambrian time, and that these plants were algae of a higher order in respect to perfection of reproduction organs than any of the modern algae now living.

The molecular disintegration of the minerals of uranium and thorium results in producing lead, which, derived from these sources has a specific gravity different from that of ordinary lead.

If then, a mineral deposit known to be of Devonian age contains a uranium mineral accompanied by lead which has been derived from it, the length of time from the formation of that mineral-bearing Devonian bed to the present is at least as long as the time required for the change from the uranium molecules into lead.

This rate of change has been measured and it is known that in one year a gram of uranium would generate 1.25 x 10-10 grams of lead, and at this rate one gram of lead would be produced in 8,000 million years.

On the basis of such evidence, the length of time represented by the entire body of the unchanged rocks of the earth is 667 million years, and if to this be added the time necessary for the accumulation of the rocks of the Pre-cambrian age, some of which are sedimentary and some igneous, the figure rises to 1,497 million years.

THE ALTITUDES OF THE GLOBE.

(The elevation at the South Pole, as noted by Scott, was 9,070 feet.)

HIGHEST AND LOWEST CONTINENTAL ALTITUDES.

CONTINENTS.	Highest Point.	Elevation (Ft.)	Lowest Point.	Below Sea Level (Ft.)
North America	Mount McKinley, Alaska	20,300	Death Valley, California	276
South America	Mount Aconcagua, Chile-Argentina	22,834	Sea level	....
Europe	Mount Elbrus, Caucasus	18,465	Caspian Sea, Russia	86
Asia	Mount Everest, India-China	29,141	Dead Sea, Palestine	1,293
Africa	Kibo (Kilimanjaro), Tanganyika Terr	19,710	Libyan Desert	440
Australia	Mount Kosciusko, New South Wales	7,328	Lake Eyre, South Australia	38

Approximate mean elevation (feet)—North America, 2,000; South America, 1,800; Europe, 980; Asia 3,000; Africa, 1,900; Australia, 1,000.

HIGHEST AND LOWEST ALTITUDES IN THE UNITED STATES.

(Data supplied by the United States Geological Survey. Sign — means below sea level.)

STATE.	HIGHEST POINT.			LOWEST POINT.			Approx. Mean Elevation (Feet).
	Name.	County.	Elevation (Feet).	Name.	County.	Elevation (Feet).	
Alabama	Cheaha Mountain	Clay-Talladega	2,407	Gulf of Mexico	.....	Sea lev.	500
Alaska	Mount McKinley	.....	20,300	Pacific Ocean	.....	Sea lev.	.....
Arizona	S. Francisco Peak	Coconino	12,611	Colorado R.	Yuma	100	4,100
Arkansas	Blue Mountain Magazine Mountain	Polk-Scott Logan	2,800 2,800	Ouachita R. Death Valley	Ashley-Un. Inyo	55 —276	650 2,900
California	Mount Whitney	Inyo-Tulare	14,496	Carib. Sea	Sea lev.	100	
Canal Zone	Cerro Galera	S. W. part Zone	1,207	Arkansas R.	Prowers	3,350	6,800
Colorado	Mount Elbert	Lake	14,420	L. I. Sound	.....	Sea lev.	500
Connecticut	Bear Mountain	Litchfield	2,355	Atlantic Ocean	.....	Sea lev.	60
Delaware	Centreville	New Castle	440	Potomac R.	.....	Sea lev.	150
Dist. of Col.	Tennallytown	N. W. part	420	Atlantic Ocean	.....	Sea lev.	100
Florida	Iron Mountain	Polk	325	Atlantic Ocean	.....	Sea lev.	600
Georgia	Brasstown Bald	Towns-Union	4,768	Atlantic Ocean	.....	Sea lev.	.....
Guam	Mount Lumlum	.....	1,334	Pacific Ocean	.....	Sea lev.	.....
Hawaii	Mauna Kea	Hawaii	13,823	Pacific Ocean	.....	Sea lev.	5,000
Idaho	Hyndman Peak	Blaine-Custer	12,078	Snake R.	Nez Perce	720	600
Illinois	Charles Mound	Jo Daviess	1,241	Mississippi R.	Alexander	279	700
Indiana	Greensfork Top	Randolph	1,240	Ohio R.	Vanderb'g	316	1,100
Iowa	On N. boundary	Osceola	1,600	Mississippi R.	Lee	477	2,000
Kansas	On W. boundary	Greeley-Wallace	4,135	Verdigris R.	Montg'm'y	700	1,000
Kentucky	Big Black Mountain	Harlan	4,150	Mississippi R.	Fulton	257	750
Louisiana	N.W.part of county	Claiborne	400	Gulf of Mexico	.....	Sea lev.	100
Maine	Mount Katahdin	Piscataquis	5,267	Atlantic Ocean	.....	Sea lev.	600
Maryland	Backbone Mountain	Garrett	3,340	Atlantic Ocean	.....	Sea lev.	350
Massachusetts	Mount Greylock	Berkshire	3,505	Atlantic Ocean	.....	Sea lev.	500
Michigan	Porcupine Mount'ns	Ontonagon	2,023	Lake Erie	.....	573	900
Minnesota	Mesabi Range	St. Louis	1,920	Lake Superior	.....	602	1,200
Mississippi	Near Iuka	Tishomingo	780	Gulf of Mexico	.....	Sea lev.	300
Missouri	Taum Sauk M't'n	Iron	1,800	St. Francis R.	Dunklin	230	800
Montana	Granite Peak	Carbon	12,850	Kootenai R.	Flathead	1,800	3,400
Nebraska	S.W.part of county	Banner	5,300	S.E. cor. State	Richardson	825	2,600
Nevada	100 Boundary Peak	Esmeralda	13,145	Colorado R.	Clark	470	5,500
New Hampshire	Mt. Washington	Coos	6,288	Atlantic Ocean	.....	Sea lev.	1,000
New Jersey	High Point	Sussex	1,805	Atlantic Ocean	.....	Sea lev	250
New Mexico	North Truchas Peak	Rio Arriba	13,306	Red Bluff	Eddy	2,876	5,700
New York	Mount Marcy	Essex	5,344	Atlantic Ocean	.....	Sea lev.	1,000
North Carolina	Mount Mitchell	Yancey	6,711	Atlantic Ocean	.....	Sea lev	700
North Dakota	Black Butte	Slope	3,468	Pembina	Pembina	790	1,900
Ohio	Near Bellefontaine	Logan	1,550	Ohio R.	Hamilton	425	850
Oklahoma	Black Mesa	Cimarron	4,800	Red R.	McCurtain	300	1,300
Oregon	Mount Hood	Clackamas R.	11,253	Pacific Ocean	.....	Sea lev.	3,300
Pennsylvania	Negro Mountain	Somerset	3,213	Delaware R.	.....	Sea lev.	1,100
Philippine Islands	Mount Apo	Mindanao Is.	9,610	Pacific Ocean	.....	Sea lev.	.....
Porto Rico	Luquillo Mountains	Humacao	3,532	Atlantic Ocean	.....	Sea lev.	.....
Rhode Island	Durfee Hill	Providence	805	Atlantic Ocean	.....	Sea lev.	200
Samoa	Lata Peak	Tau Island	3,056	Pacific Ocean	.....	Sea lev.	.....
South Carolina	Sassafras Mountain	S. C.-N. C. line	3,548	Atlantic Ocean	.....	Sea lev.	350
South Dakota	Harney Peak	Pennington	7,242	Big Stone Lake	Roberts	962	2,200
Tennessee	Clingman's Dome	Tenn.-N. C. line	6,644	Mississippi R.	Shelby	182	900
Texas	El Capitan	Culberson	8,700	Gulf of Mexico	.....	Sea lev.	1,700
Utah	Kings Peaks	Wasatch	13,498	Beaverd'm Ck.	Washingt'n	2,000	6,100
Vermont	Mount Mansfield	Chit'd'n-L'm'le	4,393	LakeChamplain	Franklin	95	1,000
Virginia	Mount Rogers	Grayson-Smyth	5,719	Atlantic Ocean	.....	Sea lev.	950
Virgin Islands	Crown Hill	Is. St. Thomas	1,550	Atlantic Ocean	.....	Sea lev.	.....
Washington	Mount Rainier	Pierce	14,408	Pacific Ocean	.....	Sea lev.	1,700
West Virginia	Spruce Knob	Pendleton	4,860	Potomac R.	Jefferson	240	1,500
Wisconsin	Rib Hill	Marathon	1,940	Lake Michigan	.....	582	1,050
Wyoming	Gannett Peak	Fremont	13,785	B. Fourche R.	Crook	3,100	6,700
U. S. (ex. Alaska)	Mount Whitney	Inyo-T'l're, Cal	14,496	Death Valley	Inyo, Cal.	—276	2,500

Mount Whitney (14,496 ft.) in California is the highest point in the United States outside Alaska. The Salton Sea, in Calif., is 250 feet below sea level. Loftiest peak in Philippines is Mount Apo, on Mindanao Island, 9,610 feet; highest in Porto Rico is in Luquillo Mountains, 3,532 feet; highest point in West Indies is in the Dominican Republic, Mount Tina 10,300 feet.

SOUTH AMERICAN PEAKS.

Peak	Country.	Feet.	Peak	Country.	Feet.	Peak	Country.	Feet.
Aconcagua	Ch.-Arg.	23,080	Parinacota	Chile	20,950	Cayambe	Ecuador	19,534
Sahama	Bolivia	22,349	Antofalla	Chile	20,900	Licancaur	Bolivia	19,521
Mercedario	Chile	22,302	Famantina	Arg.	20,700	Antisana	Ecuador	19,260
Huascan	Peru	21,812	Pomarape	Chile	20,500	Chachcani	Peru	18,898
Llullayacu	Chile	21,500	Tupungato	Chile	20,269	Herveo	Colombia	18,350
Chimborazo	Ecuador	21,424	Huaina Potosi	Bolivia	20,260	Tolima	Colombia	18,320
Incaguassi	Ch.-Arg.	21,400	Juncal	C.-A.	20,175	Huila	Colombia	18,000
Sorata	Bolivia	21,286	Arequipa, (Misti)	Peru	20,013	Aconquija	Arg.	17,740
Illimani	Bolivia	21,181	San Jose	Chile	20,000	Altar	Ecuador	17,710
Veladeres	Ch.-Arg.	21,000	Copiapo	Chile	19,685	Maipo	Arg.	17,421
Chuquibamba	Peru	21,000	Cotopaxi	Ecuador	19,550	Ruiz	Colombia	17,400

CHIEF ASIAN PEAKS.

(British Empire altitudes revised by Royal Geographical Society.)

THE HIMALAYAS.

Mountains.	*Feet.*
Mount Everest	29,141
Godwin-Austen (K2 or Dapsang)	28,250
Kinchinjinga	28,146
Makalu	27,790
Dhawalagiri	26,795
Nanga-Parbat	26,620
Nandadevi	25,645
Chumalhari	23,930
Trisul	23,360
Dunagiri	23,184
Kedarnath	22,770
Panch Chuli	22,650
Api	23,399
Nanda Kot	22,510
Badarinath	23,190
Yirnajang	21,300
Dhaola-dhar (White Mt.)	15,956

British expeditions in 1922 reached 27,300 feet on Mount Everest, and in 1924 ascended 28,100 feet. The previous height record reached there was 24,600 feet. There are many peaks in the Himalayas over 26,000 feet high.

OTHER ASIAN PEAKS.

Mountains and Country.	*Feet.*
Tiratch-Mir, Afghanistan	25,400
Ulug Mustagh, Thibet	25,300
Tengr Khan, China	24,132
Aling Gungri, Thibet	24,000
Kinting-Shan, China	18,000
Koh i-Dena, Persia	17,000
Hong-Shan, China	16,400
Klutchev, Kamchatka	15,750
Bielukha ("White"), Siberia	14,800
Kinabalu, Borneo	13,455

CANADIAN PEAKS—ROCKY AND SELKIRK RANGES.

Mountains.	*Feet.*	*Mountains.*	*Feet.*	*Mountains.*	*Feet.*	*Mountains.*	*Feet.*
Logan	19,850	Steele	16,644	Hubbard	14,950	Augusta	14,070
St. Elias	18,008	Wood	15,885	Walsh	14,498	Strickland	13,818
Lucania	17,147	Vancouver	15,696	Alverstone	14,493	Newton	13,811
King	16,971	Fairweather	15,300	McArthur	14,253	Cook	13,754

Greenland's only high peak is Peterman, 9,000 feet.

ALASKA MOUNTAIN PEAKS.

(Data by the United States Geological Survey, 1929).

Peak	Feet above sea	Peak	Feet above sea	Peak	Feet above sea	Peak	Feet above sea
Alverstone	14,500	Fairweather	15,300	Jarvis	12,230	Root	12,860
Anderson	10,770	Florence	11,610	Kates Needle	10,002	Russell	11,600
Augusta	14,070	Foraker	17,000	Katmai	7,000	Sanford	16,206
Bear	14,850	George	10,000	La Perouse	10,750	Marcus Baker	13,250
Bertha	10,182	Goode	10,600	Lituya	11,750	St. Elias	18,008
Big Mountain	10,922	Haydon Peak	11,920	Lodge	10,530	Seattle	10,070
Blackburn	16,140	Hayes	13,740	Logan (Can.)	19,850	*Spurr	11,050
Bona	16,420	Hess	12,030	McKinley	20,300	Sulzer	10,920
Castle Peak	10,514	Hubbard	14,950	Natazhat	13,440	Tittmann	11,000
Cook	13,760	The Hump	12,900	Quincy Adams	15,560	Vancouver	15,700
Crillon	12,727	Hunter	14,960	Regal	13,400	Watson	12,495
Deborah	12,540	Huxley	12,560	*Redoubt	10,200	*Wrangell	14,005
Drum	12,002	Illamna	10,020	Riggs	11,783	Zanetti	12,980

Black type indicates active volcanoes. *Volcano.

MEXICO.

Mountains.	*Feet.*	*Mountains.*	*Feet.*	*Mountains.*	*Feet.*
Citlaltepetl (Peak of Orizaba)	18,564	Nevada de Toluca	14,950	Nauhcampatepetl	13,400
Popocatepetl	17,543	Malinche	14,630	Volcan de Colima	12,750
Ixtaccihuatl	16,960	Nevada de Colima	14,100	Tancitaro	12,650

GUATEMALA.

Mountains.	*Feet.*
Tajamulco	13,800
Tacana	13,300

EUROPEAN MOUNTAIN PEAKS.

DAUPHINE ALPS.

Mountains.	*Feet.*
Pic des Ecrins	13,462
La Meije	13,081
Pic d' Allefrode	13,000
Mont Pelvoux	12,973

GRAIAN ALPS.

Mountains.	*Feet.*
Grand Parodis	13,300
La Grivola	13,028
Grand Casse	12,780
Mont Pourri	12,491
Dent Parassee	12,137

PENNINE ALPS.

Mountains.	*Feet.*
Mont Blanc (Calotte)	15,781
Mte. Rosa	15,217
Mischabelhorner (Dom.)	14,935
Lys Kamm	14,889
Weisshorn	14,804
Matterhorn	14,780
Dente Blanche	14,318
Grand Combin	14,164

BERNESE ALPS.

Mountains.	*Feet.*
Finsteraarhorn	14,026
Aletschhorn	13,803
Jungfrau	13,671
Monch	13,438
Bietschhorn	12,969
Wetterhorn (Mittelhorn)	12,166
Balmhorn	12,100
Blumlisalp	12,041

MARITIME ALPS.

Mountains.	*Feet.*
Aiguille de Chambeyron	11,155
Grand Rlobarent	11,142
Rocca dell' Argentera	10,617
Pointe Haute de Mary	10,537

COTTIAN ALPS.

Mountains.	*Feet.*
Monte Viso	12,605
Monte Chardonnet	12,373
Clamarella	12,081
Mont Albaron	12,014
Roche Melon	11,621

NORTH SWISS ALPS.

Mountains.	*Feet.*
Todi	11,887
Bifertenstock	11,237
Scheerhorn	11,142
Oberalpstock	10,925
Segneshorn	10,870
Claridenstock	10,709
Piz Tumblf	10,663

LOMBARD ALPS.

Mountains.	*Feet.*
Monte Adamello	11,832
Presanella (Cima di Nardis)	11,688
Care Alto	11,352
Crozzon di Laris	10,889

CENTRAL TYROL ALPS.

Mountains.	*Feet.*
Gross Glockner	12,405
Wild Spitz	12,390
Weiskugel	12,277
Gross Venediger	12,053

RHAETIAN ALPS.

Mountains.	*Feet.*
Piz Bernina	13,294
Piz Roseg	12,936
Orteler Spitze	12,814
Konigs Spitze	12,646
Monte Cevalde	12,505
Monte della Disgrazia	12,074
Pallon della Mare	12,038

S. TYROL & VENETIAN ALPS.

Mountains.	*Feet.*
Marmolata	11,045
Cimon della Pala	11,000
Sorapis	10,798

THE PYRENEES.

Mountains.	*Feet.*
Maladetta	11,165
Pic des Possets	11,045
Mont Perdu	10,994
Pic de Vignemale	10,792
Pic Long	10,478

THE CAUCASUS RANGE. (EUROPE—ASIA).

Mountains.	*Feet.*
Elbrus	18,465
Koshtan-tau	17,096
Dykh-tau	17,054
Shkara	17,038
Yanga	16,880
Kazbek	16,346
Tetnuld	15,935
Mizhirgi-tau	15,932
Ushba	15,409
Adaikhokh	15,274

AFRICA AND AUSTRALASIA.

Mountains and Country.	*Feet.*
Kilimanjaro (2 peaks): 1—Kibo; 2—Mawenzi, Tanganyika Territory	19,318 / 16,889
Kenya, Kenya Colony	17,040
Ruwenzori, Africa	16,794
Wilhelmina, New Guinea	15,580
Ras Dashan, Abyssinia	15,150
Ala Goz, Abyssinia	14,277
Jabel Ayashi, Morocco	14,000
Cook, New Zealand	12,349
Pico de Teide, Teneriffe	12,200
Kosciusko, Australia	7,328

In 1928 the higher of the two Kilimanjaro Mountains, which the African natives formerly believed had a solid silver cap because of the gleam of the snow cap in the sun, was climbed by a Swedish officer, Capt. P. Möller. He ascended in six days. These two peaks are about half way between Victoria Nyanza and the coast. The lower one is an extinct volcano, capped with a crater.

VOLCANOES ACTIVE WITHIN THE LAST CENTURY.

(Prepared for The World Almanac by the American Museum of Natural History.)

The more commonly known volcanoes which have been active within the last hundred years are given herewith.

The limitation to those which have been active during the last hundred years excludes many well known volcanoes. The great Fuji would have been excluded excepting for the activity of parasite cones on its flanks. Among the giants which had to be excluded are: Orizaba, Popocatepeti, Sahama, Ixtaccihuatl, Sorata, Pomarepe, and Teneriffe.

Peak and Country.	*Altitude.*	*Peak and Country.*	*Altitude.*	*Peak and Country.*	*Altitude*
Cotopaxi, Ecuador	19,635	Cerro Quemado, Guatemala	10,436	Calbuco, Chile	7,000
San Pedro y Pablo, Bolivia	19,423	Merapi, Sumatra	10,100	Isarog, Philippines	6,634
Sangay, Ecuador	17,464	Tjirmaj, Java	10,075	Oraefa-jokull, Iceland	6,424
Carahuairazo, Ecuador	16,515	Pico de Cano, Cape Verde	9,744	Bandai, Japan	6,037
Pichincha, Ecuador	15,918	Gede, Java	9,720	Pogromnoi, Alaska	5,523
Karissimbi, Africa	14,683	Ruapehu, New Zealand	9,175	Makushin, Alaska	5,474
Clarence Peak, Fernando Po	14,683	Shishaldin, Alaska	8,952	Hecla, Iceland	5,110
Cameroon, Africa	13,370	Papandayang, Java	8,611	Mauga Loa, Savaii	5,000
Erebus, Antartic	13,300	Pacaya, Guatemala	8,390	Grande Soufriere, Guadel'pe	4,900
Colima, Mexico	13,092	Beerenberg, Jan Mayen Isl	8,350	Onsen, Japan	4,865
Mauna Loa, Hawaii	12,675	Santa Ana, Salvador	8,300	Korovin, Alaska	4,852
Fuji, Japan	12,395	Hualalai, Hawaii	8,275	Pelee, Martinique	4,430
Semeru, Java	12,044	Calaon, Philippines	8,192	Vesuvius, Italy	4,300
Luse, Sumatra	12,000	Asama, Japan	8,136	Jorullo, Mexico	4,262
Santa Maria, Guatemala	11,480	Mayon, Philippines	7,916	Kilauea Hawaii	4,100
Slamar, Java	11,250	Kugak, Alaska	7,630	Soufriere, St. Lucia, W. I	4,000
Irazu, Costa Rica	11,200	Ngauruhoe, New Zealand	7,515	Sakurajima, Japan	3,742
Abong-Abong, Sumatra	11,000	Katmai, Alaska	7,500	Soufriere, St. Vincent, W. I	3,500
Raun, Java	10,820	Shirane, Japan	7,422	Stromboli, Lipari Isl	3,022
Etna, Sicily	10,740	Banajao, Philippines	7,382	Sosiguina, Nicaragua	2,831
Marababu, Java	10,670	Osorno, Chile	7,200	Krakatoa, Malay Peninsula	2,817
Lassen, U. S	10,570	San Miguel, Salvador	7,120		
Dempo, Sumatra	10,562	Ceboruco, Mexico	7,100		

MOUNTAIN PEAKS IN NORTH CAROLINA-TENNESSEE.

(In the Proposed Great Smoky Mountains National Park.)

	Elev. (Ft.)		*Elev. (Ft.)*
Clingmans Dome, N. C.-Tenn. boundary	6,644	Chimney Tops, N. C.-Tenn. boundary	5,800
Mount Guyot, N. C.-Tenn. boundary	6,615	Mount Mingus, Tenn.-N. C. boundary	5,700
Mount Le Conte, East Peak, Tennessee	6,580	Silers Bald, Tenn.-N. C. boundary	5,700
Mount Le Conte, Middle Peak, Tennessee	6,547	Cataloochee Peak, Balsam Mountains, N. C	5,700
Mount Collins, North Carolina	6,400	Luftee Knob, North Carolina	5,700
Jones Knob, North Carolina	6,400	Mount Sterling, North Carolina	5,600
Waterrock Knob, North Carolina	6,400	Hughes Ridge, North Carolina	5,600
Laurel Top, N. C.-Tenn. boundary	5,900	Thunderhead, N. C.-Tenn. boundary	5,520
Black Rock (Plott Balsam Range), N. C	5,854		

Note: There are also numerous unnamed summits whose elevations exceed 5,500 feet above mean sea level

ALTITUDES IN THE WHITE MOUNTAINS. (NEW HAMPSHIRE.)

Name of Peak.	Feet.	Name of Peak.	Feet.	Name of Peak.	Feet.	Name of Peak.	Feet.
Washington	6,288	Twin (North)	4,783	Tripyramid	4,189	Chocorua	3,508
Adams	5,805	Pleasant Dome	4,775	Passaconaway	4,116	Kearsarge (No.)	3,310
Jefferson	5,726	Carrigain	4,647	Sandwich Dome	4,071	Pangus	3,248
Clay	5,554	Hancock	4,430	Jackson	4,012	Moat (North)	3,195
Monroe	5,390	Wildcat	4,415	Tecumseh	4,008	Crawford	3,101
Madison	5,380	Osceola	4,352	Starr King	3,919	Baldcap Dome	3,100
Lafayette	5,269	Field	4,300	Webster	3,876	Baldcap Peak	2,780
Franklin	5,028	Clinton	4,275	Deception	3,700	Moat (South)	2,760
Carter Dome	4,860	Willey	4,260	Cherry	3,600	Agassiz	2,354
Moosilauke	4,810						

AREA OF ISLANDS.

Islands.	Square Miles.	Islands.	Square Miles.	Islands.	Square Miles.	Islands.	Square Miles.
Australia	2,974,581	Gotland	1,150	Martha's Vineyard	120	Rugen, Germ	375
Azores	922	Greenland	827,300	Martinique	385	Sakhalin	29,100
Baffin Land	231,000	Great Britain	88,745	Mauritius	720	Samoan	1,307
Bahamas	4,404	Guadeloupe	688	Marquesas	480	Sardinia	9,299
Balearic	1,935	Guam	225	Melville Land	20,000	Scilly	30
Barbados	166	Hawaiian	6,449	Mindanao	36,906	Seychelles	156
Bermudas	20	Hayti	28,954	Moluccas	30,168	Shetland	551
Bismarck	15,752	Hebrides	3,000	Nantucket	60	Sicily	9,935
Borneo	306,906	Heligoland	0.3	Newfoundland	42,734	Singapore	210
Bornholm	210	Hainan	13,000	New Britain	10,000	Solomon	3,807
Canary	2,807	Hokkaido	30,340	New Guinea	330,000	St. Helena	47
Cape Breton	3,120	Hongkong	32	New Hebrides	5,100	Spitzbergen	30,880
Cape Verde	1,480	Honshiu	87,426	New Ireland	4,600	Skye	535
Carolina	560	Iceland	39,709	New Zealand	103,568	Southampton	17,800
Celebes	72,697	Ireland	32,586	North Devon	24,000	South Georgia	1,000
Ceylon	25,331	Jamaica	4,207	North Somerset	12,000	Sumatra	163,138
Channel	75	Japan	146,106	Nova Zembla	30,000	Tahiti	600
Corfu	277	Java	48,400	Orkney	375	Tasmania	26,215
Corsica	3,367	Jersey	45	Pemba	380	Terra del Fuego	18,500
Crete	3,127	Leeward	715	Penang	108	Teneriffe	785
Cuba	44,164	Long Is., N. Y	1,376	Philippines	115,026	Tonga	385
Curacao	403	Luzon	40,814	Pines	1,180	Trinidad	1,750
Cyprus	3,584	Madagascar	228,000	Prince Albert L	60,000	Vancouver	16,400
Ellesmere	40,600	Madeira	315	Prince Edward	2,184	Victoria	74,000
Falkland	6,300	Madura	2,000	Prince of Wales	15,000	Virgin, U. S	132
Fiji	7,435	Malta	118	Porto Rico	3,435	Windward	516
Formosa	13,911	Man	227	Reunion	970	Wrangell	18,000
Galapagos	2,868	Manhattan	21.9	Zanzibar			640

Areas cover *groups* whenever the name itself indicates a group—Azores, Bahamas, Bermudas, etc.

Governor's Island, in New York Harbor, has an area of 172.35 acres.

HIGH MOUNTAIN PEAKS IN WESTERN UNITED STATES.

(Figures, by U. S. Geological Survey, show elevation of surface above sea level.)

ARIZONA.

Name of Peak.	Feet.	Name of Peak.	Feet.	Name of Peak.	Feet.	Name of Peak.	Feet.
San Francisco	12,611	Agassiz	12,340	Kendrick	10,418	Green	10,119

CALIFORNIA.

Whitney	14,501	Tyndall	14,025	Winchell	13,749	Dade	13,635
Williamson	14,384	Barnard	14,003	Morgan	13,739	Ericsson	13,625
Palisade, North	14,254	Keith	13,990	Abbott	13,736	Tunnabora	13,593
White (So. Peak)	14,242	Stanford	13,983	Bear Creek Spine	13,705	University	13,588
Russell	14,190	Humphreys	13,972	Gabb	13,701	Thunder	13,578
Shasta	14,161	Leconte	13,960	Wallace	13,791	Brewer	13,577
Split	14,051	Junction	13,903	Birch	13,660	Milestone Bow	13,560
Palisade, Mid	14,049	Agasziz Needle	13,882	Table	13,646	Goddard	13,555
Langley	14,042	Darwin	13,841	Tom	13,649	Thompson	13,494
Muir	14,025	Kaweah	13,816	Milestone	13,643		

There are 73 mountain peaks in California, 13,000 feet or over in height, to which names have been given; and there are over 60 more of those heights to which no names have been applied.

COLORADO.

Elbert	14,420	Longs	14,255	Sunshine	14,018	Grant, U. S.	13,692
Massive	14,404	Wilson	14,250	Handies	14,008	Gilpin	13,682
Harvard	14,375	San Luis	14,149	Holy Cross	13,986	Lookout	13,674
Blanca	14,363	Maroon	14,126	Bald	13,964	Coxcomb	13,663
La Plata	14,332	Pikes	14,110	Fletcher	13,917	Matterhorn	13,589
Uncompahgre	14,306	Windom	14,084	Horseshoe	13,902	Evans	13,580
Lincoln	14,287	Eolus	14,079	Jagged	13,829	Greylock	13,571
Grays	14,274	Sunlight	14,053	Arrow	13,803	Hague	13,562
Torrey's	14,264	Red Cloud	14,050	Arkansas	13,797	McCauley	13,551
Evans	14,260	Sherman	14,038	Grizzly	13,738	Leviathan	13,528
Castle	14,259	Wilson	14,026	La Garita	13,725	Arapahoe	13,506
Quandary	14,256	Wetterhorn	14,020	Grizzly	13,695		

IDAHO.

Hyndman	12,078	Easby	11,093	Boulder	10,966	Snowyside	10,646
Galena	11,118						

MONTANA.

Granite	12,850	Haystack	10,990	Sheep	10,628	Stimson	10,155
Douglas	11,300	Emigrant	10,969	Wedge	10,508	Hyalite	10,110
Lone	11,194	Gallatin	10,967	Cleveland	10,438	Kintla	10,100
Cowen	11,190	Needles	10,933	Ward	10,267	Sunlight	10,087
Crazy	11,178	Sphinx	10,844	Delano	10,200	Jackson	10,023
Electric	11,155	Conical	10,737	Blackmore	10,196	Sivch	10,004
Hilgard	11,000	Pyramid	10,720				

NEVADA.

East	15,145	Big Indian	11,303	Cory	10,516	Monument	10,085
Toyabe arc Dome	11,775	Grant	11,303				

NEW MEXICO.

Truchas (North)	13,306	Lake	12,380	Mogollon	10,778	Thompson	10,546
Truchas (South)	13,275	Sierra Blanca	12,003	San Pedro	10,624	Grouse	10,132
Baldy	12,623	Baldy (Wh. Wat.)	10,892				

OREGON.

Hood	11,253	Eagle Cap	9,675	Thielson	9,178	Rock Creek Butte	9,097
Pitt	9,760						

UTAH.

Kings	13,498	Burro (South)	12,716	Leidy	12,013	Hilgard	11,460
Emmons	13,428	Burro (North)	12,680	Baldy	12,000	Abajo	11,445
Gilbert	13,422	Hayden	12,500	Timpanagas	11,957	Monroe	11,240
Lovenia	13,250	Agassiz	12,460	Marvine	11,600	Baldy	11,069
Tokewanna	13,200	Marsh	12,219	Watson	11,500	Brian Head	11,000
Wilson	13,095	Belknap	12,200	Twin	11,491	Terrill	11,000
Lamotte	12,750	Haystack	12,101				

WASHINGTON.

Rainier	14,408	Liberty Cup	14,112	Adams	12,326	Baker	10,750
Peak Success	14,150	Gibraltar	12,679	Takoma (Little)	11,117	Glacier	10,436

WYOMING.

Gannett	13,875	Cloud	13,165	Lester	12,325	Needle	12,130
Grand Teton	13,747	Franks	13,140	Trout	12,259	County	12,115
Fremont	13,730	Knife Point	13,007	Dead Indian	12,253	Fortress	12,073
Helen	13,600	Washakie Needles	12,496	Red Tops	12,202	Medicine Bow	12,005
Downs	13,344	Crasby	12,435	Younts	12,165	Sunlight	11,977
Chimney Rock	13,340	Dome	12,433	Wiggins	12,160	Ragged Top	11,848

TEN HIGHEST PEAKS IN CONTINENTAL UNITED STATES.

Peak.	State.	County.	Elev. (Ft).	Peak.	State.	County.	Elev. (Ft.)
Mount Whitney	Calif.	Inyo-Tulare	14,501	Sierra Blanca Pk.	Colo.	Costilla-Huerfano-Saguache	14,363
Mount Elbert	Colo.	Handies	14,420	Grays Peak	Colo.	Clear Cr'k St.	14,341
Mount Rainier	Wash.	Pierce	14,408	Torreys Peak	Colo.	Clear Cr'k St.	14,336
Mount Massive	Colo.	Lake	14,404	La Plata Peak	Colo.	Chaffee	14,332
Mount Harvard	Colo.	Chaffee	14,399				
Mount Williamson	Calif.	Inyo	14,384				

THE PRINCIPAL LANGUAGES OF THE WORLD.

(By Dr. Frank H. Vizetelly, Managing Editor of the Standard Dictionary.)

There are said to be 3,424 spoken languages and dialects in the world, distributed as follows: America, 1,624; Asia, 937; Europe, 587; Africa, 276.

The actual number of languages recently computed by officers of French Academy is put at 2,796.

The English language is spoken by more than 180,000,000 of people and it is understood and used by nearly 60,000,000 more who do not consider it their native speech.

Danish is spoken by 4,000,000 of people and understood and used by 2,000,000 or more of the Scandinavian race.

Dutch is the speech of 15,000,000 people.

German is spoken by more than 90,000,000 and understood by 20,000,000 more.

Russian is spoken by 90,000,000; French by 60,000,000, but it is understood and spoken by at least 50,000,000 more; Spanish, by 55,000,000; Italian, by 45,000,000; Portuguese, by 30,000,000.

Turkish, once spoken by more than 30,000,000 of people, is the speech of nearly 15,000,000 natives and is understood by nearly as many more. Recent investigations claim that 24,000,000 use it, despite population statistics which show that Italian has superseded it in northwestern Africa, and Greek in southeastern Europe.

Although the war has added some few words to the English language, the number is less than 10,000.

The reputable English language contains approximately 700,000 words. Possibly 300,000 more terms may be stigmatized as nonce, obsolete, vulgar, low, etc., and therefore seldom or never sought in dictionaries designed for the home.

Of the bulk—700,000 terms—nearly one-half consists of scientific terminology seldom met outside of textbooks and of archaic, obsolescent or obsolete terms.

Various estimates of the sources of English words have been made at different times. On the basis of the Lord's Prayer, George Hickes calculated that nine-tenths of our words were of Saxon origin. Sharon Turner's estimate was that the Norman were to the Saxon as 4 to 6. Trench computed 60 per cent. Saxon; 30 per cent. Latin, including those received through French; 5 per cent. Greek, and 5 per cent. other sources. Prof. W. W. Skeat in the recently published fourth edition of his dictionary, which contains approximately 20,000 words, shows the following sources:

Anglo-Saxon and English, 3,681; Low German, 126; Dutch, 207; Scandinavian, 693; German, 333.

French from Low German, 54; French from Dutch or Middle Dutch, 45, French from Scandinavian, 63; French from (1) German, 85, French from (2) Middle High German, 27; French from (3) Old High German, 154; French from (4) Teutonic, 225; French (Romance languages), 297; French from Latin, 4,842; French from Late Latin, 828; French from Italian, 162.

Celtic, 170; Latin (direct), 2,880; Provencal, from Latin, 25; Italian, 99; Spanish, 108; Portuguese, 21.

Greek direct or through Latin, Late Latin, French or other sources, 2,493; Slavonic, 31; Lithuanian, 1.

Asiatic: Aryan languages, including Persian and Sanskrit, 163; European non-Aryan languages, 20. Semitic: Hebrew, 99; Arabic, 272.

Asiatic: Non-Aryan, not Semitic, including Malay, Chinese, Japanese, Tatar, Australian, 135; African languages, 32; American, 102; hybrid, 675; unknown, 12. Total, 19,160.

The vocabulary of the New Standard Dictionary of the English Language aggregates approximately 455,000 words. If the dead words of our speech be added, the total, as shown by the New English Dictionary on Historical Principles, would reach 700,000 words for the English tongue, living and dead.

The latter work admits to a vocabulary of 418,825 terms in use in the literary language. It has not specialized in scientific terminology.

The German word-book (Kurschner's Universal-Konversations-Lexikon) contains not more than 300,000 words, including personal names.

Grimm's Dictionary of the German Language contains approximately 150,000 words; Littre's Dictionary of the French Language, 210,000 words; Dahl's Dictionary of the Russian Language, 140,000 words; Carlos de Ochoa's Dictionary of the Spanish Language, 120,000 words; Petrocchi's Dictionary of the Italian Language, 140,000 words.

"UNIVERSAL" LANGUAGES.

The chief artificial, "international" or "universal" languages are, in the order of their appearance, with the names of their inventors, when known—

Volapuk (1879) Johann M. Schleyer, Germany.
Esperanto (1887) Dr. L. L. Zamenhoff, Warsaw.
Spelin (1888) and Myrana (1889) J. S. Kempten, Germany.
Mondolingue (1890).
Universala (1893) Eugene Heintzeler, Germany.
Kosmos (1894) Eugene A. Landa.
Novilatin (1895) E. Beerman, Leipsic, Germany.
Idiom Neutral (1902) M. Rosenberger, Leningrad.
Ro (1906) Rev. E. P. Foster, Marietta, Ohio.
Spatari-Radio-Code a universal language without grammar or vocabulary based on the seven notes of the musical scale Do, Re, Mi, Fa, So, La, Si. Designated for international broadcasting and featured in Broadcasting 1928. Invented by Prof. Carlo Spatari, of New York.

600 LANGUAGES IN AFRICA.

There are about 600 languages, and they and their dialects can be grouped anthropologically, according to an authority in the London Times.

These groups are not conterminous, but it seems likely that they are related.

The three racial groups are the pygmies, the negroes and the Hamites.

The pygmies include the bushmen of South Africa. They have a light skin, are small in stature and primitive in their habits. They are thought to be the original inhabitants of the continent.

The negroes are a taller and stronger race. Their characteristics are a dark skin, projecting cheekbones, flat nose and crinkly hair. They are generally agriculturists, living in well-ordered communities.

The Hamites are a subdivision of the Caucasian race who probably migrated into Africa from Asia. They are mostly pastoral people and have the gift of ruling.

Where we find Hamitic people tilling the soil or negro tribes with nomadic or pastoral habits we can trace an intermixture of tribes belonging to the two racial groups.

With these racial groups correspond, generally speaking, the fundamental language groups.

The only pygmy language that is still known is that of the bushmen in South Africa. The other pygmy tribes have adopted the language of the negroes with whom they live.

The language of the negroes in the course of time has become separated into two chief groups known as the Bantu and the Sudan languages.

The Hamitic peoples, the Berbers of North Africa, the Somali, Galla and others, have their own languages, but throughout North Africa the common language for centuries has been Arabic.

The confusion of tongues in Africa has baffled traders, explorers and missionaries from time immemorial, and it formed as effective a barrier between the people of tropical Africa and the outside world as that raised by climatic and political conditions inimical to the foreigner.

The successive civilizations centered round the Mediterranean never penetrated south of the line that can be drawn from the Abyssinian highlands to the Gulf of Guinea. French, English and Portuguese traders visited African coast lands from the thirteenth century onward.

Chinese, Indians and Arabs traded with the East Africans, as Phoenicians and Egyptians had done long before by sea and by land.

For Europe, Africa was the dark continent until recent days. African languages remained a confused mass of unintelligible speech. There was no interchange of ideas, and no understanding was possible between the peoples of Europe and of central Africa.

Early in the seventeenth century Portuguese missionaries studied African languages on the east and west coats, and other missionaries from every part of Europe have done so ever since, but it is only quite lately that philologists have been able to throw light on the languages of Africa and bring some order into an apparent confusion of languages and dialects.

For many years it has been the policy of African governments to make language study obligatory for their officers and to encourage it in cooperation with the missionaries, who had already done the spade work.

The necessity for wider, even for international, cooperation has been recognized, and with the assistance of the tropical African governments has resulted in the establishment in London of the International Institute of African Languages and Cultures, which aims at becoming a clearing house for information from all parts of the world on the study of African languages.

ILLITERACY IN FOREIGN COUNTRIES.

Albania—In the school year 1927-1928 there were 530 public schools, with 955 teachers and 30,766 pupils; there were 54 private schools, with 122 teachers and 2,892 students.

Argentina—Elementary education, 6–14 years, is compulsory. At the last national census, in 1914, the percentage of literacy was 62.1, and, for each nationality, was—Argentine, 64.0; German, 91.0; Austro-Hungarian, 69.0; Spanish, 69.5; French, 83.0 English, 92.0; Italian, 61.5. The percentage of literacy was highest in the Province of Buenos Aires—67.0.

Among army recruits the average of illiteracy is approximately 25 per cent.

Australia—Elementary education is compulsory. The (census) percentages of those able to read and write are—(1921) 84.8; (1911) 84.5; (1901) 80.0; (1891) 75.4; (1881) 70.7; (1871) 62.4. Able to read only—(1921) 0.03; (1911) 0.04; (1901) 0.21; (1891) 0.34; (1881) 0.61; (1871) 1.07.

In 1921 the percentage of those over 5 yrs. who could not read was 4.3. The number of persons of school age and over unable to read is not accurately known, because the census percentages under that head "include a large proportion of children under five years of age." The percentage of marrying persons signing the register with a mark was—(1921) 0.17; (1911) 0.55; (1901) 1.32; (1891) 2.34; (1881) 5.56; (1871) 13.49; (1861) 24.60.

In Tasmania the percentage of literates was 87 per cent in 1921, as against 48 per cent in 1861.

Austria—Elementary education is compulsory. According to the 1924 census, illiteracy has been reduced to 4 per cent.

Belgium—The percentage of illiterates was—(1920) 9.3; (1910) 13.1; (1900) 19.1; (1890) 25.0; (1880) 30.26. In 1920 the literacy percentage for the whole population 5 yrs. and over was 89.3; for those 8 yrs. and over, 92.1; for those 15 yrs. and over, 96.7.

Bolivia—Elementary education is compulsory. In 1900 the percentage of illiteracy among the whole population, half of which is Indian, was 84.0. Of the total population of 1,816,271 the Indians numbered 920,864. In 1909 the percentage of illiteracy in the City of La Paz was 34.25.

Brazil—Elementary education is compulsory in 15 of the 22 states. By the 1920 census the percentage of illiterates in the whole population, including foreigners, was 75.5. The number of illiterates was 23,142,248 out of a population of 30,635,605. Of the native Brazilians 77 per cent were illiterate, while 48 per cent of the foreign population was illiterate. The highest percentage of illiteracy among Brazilians was in the State of Piauhy, where it reached 88, while the lowest, 40.5, was in the Federal District.

Bulgaria—Elementary education is compulsory. In 1920 the general percentage of literacy was 55.8 for males and 33.2 for females. Excluding Mussulmans, the percentages were 63.6 and 38.3 respectively. By separate nationalities the literacy percentages were: Turks, 9.0; gypsies, 6.0; Jews, 6.9; Armenians, 64.0; Rumanians, 28.0; Greeks, 41.0.

Canada—Elementary schooling is compulsory. According to the Dominion census of 1921, the percentage of illiterates in the whole population over 10 years (including Indians and other aboriginals, and foreign-born, and colored races) was—unable to read or write, 5.1; unable to read and write, 5.7. The percentage unable to read or write is raised from 1 to 5 by races other than English-speaking. The population over 10 years in 1921 numbered 6,682,072.

Canal Zone—Illiteracy percentages—native whites, none; foreign-born whites, 1.9; negroes, 10.2.

Ceylon—The percentage of illiteracy, all races, in 1901 was 78.3; among European residents, 11.9. In 1921 the percentage of literacy (whole population) was 48.6 for men, and 18.0 for women. The test was ability to read and write a short letter.

Chile—Elementary education has been obligatory since 1925, and reforms in the system are in progress. The percentage of those able to read, in the general population, has been—(1920) 50.3; (1907) 40.0; (1895) 31.8; (1885) 28.9; (1875) 22.9; (1865) 17.0; (1854) 13.5. In 1920 the percentage of literacy by sexes was—males, 51.2; females, 49.5.

China—Education on a Western basis since 1905 has spread among all classes of Chinese, but there are no recent figures on illiteracy. According to a statement in 1925 by the Chinese National Association of the Mass Education Movement, the percentage of illiterates then was 80.0.

Colombia—According to the census of 1918 the percentage of illiterates in the whole population (5,855,077, of whom 158,428 were Indians) was—read, but not write, 2.04; neither read nor write, 67.53.

Costa Rica—Out of a population of 471,524, as of May 11, 1927, there were 223,389 literates—47.4 per cent of the total population, or 64.5 per cent of the 346,198 persons 9 years of age or over. Illiterates (males, 52,602; females, 53,888) totaled 111,490—23.6 per cent of the whole population, or 32.2 per cent of those 9 years of age or over.

Cuba—Elementary education is compulsory. In 1919, the percentage of illiteracy in the whole population was 52.4; for those of 10 yrs. and over it was 39.0; for those of 20–24 yrs. it was 26.3 per cent.

Czechoslovakia—Education 6–14 years is compulsory. According to the 1921 census, the percentage of illiterates in the whole population was 7.7. It varied, as follows: in Bohemia, 2.4; in Moravia, 3.1; in Silesia, 3.7; in Slovakia, 15.0; in Sub-Carpathian Ruthenia, 50.2.

Denmark—Elementary school instruction, 7–14 years, is compulsory. There are no government statistics on illiteracy. The population in 1925 was 3,457,390 and the number of children at school was 495,952. The official Yearbook for 1927 says that on Jan. 1, out of 464,309 school children, 618 were without education on account of insanity.

Dominican Republic—Illiteracy officially estimated by the 1920 census at 70 per cent among those of 13 yrs. and over; for those of school age, 40.6 per cent. There are 856 schools in the country classified as follows: normal schools, 10; graduate schools, 72; primary schools, 688; vocational schools, 15; night schools, 40; semi-official schools, 29; reform schools, 2. According to the most recent report of the Department of Education, the total number of students attending schools in the country is 89,154.

Dutch East Indies—Percentages of literacy among those 15 yrs. and over: Europeans, men 841, women 78.9; natives, men 5.9, women 0.96; foreign Asiatics, men 32.86; women 7.01.

Ecuador—Public instruction is obligatory for children, 6–12 years. There are 1,572 primary schools, 2,992 teachers, and 120,412 pupils. Ranchers in remote districts must provide schools on their estates.

Egypt—Elementary instruction was made compulsory under the 1923 Constitution, and, since then, 500 to 700 new public schools have been built each year. In 1917, the percentage of illiterates in the general population was 92.1;—among Moslems, 94.7; among Orthodox, 82.9; among Catholics and Protestants, 53.1; among Jews, 56.2.

Estonia—Elementary education is compulsory. In 1926 the percentage of illiterates was 3.0; in 1922 it was 5.6.

Finland—Elementary education is compulsory. In 1920 the percentage of illiterates in the whole population over 15 years was 1.0 (1.1 for males, 0.9 for females). It was 0.5 in cities, and 1.1 in rural communities. Among Evangelical Lutherans it was 0.6; Baptists, 0.03; Orthodox Church, 23.2; Catholics, 1.0.

France—Elementary instruction, 6–13 years, is obligatory.

In 1921 the percentage of illiteracy among those 10 yrs. and over was 8.2 per cent, approximately.

The percentage of persons married in 1926 who signed the name with a cross was—males 0.8; females, 1.1. The percentage of illiterates among recruits was (1926) 9.39; (1925) 9.18; (1924) 8.89; (1920) 4.74; (1910) 4.28. The considerable increase for the Class of 1924 is attributed to the fact that many were deprived of four important years of schooling during the war period 1914 to 1918. When all the available male population was serving with the colors, boys from 10 to 14 years of age were employed in the fields. There are now in France, 3,091,052 pupils in the elementary schools.

The number of persons in France, 15–60 years, who could neither read nor write was—(1910) 2,055,000; (1900) 3,097,000; (1870) 10,008,000. In 1924–5, there were 3,736 elementary ("infant") schools, with 366,797 pupils.

Germany—Elementary instruction, 6–14 years, is compulsory. Based on an estimated population of 64,000,000 in 1927, the percentage of illiteracy in the whole population, 6 years and over, is approximately 0.03. This estimate is from an official source. There are no government figures on illiteracy since 1918. In 1922 there were 52,763 public elementary schools, with 8,894,486 pupils; and 675 private schools, with 35,584 pupils.

Greece—Elementary education is compulsory. In 1907 the percentage of illiterates was 57.2.

Guatemala—By the law of 1928 primary education for 3 yrs. is compulsory in rural parts; in urban places 3 yrs. elementary and 3 yrs. complementary. In 1921, by the general census, 89.08 per cent of the whole population was illiterate.

Guiana (British)—Literacy percentages among the whole population: men, 40.4; women, 49.6. This means those who can read.

Haiti—Illiteracy approximates 85 to 90% in the general population.

Honduras—Education is free and in theory compulsory but illiteracy is very extensive although the Government is endeavoring to improve and extend primary education. There are about 80,000 children of school age, less than half of whom ever enter the primary schools. The instruction in primary and secondary schools is said to be good. There is one University of limited scope due to lack of funds and equipment.

Hungary—Elementary school attendance, 6–12 years, is compulsory. By the 1920 census, the percentage unable to read and write was 15.2

India (British)—Elementary education is obligatory. According to the census of 1921, the number of illiterates, unable to read and write, was 142,623,691 males out of a total male population of 162,465,129, and 150,807,889 females out of a total female population of 153,590,102.

This was a total of 293,431,580 illiterates in a total population of 316,055,231 in that part of India in which illiteracy was under inquiry. There were 2,387,249 persons enumerated in tracts where literacy was not recorded, including Burma, Kashmir, the Northwest Frontier Province, and the Andamans and Nicobars.

The percentage of literates 5 years and over, by religions, in 1921, was—Hindu, 7.5; Sikh, 6.8; Musulman, 5.4; Christian, 28.5. The persons with a knowledge of English numbered 2,500,000.

Ireland—Education is compulsory for children 6–14 years. There are no separate illiterate data for northern Ireland or for the Irish Free State; and none for Ireland as a whole since the 1911 census. In the 1926 census the subject was not covered by the questionnaire. In Ireland as a whole the percentage, since 1841, of children 10–14 years, unable to read or write, was: (1841) 46.0; (1851) 44.5; (1861) 28.2; (1871) 21.5; (1881) 12.8; (1891) 5.9; (1901) 2.9; (1911) 1.4. The percentage of illiterates among the whole population 5 years and over were: (1841) 53.0; (1851) 46.8; (1861) 38.7; (1871) 33.4; (1881) 25.2; (1891) 18.4; (1901) 13.7; (1911) 11.9. In all of Ireland (1911), 3 per cent of the whole population of 4,390,219 could not write but could read.

In the Irish Free State, in 1926, 2.2 per cent of the grooms and 1.3 per cent of the brides signed the marriage register with a mark.

Italy—The percentage able to read was: (1871) 31.0; (1881) 38.0; (1901) 51.0; (1911) 62.0; (1921) 73.0. Thus, by the census returns, illiteracy has decreased in the last fifty years from 69 per cent to 27 per cent. In 1921 the number of persons 6 years and over who could read was 24,822,070 out of 34,223,361. The percentage of males who could read was 76; of females, 70. In 1911 the percentage was, males 67, females 58. In that year the percentage of illiteracy ranged from 11.0 in Piedmont to 69.6 in Calabria. Elementary education is compulsory and illiterates are under various disabilities.

Japan—Elementary education is compulsory, the ordinary elementary course extending over six years. The middle and higher schools, owing to the number of applicants, can admit only about ten per cent thereof. This is done by selective examination. In 1923 the percentage of illiteracy was 0.94.

Jugo Slavia (Kingdom of the Serbs, Croates, and Slovenes)—Elementary education is nominally compulsory (from 6 to 10 years). At the last national census, in 1921, the percentage of literacy was 51; 57 per cent for males and 39 per cent for females. At the beginning of the school year 1923-24 there were 961,470 children enrolled in primary schools (585,048 male and 387,422 female), 80,981 children in secondary schools (58,257 male and 22,724 female) and about 11,000 students in the three Universities at Belgrade, Zagreb and Ljubljana. All education is free. Official data indicate that there were at that date 17,570 teachers in primary schools (9,230 male and 8,180 female); 3,355 teachers in secondary schools (2,689 male and 666 female) and 604 professors of University.

King Alexander, on March 22, 1929, ordered the use of the Latin alphabet to replace the archaic complicated Cyrillic characters which have been in use without change for the last thousand years.

Latvia—According to the census of 1925, the percentage of illiteracy in the provinces was: Vidzeme (excluding Riga City,) 4.53; Riga, 4.89; Kurzeme, 7.62; Zemgale, 12.26; Latgale, 35.99; average for all Latvia, 14.72; Latgale lies along the Russian frontier.

Lithuania—Elementary instruction in Lithuania (7 to 14 years) is compulsory only in a few districts. The percentage of illiteracy in Lithuania, excluding the Memel District, is 44.1 based on a population of 2,028,971 in the year 1923. There are no statistics on illiteracy available since 1923. On January 1, 1928, there were 2,400 state elementary schools with 124,547 pupils and 80 private elementary schools with 3,191 pupils in Lithuania, not including the Memel District. There were 236 elementary schools with 15,162 pupils in 1926 in the Memel District.

Luxemburg—Education, 6–13 years, compulsory. Illiteracy practically non-existent, it is officially stated.

Malay States (Federated)—Percentage of illiteracy in whole population of large towns in 1921 was 55.9; in the unfederated states, 68.6; in the Straits Settlements, 63.4.

Mexico—Elementary education is compulsory and by the constitution of 1917, is secular. Government statistics show the percentage of illiterates in the whole population in 1925 as 62.0, as compared with 80.0 in 1910. In 1925, schools numbered 11,704; pupils, 985,819.

Netherlands, The—Elementary education, 7–13 years, is obligatory. There are no official data on illiteracy in the general population. The percentage of illiterates among army recruits was—(1926) 0.17; (1925) 0.32; (1924) 0.27; (1923) 0.35. The percentage among navy recruits was—(1926) 1.50; (1925) 0.40; (1924) 0.70; (1923) 0.40. The percentage of persons signing in 1918 the marriage register with a cross was—males, 0.22; females, 0.41. Illiteracy is estimated (1927) in the general population, at 0.23.

Newfoundland and Labrador—By the census of 1921 the percentage of illiteracy was 22.7 in Newfoundland, and 40.0 in Labrador.

Nicaragua—Percentage of illiteracy in whole population in 1920 was about 72.0.

New Zealand—The census of 1916, the latest on literacy, showed the percentage of the whole population (exclusive of Mooris), 5 years and over unable to read or write any language at 4.48 for males and 3.86 for females; combined rate, 4.17. The percentage of illiterates 10 years and over (exclusive of Mooris) was 1.19 for males and 0.82 for females; combined 1.0.

The figures of illiterates include those whose lack of education arises from physical or mental ailments, and the proportion to the population of those who are physically or mentally capable of acquiring the rudiments of education. For fifty years a system of free, universal and compulsory education has been in force in New Zealand.

Nicaragua—Elementary instruction is obligatory. The education officials estimate illiteracy in the whole population at 40.0 per cent. There are no government statistics.

Norway—Elementary school attendance is compulsory. The percentage of those able to read and write is over 99.0 it is officially estimated.

Palestine—No official data. It is officially estimated that 90 per cent of Jews and Christians are illiterate. The Moslems are more generally educated. Elementary instruction is not compulsory but the government is extending a free public school system.

Panama—About 70% of the population is illiterate, the Ministry of Public Instruction estimates. There are 596 public schools, with 1,687 teachers. There are 55,866 children in the primary schools.

Persia—The law calls for universal compulsory elemental instruction. The attendance at schools in 1926 was 137,606. The whole population is about 10,000,000. There are no illiteracy statistics.

Peru—There are about 350,000 pupils in the primary schools, public and private; and there are approximately 50,000 students in the secondary schools, public and private. There are about 800,000 persons of school age in Peru.

Poland—Elementary education is compulsory. The census of 1921 gave a total population of 27,176,717, among which were 6,581,307 illiterates over 10 years of age. They were, by age groups—10 to 14 years, 1,051,490; 15 to 19 years, 751,749; 20 to 29 years, 1,023,911; 30 to 39 years, 918,137; 40 to 59 years, 1,835,302; over 60 years, 1,000,748.

Porto Rico—Elementary education is compulsory. In 1920 the percentage of illiterates was 55.0.

Portugal—Elementary instruction is compulsory. The percentage of illiteracy approximates 68.0 for all those of 5 yrs. and over.

Roumania—Education is compulsory. In 1909 the percentage of illiterates in the whole population over 7 years was 60.16. In 1910 the percentage of illiterate army recruits was 41.0. There are no census returns on the subject.

Russia, Soviet—Education is obligatory. In 1897 the percentage of illiteracy in the Russian Empire was 69.0. According to the census of 1896 it had been reduced to 48.7 per cent. The percentage among men was 34.6 and among women 63.3. The number of elementary schools at the close of 1926 was 108,424 and the number of pupils 9,903,000. The number of pupils was 40 per cent greater than before

the revolution. Above Soviet figures on illiteracy apply to all persons above 7 years.

The percentage of literacy in 1920 has been thus estimated for those 5 yrs. and over: European Russia, 33.0; in Trans-Caucasia 28.1; in Western Siberia, 21.8.

Salvador—Elementary education is compulsory in the republic. The Department of Public Instruction estimates that the percentage of illiterates in the whole population, including foreigners, is 55.0. The number of illiterates is 880,000 out of a population of 1,600,000. The mass of the population is native; there are very few foreigners in Salvador. The highest percentage of illiteracy is to be found in the Department of Santa Ana, while the lowest is in the Department of San Salvador.

Siam—The estimated population in 1921 was 9,221,000, of whom 833,972 males and 88,756 females could read and write. By these figures, the percentage of illiterates was 90.0. With the establishment of compulsory national education and the provision of modern primary and secondary schools with a central university—The Chulalankarana—in Bangkok, the capital, the latest returns of the ministry of Education, for 1926, give an illiteracy rate of 9.22% among the male population. The rate for women is being lowered, but is still higher than males.

Spain—Elementary instruction is compulsory. According to the 1920 census the literacy of the population as a whole was 46.3 per cent; for those 5 yrs. and over, 51.2 per cent; for those 10 yrs. and over, 55.6 per cent. In 1910 the percentage of illiteracy was—read but not write, 1.77; neither read nor write, 59.35. In 1860, over 75 per cent could neither read nor write.

Sweden—Elementary education, 7–14 years, is obligatory. In 1926 there were 665,032 pupils in elementary schools. Practically all army or navy recruits can read and write.

Switzerland—Elementary school attendance is compulsory. There are no government statistics on illiteracy. In 1923, out of 59,122 persons who became married, there were 22 who could not write (12 men and 10 women) and of these 5 were Swiss (4 men and 1 woman. Of the others, 12 were Italians, 2 were French, 1 was a Hollander, and 2 were Poles.

Syria—Illiteracy is estimated at 80 per cent Primary school education is "compulsory" in accordance with the Ottoman law of 1913, but in practice this law is not enforced, and not over 25 per cent of the boys and 6 per cent of the girls of primary school age are actually attending institutions, and not all of these regularly. Schools and institutions of higher learning are divided into three classes: official schools, maintained by the local governments; local schools, maintained chiefly by the various religious sects; and foreign schools, such as American, French, British, and Italian, maintained by private or governmental contributions from foreign countries. At the end of 1926, 131,704 students divided into 87,660 boys and 44,044 girls were attending these various institutions.

Turkey—As regards educational activities in Turkey, this work is directed by the Department of Public Instruction, the head of which is a Cabinet officer. The number of public schools coming under the direct administration and control of this Department amounts, according to the latest data published to 6,271, of which 6,060 are primary schools; attendance is compulsory. The total number of pupils in these schools and the number of teachers has been estimated at 455,627 and 14,756 respectively. In addition to the primary schools, Turkey possesses a university, a civil service school, an academy for fine arts, two teachers' colleges, twenty-three secondary teachers' schools, four commercial schools, nineteen lyceums, seventy secondary schools and sixty-nine kindergartens. In addition to the above, there are several private and foreign schools.

A new Turkish alphabet, composed of Latin characters, was adopted by the Grand National Assembly of Turkey, according to a law passed on November 1, 1928. The use of the new Turkish characters became obligatory from the date of publication of the law.

Newspapers, journals, etc., were required to be printed in the new characters beginning December 1, 1928, but the general and complete application of the law does not become effective until June 1, 1930.

The new Turkish dictionary, compiled as a result of the change from the Arabic to the Latin alphabet and the Ghazi's wish to delete from the language most of the Persian and Arabic words long in usage, reveals the number of Turkish words to be only 24,000. This is less than one-fourth the number in standard English dictionaries.

A Turkish expert has computed that the best Turkish scholars know only 10,000 words, ordinary educated Turks only from 2,500 to 4,000, lower class city folk 1,200, while the Anatolian peasant's vocabulary is limited to 800 words.

Union of South Africa—The census of 1918 showed the following literacy percentage in the European population 7 years and over—able to read and write, 94.57; able to read only, 1.50; able neither to read nor write, 1.99; unspecified, 1.94. The percentages of those Europeans 10 years and over able neither to read nor write was—(1918) 1.24; (1911) 2.34; (1904) 4.11. The bulk of the native population (negroes) is still illiterate, although education is making considerable progress among them.

United Kingdom—There are no recent official statistics on illiteracy, according to the Secretary of the Board of Education, London, which has supervision over England and Wales. The percentage is small. Education is compulsory in England and Wales between 5 and 14 years; in Scotland, up to 15 years. So far as England and Wales are concerned, the latest figures with regard to persons signing the marriage register by mark are for the year 1924, when, in a total of 296,416 marriages, 995 males and 1,041 females (percentage 0.34 men, and 0.35 women), signed the marriage register by mark. In Scotland in 1925, in a total of 32,456 marriages, 79 males and 99 females (percentage 0.24 men, 0.31 women), signed the register by mark.

Uruguay—Primary education is obligatory. In 1908 the percentage of illiteracy was 39.8 in the population other than aboriginal. Literacy among those contracting marriage averages about 88 per cent of the entire population, one in eleven is in school.

Venezuela—Education, 6-12 years of age, is compulsory. Total pupils enrolled, 96,440; teachers, 2,153. Illiterates number (1926) 1,748,743. The 1926 appropriation for instruction was $1.203,352. The percentage of the population in 1926 unable to read or write averaged 72.1, based on data from six representative states.

THE EVOLUTION OF MAN.

The following minute has been adopted by the Council of the American Anthropological Association:

In view of the dogmatic objections raised against the theory of evolution the council of the American Anthropological Association have thought it advisable to formulate the present position of scientific inquiry.

The plants and animals belonging to early periods of the earth's history show that the forms have not remained the same for any length of time. The changes that have occurred are of such character that we are compelled to consider the later forms as descendants of older forms.

No form of living being has remained the same through the ages. The evidence of past times is corroborated by the structural and developmental analogies observed in related forms, proofs of a gradual differentiation from common ancestral forms.

The minute structure of all living matter is alike and shows that all organisms, from the lowest to the highest, must be considered as a unit.

Man has succeeded in producing a variety of forms of domestic animals and cultivated plants which differ from their ancestors. Our success, accomplished in a very short period, indicates that in long periods nature will produce more fundamental changes.

Man is part of the animal world. In all respects his anatomical structure conforms to that of the rest of the animal world. His prenatal life closely parallels that of the higher mammals. The same influences that control their development after birth control him and he responds in a like manner to the environment in which he is placed.

Prehistoric archeology has shown that, in the course of the ages, man has undergone great changes in physical type and that ancient man differed from modern races, the more so the more ancient the remains.

Local types of man have developed on every continent and their existence proves that changes in the heritable characteristics of racial groups are effected in the course of time.

We must conclude that the bodily form of man as well as that of animals and plants has changed and is still changing, not in the course of centuries, but in long periods.

The exact cause of changes in the form of organisms and the conditions under which they occur, as well as the causes making for stability, are still imperfectly known. The principle of change has been so well established that it should become the common property of mankind.

POISONS AND THEIR ANTIDOTES.

(Revised by Medical Staff, American Red Cross, Washington, D. C.)

NOTE—When the poison is unknown, give stimulants and soothing liquids.

POISONS FOR WHICH A N EMETIC IS ALWAYS GIVEN FIRST.

The treatment is in addition to an emetic.

Alcohol—In any form—rum, gin, whiskey, proof spirits, etc., also methyl alcohol.

Symptoms—Giddiness, swaying of body, inability to stand. Face flushed, eyes red, skin clammy, weak pulse, may be convulsions and unconsciousness.

Treatment—Hot coffee or aromatic spirits of ammonia. Try to arouse, but if weak do not exhaust by making walk. Dash cold water on face and chest. When somewhat recovered, wrap warmly and put to bed.

Arsenic.—Found in rat poisons, vermin killer, Paris green, Fowler's solution. Sometimes in tinned fruits and beer.

Symptoms—Severe pain in stomach; purging; severe cramps in legs, vomiting, dryness of throat, cold sweats, profound shock.

Treatment—Much lukewarm water. Magnesia in large quantity or dialyzed iron in ½-ounce doses, repeated. Beaten-up eggs or castor oil and stimulants. Warmth and rubbing.

Carbon Monoxide.—It is in blast and coke furnaces and foundries; in leaky furnaces or chimneys; about gas stoves without flue connections.

The exhaust gases of gasoline automobiles contain from 4 to 12 per cent. of carbon monoxide.

Symptoms—Carbon monoxide exerts its extremely dangerous action on the body by displacing oxygen from its combination with hemoglobin, the coloring matter of the blood which normally absorbs oxygen from the air in the lungs and delivers it to the different tissues of the body.

Treatment—1. Remove patient from atmosphere containing carbon monoxide. 2. Administer oxygen as quickly as possible and in as pure form as is obtainable, preferably from a cylinder of oxygen through an inhaler mask. 3. If breathing is feeble, at once start artificial respiration by the prone posture method. 4. Keep the victim flat, quiet, and warm. 5. Afterward, give plenty of rest.

Iodine.—Owing to the now universal use of the Tincture of Iodine in the treatment of scratches, cuts and wounds, it is found in every household and as a consequence there are a great many cases where children and adults have taken it accidentally or otherwise.

The antidote for Iodine poisoning is to give immediately a large tea cup of starch, mixed with cold water, to about the thickness of good buttermilk. Then, produce vomiting by putting the finger in the throat or an ametic.

Lead.—Sugar of lead, lead paint, white lead.

Symptoms—Throat dry; metallic taste with much thirst, colic in abdomen, cramps in legs, cold sweat; sometimes paralysis of legs and convulsions.

Treatment—½-ounce Epsom salts in tumbler of water. Stimulants and soothing liquids.

Opium.—Laudanum, morphine, paregoric, some soothing syrups and cough mixtures.

Symptoms—Drowsiness, finally unconsciousness; pulse full at first, then weak; breathing full and slow at first, gradually slower and shallow; pinhead pupils; face flushed, then purple.

Treatment—May have difficulty in getting emetic to work; plenty of strong coffee. Try to arouse by speaking loudly and threatening, but do not exhaust by compelling to walk, etc. Stimulants and artificial respiration.

Phosphorus.—In matches, phosphorous paste in many rat poisons and vermin killers, often with arsenic.

Symptoms—Severe pain in stomach, vomiting. Skin is dark and may have odor of phosphorus. Bleeding from nose, bloody purging. Convulsions.

Treatment—Epsom salts, ½-ounce in tumbler of water, or magnesia. Stimulants. Soothing liquid best. Milk. Avoid fats and oils.

Ptomaine.—Poisoning by decayed meat, fish, milk, or ice cream.

Symptoms—Nausea, vomiting, purging. Skin cold and clammy. Pulse weak. Severe pain in abdomen, cramps, great prostration and weakness. Often eruption on skin.

Treatment—Purgative, castor oil or Epsom salts. Teaspoonful of powdered charcoal, and repeat.

Botulism—Poisoning from infected ripe olives, preserved fruits and food.

Symptoms—Very similar to ptomaine poisoning but may be delayed for several hours. Treatment same as ptomaine poisoning.

Poisonous Mushrooms or Toadstools and Fungi—

Symptoms—Vomiting, purging and watery diarrhea. Discharges, sometimes accompanied by blood. Pulse slow and strong at first but later weak and rapid. Saliva and sweat pour out.

Treatment—Give emetic at once and send for physician, who will administer sulphate of atropin, hypodermically in most cases.

Strychnine—Nux Vomica.—Strychnine is frequently used on meat to poison animals, and in some vermin killers.

Symptoms—Convulsions, very severe, alternating with cramps, affecting all muscles of body. Back is bowed up by spasms of muscles. Jaws are locked. Spasm of muscles is so great that it prevents breathing, so face becomes dusky.

Treatment—Powdered charcoal, if possible, in large quantity. Follow with another emetic.

POISONS FOR WHICH AN EMETIC SHOULD NOT BE GIVEN FIRST.

Mercury.—Corrosive sublimate, antiseptic tablets. Other salts of mercury much less commonly used.

Symptoms—Corrosive sublimate is very irritating, so when taken turns mouth, lips and tongue white. Mouth is swollen and tongue is shrivelled; always metallic taste in mouth. Pain in abdomen. Nausea and vomiting mucus and blood, bloody purging, cold, clammy skin, great prostration, and convulsions.

Treatment—First, give white of egg or whole egg beaten up; flour and water, but not so good. Emetics, soothing liquids, and stimulants.

Nitrate of Silver.—Lunar caustic.

Symptoms—Pain in mouth and stomach; mouth first colored white, then black; vomit first white, then turns black.

Treatment—Common salt dissolved in water, or milk very frequently. Then emetic. Afterward soothing liquids and stimulants.

POISONS FOR WHICH AN EMETIC SHOULD NEVER BE GIVEN.

Corrosive Acids.—1, Acetic; 2, Hydrochloric (spirits of salt); 3, Nitric (aqua fortis); 4, Sulphuric (vitriol).

Symptoms—Very severe burning pain in mouth, throat, and stomach. Wherever acid touches skin or mucous membrane they are destroyed. Frequently vomiting and purging. More or less suffocation from swelling of throat, great prostration and shock.

Treatment—An alkali to neutralize acid. Best, magnesia or chalk in water, given frequently and freely. Lime, whiting, baking soda, plaster, tooth powder, or even wood ashes may all be used for alkali, or ammonia, a tablespoonful to 2 cups of water, but those mentioned above are better as they are less irritating. Afterward, soothing liquids, milk, milk and egg, olive oil. Stimulants are practically always required. If acid has entered air passage, may inhale fumes of ammonia.

Oxalic Acid (salts of lemon or sorrel).

Symptoms—Much like corrosive acids just named, but not so much burning of lips, etc.

Treatment.—Magnesia, chalk, and water or lime water to neutralize acid. Then one ounce of castor oil and stimulants freely.

Carbolic Acid (Phenol)—(Very commonly used in attempts at suicide.)

Symptoms—It is also a powerful corrosive poison, which causes great pain and vomiting. Severe case: Unconsciousness very soon and early death. Usually easy to tell by odor of acid and burn, which with pure acid is white and with impure, black.

Treatment—Rinse mouth with pure alcohol. If grown person, should swallow three or four tablespoonfuls of alcohol mixed with an equal quantity of water. Follow this in five minutes with two tablespoonfuls of Epsom salts dissolved in a little water. Though not so good, limewater may be used to rinse mouth.

Caustic Alkalies—1, Ammonia: Strong ammonia, ammonia liniment, camphor liniment; 2, Lime: Quicklime; 3, Potash: Caustic potash; 4, Soda: Caustic soda.

Symptoms—Much like corrosive acids. Immediate severe burning, pain in mouth, throat, and stomach. Vomiting and purging.

Treatment—An acid to neutralize alkali. Vinegar, lemon or orange juice. Tartaric or citric acid in plenty of water. Soothing liquids, stimulants. If cannot swallow, may inhale acetic acid or vinegar from a pocket handkerchief.

HELP IN CASE OF DROWNING AND OTHER ACCIDENTS.

(Revised by Medical Staff, American Red Cross, Washington, D. C.)

Drowning, Electric Shock, Gas, Smoke and Other Suffocations—There are several methods of *artificial respiration* but the prone pressure method is considered the best, being widely used throughout the United States as well as in many foreign countries.

By this plan many human lives are saved each year by members of the American National Red Cross First Aid and Life Saving Service, who use it to the exclusion of all others.

This procedure has been approved by the following organizations: American Telephone and Telegraph Company; American Red Cross; American Gas Association; Bethlehem Steel Company; National Electric Light Association; National Safety Council; Bureau of Medicine and Surgery, Navy Department; Office of the Surgeon General, War Department; U. S. Bureau of Mines; U. S. Bureau of Standards; and U. S. Public Health Service. The directions are as follows:

1. Lay the patient on his belly, one arm extended directly overhead, the other arm bent at elbow and with the face turned outward and resting on hand or forearm, so that the nose and mouth are free for breathing.

2. Kneel straddling the patient's thighs with your knees placed at such a distance from the hip bones so as to apply pressure direct from shoulders to heel of hands. Place the palms of the hands on the small of the back with fingers resting on the ribs, the little finger just touching the lowest rib, with the thumb and fingers in a natural position, and the tips of the fingers just out of sight.

3. With arms held straight, swing forward slowly, so that the weight of your body is gradually brought to bear upon the patient. The shoulder should be directly over the heel of the hand at the end of the forward swing. Do not bend your elbows. This operation should take about two seconds.

4. Now immediately swing backward, so as to remove the pressure completely.

5. After two seconds swing forward again. Thus repeat deliberately twelve to fifteen times a minute, the double movement of compression and release, a complete respiration in four or five seconds.

6. Continue artificial respiration without interruption until natural breathing is restored, if necessary, four hours or longer, or until a physician declares the patient is dead.

7. As soon as this artificial respiration has been started and while it is being continued, an assistant should loosen any tight clothing about the patient's neck, chest, or waist. KEEP THE PATIENT WARM. Do not give any liquids whatever by mouth until the patient is fully conscious.

8. To avoid strain on the heart when the patient revives, he should be kept lying down and not allowed to stand or sit up. If the doctor has not arrived by the time the patient has revived, he should be given some stimulant, such as one teaspoonful of aromatic spirits of ammonia in a small glass of water or a hot drink of coffee or tea, etc. The patient should be kept warm.

9. Resuscitation should be carried on at the nearest possible point to where the patient received his injuries. He should not be moved from this point until he is breathing normally of his own volition and then moved only in a lying position. Should it be necessary, due to extreme weather conditions, etc., to move the patient before he is breathing normally, resuscitation should be carried on during the time that he is being moved.

10. A brief return of natural respiration is not a certain indication for stopping the resuscitation. Not infrequently the patient, after a temporary recovery of respiration, stops breathing again. The patient must be watched and if natural breathing stops, artificial respiration should be resumed at once.

11. In carrying out resuscitation it may be necessary to change the operator. This change must be made without losing the rhythm of respiration. By this procedure no confusion results at the time of change of operator, and a regular rhythm is kept up.

Caution—In removing victim from electric contact protect yourself by using rubber gloves, a newspaper, or woolen cap or garment wrapped on hands. Do not touch person's bare skin with your hands unprotected. The rescuer may take hold of some parts of the clothing, if dry, pulling it off quickly.

Remember that mechanical devices are dangerous in the hands of the inexperienced.

Do not place the body in a bath unless ordered to do so by a doctor.

Shock.—Present in all serious injuries and greatly increased by severe bleeding and pain. Pale face, cold clammy skin, rapid weak pulse, shallow breathing. Lay patient on back, head low, loosen clothing about neck, chest, and abdomen. Keep warm with blankets and hot water bottles, hot bricks or heated stones, being careful not to burn the person. If he can swallow, give him hot strong coffee, hot milk or hot water, half teaspoon aromatic spirits of ammonia in water. *Never pour liquid down the throat of an unconscious person.*

Hemorrhage.—Bleeding can usually be stopped by applying small pad of gauze and a tight bandage over wound or by pressure with thumb on main blood vessel between wound and heart, also elevating limb. Remember the points for pressure are—just in front of ear for bleeding from temple; inner side of arm below armpit about where inside seam of shirt comes; inner side of thigh near groin, and in the hollow place back of the knee. Failing by pressure, use bandage or handkerchief, in which a stone or other hard object is wrapped, as a tourniquet around the limb between the wound and the heart, twisting gradually with stick until bleeding stops. **Loosen every fifteen minutes.** To remain loosened if bleeding has stopped, watching closely, and tighten the tourniquet or bandage if necessary.

Open Wounds.—On scratches and slight wounds apply half strength iodine. Dirty or greasy wounds should first be cleansed with high grade benzine. All open wounds should be covered with gauze and bandage from first-aid kit.

Never wash or touch a wound with fingers, or that part of the gauze that comes in contact with the wound. Never use cobwebs, tobacco, waste, or oil, *as they may cause blood poisoning.*

Burns.—On slight burns apply common baking soda, dry or dissolved in water as a paste; picric acid gauze wet with water, or two per cent solution of picric acid on plain gauze. Cover extensive burns, preferably with gauze or clean soft cloth saturated with baking soda solution, carbolized vaseline, unguentine, or, in an emergency, any clean pure oil.

Fracture (*Broken Bones*).—Handle carefully to prevent sharp ends cutting through flesh. Apply narrow boards, heavy pasteboard, umbrellas, canes, fence railings, or any rigid appliances, as splints for the fractured limbs to permit the patient to be moved without pain or danger. Splints must be padded when applied next to skin, and be long enough to reach beyond the joints above and below fracture.

Three persons are necessary to place an injured person properly on a stretcher, one to lift head and shoulders, another the hips, and a third the legs. The stretcher should be placed alongside the injured, and the helpers should kneel on one knee on the side of the patient away from the stretcher lifting him in unison, first to their bended knees and then lay him gently on the stretcher.

Eye Injuries.—Loose particles may be removed from the eyelid with a clean handkerchief, or a bit of clean cotton rolled on a toothpick or a match stick. If not easily removed in this way, make no further attempt. Particles embedded in the lid or eye ball should be left to the surgeon. *Never violate this rule. Blindness may result.* In case of serious eye injury, cover with clean cloth compress wrung out in ice cold water and send patient to surgeon or hospital.

Sunstroke and Heat Exhaustion.—In sunstroke face is flushed, skin hot and dry. Patient may be delirious—should be cooled as quickly as possible. Apply cracked ice or cloths wrung out in cold water to various parts of the body, especially the head, which should be slightly raised. Patient may be placed in cool bath. **Heat Exhaustion**—Skin pale, cold and moist. Symptoms are same as shock and same treatment is required.

Fainting and Fits.—In fainting, place patient on back with head low; loosen clothing; get plenty of ventilation by opening windows, or fanning; keep crowd back; ammonia on handkerchief to the nostrils; do not attempt to hold patient down. Place rolled up handkerchief, lead pencil, clothes pin, or spoon between teeth. Prevent patient from injuring himself, and let him sleep after attack.

REMEMBER—That Safety is the best First Aid. That most accidents are preventable. That the majority of serious and fatal cases of blood poisoning occur from little cuts or scratches, so never neglect a little wound. Consult your doctor.

Lightning—Dash cold water over a person struck.

Sunstroke and Heat Prostration—In sunstroke there is a slow and full pulse, labored breathing, a dry and hot skin, red face and unconsciousness. Remove the patient to a dry and shady place, loosen his collar, necktie, and any tight clothing. Raise the head and upper part of the body. Pour cold water over the head and face, and if very hot rub the body with pieces of ice.

In heat prostration there is a pale face, clammy skin, shallow breathing, weak and rapid pulse, no unconsciousness. Give cold water to drink. Place the patient flat on his back and loosen his clothing.

Apply heat to the surface of the body and extremities. Bathe the face with warm water, into which a little alcohol has been poured.

In prostration from drinking too much ice water when overheated, loosen the patient's clothing, place him on his back with his head slightly elevated. Give hot drinks, apply heat to the spine and the extremities. Do not give alcoholic stimulants. Tea, coffee or warm milk may be used.

In exhaustion from heat due to hard work and confinement in a close, hot atmosphere, cover the body with blankets and apply heat to the extremities. Send for a doctor as soon as possible.

Stings of Venomous Insects, Etc.—Apply weak ammonia, oil, salt water, or iodine.

Frost Bite—Carry the patient to a closed room without fire and undress him carefully. Rub the frozen parts, or the whole body with snow or bits of ice, or put the patient in a cold bath, vigorously rubbing the surface affected. Give warm coffee or tea as a stimulant.

If the person has ceased breathing, use artificial respiration. When the patient revives, carry him to a room slightly warmer, and cover loosely with a blanket. Afterward, with a cloth wet in warm water rub the patient. Give beef tea, ordinary tea or milk as stimulants.

Mad Dog or Snake Bite—Tiee rubber ligature or a cord around the arm or the lg a short distance, above the bite. Enlarge the tooth punctures by cutting into them at least as deep as they are. Make two cuts over each, crossing one another. Suck the blood away, provided there are not cuts or fresh abrasions on the lips or in the mouth. If possible, wash the wounds and bathe them in a solution of permanganate of potash crystals. In the case of snake bite, inject snake anti-toxin, preferably into the skin of the abdomen. If weakness and giddiness develop, inject strychnine in the same way. Whiskey or brandy may be used in an emergency. Give a cathartic. Keep the wound clean and dress it with antiseptic gauze. In the case of bite by a mad dog the Pasteur serum should be administered as soon as possible by a physician.

COAL MINE GASES.

(By F. C. Bennett, in C. F. & I. Industrial Bulletin.)

Fire Damp is the most commonly known coal mine gas. It is an explosive mixture of Methane (Carbureted Hydrogen) and air. Methane is composed of one volume of carbon united with four volumes of hydrogen.

Methane is odorless, colorless, tasteless and non-explosive in its pure state, but when it is supplied with oxygen from the air it burns with a blue flame and is explosive when the mixture carries from 5 to 13 volumes of air to one volume of gas, the most violet explosion occurring when the mixture is 9½ volumes of air to one volume of methane.

Methane gas is formed by the decay of vegetable matter under water, and is also known as Marsh Gas. Bubbles seen in swamps and stagnant pools is methane escaping. It is not poisonous, but will not support life, as it contains no oxygen. Due to its lightness (about half as heavy as air) it accumulates in the high points of the mine workings, and the remedy is to force air through the workings to dilute the mixture below the ignition point.

Black Damp is the term used by miners to describe the condition of the mine air when it contains a sufficient quantity of Carbon Dioxide to extinguish or dim a light. Carbon Dioxide is 1½ times the weight of air, and settles at the lower points of the working places in the mines. It is colorless, with a slight acid taste and smell. It will not burn or support combustion and is not poisonous, but has a suffocating effect.

Carbon Dioxide is given off from the coal itself, also from the breathing of men and mules, but when found in large quantities in the mine it is usually the result of a mine explosion or mine fire. When found under ordinary conditions in the mine it is in the poorly ventilated sections. If a person locked himself up in an air-tight room, thus shutting off ventilation, black damp would be formed, as the air we exhale contains about four per cent carbon dioxide.

White Damp is the term given to the mine air when it contains Carbon Monoxide, the most treacherous gas of all. It is colorless, odorless, has about the same weight as air, and will explode when mixed with the proper amount of air; it is not found in mines in sufficient quantities to cause an explosion.

The danger in connection with Carbon Monoxide is due to the fact that it is extremely poisonous. When the air we breathe contains as much as one-half of one per cent of Carbon Monoxide, death results in a short time. The blood absorbs this poisonous gas a great deal faster than it absorbs oxygen. Carbon Monoxide is rarely found in coal mines, but is usually present following mine fires or explosions, and some times results from powder blasting where the combustion has not been complete.

This is the gas that has killed so many automobile owners who had started their engine in a small closed garage.

Stink Damp describes the condition of the mine air when it contains a sufficient amount of Hydrogen Sulphide to smell like rotten eggs. Hydrogen Sulphide is more poisonous than Carbon Monoxide, one-tenth of one per cent causing death; however, on account of the rotten egg smell, it is very easy to detect a very slight trace of it, and for this reason it is not so dangerous.

It is rarely detected in coal mines, but when found it is generally the result of decomposition of sulphur balls, in the presence of water, in abandoned areas of the mine where the temperature is higher.

After Damp is the general term given to the mine atmosphere following an explosion. It does not refer to any particular gas, but is a mixture of gases which varies according to the conditions of the explosion. In all cases, however, After Damp contains practically no oxygen and will not support life. It is largely Carbon Dioxide (Black Damp) and usually carries enough Carbon Monoxide (White Damp) to make it dangerous.

Dust Explosions. Coal mine explosions are not always due to an explosive mixture of gas; in fact, they are practically always aggravated or increased in force by coal dust. In the operation of a coal mine fine particles of coal dust are picked up by the air and deposited throughout the mine, forming a thin layer of pulverized dust.

If a small body of gas happens to be ignited, the force of this explosion will stir up the dust and throw it into suspension in the air. When this condition exists the dust is highly explosive and is ignited by the gas explosion. In this manner a small gas explosion may be the origin of an explosion which is carried throughout the entire mine.

Various safety measures are used to combat the danger of a dust explosion, such as keeping the mine well sprinkled and the dust wet. Another method is to spray rock dust throughout the mine in such proportions as to make the dust mixture non-explosive.

Anthracite dust is non-explosive; dust from semi-anthracite is not very dangerous; but the dust from the high grade bituminous coals of southern Colorado, especially the coking coal fields, is highly explosive under favorable conditions.

COMMON STAINS AND HOW TO REMOVE THEM.

Blood and meat juice. Use cold water; soap and cold water; or starch paste.

Chocolate and cocoa. Use borax and cold water.

Coffee and tea. (Clear.) Use boiling water; bleach if necessary. (With cream.) Use cold water, then boiling water, bleach if necessary.

Cream and milk. Use cold water, soap.

Fruit and fruit juices. Use boiling water; bleach.

Grass. Use cold water; soap and cold water; alcohol; or a bleaching agent.

Grease and oils. Use French chalk, blotting paper or other absorbent; or warm water and soap; or gasoline, benzine, or carbon tetrachloride.

Iodine. Use warm water and soap; alcohol; or ammonia.

Ink. Try cold water; then use an acid or bleach.

Iron. Use oxalic acid; hydrochloric acid; salts of lemon; or lemon juice and salt.

Kerosene. Use warm water and soap.

Lampblack and soot. Use kerosene, benzine, chloroform, ether, gasoline, or carbon tetrachloride.

Mildew. If fresh, use cold water; otherwise try to bleach with potassium permanganate.

Paint and varnish. Use alcohol, carbon tetrachloride, chloroform, or turpentine.

Perspiration. Use soap and warm water; bleach in the sun or with Javelle water or potassium permanganate.

Pitch, tar, and wheel grease. Rub with fat; then use soap and warm water; or benzine, gasoline, or carbon tetrachloride.

Scorch. Bleach in the sunshine.

Shoe polish. (Black.) Use soap and water; or turpentine. (Tan.) Use alcohol.

Stove polish. Use cold water and soap; or kerosene, benzine, or gasoline.

Vaseline. Use kerosene or turpentine.

Water. Steam or sponge the entire surface.

Wax. Scrape off as much as possible. Use French chalk, blotting paper or other absorbent with a warm iron; or use benzine or gasoline.

THE BRAIN OF FOSSIL MAN.

(From London Correspondence of the Journal of the Amer. Medical Assoc.)

Lecturing on the human brain at the Royal College of Surgeons, Sir Arthur Keith said that perhaps the most fruitful inquiry into the history of man's brain was provided by the fossilized skulls of extinct races. It was fortunate that a skull retained a more or less perfect impress of the brain.

Hence a cast showed the size, shape and many of the convolutionary markings of a brain which had passed into dissolution half a million years ago.

The best representative of an early stage of human evolution was *Pithecanthropus*—the fossil man of Java.

Could he speak?

Speech was not a matter of tongue or voice, but of brain; it was possible only when the brain became big enough and sufficiently elaborate to understand and remember what was seen and heard, to formulate thoughts, to make plans and to obtain conscious control over the muscles of the larynx, tongue and lips.

Had the brain of *Pithecanthropus* reached such a stage?

The cast taken from the skull indicated that speech was just becoming possible—primitive emotional speech. The brain of *Pithecanthropus* weighed about 30 ounces, the minimum compatible with human speech.

When the brain fell below 30 ounces it was incapable of conscious thought and speech. It was when a child's brain passed about the 30 ounce standard that it began to acquire speech. The faculty of speech involved cooperation of almost the whole of the brain's convolutions. In *Pithecanthropus* the essential parts of the brain could be identified.

Where it lacked was in the areas of association—the parts of which had undergone so great an expansion in the later stages of man's evolution, the seat of his higher mental activities. Various stages in the expansion of the association areas could be traced on brain casts taken from the fossil skulls, and also on the brains of the more backward of living races.

We could apply the "cast" method to the study of the brains not only of fossil man but also of famous men and women. In this way anatomists came to know about the brains of Sir Thomas Browne, Dean Swift, and many others.

There was, however, one difficulty. The brain might become "blanketed" by the cerebrospinal fluid, so that it no longer left a sharp impression of its convolutions on the skull. Certain parts of the brain were always blanketed, so that their convolutions could not be deciphered, but as a rule the larger part was clear and made sharp impressions on the skull.

Fortunately, in the skulls of primitive races, the essential convolutions were usually uncovered and left sharp impressions.

Men showed more variations in the weight and volume of their brains than in any other part. Nature seemed to be careless as to the amount of brain given, and in many cases she showed that men with small brains succeeded just as well as, or even better than, those with larger brains.

Some of the extinct races were large brained. Parts of the brain had been destroyed by accident or disease or removed by operation and yet in many cases no ultimate deterioration in ability had been observed.

Had man come by a bigger brain than he needed? How had he come by it? It could hardly be as a result of use, for human beings rarely used their abilities up to 50 per cent of their capacity. One could not conceive that mere use, through an infinity of generations, could convert an ape's brain into that of man.

Apes were not given to thinking.

Only one line of reasoning threw light on this curious problem—the overcapitalization of the human brain. Engineers in building bridges planned them to withstand a strain ten times that which was likely to fall on them (a "factor of safety").

All the organs and parts of living animals possessed a large factor of safety. Only athletes, and these for the briefest of spells, used their hearts and lungs to near the limit of safety; most of the time they utilized only from 10 to 15 per cent of their power.

Only once or twice in a lifetime did a man exert all the power of his muscles; the power lay latent awaiting an emergency which perhaps came only once in fifty generations. The same principle applied to man's brain; it had an enormous factor of safety.

This factor had made it possible for beings designed originally for a jungle life to come to have abilities of transcendent power.

DO TIGERS AND LEOPARDS HUNT BY SCENT?

(Brig. Gen. R. G. Burton, in the London Times.)

Mr. Hugh Copley, in the Journal of the Bombay Natural History Society, describes how five lions lay down within 20 yards of him without discovering his presence, and on another occasion a lion passed within 30 yards of where he was smoking, and did not observe him.

So much for Africa. My information on the subject is scanty, and I have no knowledge of hunting in that country; the question whether the African lion hunts by scent may be left to those who have that knowledge.

I have, however, considerable experience in hunting the great carnivora, exclusive of the lion, in India. My observations lead to the conclusion that tigers and leopards hunt almost exclusively by sight and sound, and that they possess very limited powers of scent.

I have never found it necessary to take precautions relating to the direction of the wind when hunting these animals, and I have on many occasions been in close proximity to tigers without their detecting my presence until they were disturbed by sight or sound.

They have displayed no sign of appreciating my presence by scent; I have taken off my boots and stalked within fifteen yards of a tigress which remained ignorant of my proximity until disturbed by a bullet.

The tiger is quick to detect the slightest movement, although slow to distinguish a stationary object. One stared at me for some moments with unseeing eyes at a distance of not more than thirty yards, until warned of the presence of danger by a movement.

I have walked right on to a slightly wounded tiger, which was lying down but did not detect my silent approach until I came within view at a distance of a few feet, when the tiger raised its head and recognition seemed to blaze into its eyes.

Frequently driven tigers, coming with slow and leisured tread, have passed close to me without betraying any sign of scenting danger, although quick to hear it and to see movement.

It is because these animals hunt by sight and not by scent that I have always made it a practice to picket the young buffaloes that served as bait in an open space, and not under cover or in dense jungle. I have on frequent occasions known a tiger pass within twenty yards and less of a picketed buffalo and fail to observe it either by sight or scent because the buffalo was lying motionless and asleep.

That its immunity was not due to suspicion or lack of hunger or desire to kill on the part of the tiger was evident from the fact that other animals picketed a few hundred yards farther on were immediately killed and preyed upon.

Hunters who have been in the habit of sitting in ambush in a tree or on the ground have always taken precautions against betrayal by sight or sound, but have generally ignored the question of scent, and have even found it unnecessary to refrain from smoking.

The same observations have been made with regard to leopards. It might be urged that these animals have become familiar with the scent of human beings, and therefore indifferent to it, from their habit of prowling in the neighborhood of villages in search of stray calves, goats, and dogs, but I have observed the same lack of power of smell in the unsophisticated leopards inhabiting remoter jungles.

I have smelt a leopard which I nearly trod upon, but the animal showed no signs of having scented me, and I have shot them at close quarters when they were unaware of my presence. One came at night to the carcass of a calf and set to work on its midnight feast within six feet of where I sat behind a screen of branches.

It stood up with its forepaws on the carcass, and stared at my ambush while I could see its jaws masticating the flesh; but it bent down again to resume the feast.

I have sat on a bullock-cart in company with a hunting leopard whose eyes were covered with a leathern hood. We drove up to within thirty yards of herds of antelope on several occasions, but the leopard showed no knowledge of their presence until the hood was removed, when it saw the antelope and sprang from the cart to give chase as the herd galloped off.

The tiger seeks prey along jungle paths or at waterholes, or lies in wait in some thick cover on the tracks frequented by game, whose approach is detected by the sound of their footfall or by sight when they come near.

SOME FAMOUS OLD PEOPLE OF 1929.

At what age is one to be classed as "old?"

Five centuries ago a man was called old at fifty. In the nineteenth century few under sixty would admit that they were old. With so many hale and hearty men well on in years to-day, it seems well to keep the limit set by the Psalmist of threescore years and ten in offering this list, by no means exhaustive, of famous old people of 1929. The age at the last birthday is given and the list is made up as of Sept. 1, 1929.

102—George Dessaulies, Canadian Senator.

100—John R. Voorhis, President of the Board of Elections, New York.

96—Prof. William F. Warren, former President of Boston University; William Watts Folwell, President Emeritus University of Minnesota.

95—James Brown Herreshoff, yacht builder, inventor.

94—Mrs. William H. Felton of Georgia, first woman to be appointed United States Senator.

93—Cardinal Vincenzo Vannutelli; Mme. Juliette Adam, French author; Dr. Georg A. Schweinfurth, scientist; J. Warren Keifer, former Speaker, only surviving Major-General of Civil War.

92—Dr. William Keen, surgeon and scientist.

91—Emile Loubet, President of the French Republic, 1899-1906; Gen. Valeriano Weyler, Spanish commander in Cuba in war of 1898; David A. Boody, former Mayor of Brooklyn, financier; Mme. Cosima Wagner.

90—John D. Rockefeller, founder of the Standard Oil Co.; William P. Clyde, steamship owner; Henry Phipps, philanthropist; Prince Saionji, last of the Japanese genro; Brig. Gen. J. Fred Pierson, Civil War soldier.

89—George F. Baker, banker, New York; Admiral of the Fleet Sir Edward H. Seymour, O. M.

88—Oliver Wendell Holmes, U. S. Supreme Court Justice; Georges Clemenceau, former Premier of France; Sir Edward George Clarke, British lawyer; Viscount Eiichi Shibusawa, capitalist.

87—Rev. Dr. Charles H. Parkhurst, Presbyterian minister; Prof. Ferdinand E. Buisson, Nobel peace prize winner.

86—Lord Trevathin, former Lord Chief Justice of England; Dr. F. L. Patton, former President of Princeton University; Cardinal Lucon, Archbishop of Rheims.

85—George Haven Putnam, New York publisher; Major Gen. A. W. Greely, U. S. A. Signal Service (retired), Arctic explorer; Francis E. Warren, U. S. Senator, Wyoming; Robert Bridges, poet-laureate of England; T. P. O'Connor, M. P., Irish journalist; Rear Admiral C. M. Chester, U. S. N. (retired); Charles P. Taft, editor; Capt. Robert Dollar, Shipping; Rev. Dr. George Alexander, Presbyterian Minister, educator.

84—Elihu Root, former Secretary of State; Rear Admiral William H. Brownson, U. S. N. (retired); Field Marshal Lord Methuen; J. Ranken Towse, dramatic critic; Harvey W. Wiley, chemist; Leopold Auer, violinist and teacher; Mrs. Thomas Whiffen, actress; Sir Horace Plunkett; Irish publicist.

83—The Earl of Harewood, father-in-law of Princess Mary of Great Britain; Charles P. Scott, Editor of the Manchester (England) Guardian; George Saintsbury, English critic; Count Albert Apponyi, Hungarian statesman; Edward Dean Adams, engineer, harnessed Niagara; Gen. Alexander von Kluck, German war commander.

82—Thomas A. Edison, inventor; Arthur Shelbourne Hardy, author, diplomatist; the Marquis of Aberdeen, English statesman; Annie Besant, theosophist; Field Marshal Paul von Hindenburg, President of the German Reich; Prof. John Bates Clark, economist.

81—Louis C. Tiffany, artist; Nat. G. Herreshoff, yacht builder, inventor; Vladimir de Pachmann, pianist; Nathan Straus, merchant, philanthropist; Leslie M. Shaw, former Secretary of the Treasury; the Earl of Balfour (Arthur J.), British statesman, former Premier; Rt. Rev. Dr. R. T. Davidson (Lord Davidson) former Archbishop of Canterbury; Rear Admiral W. W. Kimball, U. S. N. (retired); Robert W. De Forest, President Metropolitan Museum of Art; Lord Atholstan, Montreal editor; Princess Louise (Duchess of Argyll), daughter of Queen Victoria; Admiral Count Togo, defeated Russians in Japanese war; Charles DeKay; author, critic; August Heckscher, philanthropist.

80—Rear Admiral Seaton Schroeder, U. S. N. (retired); the Duke of Wellington; Prof. Edward S. Dana, scientist, educator; Austen G. Fox, lawyer; Lord Stamfordham, private secretary to King George V.; Field Marshal August von Mackensen, German General; Grand Admiral Alfred von Tirpitz, former head of the German Navy; Col. Robert W. Thompson, financier, President American Olympic Committee; Adolph Lewisohn, banker, philanthropist; Thomas B. Clarke, art collector; Dr. I. P. Pavloff, Russian scientist.

79—Cyrus H. K. Curtis, journalist; Dr. Thomas G. Masaryk, President of Czechoslovakia; the Duke of Connaught; Augustine Birrell, British statesman, author; Lord Shaw, English jurist; Dr. David Jayne Hill, former Ambassador, educator; Rose Coughlan, actress; Sir Thomas Lipton, merchant, yachtsman; Daniel C. Beard, artist, boy scout executive; Dr. William Lawrence, P. E. Bishop of Massachusetts; Gustav Lindenthal, bridge builder; Daniel Chester French, artist; Sir Basil Zaharoff; Dr. William H. Welch, pathologist; Henry W. Cannon, banker.

78—Dr. Felix Adler, lecturer, educator; Count George Noble Plunkett, Irish publicist; Richard Henry Dana, lawyer; Dr. David Starr Jordan, President Emeritus of Leland Stanford Jr. University; Fred Warde, actor; Sir Oliver Lodge, scientist.

77—Marshal J. J. C. Joffre, hero of the Marne; Edwin Markham, poet; Paul Bourget, French author; Lieut. Gen. the Earl of Dundonald, fought in Boer War; Rev. Dr. Henry van Dyke, author, diplomatist; George Foster Peabody, New York banker, publicist; George Moore, author; Timothy Cole, engraver; Emma Albani, D. B. E., singer; John Bach McMaster, historian; Melvil Dewey, librarian; Robert Grant, author; Pietro Cardinal Gasparri, papal Secretary of State; Rev. Dr. Henry Pereira Mendez, New York rabbi; D. Hipolito Irigoyen, President of Argentina; F. H. Gillette, Senator from Massachusetts.

76—Sir Hall Caine, novelist; David Belasco; Elihu Thomson, electrician; John F. Stevens, engineer; Will H. Low, artist; Maj. Gen. Hugh L. Scott, soldier, authority on Indians; Dr. A. A. Michaelson, scientist; Sir J. Forbes-Robertson, actor.

75—Dr. Adolph Lorenz, surgeon; George Eastman, head of Kodak Company and philanthropist; Charles F. Thwing, educator; Sir Robert Borden, Canadian statesman; Francis Wilson, actor; Rear Admiral Bradley A. Fiske, U. S. N.; Prof. Albert Bushnell Hart, historian; Sir William Flinders Petrie, Egyptologist; Gen. Tasker H. Bliss, U. S. Army (retired); John Sharp Williams, former Senator from Mississippi; Gabriel Hanotaux, French statesman, historian.

74—John Hays Hammond, mining engineer; Marshal Hubert Lyautey, soldier-builder of North Africa; John Philip Sousa, musician; J. J. Jusserand, Ambassador of France to U. S. for 22 years; Timothy M. Healy, ex-Governor-General of the Irish Free State; Andrew W. Mellon, Secretary of the Treasury; John Barton Payne, Chairman American Red Cross; Rear Admiral W. S. Benson, Dr. William T. Hornaday, zoologist; Sir Arthur W. Pinero, dramatist; Viscount Knutsford, English philanthropist.

73—William J. Henderson, author, musical critic; Dr. Arthur Twining Hadley, President-Emeritus of Yale; Henry Morganthau, diplomatist; Marshal H. P. Petain, commander of French Army at Verdun; Marshal Franchet d'Esperey, commander of allied armies in Near East; Prof. Sigmund Freud, psychoanalyst; George Bernard Shaw, author, dramatist; Dr. George F. Kunz, gem expert; Wilberford Eames, bibliographer.

72—Pope Pius XI; A. Lawrence Lowell, President of Harvard University; Sir E. A. T. Budge Wallis, Egyptologist; Princess Beatrice of Battenberg, daughter of Queen Victoria; Frank B Kellogg, ex-Secet'y of State; Louis D. Brandeis, Supreme CourtJustice; Prof. H Fairfield Osborn, paleontoiogist; Augustus Thomas, playwright; Lt. Gen. Robert, Lord Baden-Powell, founder of Boy Scouts; Earl of Lonsdale, sportsman; Sir Edward Elgar, composer; Rt. Rev. Dr. J. G. Murray, presiding bishop of the P. E. church.

71—Gustav V, King of Sweden; Dr. Michael Hainisch, President of Austria; Col. E. M. House, publicist; G. W. Wickersham, former Attorney-General; Adolph H. Ochs, newspaper proprietor; Samuel Untermeyer, lawyer; Former President William H. Taft, chief-justice of the U. S. Supreme Court; Queen Dowager Emma of the Netherlands.

70—Henri Bergson, French philosopher, Nobel prize winner; Raymond Poincaire, war president of the French Republic, former premier; William II, former German Emperor; Rev. Dr. W. H. P. Faunce, former president of Brown University; Miss Selma Lagerof, Swedish novelist, Nobel prize winner; Knut Hamsun, Norwegian novelist, Nobel prize winner; William Travers Jerome, former New York district attorney; Nathaniel L. Britton, botanist.

ABBREVIATIONS IN COMMON USE.

A1	First Rate (at Lloyd's)
A. A. G.	Assistant-Adjutant-General
A. B.	Bachelor of Arts; able-bodied seaman
A. B. C. F. M.	American Board of Commissioners for Foreign Missions
Abp.	Archbishop
A. C.	Ante Christum (before Christ)
A. D.	Anno Domini
A. D. C.	Ade-de-camp
Adj.	Adjutant
ad lib.	ad libitum (at discretion)
Adm.	Admiral
Advt.	Advertisement
Aet., Aetat.	Aetatis (aged)
A. E. F.	American Expeditionary Force
A. I. A.	American Institute of Architecture
A. I. M. E.	American Institute of Mining Engineers
A. M.	Ante Meridian (before mid-day); Anno Mundi (in the year of the world); Master of Arts
A. N. A.	Associate National Academician
Anzac	Australian and New Zealand Army Corps
A. O. H.	Ancient Order of Hibernians
A. P.	Associated Press
A. Q. M. G.	Assistant-Quartermaster-General
A. R. A.	Associate of the Royal Academy
A. U. C.	Anno urbis conditae (from the foundation of the city) (Rome)
B. A.	Bachelor of Arts
B. Arch.	Bachelor of Architecture
Bart., Bt.	Baronet
Batt., Batn.	Battalion
B. C.	Before Christ; British Columbia
B. C. L.	Bachelor of Civil Law
B. D.	Bachelor of Divinity
B. E.	Bachelor of Engineering
B. Litt.	Bachelor of Letters
B. LL.	Bachelor of Laws
B. M. A.	British Medical Association
B. Mus.	Bachelor of Music
Bp.	Bishop
Brig.	Brigade; Brigadier
B. S.	Bachelor of Surgery
B. Sc.	Bachelor of Science
B. Th.	Bachelor of Theology
B. V. M.	Blessed Virgin Mary
C., Cent.	Centigrade
C. A.	Chartered Accountant
Cantab.	Of Cambridge University
Cantuar.	Of Canterbury (Abp's sig.)
Capt.	Captain
Cav.	Cavalry
C. B.	Companion of the Bath
C. B. E.	Commander Order of the British Empire
C. E.	Civil Engineer
cf.	Compare
C. G.	Commissary General; Consul General
C. H.	Companion of Honour (Eng.); Court House
Chem. E.	Chemical Engineer
Chap.	Chaplain
C. I. E.	Companion of the Indian Empire
C. J.	Chief Justice
C. M. G.	Companion of St. Michael and St. George
C. O.	Commanding Officer
C. O. D.	Cash on Delivery
Col.	Colony; Colonel
Coll.	College; Collegiate
Comdg.	Commanding
Comdt.	Commandant
Com.-in.Chf.	Commander-in-Chief
Comm.	Commander
Comr.	Commissioner
Corp.	Corporal; Corporation
C. S. I.	Companion of the Star of India
C. SS. R.	Congregation of the Most Holy Redeemer (Redemptorist Order)
C. V. O.	Commander of the Royal Victorian Order
cwt.	hundredweight
D, Dem.	Democratic
D. B. E.	Dame Commander Order of the British Empire
D. C. L.	Doctor of Civil Law
D. C. T.	Doctor of Christian Theology
D. D.	Doctor of Divinity
D. D. S.	Doctor of Dental Surgery
deg.	Degree
del.	(L. delineavit) he drew
dele.	(L. deleatur) delete
D. Eng.	Doctor of Engineering
D. F. C.	Distinguished Flying Cross
D. G.	(Dei Gratia), by the grace of God
Ditto, do.	The same
D. L.	Deputy-Lieutenant
D.Litt., D.Lit.	Doctor of Literature
D. O. M.	Deo Optimo Maximo (To God the Best and Greatest)
Dom.	Dominus
Dr.	Doctor; Debtor
dr.	Drachm
D. Sc.	Doctor of Science
D. S. M.	Distinguished Service Medal
D. S. O.	Distinguished Service Order
d. s. p.	died without issue
D. Th.	Doctor of Theology
D. V.	(L. Deo volente), God willing
dwt.	Pennyweight
12mo.	Duodecimo (folded in 12)
Ebor.	(Eboracensis) of York (Abp's sig.)
Eccl.	Ecclesiastical
Ed. D.	Doctor of Education
Ed. M.	Master of Education
E. E. & M. P.	Envoy Extraordinary and Minister Plenipotentiary
e. g.	(L. exempli gratia), for example
Eng.	English
F., Fahr.	Fahrenheit
F. A. G. S.	Fellow of the American Geographical Society
F. A. M.	Free and Accepted Masons
F. B. A.	Fellow of the British Academy
F. G. S.	Fellow of the Geological Society
F. M.	Field-Marshal
Fo.	Folio (a sheet of paper folded once)
f. o. b.	Free on board
Fr.	French
F. R. A. M.	Fellow of the Royal Academy of Music
F. R. A. S.	Fellow of the Royal Astronomical Society
F. R. C. P.	Fellow of the Royal College of Physicians
F. R. C. S.	Fellow of the Royal College of Surgeons
F. R. G. S.	Fellow of the Royal Geographical Society
F. R. I. B. A.	Fellow of the Royal Institute of British Architects
Frl.	Fraulein (Miss) (Ger.)
F. R. S.	Fellow of the Royal Society
F. S. A.	Fellow of the Society of Antiquaries
F. Z. A.	Fellow of the Zoological Academy
F. Z. S.	Fellow of the Zoological Society
G. A. R.	Grand Army of the Republic
G. B. E.	Knight or Dame Grand Cross Order of the British Empire
G. C. B.	Knight Grand Cross of the Bath
G. C. I. E.	Knight Grand Commander of the Indian Empire
G. C. M. G.	Knight Grand Cross of St. Michael and St. George
G. C. S. I.	Knight Grand Commander of the Star of India
G. C. V. O.	Knight Grand Cross of Royal Victorian Order
Gen.	General
gen.	genus—kind
Ger.	German
Gr.	Greek
G. O. C.	General Officer Commanding
Gov.	Governor
Govt.	Government
G. P. O.	General Post Office
H. B. M.	His Britannic Majesty
H. E.	His Excellency; His Eminence
H. H.	His (or Her) Highness; His Holiness
H. I. H.	His (or Her) Imperial Highness
H. I. M.	His (or Her) Imperial Majesty
H. M. S.	His Majesty's Ship
h. p.	horse-power
H. Q.	Headquarters
H. R. H.	His (or Her) Royal Highness
H. S. H.	His (or Her) Serene Highness
Ib., Ibid.	Ibidem (in the same place)
i. e.	id est (that is)
ign.	ignotus (unknown)
I. H. S.	Jesus Hominum Salvator (Jesus the Saviour of Men), more correctly IHS, the first three letters in the name of Jesus in Greek
incog.	Incognito (in secret)
Insp.	Inspector
Inst.	Instant; Institute
I. O. G. T.	International Order of Good Templars
I. O. O. F.	Independent Order of Oddfellows
I O U	I owe you
Ital., It.	Italian
ital.	italics
I. W. W.	Industrial Workers of the World
J., JJ.	Judge; Judges
J. P.	Justice of the Peace
K. B.	Knight of the Bath (seldom used); Knight Bachelor, King's Bench
K. B. E.	Knight Commander of the British Empire
K. C.	King's Counsel; Knights of Columbus
K. C. B.	Knight Commander of the Bath

K. C. I. E.	Knight Commander of the Indian Empire
K. C. M. G.	Knight Commander of St. Michael and St. George
K. C. S. I.	Knight Commander of the Star of India
K. C. V. O.	Knight Commander of the Royal Victorian Order
K. G.	Knight of the Garter
kil.	Kilometre
kilo.	Kilogramme
K. K. K.	Ku Klux Klan
K. P.	Knight of St. Patrick
K. T.	Knight of the Thistle
Kt., Knt.	Knight
Lat.	Latin
lat.	latitude
lb.	pounds (weight)
L. C. C.	London County Council
L. C. J.	Lord Chief Justice
L. H. D.	(Literarum Humaniorum Doctor) Doctor of Literature
Lic. Med.	Licentiate in Medicine (Eng.)
Lit. D.	Doctor of Literature
Litt. D.	Doctor of Letters
LL. B.	Bachelor of Laws
LL. D.	Doctor of Laws
LL. M.	Master of Laws
log.	logarithm
long.	longitude
L. s. d.	Pounds, shillings and pence; Money
Lt., Lieut.	Lieutenant
Lt.-Col.	Lieutenant-Colonel
Lt.-Gen.	Lieutenant-General
LXX	Septuagint
M.	Monsieur, Meridian (noon)
M. A.	Master of Arts
Maj.-Gen.	Major-General
Marq.	Marquis
Math.	Mathematics; Mathematical
M. B.	Bachelor of Medicine
M. B. A.	Master of Business Administration
M. B. E.	Member of the Order of the British Empire
M. C.	Military Cross; Member of Congress
M. D.	Doctor of Medicine
mdse.	merchandise
M. E.	Mining Engineer; Mechanical Engineer; Methodist Episcopal
Med.	Medical
M. Eng.	Master of Engineering
M. F.	Master of Forestry
Mgr.	Monsignor
Mlle.	Mademoiselle (Miss)
Mme.	Madame
Most Rev.	Most Reverend (of an Archbishop)
M. P.	Member of Parliament
M. S.	Master of Surgery
MS., MSS	Manuscript, Manuscripts
M. Sc.	Master of Science
Mus. B.	Bachelor of Music
Mus. D.	Doctor of Music
M. V. O.	Member of the Royal Victorian Order
M. W.	Most Worshipped
N. A.	National Academician
N. B.	L. Nota Bene, notice
N. C. O.	Non-Commissioned Officer
n. d.	no date
nem. con.	Nemine contradicente (no one contradicting); unanimously
net, nett	(It.) Netto (free from all deductions)
non seq	Non sequitur (it does not follow)
N. S.	New Style in the Calendar; National Society
O. B. E.	Officer Order of the British Empire
obit	obitur (he died)
O. F. M.	Order of Friars Minor
O. H. M. S.	On His Majesty's Service
O. K.	"All Correct" (slang)
O. M.	Order of Merit
O. M. I.	Oblate of Mary Immaculate
O. P.	Ordinis Praedicatorum—of the Order of Preachers (Dominican Ecclesiastical Title)
o. p.	opposite prompter
O. S.	Old Style in the Calendar (in Great Britain before 1752)
O. S. B.	Order of St. Benedict
O. S. F.	Franciscan (Capuchin) Order
oz.	Ounces
8vo	Octavo (folded in eight)
P. C.	Privy Councillor; Police Constable
p. c.	per centum (by the hundred); post card
Ph. B.	Bachelor of Philosophy
Ph. D.	Doctor of Philosophy
Phil.	Philosophical
Phys.	Physical
pinx.	(He) painted it
P. M.	Post Meridiem (after mid-day); Postmaster
P. M. G.	Postmaster-General
P. O.	Post Office; Postal Order
Pop.	Population
P. P.	Parish Priest
Pp.	Pages
P. P. C.	(Fr.) Pour prendre conge (to take leave)
P. R.	Prize ring (The)
Pres.	President
Prof.	Professor
Pro tem.	Pro tempore (for the time being)
Prov.	Provost; Provisional
Prox.	Proximo (next)
P. S.	Postscriptum (postscript); prompt side
pt.	Pint
Pte.	Private (soldier)
P. T. O.	Please turn over
Q. C.	Queen's Counsel
Q. E. D.	Quod erat demonstrandum (which was to be demonstrated), applied to a theorem
Q. E. F.	Quod erat faciendum (which was to be done); applied to a problem
Q. M. G.	Quartermaster-General
q. v.	quod vide (which see)
R., Rep.	Republican
R. A.	Royal Academician; Royal Artillery
R. A. F.	Royal Air Force
R. A. M. C.	Royal Army Medical Corps
R. Art.	Royal Artillery
R. A. S.	Royal Astronomical, or Asiatic, Society
R. B. S.	Royal Society of British Sculptors
R. C.	Roman Catholic
R. E.	Royal Engineers
Rear-Adm.	Rear-Admiral
Regt.	Regiment
R. F. A.	Royal Field Artillery
R. G. A.	Royal Garrison Artillery
R. H. A.	Royal Horse Artillery
R. H. G.	Royal Horse Guards
R. I.	Royal Institute of Painters in Water Colours
R. I. B. A.	Royal Institute of British Architects
R. I. P.	Requiescat in pace (May he or she rest in peace)
R. M.	Royal Marines; Resident Magistrate
R. M. A.	Royal Marine Artillery
R. M. L. I.	Royal Marine Light Infantry
R. N.	Royal Navy
R. N. R.	Royal Naval Reserve
R. N. V. R.	Royal Naval Volunteer Reserve
R. O. T. C.	Reserve Officers Training Corps
R. S. V. P.	Fr. Repondez s'il vous plat (Please answer)
Rt. Hon.	Right Honourable (Member of British Privy Council)
Rt. Rev.	Right Reverend
R. Y. S.	Royal Yacht Squadron
S. A. S.	Fellow of the Society of Antiquaries (U. S.)
Sc. B.	Bachelor of Science
Sc. D.	Doctor of Science
Sc. M.	Master of Science
scr.	scruple
sculps.	sculpsit (he engraved)
S. J.	Society of Jesus (Jesuits)
s. p.	sine prole (without issue)
S. P. C. A.	Society for the Prevention of Cruelty to Animals
S. P. Q. R.	Senatus Populusque Romanus (The Senate and People of Rome)
SS.	Steamship; Saints
S. S. M.	Society of the Sacred Mission
St.	Street; Saint
S. T. D.	Doctor of Sacred Theology
stet.	let it stand
T. N. T.	Trinitrotoluene
T. R. H.	Their Royal Highnesses
Temp.	Temperature; Temporary
tr.	transpose
U. K.	United Kingdom
ult.	Ultimo (last)
Univ.	University
U. S. A.	United States of America; Union of South Africa; United States Army
U. S. N.	United States Navy
U. S. P.	United States Pharmacopoeia
v., vid.	Vide (see)
V. C.	Victoria Cross
Ven.	Venerable (of an Archdeacon)
Vet.	Veterinary
Vice-Adm.	Vice-Admiral
Visc.	Viscount
viz.	videlicet (namely)
Vol.	Volume; Volunteers
V. P.	Vice President
V. R.	Victoria Regina (Queen Victoria)
V. R. et I.	Victoria Regina et Imperatrix (Victoria Queen and Empress)
vs.	versus (against)
W. C. T. U.	Woman's Christian Temperance Union
Y. M. C. A.	Young Men's Christian Association
Y. M. H. A.	Young Men's Hebrew Association
Y. W. C. A.	Young Women's Christian Association

Weights and Measures

THE METRIC SYSTEM.

(Data by the Bureau of Standards, Department of Commerce.)

UNITS OF WEIGHT AND MEASURE.

The fundamental units of the metric system are the meter—the unit of length, and the kilogram—the unit of mass.

The liter is defined as the volume of a kilogram of water at the temperature of its maximum density, 4° centigrade. All other units are the decimal subdivisions or multiples of these. These three units are simply related. For example, for all practical purposes 1 cubic decimeter equals 1 liter and 1 liter of water weighs 1 kilogram.

The metric tables are formed by combining the words "meter," "gram," and "liter" with the six numberical prefixed, as in the following:

Prefixes. Meaning.		Units.	Prefixes. Meaning.		Units.
milli- = *one-thousandth*...	.001		deka- = *ten*.....	10	
centi- = *one-hundredth*...	.01	"meter" *for length*	hecto- = *one hundred*.....	100	"liter" *for capacity.*
deci- = *one-tenth*.....	.1	"gram" *for weight*	kilo- = *one thousand*....	1000	
.....*Unit* = *one*.....	1.	*or mass.*			

METRIC CONVERSION.

Millimeters × .03937 = inches.
Millimeters ÷ 25.4 = inches.
Centimeters × .3937 = inches.
Centimeters ÷ 2.54 = inches.
Meters × 39.37 = inches.
Meters × 3.28 = feet.
Meters × 1.094 = yards.
Kilometers × .621 = miles.
Kilometers ÷ 1.6093 = miles.
Kilometers × 3280.8 = feet.
Square millimeters × .00155 = square inches.
Square millimeters ÷ 645 = square inches.
Square centimeters × .155 = square inches.
Square centimeters ÷ 6.45 = square inches.
Square meters × 10.764 = square feet.
Square kilometers × 247.1 = acres.
Square kilometers × .3861 = square miles.
Hectares × 2.471 = acres.
Hectares × .003861 = square miles.
Cubic centimeters ÷ 16.387 = cubic inches.
Cubic centimeters ÷ 3.70 = fluid drams (U. S. P.).
Cubic centimeters ÷ 29.57 = fluid ounces (U. S. P.).
Cubic meters × 35.314 = cubic feet.
Cubic meters × 1.308 = cubic yards.
Cubic meters × 264.2 = gallons (231 cubic inches).
Litres × 61.025 = cubic inches.
Litres × 33.81 = fluid ounces (U. S. P.).
Litres × .2642 = gallons (231 cubic inches).
Litres ÷ 3.785 = gallons (231 cubic inches).
Litres ÷ 28.317 = cubic feet.
Hectoliters × 3.53 = cubic feet.
Hectoliters × 2.84 = bushels (2150.42 cubic inches).
Hectoliters × .131 = cubic yards.
Hectoliters ÷ 26.42 = gallons (231 cubic inches).
Grammes × 15.432 = grains.
Grammes (water) ÷ 29.57 = fluid ounces.
Grammes ÷ 28.35 = ounces avoirdupois.
Grammes per cubic centimeter ÷ 27.7 = pounds per cubic inch.
Joule × .7376 = foot pounds.

Kilograms × 2.2046 = pounds.
Kilograms × 35.3 = ounces avoirdupois.
Kilograms ÷ 907.18 = short tons (2,000 pounds).
Kilograms per square centimeter × 14.223 = pounds per square inch.
Kilogram meters × 7.233 = foot pounds.
Kilo per meter × .672 = pounds per foot.
Kilo per cubic meter × .062 = pounds per cubic foot.
Kilo per cheval × 2.235 = pounds per horse power.
Kilowatts × 1.34 = horse power (33,000 foot pounds per minute).
Watts ÷ 746 = horse power.
1 Watt = .00134 horse power = 44.3 foot pounds per minute.
Calories × 3.968 = B. T. U. (British Thermal Unit).
Cheval vapeur × 0.986 = horse power.
Centigrade × 1.8 + 32 = degrees Fahrenheit.
Gravity, International Standard 980.665 centimeters per second.

Note.—*Joule:* C. G. S. unit of both mechanical and electrical energy. Equivalent to work done or heat generated in keeping up for one second a current of one ampere against a resistance of one ohm, or in raising the potential of one coulomb by one volt. Equal to 10,000,000 ergs or .73756 foot pound.

Calorie—One of two recognized units of heat, of which the greater calorie is amount of heat necessary to raise one kilogram of water 1° C.; the lesser or small calorie being the amount of heat necessary to raise one gram of water 1° C.

The U. S. Bureau of Standards advocates use of "Kilocalorie" and "calorie," respectively, for the greater and lesser calorie.

Foot pound, horse power, and cheval or cheval vapeur, as generally defined, vary from place to place by ½% because of variations in the intensity of gravity. The relations given here are for the international standard gravity, which gives an acceleration of 980.665 c m per second.

Units of Length.

Fundamental Units:

A meter (m) is a unit of length equivalent to the distance between the defining lines of the international prototype meter at the International Bureau of Weights and Measures when this standard is at the temperature of melting ice (0° C.)

A yard (yd.) is a unit of length equivalent to 91.44 centimeters.

Multiples and submultiples:

1 kilometer = 1000 meters.
1 hectometer = 100 meters.
1 dekameter = 10 meters.
1 decimeter = 0.1 meter.
1 centimeter = 0.01 meter.
1 millimeter = 0.001 meter = 0.1 centimeter.
1 micron = 0.000001 meter = 0.001 millimeter.

1 millimicron = 0.000000001 meter = 0.001 micron.
1 foot = 1-3 yard = 30.48 centimeters.
1 inch = 1-36 yard = 1-12 foot = 2.54 centimeters.
1 link = 0.22 yard = 7.92 inches.
1 rod = 5½ yards = 16½ feet.
1 chain = 22 yards = 100 links = 66 feet = 4 rods.
1 furlong = 220 yards = 40 rods = 10 chains.
1 statute mile = 1760 yards = 5280 feet = 320 rods = 1609 meters.
1 hand = 4 inches.
1 point = 1-72 inch.
1 fathom = 6 feet.
1 span = 9 inches = 1-8 fathom.
1 nautical mile { United States = 6080.20 feet. = 1.151553 statute miles.
1 sea mile
1 geographical mile { = 1853.249 meters.

Units of Area.

Fundamental Units:

A square meter is a unit of area equivalent to the area of a square the sides of which are 1 meter.

A square yard is a unit of area equivalent to the area of a square the sides of which are 1 yard.

Multiples and Submultiples:

1 square kilometer = 1,000,000 square meters.
1 hectare or square hectometer = 10,000 square meters.
1 are or square dekameter = 100 square meters.
1 centare = 1 square meter.
1 square decimeter = 0.01 square meter.
1 square centimeter = 0.0001 square meter.

1 square millimeter = 0.000001; 1 square meter = 0.01 square centimeter.
1 square foot = 1-9 square yard.
1 square inch = 1-1296 square yard = 1-144 square foot.
1 square link = 0.0484 square yard = 62.7264 square inches.
1 square rod = 30.25 square yards = 272.25 square feet = 625 square links.
1 square chain = 484 square yards = 16 square rods = 100,000 square links.
1 acre = 4840 square yards = 160 square rods = 10 square chains = .4047 hectare = 40.46 are.
1 square mile = 3,097,600 square yards = 640 acres = 259 hectares.

Units of Volume.

Fundamental Units:

A cubic meter is a unit of volume equivalent to a cube the edges of which are 1 meter.

A cubic yard is a unit of volume equivalent to a cube the edges of which are 1 yard.

Multiples and Submultiples:

1 cubic kilometer = 1,000,000,000 cubic meters.
1 cubic hectometer = 1,000,000 cubic meters.
1 cubic dekameter = 1,000 cubic meters.
1 stere = 1 cubic meter.
1 cubic decimeter = 0.001 cubic meter.
1 cubic centimeter = 0.000001 cubic meter = 0.001 cubic decimeter.
1 cubic millimeter = 0.000000001 cubic meter = 0.001 cubic centimeter.
1 cubic foot = 1-27 cubic yard.
1 cubic inch = 1-46656 cubic yard = 1-1728 cubic foot.
1 board foot = 144 cubic inches = 1-12 cubic foot.
1 cord = 128 cubic feet.

Units of Capacity.

Fundamental Units:

A liter is a unit of capacity equivalent to the volume occupied by the mass of 1 kilogram of pure water at its maximum density (at a temperature of 4° C, practically) and under the standard atmospheric pressure (of 760 mm). It is equivalent in volume to 1.000027 cubic decimeters.

A (U. S.) gallon is a unit of capacity equivalent to the volume of 231 cubic inches.

A (U. S.) bushel is a unit of capacity equivalent to the volume of 2150.42 cubic inches.

Multiples and Submultiples:

1 hectoliter = 100 liters.
1 dekaliter = 10 liters.
1 deciliter = 0.1 liter.
1 centiliter = 0.01 liter.
1 liquid quart = 1-4 gallon = 57.75 cubic inches.
1 liquid pint = 1-8 gallon = 1-2 liquid quart = 28.875 cubic inches = .528 liter.
1 gill = 1-32 gallon = 1-4 liquid pint = 7.21875 cubic inches.
1 fluid ounce = 1-128 gallon = 1-16 liquid pint.
1 fluid dram = 1-8 fluid ounce = 1-128 liquid pint.
1 minim = 1-60 fluid dram = 1-480 fluid ounce.
1 firkin = 9 gallons.
1 peck = 1-4 bushel = 537.605 cubic inches.
1 dry quart = 1-32 bushel = 1-8 peck = 67.200625 cubic inches.
1 dry pint = 1-64 bushel = 1-2 dry quart = 33.600-3125 cubic inches.
1 barrel (for fruit, vegetables and other dry commodities) = 7056 cubic inches = 105 dry quarts.

Units of Mass.

Fundamental Units:

A kilogram is a unit of mass equivalent to the mass of the international prototype kilogram at the International Bureau of Weights and Measures.

An avoirdupois pound is a unit of mass equivalent to 0.4535924277 kilogram.

A gram is a unit of mass equivalent to one-thousandth of the mass of the international prototype kilogram.

A troy pound is a unit of mass equivalent to 5760-7000 of that of the avoirdupois pound.

Multiples and Submultiples:

1 metric ton = 1000 kilograms.
1 hectogram = 100 grams = 0.1 kilogram.
1 dekagram = 10 grams = 0.01 kilogram.
1 decigram = 0.1 gram.
1 centigram = 0.01 gram.
1 milligram = 0.001 gram.
1 avoirdupois ounce = 1-16 avoirdupois pound.
1 avoirdupois dram = 1-256 avoirdupois pound = 1-16 avoirdupois ounce.
1 grain = 1-7000 avoirdupois pound = 10-4375 avoirdupois ounce = 1-5760 troy pound.
1 apothecaries' pound = 1 troy pound = 5760-7000 avoirdupois pound.
1 apothecaries' or troy ounce = 1-12 troy pound = 480-7000 avoirdupois pound = 480 grains.
1 apothecaries' dram = 1-96 apothecaries' pound = 1-8 apothecaries' ounce = 60 grains.
1 pennyweight = 1-20 troy ounce = 24 grains.
1 apothecaries' scruple = 1-3 apothecaries' dram = 20 grains.
1 metric carat = 200 milligrams = 0.2 gram.
1 short hundredweight = 100 avoirdupois pounds.
1 long hundredweight = 112 avoirdupois pounds.
1 short ton = 2000 avoirdupois pounds.
1 long ton = 2240 avoirdupois pounds.

DOUBLE CONVERSION TABLES FOR THE METRIC SYSTEM.

NOTE.—The central figures in **heavy type** represent either of the two columns beside them, as the case may be. *Examples:* One foot = 0.304801 meters; one meter = 3.28083 feet; one U. S. Mile = 1.609347 kilometers; one kilometer 0.621370 miles; one U. S. liquid quart = 0.94633 liters; one liter = 1.05671 U. S. liquid quarts; 1 pound avoirdupois = 0.4535924277 kilograms; one k logram = 2,204622341 pounds avoirdupois. The units are those of the United States Bureau of Standards.

Inches.		Millimeters.	Feet.		Meters.	U. S. Miles.		Kilometers.	Cubic Inches.		Cubic Centimeters.
0.03937	1	25.4001	3.28083	1	0.304801	0.621370	1	1.609347	0.06102	1	16.3872
0.07874	2	50.8001	6.56167	2	0.609601	1.242740	2	3.218694	0.12205	2	32.7743
0.11811	3	76.2002	9.84250	3	0.914402	1.864110	3	4.828042	0.18307	3	49.1615
0.15748	4	101.6002	13.12333	4	1.219202	2.485480	4	6.437389	0.24409	4	65.5486
0.19685	5	127.0003	16.40417	5	1.524003	3.106850	5	8.046736	0.30512	5	81.9358
0.23622	6	152.4003	19.68500	6	1.828804	3.728220	6	9.656083	0.36614	6	98.3230
0.27559	7	177.8004	22.96583	7	2.133604	4.349590	7	11.265431	0.42716	7	114.7101
0.31496	8	203.2004	26.24667	8	2.438405	4.970960	8	12.874778	0.48819	8	131.0973
0.35433	9	228.6005	29.52750	9	2.743205	5.592330	9	14.484125	0.54921	9	147.4845
0.39370	10	254.0006	32.80833	10	3.048006	6.213699	10	16.093472	0.61023	10	163.8717

Cubic Yards.		Cubic Meters.	Square Feet.		Square Meters.	Square Miles.		Square Kilometers.	Acres.		Hectares.
1.3079	1	0.7646	10.764	1	0.09290	0.3861	1	2.5900	2.471	1	0.4047
2.6159	2	1.5291	21.528	2	0.18581	0.7722	2	5.1800	4.942	2	0.8094
3.9238	3	2.2937	32.292	3	0.27871	1.1583	3	7.7700	7.413	3	1.2141
5.2318	4	3.0582	43.055	4	0.37161	1.5444	4	10.3600	9.884	4	1.6187
6.5397	5	3.8228	53.819	5	0.46452	1.9305	5	12.9500	12.355	5	2.0234
7.8477	6	4.5874	64.583	6	0.55742	2.1366	6	15.5400	14.826	6	2.4281
9.1556	7	5.3519	75.347	7	0.65032	2.7027	7	18.1300	17.297	7	2.8328
10.4635	8	6.1165	86.111	8	0.74323	3.0888	8	20.7200	19.768	8	3.2375
11.7715	9	6.8810	96.875	9	0.83613	3.4749	9	23.3100	22.239	9	3.6422
13.0794	10	7.6456	107.639	10	0.92903	3.8610	10	25.9000	24.710	10	4.0469

U. S. Liquid Quarts.		Liters.	U. S. Gallons.		Liters.	U. S. Bushels.		Hectoliters.	Avd. Pounds.		Kilograms.
1.05671	1	0.94633	0.26418	1	3.78533	2.8378	1	0.35238	2.20462	1	0.45359
2.11342	2	1.89267	0.52836	2	7.57066	5.6756	2	0.70477	4.40924	2	0.90718
3.17013	3	2.83900	0.79253	3	11.35600	8.5135	3	1.05715	6.61387	3	1.36078
4.22684	4	3.78533	1.05671	4	15.14133	11.3513	4	1.40953	8.81849	4	1.81437
5.28355	5	4.73167	1.32089	5	18.92666	14.1891	5	1.76192	11.02311	5	2.26796
6.34026	6	5.67800	1.58507	6	22.71199	17.0269	6	2.11430	13.22773	6	2.72155
7.39697	7	6.62433	1.84924	7	26.49733	19.8647	7	2.46668	15.43236	7	3.17515
8.45368	8	7.57066	2.11342	8	30.28266	22.7026	8	2.81907	17.63698	8	3.62874
9.51039	9	8.51700	2.37760	9	34.06799	25.5404	9	3.17145	19.84160	9	4.08233
10.56710	10	9.46333	2.64178	10	37.85333	28.3782	10	3.52383	22.04622	10	4.53592

COMPARISON OF THE VARIOUS TONS AND POUNDS IN USE IN THE UNITED STATES (FROM 1 TO 9 UNITS).

(Data by the United States Bureau of Standards.)

Troy Pounds.	Avoirdupois Pounds.	Kilograms.	Short Tons.	Long Tons.	Metric Tons.
1	0.822857	0.37324	0.00041143	0.00036735	0.00037324
2	1.64571	0.74648	0.00082286	0.00073469	0.00074648
3	2.46857	1.11973	0.00123429	0.00110204	0.00111973
4	3.29143	1.49297	0.00164571	0.00146939	0.00149297
5	4.11429	1.86621	0.00205714	0.00183673	0.00186621
6	4.93714	2.23945	0.00246857	0.00220408	0.00223945
7	5.76000	2.61269	0.00288000	0.00257143	0.00261269
8	6.58286	2.98593	0.00329143	0.00293878	0.00298593
9	7.40571	3.35918	0.00370286	0.00330612	0.00335918
1.21528	1	0.45359	0.0005	0.00044643	0.00045359
2.43056	2	0.90718	0.0010	0.00089286	0.00090718
3.64583	3	1.36078	0.0015	0.00133929	0.00136078
4.86111	4	1.81437	0.0020	0.00178571	0.00181437
6.07639	5	2.26796	0.0025	0.00223214	0.00226796
7.29167	6	2.72155	0.0030	0.00267857	0.00272155
8.50694	7	3.17515	0.0035	0.00312500	0.00317515
9.72222	8	3.62874	0.0040	0.00357143	0.00362874
10.93750	9	4.08233	0.0045	0.00401786	0.00408233
2.67923	2.20462	1	0.00110231	0.00098421	0.001
5.35846	4.40924	2	0.00220462	0.00196841	0.002
8.03769	6.61387	3	0.00330693	0.00295262	0.003
10.71691	8.81849	4	0.00440924	0.00393683	0.004
13.39614	11.02311	5	0.00551156	0.00492103	0.005
16.07537	13.22773	6	0.00661387	0.00590524	0.006
18.75460	15.43236	7	0.00771618	0.00688944	0.007
21.43383	17.63698	8	0.00881849	0.00787365	0.008
24.11306	19.84160	9	0.00992080	0.00885786	0.009
2430.56	2000	907.18	1	0.89287	0.90718
4861.11	4000	1814.37	2	1.78571	1.81437
7291.67	6000	2721.55	3	2.67857	2.72155
9722.22	8000	3628.74	4	3.57143	3.62874
12152.78	10000	4535.92	5	4.46429	4.53592
14583.33	12000	5443.11	6	5.35714	5.44311
17013.89	14000	6350.29	7	6.25000	6.35029
19444.44	16000	7257.48	8	7.14286	7.25748
21875.00	18000	8164.66	9	8.03571	8.16466
2722.22	2240	1016.05	1.12	1	1.01605
5444.44	4480	2032.09	2.24	2	2.03209
8166.67	6720	3048.14	3.36	3	3.04814
10888.89	8960	4064.19	4.48	4	4.06419
13611.11	11200	5080.24	5.60	5	5.08024
16333.33	13440	6096.28	6.72	6	6.09628
19055.56	15680	7112.32	7.84	7	7.11232
21777.78	17920	8128.38	8.96	8	8.12838
24500.00	20160	9144.42	10.08	9	9.14442
2679.23	2204.62	1000	1.10231	0.98421	1
5358.46	4409.24	2000	2.20462	1.96841	2
8037.69	6613.87	3000	3.30693	2.95262	3
10716.91	8818.49	4000	4.40924	3.93683	4
13396.14	11023.11	5000	5.51156	4.92103	5
16075.37	13227.73	6000	6.61387	5.90524	6
18754.60	15432.36	7000	7.71618	6.88944	7
21433.83	17636.98	8000	8.81849	7.87365	8
24113.06	19841.60	9000	9.92080	8.85786	9

HUMAN WEIGHTS AND MEASURES.

(By Arthur MacDonald, Anthropologist, Washington, D. C.)

	Grams.	Ounces.	Per C'nt		Grams.	Ounces.	Per C'nt		Grams.	Ounces.	Per C'nt
Brain...	1,400	49	2.37	Spleen..	170	6	0.346	Adrenals	10	0.35	0.014
Heart...	300	10	0.46	Liver...	1,600	57	2.75	Muscles.	30,000	1,050	43.09
Lungs...	1,175	41	2.0	Pancreas	200	7	0.346	Skeleton	11,500	400	15.35
Thymus gland.	5	0.13	0.0086	Kidneys.	300	10.5	0.44				

Per cent. means ratio to total body weight.

Every human death may be attributed to one of three causes: (1) Interference with respiration (asphyxia or apnea); (2) Interference with the heart's action (syncope), and (3) Interference with the nervous system (coma or shock). The number of distinct diseases producing death is limited.

The length of the humerus multiplied by 5.06, or the length of the femur multiplied by 3.66, equals the height of the man.

In height many may vary normally from 4 feet 1 inch to 6 feet 6¾ inches.

The extreme averages of different populations run from 4 feet 6 inches to 5 feet 10.5 inches.

The length of the trunk in man is more than one-third and less than two-fifths of the height.

From 11,000 brains weighed, Topinard finds an average weight of 1,361 grams for man and 1,290 grams for woman.

The gray substance represents 37 to 38 per cent. of the total weight of the brain.

Radium injected into the left arm of a normal person travels through the heart and lungs and reaches the right arm in from 15 to 22 seconds; but in disease may require 45 to 60 seconds to cover that course through the human system.

FOREIGN WEIGHTS AND MEASURES.

(Revised by the United States Bureau of Standards.)

Denominations.	Where Used.	American Equivalents.
Almude	Portugal	4.422 gals.
Ardeb	Egypt	5.6188 bu.
Are	Metric	0.02471 acre.
Arratel or libra	Portugal	1.0119 lbs.
Arroba	Paraguay	25.32 lbs.
Arroba (dry)	Argentine Republic	25.32 lbs.
"	Brazil	32.38 lbs.
"	Cuba	25.36 lbs.
"	Venezuela	25.40 lbs.
" (liquid)	Cuba, Spain and Venezuela	4.263 gals.
Arshine	Russia	28 in.
" (sq.)	"	5.44 sq. ft.
Artel	Morocco	1.12 lbs.
Baril	Argentine Republic and Mexico	20.077 gals. 20.0787 gals.
Barrel	Malta (customs)	11.2 gals.
"	Spain (raisins)	100 lbs.
Berkovets	Russia	361.128 lbs.
Boll or Bole	Scotland, Ireland	4 Winch'r bu.
Bongkal	India	832 grains.
Bouw	Sumatra	7,096.5 sq. metres.
Bu	Japan	0.1 inch.
Bushel	British Empire	1.03205 U. S. bu.
Butt (wine)	Spain	140 gals.
Caffiso	Malta	5.3 gals.
Candy	India (Bombay)	5.60 lbs.
"	India (Madras)	4.93 5-7 lbs.
Cantar	Egypt	99.05 lbs. av.
"	Morocco	112 lbs.
"	Syria (Damascus)	575 lbs.
"	Turkey	124.45 lbs.
Cantaro	Malta	175 lbs.
Catty	China	1.333⅓ lbs.
"	Japan	1.31 lbs.
"	Java, Malacca	1.36 lbs.
"	Siam	2¾ lbs.
"	Sumatra	2.12 lbs.
Centaro	Central America	4.2631 gals.
Centner	Brunswick	117.5 lbs.
"	Bremen	127.5 lbs.
"	Denmark, Norway	110.23 lbs.
"	Prussia	113.44 lbs.
"	Sweden	93.7 lbs.
"	Double or metric	220.46 lbs.
Chetvert	Russia	5.957 bu.
Chih	China	12.60 inches.
Cho	Japan	2.4507 acres.
Comb	England	4.1282 bu.
Coyan	Sarawak	3.098 lbs.
"	Siam (Koyan)	2.667 lbs.
Cuadra	Argentine Republic	4.2 acres.
"	Paraguay	94.70 yds.
" (sq.)	Paraguay	1.85 acres.
"	Uruguay	1.82 acres.
Cubic meter	Metric	35.3 cu. ft.
Cwt. (hundredweight)	British	112 lbs.
Dessiatine	Russia	2.6997 acres.
"	Spain	1.599 bu.
Drachma (new)	Greece	15.43 gr., or 1 grm.
Fanega (dry)	Central America	1.5745 bu.
"	Chile	2.75268 bu.
"	Cuba	1.599 bu.
"	Mexico	2.57716 bu.
" (double)	Uruguay	7.776 bu.
" (single)	Uruguay	3.888 bu.
"	Venezuela	3.334 bu.
" (liquid)	Spain	16 gals.
Feddan	Egypt	1.04 acres.
Frail (raisins)	Spain	50 lbs.
Frasco	Argentine Republic	2.5098 qts.
"	Mexico	2.5 qts.
Frasila	Zanzibar	35 lbs.
Fuder	Luxemburg	264.17 gals.
Funt	Russia	0.9028 lb.
Gallon	British Empire	1.20094 U. S. gal.
Garnice	Poland	0.88 gal.
Gram	Metric	15.432 grains.
Hectare	"	2.471 acres.
Hectolitre: Dry	"	2.838 bu.
" Liquid	"	26.418 gals.
Joch	Austria, Hungary	1.422 acres.
Ken	Japan	5.97 feet.
Kilogram (kilo)	Metric	2.2046 lbs.
Kilometre	"	0.621376 mile.
Klafter	Russia	216 cu. ft.
Koku	Japan	5.119 bu.
Korree	Russia	3.5 bu.
Kwamme	Japan	8.28 lbs.
Last	Belgium, Holland	85.134 bu.
Last	England	82.56 bu.
"	Germany	2 metric tons. (4,409+ lbs.)
"	Prussia	112.29 bu.
"	Scotland, Ireland	82.564 bu.
League (land)	Paraguay	4.633 acres.
Li	China	1,890 ft.
Libra (lb.)	Argentine Republic	1.0128 lbs.
"	Central America	1.014 lbs.
"	Chile	1.014 lbs.
"	Cuba	1.0143 lbs.
"	Mexico	1.01467 lbs.
"	Peru	1.0143 lbs.
"	Uruguay	1.0143 lbs.
"	Venezuela	1.0143 lbs.
Litre	Metric	1.0567 liq. qts.
Livre (lb.)	Greece	1.1 lbs.
"	Guiana	1.0791 lbs.
Load (timber)	England	50 cu. ft.
Manzana	Nicaragua	1.742 acres.
"	Costa Rica. S'lv'd'r.	1.727 acres.
Marc	Bolivia	0.507 lb.
Maund	India	82 2-7 lbs.
Metre	Metric	39.37 inches.
Mil	Denmark	4.68 miles.
" (geologic)	Denmark	4.61 miles.
Milla	Nicaragua	1.1594 miles.
"	Honduras	1.1493 miles.
Mina	Greece	2.202 lbs.
Morgen	Prussia	0.63 acre.
Ocque	Greece	2.84 lbs. av.
Oke	Egypt	2.7514 lbs.
"	Greece	2.82 lbs.
"	Turkey	2.828 lbs.
Pic	Egypt	22.83 inches.
Picul	Borneo & Celebes	135.64 lbs.
"	China	133⅓ lbs.
"	Java	136.16 lbs.
"	Philippine Islands	139.44 lbs.
Pie	Argentine Republic	0.94708 foot.
"	Spain	0.91416 foot.
Pik	Turkey	27.9 inches.
Pood	Russia	36.113 lbs.
Pund (lb.)	Denmark	1.102 lbs.
" (skal)	Sweden	0.937 lbs.
Quart	British Empire	1.20094 liq. qt.
"	"	1.03205 dry qt.
Quarter	Great Britain	8.256 bu.
Quintal	Argentine Republic	101.28 lbs.
"	Brazil	129.54 lbs.
"	Castile, Peru	101.43 lbs.
"	Chile	101.41 lbs.
"	Mexico	101.47 lbs.
"	Metric	220.46 lbs.
Rottle	Palestine	6.35 lbs.
Sack (flour)	England	280 lbs.
Sagene	Russia	7 feet.
Salm	Malta	490 lbs.
Se	Japan	0.02451 acre.
Seer	India	2 2-35 lbs.
Shaku	Japan	11.9303 inches.
Sho	"	1.91 liq. quarts.
Standard	Lumber measure	165 cu ft., or 1,980 ft. b. m.
Stone	British	14 lbs.
Sun	Japan	1.193 inches.
Tael	Cochin-China	590.75 grs. (troy)
Tan	Japan	0.25 acre.
Tchetvert	Russia	5.96 Winch't'r bu.
To	Japan	2.05 pecks.
Ton	Space measure	40 cu. ft.
Tonde (cereals)	Denmark	3.9480 bu.
Tonde Land	"	1.36 acres.
Tonne	France	2204.62 lbs. av.
Tsubo	Japan	35.58 sq. ft.
Tsun	China	1.26 inches.
Tunna (wheat)	Sweden	4.5 bu.
Tunnland	"	1.22 acres.
Vara	Argentine Republic	34.0944 inches.
"	Cost. Rica, S'lv'd'r	32.913 inches.
"	Guatemala	32.909 inches.
"	Honduras	32.953 inches.
"	Nicaragua	33.057 inches.
"	Chile and Peru	32.913 inches.
"	Cuba	33.386 inches.
"	Mexico	32.992 inches.
Vedro	Russia	2.707 gals.
Verst	"	0.663 mile.
Vlocka	Poland	41.98 acres.
Wey	Scotland & Ireland	41.282 bu.

The *carat*, used as a gem unit, weighs over 3 grains (3.168), or 205 milligrams.
The *metric carat* of 200 milligrams is now very generally used. The word also is used to denote the proportion of alloy in a metal. Thus, pure gold is 24 carats fine.

ELECTRICAL UNITS.

The watt is the unit expressing electrical power as horsepower (hp) represents power in mechanics. It is equal to the product of the volts (pressure) times amperes (rate of flow). Thus, 2 volts times 2 amperes would give in a direct current circuit 4 watts. Electrical energy is sold at so much per watt hour or more generally at a given amount per kilowatt hour—which means 1,000 watt hours. This may represent 1 watt for 1,000 hours or 1,000 watts for 1 hour. 746 watts are equal to one horsepower or inversely 1 kilowatt (kw) is equal to about 1⅓ horsepower.

The horsepower represents the power required to lift a weight of 33,000 pounds 1 foot in 1 minute or 550 pounds 1 foot in 1 second.

The ohm is the unit of electrical resistance and represents the physical property of a conductor which offers a resistance to the flow of electricity, permitting just 1 ampere to flow at 1 volt of pressure. For example, 1,000 feet of copper wire of No. 10 B. and S. gauge has just 1 ohm of resistance and allows the flow of 1 ampere at 1 volt.

UNITED STATES WEIGHTS AND MEASURES.

Apothecaries' Weight: 20 grains = 1 scruple; 3 scruples = 1 dram; 8 drams = 1 ounce; 12 ounces = 1 pound.

Avoirdupois Weight (short ton): 27 11-32 grains = 1 dram; 16 drams = 1 ounce; 16 ounces = 1 pound; 25 pounds = 1 quarter; 4 quarters = 1 cwt.; 20 cwt. = 1 ton.

Avoirdupois Weight (long ton): 27 11-32 grains = 1 dram; 16 drams = 1 ounce; 16 ounces = 1 pound; 112 pounds = 1 cwt.; 20 cwt. = 1 ton.

Troy Weight: 24 grains = 1 pennyweight; 20 pennyweights = 1 ounce; 12 ounces = 1 pound.

Circular Measure: 60 seconds = 1 minute; 60 minutes = 1 degree; 30 degrees = 1 sign; 12 signs = 1 circle or circumference.

Cubic Measure: 1,728 cubic inches = 1 cubic foot; 27 cubic feet = 1 cubic yard.

Dry Measure: 2 pints = 1 quart; 8 quarts = 1 peck; 4 pecks = 1 bushel.

Liquid Measure: 4 gills = 1 pint; 2 pints = 1 quart; 4 quarts = 1 gallon; 31½ gallons = 1 barrel; 2 barrels = 1 hogshead.

Long Measure: 12 inches = 1 foot; 3 feet = 1 yard; 5½ yards = 1 rod or pole; 40 rods = 1 furlong; 8 furlongs = 1 statute mile (1,760 yards or 5,280 feet); 3 miles = 1 league.

Mariners' Measure: 6 feet = 1 fathom; 120 fathoms = 1 cable length; 7½ cable lengths = 1 mile; 5,280 feet = 1 statute mile; 6,080.2 feet = 1 nautical mile.

Paper Measure: 24 sheets = 1 quire; 20 quires = 1 ream (480 sheets—now commonly 500); 2 reams = 1 bundle; 5 bundles = 1 bale.

Square Measure: 144 square inches = 1 square foot; 9 square feet = 1 square yard; 30¼ square yards = 1 square rod or perch; 40 square rods = 1 rood; 4 roods = 1 acre; 640 acres = 1 square mile; 36 square miles (6 miles square) = 1 township.

Time Measure: 60 seconds = 1 minute; 60 minutes = 1 hour; 24 hours = 1 day; 7 days = 1 week; 365 days = 1 year; 366 days = 1 leap year.

The Anglo Saxon acre was one furlong long and one chain wide.

One **Chain** (Engineers') = 100 ft.; = 6.0606 rods = 1.5151 *Chains* (Gunter's); = 0.01893 mile; = 30.4801 meters.

One **Link** (Gunter's) = 7.92 inches; = 0.66 ft.

175 troy pounds equal 144 avoirdupois pounds; 175 troy ounces equal 192 avoirdupois ounces.

KNOTS AND MILES.

The **U. S. and British Statute Mile** is 5,280 feet in length. On the Continent most of the old miles, which varied in length from about 3,300 feet to over 36,000 feet, have been replaced, officially at least, by the kilometre, which equals 0.62 statute mile or 3,280.8 feet.

The **Nautical** or **Sea Mile** at any place is considered, for purposes of navigation, to be equal to the length of one minute of latitude at that place. As the earth is not a perfect sphere the nautical mile varies with the latitude, and the arbitrary length adopted for the nautical mile is not the same in all countries.

The U. S. Nautical Mile is 6,080.27 feet in length and equal to one-sixtieth of a degree of a great circle of a sphere whose surface is equal in area to the area of the surface of the earth. The British Nautical Mile is 6,080 feet in length. The French, German and Austrian Nautical Mile is 6,076 feet in length.

The **Geographic Mile** is 6,087.1 feet in length and equal to one minute of longitude of the equator.

The **Knot** is a measure of speed; a speed of one knot being a speed of one nautical mile per hour.

A **Nautical Mile**—1.152 statute miles; a **Fathom**—6 feet; a **Cable**—0.1 nautical mile, or 608 feet; also, 120 fathoms or 720 feet.

To convert statute miles into nautical miles, multiply statute miles by 0.8684; to convert nautical miles into statute miles, multiply nautical miles by 1.1515.

STANDARD NEWSPAPER MEASURES.

Type is measured by the number of "points" in the height of the face thereof. A "point" is approximately one-seventy-second of an inch (actually .013837 inch). There are 996 "points" in 35 centimetres. Nonpareil type, the size generally used by newspapers, is a 6-point type, and therefore sets 12 lines to an inch, measuring up and down the column. Twenty-four lines of nonpareil type make what is commonly called a "stick." There are usually ten "sticks" of type in a newspaper column. The smallest type in ordinary use is ruby, which is 3½ points in height. Diamond type is 4 or 4½ points; pearl, 5 points; agate, 5½ points; nonpareil, 6 points; minion, 7 points; brevier, 8 points; bourgeois, 9 points; long primer, 10 points; small pica, 11 points; pica, 12 points; English, 14 points; great primer, 18 points. The news columns in The World are almost 2 and three-sixteenths inches wide, equal to 12½ "picas" or pica M-quads. Each size of type has its own M-quad, which is the square of the face of the capital M of that size of type. A quadrat, or quad, is the type without a letter on it, and is used in spacing between words and in filling out blank lines. The quad is usually of four sizes—N-quad, M-quad, 2M-quad, and 3M-quad.

ROMAN AND ARABIC NUMERALS.

I	1	VI	6	XI	11	XVI	16	XXX	30	LXXX	
II	2	VII	7	XII	12	XVII	17	XL	40	or XXC	80
III	3	VIII	8	XIII	13	XVIII	18	L	50	XC	90
IV	4	IX	9	XIV	14	XIX	19	LX	60	C	100
V	5	X	10	XV	15	XX	20	LXX	70	CC	200

CCC	300	DCCC	800				
CCCC	400	CM	900				
D	500	M or					
DC	600	cIc	1000				
DCC	700	MM	2000				

NOTE—A dash line over a numeral, multiplies the value by 1,000: thus, $\overline{X}$=10,000; $\overline{L}$=50,000; $\overline{C}$=100,000; $\overline{D}$=500,000; $\overline{M}$=1,000,000; $\overline{\text{CLIX}}$=159,000; $\overline{\text{DLIX}}$=559,000.

Other general rules in Roman numerals are as follows: (1), repeating a letter repeats its value—XX=20; CCC=300; (2), a letter placed after one of greater value adds thereto—VI=6; DC=600; (3), a letter placed before one of greater value subtracts therefrom—IV=4.

Arabic numerals are those now commonly in use—0, 1, 2, 3, 4, 5, 6, 7, 8, 9, etc.

MEDICAL SIGNS AND ABBREVIATIONS.

℞ (Lat. Recipe), take; āā, of each; ℔, pound; ʒ, ounce; ℥, drachm; ℈, scruple; ♏, minim, or drop; O or o, pint; f ʒ, fluid ounce; f ℥, fluid drachm; as, ʒ ss, half an ounce; ʒ i, one ounce; ʒ iss, one ounce and a half; ʒ ij, two ounces; gr., grain; Q. S., as much as sufficient; Ft. Mist., let a mixture be made; Ft. Haust., let a draught be made; Ad., add to; Ad lib., at pleasure; Aq., water; M., mix; Mac., macerate; Pulv., powder; Pil., pill; Solv., dissolve; St., let it stand; Sum., to be taken; D., dose; Dil., dilute; Filt., filter; Lot., a wash; Garg., a gargle; Hor. Decub., at bed time; Inject., injection; Gtt., drops; ss, one-half; Ess., essence.

UNITED STATES AND BRITISH WEIGHTS AND MEASURES COMPARED.

1 British Imperial bushel = 1.03205 U. S. (Winchester) bushel.
1 U. S. bushel = 0.96895 British Imperial bushel.
1 British quart = 1.03205 U. S. dry quarts.
1 U. S. dry quart = 0.96895 British quart.
1 British quart (or gallon) = 1.20094 U. S. liquid quarts (or gallons).
1 U. S. liquid quart (or gallon) = 0.83268 British quart (or gallon).

The British gallon, under the Act of 1878, is defined as the volume of 10 standard pounds of distilled water weighed in air against brass weights, both air and water at 62 degrees Fahrenheit with the barometer at 30 inches.

The British gallon contains 277.420 British cubic inches (277.418 U. S. cubic inches); and 8 gallons make 1 Imperial bushel 2219.36 British cubic inches (2219.34 U. S. cubic inches).

The difference between the British inch and the U. S. inch comes from the fact that the equivalents of the metre in terms of the British yard and the U. S. yard are slightly different, as follows:
1 British yard = 39.370113 inches.
1 U. S. yard = 39.37 inches.

ANCIENT GREEK AND ROMAN WEIGHTS AND MEASURES.

WEIGHTS.

Roman libra (pound) = 10 oz. 18 pwt. 13 5-7 gr., Troy.
Attic mina (pound) = 11 oz. 7 pwt. 16 2-7 gr., Troy.
Attic talent (60 minae) = 56 lbs. 11 oz. 0 pwt. 17 1-7 gr., Troy.

DRY MEASURE.

Roman modus = 1 peck 2-9 pint.
Attic choenix = 70 cu. in. = nearly 1⅛ pints.
medimnus = 3360 cu. in. = about 1½ bushels.

LIQUID MEASURE.

Attic cyathus = 2.9 cu. in. = nearly ⅛ gill.
Cotyle = 6 cyathus = 17.5 cu. in. = a little over ½ pint.
Chous = 12 cotyles = 210 cu. in. = .909 gall.

LONG MEASURE.

Roman foot = 11 3-5 inches.
Cubit = 17.4 inches.
Pace = 4 ft. 10 inches.
Furlong = 604 ft. 10 inches.
Mile = 4,835 feet.

LONG MEASURE.

Grecian cubit = 18.25 inches.
Furlong = 504 ft. 4 1-5 inches.
Mile = 4,030 feet.

MONEY

Roman quadrans = 1 1-10 mills.
As = 1 3-10 mills.
Sestertius = 2½ asses = 3.58 + cents
Sestertium = 1,000 sestertii = $35.80.
Denarius = 4 sestertii = 14.35 + cents
Aureus = $4.50.

Attic Obolus = 2.39 + cents.
Drachma (6 obols) = 14.35 + cents.
Mina (100 drachmae) = $14.35 +
Talent (60 minae) = $861.00.

The Greek stater weighed 134.75 grains avoirdupois and was worth $4; the Persian, $5.35. Each coin was of silver, composed of 20 drachmas, each drachma equal in value to 19½ cents, American money.

BIBLICAL WEIGHTS REDUCED TO TROY WEIGHT.

The Gerah, one-twentieth of a Shekel, 12 grains; the Bekah, half a Shekel, 5 pennyweight; the Shekel, 10 pennyweight; the Maneh, 60 Shekels, 2 lbs. 6 oz.; the Talent, 50 Manehs, or 3,000 Shekels, 125 lbs.

BUSHEL WEIGHTS IN POUNDS.

United States—Federal law for duties on imports—Apples (green or ripe), 50; barley, 48; corn (cracked), 56; corn (shelled), 56; flaxseed (linseed), 56; oats (hulled or unhulled), 32; peas, 60; rye, 56; wheat, 60.

Bushel weights (lbs.) under N. Y. State law—Barley, 48; beans, 60; bran, 20; buckwheat, 48; clover seed, 60; corn (shelled), 56; corn meal, 50; cottonseed (Sea Island), 44; cottonseed (upland), 30; flaxseed, 55; malt, 34; oats, 32; onions, 57; peas, 60; potatoes, 60; potatoes (sweet) 54; rye, 56; rye meal, 50; timothy seed, 45; wheat, 60; lime, 70; coarse salt, 70; fine salt, 56; carrots, 50; herds grass seed, 45; rough rice, 45; dried peaches, 33; dried apples, 25; bran or shorts, 20.

Dry measure in the United States is based on the old English Winchester bushel, containing 2,150.42 cubic inches, or 1.24 cubic feet; inside dimensions—18.5 inches diameter, 8 inches deep; the heap is to be in the form of a cone, as high as the commodity will admit without special effort or design. The United States Court of Customs Appeals decided in February, 1912, that a "bushel" under the tariff law means a *heaped* bushel, so far as apples are concerned, and that a *heaped* bushel should contain 2,747.715 cubic inches. Under this decision, a *heaped* bushel is 27.8 per cent. larger than a *struck* bushel. Heaped measure is used with bulky commodities, such as apples, pears, potatoes, onions, etc. In Maine and Texas, stricken measure is used.

A **bushel of coal** in Pennsylvania must contain 75 lbs. of anthracite, or 76 lbs. of bituminous, or 80 lbs. of stone coal.

The Standard Container Act of 1916 fixes standards for baskets and other containers for small fruits, berries, and vegetables of the following capacities: ½ pint, 1 pint, 1 quart or multiples of the quart, standard dry measure; and standards for Climax baskets for grapes and other fruits and vegetables of the following capacities: 2, 4, and 12 quart, standard dry measure.

The Standard Container Act of 1928 fixes standard hampers, round stave baskets, and splint baskets for fruits and vegetables. The standard hampers and round stave baskets shall be of the following capacities: ⅛, ¼, ½, ⅝, ¾, 1, 1¼, 1½, and 2 bushels.

The standard splint baskets shall be of the following capacities: 4, 8, 12, 16, 24 and 32 quart, standard dry measure.

For the purpose of this act a bushel, standard dry measure, has a capacity of 2,150.42 cu. in., and a quart, standard dry measure, has a capacity of 67.2 cu. in.

The U. S. standard barrel for fruits and vegetables (except cranberries) has a capacity of 7,065 cu. in.; the U. S. standard barrel for cranberries has a capacity of 5,826 cu. in.

States requiring sales by weight—Some States have laws requiring that all dry commodities be sold by weight, while others require that those for which a legal weight has been established be so sold. In the latter class when a unit of dry measure is called for, this must be determined by weight in accordance with the standard schedule of weight per bushel.

In Florida, Idaho, Indiana, Iowa, Kansas, Massachusetts, Michigan, Nebraska, Nevada, New Jersey, Ohio, Oregon, South Dakota, Tennessee, Utah, Virginia, Wisconsin and the District of Columbia, purchasers may demand that all orders be actually weighed before delivery and that full weight as specified in the State law be delivered.

States requiring definite weights—A number of States have statutes similar to each other in wording and apparently similar in legal effect, somewhat as follows: "The bushel shall consist of or will mean, a stated weight," sometimes with the qualification, "When sold by the bushel." This list includes: California, Delaware, Illinois, Kentucky, Minnesota, Missouri, Montana, New Hampshire, New Mexico, New York, North Dakota, Oklahoma, Pennsylvania, South Carolina, Texas, Vermont, West Virginia, Wyoming and the Territory of Hawaii.

In Alabama, Arkansas, Colorado, Connecticut, Georgia, Louisiana, Maine, Maryland and Rhode Island there is a legal or standard weight per bushel, without a provision for a special agreement clause.

In Mississippi and North Carolina there is a legal or standard weight but is binding only when the purchaser so specifies.

In Arizona and Washington there are no legal or standard bushel weights.

A cord of wood contains 128 cubic feet. The standard size of a piled cord of wood is 8 feet long, by 4 feet wide, by 4 feet high.

A board foot is 1 ft. x 1 ft. x 1 in.

Milk, at 68° Fahrenheit, weighs 8.60 lbs. a gallon, provided it contains 3 per cent of butter fat; cream, 8.37 lbs. a gallon, if it has in it 28 per cent of butter fat. When cream contains 40 per cent of fat it weighs 8.28 lbs. a gallon.

THE CHEMICAL ELEMENTS.

(Density figures show grams per cubic centimetre. Melting points are Centigrade.)

Element.	At'mic No.	Symbol.	Atomic Weight.	Valency.	Density.	Melting Point.	Year Discov.	Discoverer.
Aluminum	13	Al	26.96	3	2.702	660.0	1827	Wohler
Antimony	51	Sb	121.77	3, 5	6.684	630.5	1450	Valentine
Argon	18	A	39.91	0	0.00178	—189.2	1894	Rayleigh, Ramsay
Arsenic	33	As	74.96	3, 5	2.0 to 5.7	814.0	13th C.	Magnus
Barium	56	Ba	137.37	2	3.5	850.0	1808	Davy
Bismuth	83	Bi	209.0	3, 5	9.80	271.0	15th C.	Valentine
Boron	5	B	10.82	3	2.45	2200?	1808	Guy-Lussac, Thenard
Bromin	35	Br	79.916	1	3.4	— 7.2	1826	Balard
Cadmium	48	Cd	112.41	2	8.6	320.9	1817	Stromeyer
Caesium	55	Cs	132.81	1	1.90	26.0	1861	Bunsen, Kirchoff
Calcium	20	Ca	40.07	2	1.5	810.0	1808	Davy
Carbon	6	C	12.000	4	2.25	3500.0	B. C.	.....
Cerium	58	Ce	140.25	3, 4	6.90	640.0	1839	Mosander
Chlorin	17	Cl	35.458	1	0.0032	—101.5	1774	Scheele
Chromium	24	Cr	52.01	2, 3, 6	7.1	1615.0	1797	Vauquelin
Cobalt	27	Co	58.97	2, 3	8.9	1480.0	1735	Brandt
Columbium	41	Cb	93.1	5	8.4	1950.0	1801	Hatchett
Copper	29	Cu	63.57	1, 2	8.92	1083.0	B. C.	.....
Dysprosium	66	Dy	162.52	3	?	?	1907	Boisbaudran
Erbium	68	Er	167.7	3	4.77	1250.0	1843	Mosander
Europium	63	Eu	152.0	3	.....	?	1901	Demarcay
Fluorin	9	F	19.00	1	0.0017	—223.0	1886	Moissan
Gadolinium	64	Gd	157.26	3	?	?	1886	Marignac
Gallium	31	Ga	69.72	3	5.9	29.75	1875	Boisbaudran
Germanium	32	Ge	72.38	4	5.36	958.5	1886	Winkler
Glucinum	4	Gl	9.02	2	1.85	1280.0	1828	Vauquelin
Gold	79	Au	197.2	1, 3	19.3	1063.0	B. C.	.....
Hafnium	72	Hf	178.6	4	?	1700.0	1923	Coster, Hevesy
Helium	2	He	4.00	0	0.00018	—271.0	1895	Ramsay
Holmium	67	Ho	163.4	3	?	?	1886	Boisbaudran
Hydrogen	1	H	1.0077	1	0.000089	—259.0	1766	Cavendish.
Illinium	61	Il	....	3	?	?	1926	Hopkins
Indium	49	In	114.8	3	7.3	155.0	1863	Reich, Richter
Iodin	53	I	126.932	1	4.93	113.5	1811	Courtois
Iridium	77	Ir	193.1	4	22.4	2350.0	1804	Tennant
Iron	26	Fe	55.84	2, 3	7.86	1535.0	B. C.	.....
Krypton	36	Kr	82.9	0	0.0037	—169.0	1898	Ramsay, Travers
Landhanum	57	La	138.90	3	6.15	286.0	1839	Mosander
Lead	82	Pb	207.20	2, 4	11.34	327.5	B. C.	.....
Lithium	3	Li	6.939	1	0.534	186	1817	Arfredson
Lutecium	71	Lu	175.0	3	?	?	1907	Welsbach, Urbain
Magnesium	12	Mg	24.32	2	1.74	651.0	1830	Liebig, Bussy
Manganese	25	Mn	54.93	2, 3, 7	7.2	1260.0	1774	Gahn
Masurium	43	Ma	....	2, 3, 7	?	2300.0	1925	Noddaek
Mercury	80	Hg	200.61	1, 2	14.19	— 38.8	B. C.	.....
Molybdenum	42	Mo	96.0	4, 6	10.2	2620+	1790	Hjelm
Neodynium	60	Nd	144.27	3	6.9	840.0	1885	Welsbach
Neon	10	Ne	20.2	0	?	—248.67	1898	Ramsay, Travers
Nickel	28	Ni	58.69	2, 3	8.90	1452.0	1751	Cronstedt
Nitrogen	7	N	14.007	3, 5	0.810	—209.60	1772	Rutherford
Osmium	76	Os	190.8	6, 8	22.48	2700.0	1804	Tennant
Oxygen	8	O	16.000	2	0.001429	—218.4	1774	Priestley, Scheele
Palladium	46	Pd	106.7	2, 4	12.0	1555.0	1803	Wollaston
Phosphorus	15	P	31.024	3, 5	1.82 to .20	44.2	1674	Brandt
Platinum	78	Pt	195.23	2, 4	21.45	1755.0	16th C.	Wood
Polonium	84	Po	210.0	2, 4, 6	?	?	1898	Curie
Potassium	19	K	39.095	1	0.86	62.3	1807	Davy
Praseodymium	59	Pr	140.92	3	6.5	940.0	1885	Welsbach
Radium	88	Ra	225.95	2	5+	960.0	1898	The Curies, Bemont
Radon	86	Rn	222.6	0	0.00973	—71	1900	The Curies, M.& Mme.
Rhenium	75	Re	.....	.....	?	?	1925	Noddaek
Rhodium	45	Rh	102.91	3	12.5	1955.0	1803	Wollaston
Rubidium	37	Rb	85.44	1	1.53	38.5	1861	Bunsen, Kirchoff
Ruthenium	44	Ru	101.7	6, 8	12.2	2450.0	1845	Claus
Samarium	62	Sa	150.43	3	7.7	1300.0	1879	Boisbaudran
Scandium	21	Sc	45.10	3	2.5	1200.0	1879	Wilson, Cleve
Selenium	34	Se	79.2	2, 4, 6	4.3	220.0	1817	Berzelius
Silicon	14	Si	28.06	4	2.4	1420.0	1823	Berzelius
Silver	47	Ag	107.880	1	10.5	960.5	B. C.	.....
Sodium	11	Na	22.997	1	0.97	97.5	1807	Davy
Strontium	38	Sr	87.62	2	2.6	800.0	1808	Davy
Sulphur	16	S	32.065	2, 4, 6	1.96to2.07	119.0	B. C.	.....
Tantalum	73	Ta	181.5	5	16.6	2850.0	1802	Eckeberg
Tellurium	52	Te	127.5	2, 4, 6	6.24	452.0	1782	Von Reichenstein
Terbium	65	Tb	159.2	3	?	?	1843	Mosander
Thallium	81	Tl	204.4	1, 3	11.85	302.0	1861	Crookes
Thorium	90	Th	232.15	4	11.2	-1845.0	1828	Berzelius
Thulium	69	Tm	169.4	3	?	?	1879	Cleve
Tin	50	Sn	118.70	2, 4	6.99	231.85	B. C.	.....
Titanium	22	Ti	47.9	4	4.5	1800.0	1789	Gregor
Tungsten	74	W	184.0	6	19.3	3370.0	1783	d'Elhujar
Uranium	92	U	238.17	4, 6	18.7	1850.0	1841	Peligot
Vanadium	23	V	50.96	3, 5	5.96	1710.0	1831	Berzelius
Xenon	54	Xe	130.2	0	0.0058	—140.0	1898	Ramsay, Travers
Ytterbium	70	Yb	173.6	3	?	?	1878	Marignac
Yttrium	39	Yt	89.0	3	5.51	1490.0	1828	Wohler
Zinc	30	Zn	65.38	2	7.140	419.43	B. C.	.....
Zirconium	40	Zr	91.00	4	6.4	1700.0	1825	Berzelius

Hydrogen, one of the supposed *elements*, was shown, on Sep. 10, 1929, to exist in a double form—in reality two kinds, different as to melting and boiling points, heat conductivity, and spectra. The experiment was made at a meeting of the American Chemical Society, at Minneapolis.

Atomic weight is the weight of an atom of an element as compared with that of an atom of hydrogen.

To reduce *density* to pounds per cubic foot, multiply by 62.4.

RELATIVE HARDNESS OF THE ELEMENTS.

(Compiled from the Smithsonian Physical Tables.)

Carbon	10 0	Manganese	5.0	Aluminum	2.9	Sulphur	2.0
Boron	9.5	Palladium	4.8	Silver	2.7	Selenium	2.0
Chromium	9.0	Iron	4.5	Bismuth	2.5	Magnesium	2.0
Osmium	7.0	Platinum	4.3	Zinc	2.5	Tin	1.8
Silicon	7.0	Arsenic	3.5	Gold	2.5	Strontium	1.8
Iridium	6.5	Copper	3.0	Tellurium	2.3	Calcium	1.5
Ruthenium	6.5	Antimony	3.0	Cadmium	2.0	Lead	1.5

Indium	1.2
Lithium	0.6
Phosphorus	0.5
Potassium	0.5
Sodium	0.4
Rubidium	0.3
Caesium	0.2

RELATIVE HARDNESS OF CERTAIN GEMS AND SUBSTANCES.

Diamond	10.0	Pyrite	6.3	Platinum	4.3	Copper	3.0
Corundum	9.0	Augite	6.0	Bell-metal	4.0	Gold	3.0
Steel	8.5	Feldspar	6.0	Brass	4.0	Meerschaum	3.0
Topaz	8.0	Hematite	6.0	Dolomite	4.0	Ross metal	3.0
Beryl	7.8	Iridium	6.0	Fluorite	4.0	Silver	3.0
Andalusite	7.5	Magnetite	6.0	Marble	4.0	Wood's metal	3.0
Tourmaline	7.3	Opal	6.0	Phosphor bronze	4.0	Mica	2.8
Agate	7.0	Orthoclase	6.0	Serpentine	4.0	Alum	2.5
Flint	7.0	Hornblende	5.5	Aragonite	3.5	Amber	2.5
Garnet	7.0	Apatite	5.0	Arsenic	3.5	Bismuth	2.5
Iridosmium	7.0	Asbestos	5.0	Antimony	3.3	Galena	2.5
Quartz	7.0	Calamine	5.0	Barite	3.3	Sulphur	2.5
Glass	6.5	Iron	5.0	Boric Acid	3.0	Anthracite	2.2
Platin-iridium	6.5	Palladium	4.8	Calcite	3.0	Aluminum	2.0

Asphalt	2.0
Gypsum	2.0
Rock Salt	2.0
Stibnite	2.0
Alabaster	1.7
Tin	1.5
Silver chloride	1.3
Graphite	1.0
Kaolin	1.0
Talc	1 0
Loess	0.3
Wax	0.2

BOILING POINTS OF THE CHEMICAL ELEMENTS (DEGREES. CENTIGRADE).

Element.	C.°	Element.	C.°	Element.	C.°	Element.	C.°
Aluminum	1,800	Chlorine	—33.6	Magnesium	1,120	Rubidium	696
Antimony	1,440	Chromium	2,200	Manganese	1,900	Selenium	690
Argon	—186.1	Copper	2,310	Mercury	357	Silver	1,955
Arsenic	360	Fluorine	—187	Molybdenum	3,620	Sodium	750
Barium		Helium	—267	Neon	—239	Sulphur	444.7
Bismuth	1,430	Hydrogen	—252.6	Nitrogen	—195	Tellurium	1,390
Boron		Iodine	200	Oxygen	—182.7	Thallium	1,280
Bromine	61.1	Iron	2,450	Ozone	—119	Tin	2,270
Cadmium	778	Krypton	—151.7	Phosphorus	288	Tungsten	5,830
Caesium	670	Lead	1,525	Platinum	3,910	Xenon	—109.1
Carbon	3,600	Lithium	1,400	Potassium	712	Zinc	930

DENSITY OF GASES (WEIGHT IS GRAMS PER LITRE).

Gas.	Weight Grams.	Specific Grav. Air = 1.	Specific Grav. O = 1.	Lbs. at Cu. Ft.	Gas.	Weight Grams.	Specific Grav. Air = 1.	Specific Grav. O = 1.	Lbs. at Cu. Ft.
Air	1.2930	1.0000	0.9048	0.08072	Hydrochloric acid	1.6398	1.2682	1.1475	0.10237
Acetylene	1.1791	0.9119	0.8251	0.07361	Hydrofluoric acid	0.922	0.713	0.645	0.0576
Ammonia	0.7708	0.5961	0.5394	0.04812	Hydrogen	0.08987	0.06950	0.06289	0.00561
Argon	1.7809	1.3773	1.2462	0.11118	Hydrogen sulphide	1.538	1.189	1.076	0.09602
Bromine	7.14	5.52	5.00	0.446	Krypton	3.708	2.868	2.595	0.2315
Butane	2.594	2.006	1.815	0.1619	Methane	0.7168	0.5544	0.5016	0.04475
Carbon dioxide	1.9768	1.5289	1.3833	0.12341	Methyl chloride	2.304	1.782	1.612	0.1438
Carbon monoxide	1.2504	0.9671	0.8750	0.07806	Methyl ether	2.110	1.632	1.477	0.1317
Chlorine	3.221	2.491	2.254	0.2011	Neon	0.9002	0.6962	0.6299	0.05620
Coal gas	0.41 to 0.96	0.32 to 0.74	0.29 to 0.67	0.026 to 0.060	Nitrogen	1.2507	0.9673	0.8752	0.07808
					Nitric oxide	1.3402	1.0365	0.9378	0.08367
Cyanogen	2.323	1.797	1.626	0.1450	Nitrous oxide	1.9777	1.5296	1.3839	0.12347
Ethane	1.3562	1.0489	0.9490	0.08467	Oxygen	1.42905	1.1052	1.0000	0.08921
Ethylene	1.2609	0.9752	0.8823	0.07872	Propane	2.0196	1.5620	1.4132	0.12608
Fluorine	1.70	1.31	1.19	0.106	Steam at 100° C.	0.598	0.462	0.418	0.0373
Helium	0.1785	0.1381	0.1249	0.01115	Sulphur dioxide	2.9266	2.2634	2.0479	0.18270
Hydrobromic acid	3.616	2.797	2.530	0.2257	Xenon	5.851	4.525	4.094	0.3653

FACTORS AND PRIME NUMBERS.

Factors are such numbers as multiplied together will produce a required number; as 3 and 4, also 3, 2, and 2 are factors of 12; 3 and 15, also 5 and 9 are factors of 45.

A Prime Number is one that cannot be resolved into two or more factors; or, it is a number exactly divisible only by itself and unity; thus, 2, 3, 5, 7, 11, and 13, are prime numbers. 2 is the only even number that is prime.

A Composite Number is one that can be resolved into factors.

A Prime Factor is a prime number used as a factor.

To aid the pupil in determining the prime factors of a composite number we give the following

TABLE OF PRIME NUMBERS FROM 1 TO 1000.

1	41	101	167	239	313	397	467	569	643	733	823	911
2	43	103	173	241	317	401	479	571	647	739	827	919
3	47	107	179	251	331	409	487	577	653	743	829	929
5	53	109	181	257	337	419	491	587	659	751	839	937
7	59	113	191	263	347	421	499	593	661	757	853	941
11	61	127	193	269	349	431	503	599	673	761	857	947
13	67	131	197	271	353	433	509	601	677	769	859	953
17	71	137	199	277	359	439	521	607	683	773	863	967
19	73	139	211	281	367	443	523	613	691	787	877	971
23	79	149	223	283	373	449	541	617	701	797	881	977
29	83	151	227	293	379	457	547	619	709	809	883	983
31	89	157	229	307	383	461	557	631	719	811	887	991
37	97	163	233	311	389	463	563	641	727	821	907	997

HEIGHT, IN FEET, OF GREAT FOREIGN STRUCTURES.

Eiffel Tower, Paris, 1,000; Ulm Cathedral spire, 529; Cologne Cathedral, 524; Great Pyramid (Egypt), 480; Strassburg Cathedral, 468; St. Peter's, Rome, 448; St. Stephen's Cathedral, Vienna, 441; Salisbury Cathedral, 404; Toraccio of Cremona, 396; Freiburg Cathedral, 385; Amiens Cathedral, 383. Church of St. Peter, Hamburg, 380; the Cathedral, Florence, 376; Hotel de Ville, Brussels, 374; Torre Asinelli, Bologna, 370; St. Paul's, London, 360; Church of St. Isaac, Leningrad, 336; Cathedral, Frankfort-on-the-Main, 326; Victoria Tower, Westminster, London, 325; Bell Tower, St. Mark's, Venice, 323; Hotel des Invalides, Paris, 310.

WEIGHT OF VARIOUS SUBSTANCES.

(From the Smithsonian Physical Tables.)

SOLIDS (LBS. PER CUBIC FOOT).

Material.	Lbs.	Material.	Lbs.	Material.	Lbs.	Material.	Lbs.
Agate	156-168	Clay	122-162	Graphite	144-170	Opal	137
Alabaster:		Coal, soft	75-94	Gum Arabic	80-85	Paper	44-72
Carbonate	168-173	Cocoa butter	50-57	Gypsum	144-145	Paraffin	54-57
Sulphate	141-145	Coke	62-105	Hornblende	187	Peat	52
Amber	66-69	Copal	65-71	Ice	57 2	Pitch	67
Anthracite	87-112	Corundum	245-250	Ivory	114-120	Porcelain	143-156
Asbestos	125-175	Diamond:		Lava: Basaltic	175-185	Porphyry	162-184
Asphalt	69-94	Anthracitic	104	Trachytic	125-168	Pyrite	309-318
Basalt	150-190	Carbonado	188-203	Leather: Dry	54	Quartz	165
Beeswax	60-61	Diorite	157	Greased	64	Resin	67
Beryl	168	Dolomite	177	Lime: Mortar	103-111	Rock salt	136
Biotite	170-190	Ebonite	72	Slaked	81-87	Rutile	374-406
Bone	106-125	Emery	250	Limestone	167-171	Sandstone	134-147
Brick	87-137	Epidote	203-218	Litharge:		Serpentine	156-165
Butter	53-54	Feldspar	159-172	Artificial	580-585	Slag, furnace	125-240
Caoutchouc	57-62	Flint	164	Natural	490-500	Slate	162-205
Celluloid	87	Fluorite	198	Magnetite	306-324	Soapstone	162-175
Cement, set	170-190	Gamboge	75	Malachite	231-256	Starch	95
Chalk	118-175	Garnet	197-268	Marble	160-177	Sugar	100
Charcoal: Oak	35	Gas carbon	117	Meerschaum	62-80	Talc	168-174
Pine	18-28	Gelatine	180	Mica	165-200	Tallow	57-60
Chrome yellow	374	Glass: Common	150-175	Muscovite	172-225	Topaz	219-223

WOODS (LBS. PER CUBIC FOOT).

Wood.	Lbs.	Wood.	Lbs.	Wood.	Lbs.	Wood.	Lbs.
Alder	26-42	Cork	14-16	Hazel	37-49	Mahogany, Spanish	53
Apple	41-52	Dogwood	47	Hickory	37-58	Maple	37-47
Ash	40-53	Ebony	69-83	Holly	47	Oak	37-56
Bamboo	19-25	Elm	34-37	Iron-bark	64	Pear-tree	38-45
Basswood, see Lind	en.	Fir or pine, Amer-		Juniper	35	Plum-tree	41-49
Beech	43-56	ican white	22-31	Laburnum	57	Poplar	22-31
Blue gum	62	Fir or pine, larch	31-35	Lancewood	42-62	Satinwood	51
Birch	32-48	Fir or pine, pitch	52-53	Lignum vitæ	73-83	Sycamore	24-37
Box	59-72	Fir or pine, red	30-44	Linden or lime-tree	20-37	Teak, Indian	41-55
Butternut	24	Fir or pine, spruce	30-44	Locust	42-44	Walnut	40-43
Cedar	30-35	Fir or pine, yellow	23-37	Logwood	57	Water gum	62
Cherry	43-56	Greenheart	58-65	Mahogany	41	Willow	24-37

WATER.

1	cubic inch	.03617	pound.	1	cylindrical foot	6.0 U. S. gals.
12	cubic inches	.434	pound.	2.282	cylindrical feet	112.0 pounds.
1	cubic foot	62.5	pounds.	45.64	cylindrical feet	2240.0 pounds.
1	cubic foot	7.48052	U. S. gals.	1	imperial gallon	10.0 pounds.
1.8	cubic feet	112.0	pounds.	11.2	imperial gallons	112.0 pounds.
35.84	cubic feet	2240.0	pounds.	224	imperial gallons	2240.0 pounds.
1	cylindrical inch	.02842	pound.	1	U. S. gallon	8.355 pounds.
12	cylindrical inches	.341	pound.	13.44	U. S. gallons	112.0 pounds.
1	cylindrical foot	49.10	pounds.	268.8	U. S. gallons	2240.0 pounds.

NOTE.—The centre of pressure of water against the side of the containing vessel or reservoir is at two-thirds the depth from the surface. One cubic foot of salt water weighs 64.3 pounds.

OTHER LIQUIDS (LBS. PER CUBIC FOOT).

Liquid.	Lbs.	Liquid.	Lbs.	Liquid.	Lbs.	Liquid.	Lbs.
Alcohol: Ethyl	50.4	Glycerine	78.6	*Oils—Continued*		*Oils—Continued*	
Methyl	50.5	Milk	64.2-64.6	Lard	57.4	Pine	53.0-54.0
Aniline	64.5	Naphtha (petro-		Lavender	54.7	Poppy	57.7
Benzene	56.1	leum ether)	41.5	Linseed (boil-		Resin	59.6
Bromine	199.0			ed)	58.8	Sperm	55.0
Carbolic acid		Oils: Amber	49.9	Neat's foot	57.0-57.2	Soya-bean	57.3
(crude)	59.2-60 2	Camphor	56.8	Olive	57.3	Train or whale	57.3-57.7
Carbon disul.	80.6	Castor	60.5	Palm	56.5	Turpentine	54.2
Chloroform	92.3	Cocoanut	57.7	Pentane	40.6	Valerian	60.2
Ether	45.9	Cotton seed	57.8	Peppermint	56.0-57.0	Wintergreen	74.0
Gasoline	41.0-43.0	Creosote	64.9-68.6	Petroleum	54.8	Water	62.4

TENSILE STRENGTH OF MATERIALS.

Materials.	Lbs.	Materials.	Lbs.	Materials.	Lbs.	Materials.	Lbs.
METALS.		Lead	2,000	Chrome nickel va-		Hickory	15,000
Alum'um casting	15,000	Zinc	5,400	nadium steel	129,100	Locust	22,000
" wire	50,000	Brass (cast)	24,000	Manganese steel		Lignum vitæ	11,000
" bars	28,000	Copper (cast)	24,000	(cast)	90,000	Maple	10,500
Nickel alum'um	40,000	Soft copper wire	35,000	Manganese steel		White oak	14,500
Alum'um bronze	70,000	Hard copper wire	60,000	(quenched)	140,000	Live oak	13,000
Manganese "	60,000	Cast iron	20,000	WOODS.		Poplar	7,000
Phosphor "	46,000	" steel	60,000	Ash	14,000	Redwood	8,500
Tobin "	66,000	Wrought iron	50,000	Black walnut	12,000	Spruce	14,500
Bronze gun metal	35,000	Carbon steel	60,000	Beech	14,500	White pine	12,000
Platinum wire	32,000	Nickel steel	80,000	Cedar	10,000	Yellow pine	11,000
Tin	3,500	Steel for Bridges	60,000	Chestnut	10.000	Red fir	10,000
Gold (cast)	20,000	Vanadium steel	70,000	Elm	13,400	Yellow fir	12,000
Silver (cast)	40,000		100,000	Hemlock	8,700	Teak	14,000

Tensile Strength is resistance to separation; expressed above in pounds per square inch.

WATER PRESSURE (PER SQ. IN.; DEPTH IS IN FEET; PRESSURE, LBS.)

Depth	Pressure	Depth	Pressure	Depth	Pressure	Depth	Pressure
6	2.60	35	15.16	90	38.98	160	69.31
8	3.40	40	17.32	100	43.31	170	73.64
10	4.33	45	19.49	110	47.64	180	77.97
15	6.49	50	21.65	120	51.98	190	82.30
20	8.66	60	25.99	130	56.31	200	86.63
25	10.82	70	30.32	140	60.64	215	93.14
30	12.99	80	34.65	150	64.97	230	99.63

SIMPLE INTEREST TABLE.

Time.	4%	5%	6%	7%	8%	Time.	4%	5%	6%	7%	8%
$1.00 1 month.....	$.003	$.004	$.005	$.005	$.006	$100.00 4 days.....	$.045	$.053	$.066	$.077	$.089
" 2 months.....	.007	.008	.010	.011	.013	" 5 "	.056	.069	.082	.097	.111
" 3 "	.011	.013	.015	.017	.020	" 6 "	.067	.083	.100	.116	.133
" 6 "	.020	.025	.030	.035	.040	" 1 month...	.334	.416	.500	.583	.667
" 12 "	.040	.050	.060	.070	.080	" 2 months..	.667	.832	1.000	1.166	1.333
$100.00 1 day.....	.011	.013	.016	.019	.022	" 3 " ..	1.000	1.250	1.500	1.750	2.000
" 2 days.....	.022	.027	.032	.038	.044	" 6 " ..	2.000	2.500	3.000	3.500	4.000
" 3 "	.034	.041	.050	.058	.067	" 12 " ..	4.000	5.000	6.000	7.000	8.000

YEARS IN WHICH A GIVEN AMOUNT WILL DOUBLE AT INTEREST.

Rate.	At Simple Interest.	At Compound Interest. Compounded Yearly.	Compounded Semi-Annually.	Compounded Quarterly.	Rate.	At Simple Interest.	At Compound Interest. Compounded Yearly.	Compounded Semi-Annually.	Compounded Quarterly.
	Years.	*Years.*	*Years.*	*Years.*		*Years.*	*Years.*	*Years.*	*Years.*
1	100.00	69.660	69.487	69.237	6	16.67	11.896	11.725	11.639
1½	66.66	46.556	46.382	46.297	6½	15.38	11.007	10.836	10.750
2	50.00	35.003	34.830	34.743	7	14.29	10.245	10.074	9.966
2½	40.00	28.071	27.899	27.748	7½	13.33	9.584	9.414	9.328
3	33.33	23.450	23.278	23.191	8	12.50	9.006	8.837	8.751
3½	28.57	20.149	19.977	19.890	8½	11.76	8.497	8.327	8.241
4	25.00	17.673	17.501	17.415	9	11.11	8.043	7.874	7.788
4½	22.22	15.747	15.576	15.490	9½	10.52	7.638	7.468	7.383
5	20.00	14.207	14.035	13.949	10	10.00	7.273	7.103	7.018
5½	18.18	12.942	12.775	12.689	12	8.34	6.116	5.948	5.862

INHERITANCE TAX ANNUITY TABLES.

VALUE OF AN ANNUITY OF ONE DOLLAR ON A SINGLE LIFE (WOLFE'S CALCULATIONS.)

To find the value of a life estate, find the annual income which is 5 per cent of the fair market value of the property so limited, and multiply it by the value of an annuity of $1.00 at the age of the life tenant at his nearest birthday at the time of decedent's death.

The remainder is found by deducting the value of the life estate from the market value of the property.

Age.	5%.	Age.	5%.	Age.	5%.	Age.	5%.	Age.	5%.	Age.	5%.
0	12.083	18	15.987	36	13.987	53	10.892	70	6.336	87	2.685
1	13.995	19	15.904	37	14.843	54	10.624	71	6.015	88	2.597
2	14.983	20	15.817	38	14.695	55	10.347	72	5.711	89	2.495
3	15.824	21	15.726	39	13.542	56	10.063	73	5.435	90	2.339
4	16.271	22	15.628	40	13.390	57	9.771	74	5.190	91	2.321
5	16.590	23	15.525	41	13.245	58	9.478	75	4.989	92	2.412
6	16.735	24	15.417	42	13.101	59	9.199	76	4.792	93	2.518
7	16.790	25	15.303	43	12.957	60	8.940	77	4.609	94	2.569
8	16.786	26	15.187	44	12.806	61	8.712	78	4.422	95	2.596
9	16.742	27	15.065	45	12.648	62	8.487	79	4.210	96	2.555
10	16.669	28	14.942	46	12.480	63	8.258	80	4.015	97	2.428
11	16.581	29	14.827	47	12.301	64	8.016	81	3.799	98	2.278
12	16.494	30	14.723	48	12.107	65	7.765	82	3.606	99	2.045
13	16.406	31	14.617	49	11.892	66	7.503	83	3.406	100	1.624
14	16.316	32	14.506	50	11.660	67	7.227	84	3.211	101	1.192
15	16.227	33	14.387	51	11.410	68	6.941	85	3.009	102	0.753
16	16.144	34	14.260	52	11.154	69	6.643	86	2.830	103	0.317
17	16.066	35	14.127								

FIXED ANNUITY TABLE (LINCOLN'S CALCULATIONS.)

It is obvious that an annuity-certain or as it is sometimes called, an annuity for a fixed period of years, involves no mortality factor and the mortality tables cannot be used in determining their value, for the death of the holder of the annuity does not terminate it.

For the calculation of such annuities, therefore, a "Fixed Annuity Table" will be found below, giving the present value of an annuity of $1.00 for terms of years ranging from one year to eighty.

To find the value of an annuity for a fixed number of years, simply multiply the amount of the annual payment by the value of an annuity of $1.00 for the stated number of years as found in the table.

Yrs.	5%.	Yrs.	5%.	Yrs.	5%.	Yrs.	5%.	Yrs.	5%.	Yrs.	5%.
1	.9524	15	10.3797	29	15.1411	42	17.4232	55	18.6335	68	19.2753
2	1.8594	16	10.8378	30	15.3725	43	17.5459	56	18.6985	69	19.3098
3	2.7232	17	11.2741	31	15.5928	44	17.6628	57	18.7605	70	19.3427
4	3.5460	18	11.6896	32	15.8027	45	17.7741	58	18.8195	71	19.3740
5	4.3295	19	12.0853	33	16.0025	46	17.8801	59	18.8758	72	19.4038
6	5.0757	20	12.4622	34	16.1929	47	17.9810	60	18.9293	73	19.4322
7	5.7864	21	12.8212	35	16.3742	48	18.0772	61	18.9803	74	19.4592
8	6.4632	22	13.1630	36	16.5469	49	18.1687	62	19.0288	75	19.4850
9	7.1078	23	13.4886	37	16.7113	50	18.2559	63	19.0751	76	19.5095
10	7.7217	24	13.7986	38	16.8679	51	18.3390	64	19.1191	77	19.5329
11	8.3064	25	14.0939	39	17.0170	52	18.4181	65	19.1611	78	19.5551
12	8.8633	26	14.3752	40	17.1591	53	18.4934	66	19.2010	79	19.5763
13	9.3936	27	14.6430	41	17.2944	54	18.5651	67	19.2391	80	19.5965
14	9.8986	28	14.8981								

ANNUITIES.

VALUE OF AN ANNUITY OF $1 A YEAR, AT 4 PER CENT.

Age.	McClintock's Table. Male.	McClintock's Table. Female.	American Annuitant's Table. Male.	American Annuitant's Table. Female.
35	16.2992	17.8260	17.0763	17.8021
45	14.1489	15.6117	14.7390	15.6585
55	11.4150	12.7955	11.9644	13.0344
65	8.3041	9.5459	8.9800	10.0955
75	5.2586	6.2700	6.1434	7.1609

AMOUNT OF ANNUAL ANNUITY PURCHASED BY $1,000.

Age.	McClintock's Table. Male.	McClintock's Table. Female.	American Annuitant's Table. Male.	American Annuitant's Table. Female.
35	$61.35	$56.10	$58.56	$56.17
45	70.68	64.05	67.85	63.86
55	87.60	78.15	83.58	76.72
65	120.42	104.76	111.36	99.05
75	190.16	159.49	162.78	139.65

MULTIPLICATION AND DIVISION TABLE.

A figure in the top line (19) multiplied by a figure in the last column on the left (18) produces the figure where the top line and the side line meet (342), and so on.

A figure in the table (342) divided by the figure at the top of that column (19) results in the figure (18) at the extreme left; also, a figure in the table (342) divided by the figure (18) at the extreme left gives the figure (19) at the top of the column, and so on.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	1
2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	2
3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60	63	66	69	72	75	3
4	8	12	16	20	24	28	32	36	40	44	48	52	56	60	64	68	72	76	80	84	88	92	96	100	4
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	5
6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120	126	132	138	144	150	6
7	14	21	28	35	42	49	56	63	70	77	84	91	98	105	112	119	126	133	140	147	154	161	168	175	7
8	16	24	32	40	48	56	64	72	80	88	96	104	112	120	128	136	144	152	160	168	176	184	192	200	8
9	18	27	36	45	54	63	72	81	90	99	108	117	126	135	144	153	162	171	180	189	198	207	216	225	9
10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	10
11	22	33	44	55	66	77	88	99	110	121	132	143	154	165	176	187	198	209	220	231	242	253	264	275	11
12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228	240	252	264	276	288	300	12
13	26	39	52	65	78	91	104	117	130	143	156	169	182	195	208	221	234	247	260	273	286	299	312	325	13
14	28	42	56	70	84	98	112	126	140	154	168	182	196	210	224	238	252	266	280	294	308	322	336	350	14
15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270	285	300	315	330	345	360	375	15
16	32	48	64	80	96	112	128	144	160	176	192	208	224	240	256	272	288	304	320	336	352	368	384	400	16
17	34	51	68	85	102	119	136	153	170	187	204	221	238	255	272	289	306	323	340	357	374	391	408	425	17
18	36	54	72	90	108	126	144	162	180	198	216	234	252	270	288	306	324	342	360	378	396	414	432	450	18
19	38	57	76	95	114	133	152	171	190	209	228	247	266	285	304	323	342	361	380	399	418	437	456	475	19
20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	320	340	360	380	400	420	440	460	480	500	20
21	42	63	84	105	126	147	168	189	210	231	252	273	294	315	336	357	378	399	420	441	462	483	504	525	21
22	44	66	88	110	132	154	176	198	220	242	264	286	308	330	352	374	396	418	440	462	484	506	528	550	22
23	46	69	92	115	138	161	184	207	230	253	276	299	322	345	368	391	414	437	460	483	506	529	552	575	23
24	48	72	96	120	144	168	192	216	240	264	288	312	336	360	384	408	432	456	480	504	528	552	576	600	24
25	50	75	100	125	150	175	200	225	250	275	300	325	350	375	400	425	450	475	500	525	550	575	600	625	25
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	

SQUARES, SQ. ROOTS, CUBES AND CU. ROOTS OF NOS. 1 TO 100.

No.	Sq.	Cube.	Square Root.	Cube Root.	No.	Sq.	Cube.	Square Root.	Cube Root.	No.	Sq.	Cube.	Square Root.	Cube Root.
1	1.000	1.000	1.000	1.000	35	1225	42875	5.916	3.271	69	4761	328509	8.306	4.101
2	4	8	1.414	1.259	36	1296	46656	6.000	3.301	70	4900	343000	8.366	4.121
3	9	27	1.732	1.442	37	1369	50653	6.082	3.332	71	5041	357911	8.426	4.140
4	16	64	2.000	1.587	38	1444	54872	6.164	3.362	72	5184	373248	8.485	4.160
5	25	125	2.236	1.710	39	1521	59319	6.245	3.391	73	5320	389017	8 544	4.179
6	36	216	2.449	1.817	40	1600	64000	6.324	3.420	74	5476	405224	8.602	4.198
7	49	343	2.645	1.913	41	1681	68921	6.403	3.448	75	5625	421875	8.660	4.217
8	64	512	2.828	2.000	42	1764	74088	6.480	3.476	76	5776	438976	8.717	4.235
9	81	729	3.000	2.080	43	1849	79507	6.557	3.503	77	5929	456533	8.775	4.254
10	100	1000	3.162	2.154	44	1936	85184	6.633	3.530	78	6084	474552	8.831	4.272
11	121	1331	3.316	2.224	45	2025	91125	6.708	3.556	79	6241	493039	8.888	4.290
12	144	1728	3.464	2.289	46	2116	97336	6.782	3.583	80	6400	512000	8.944	4.308
13	169	2197	3.605	2.351	47	2209	103823	6.855	3.608	81	6561	531441	9.000	4.326
14	196	2744	3.741	2.410	48	2304	110592	6.928	3.634	82	6724	551368	9.055	4.344
15	225	3375	3.873	2.466	49	2401	117649	7.000	3.659	83	6889	571787	9.110	4.362
16	256	4096	4.000	2.519	50	2500	125000	7.071	3.684	84	7056	592704	9.165	4.379
17	289	4913	4.123	2.571	51	2601	132651	7.141	3.708	85	7225	614125	9.219	4.396
18	324	5832	4.240	2.620	52	2704	140608	7.211	3.732	86	7396	636056	9.273	4.414
19	361	6859	4.358	2.668	53	2809	148877	7.280	3.756	87	7569	658503	9.327	4.431
20	400	8000	4.472	2.714	54	2916	157464	7.348	3.779	88	7744	681472	9.380	4.448
23	529	12167	4.795	2.843	55	3025	166375	7.416	3.803	89	7921	704969	9.434	4.464
24	576	13824	4.899	2.884	56	3136	175616	7.483	3.825	90	8100	729000	9.486	4.481
25	625	15625	5.000	2.924	57	3249	185193	7.549	3.848	91	8281	753571	9.539	4.497
26	676	17576	5.099	2.962	58	3364	195112	7.615	3.870	92	8464	778688	9.591	4.514
27	729	19683	5.196	3.000	59	3481	205379	7.681	3.893	93	8649	804357	9.643	4.530
28	784	21952	5.291	3.036	60	3600	216000	7.746	3.914	94	8836	830584	9.695	4.546
29	841	24389	5.385	3.072	63	3969	250047	7.937	3 979	95	9025	857375	9.746	4.562
30	900	27000	5.477	3.107	64	4096	262144	8.000	4.000	96	9216	884736	9.798	4.578
31	961	29791	5.567	3.141	65	4225	274625	8.062	4.020	97	9409	912673	9.848	4.594
32	1024	32768	5.656	3.174	66	4356	287496	8.124	4.041	98	9604	941192	9.899	4.610
33	1089	35937	5.744	3.207	67	4489	300763	8.185	4.061	99	9801	970299	9.949	4.626
34	1156	39304	5.831	3.239	68	4624	314432	8.246	4.081	100	10000	1000000	10.000	4.641

AREAS OF CIRCLES.

To find the circumference of a circle multiply the diameter by 3.14159265 (commonly expressed as 3.1416). To find the area of a circle multiply the square of the diameter by .785398 (usually expressed as .7854). To find the cubic contents of a cylinder or pipe, multiply the area by the height or depth. Thus, a pipe 1 foot in diameter and 1 foot in length contains .7854 cubic feet. To find how many gallons are contained in a pipe or cylinder, divide the cubic contents by 231, which is the number of cubic inches in a United States gallon.

CIRCLE AREAS IN EIGHTHS OF A UNIT.

Diameter.	Circumference.	Area.	Diameter.	Circumference.	Area.	Diameter.	Circumference.	Area.	Diameter.	Circumference.	Area.
1-32	.09817	.0007	9-16	1.76715	.2485	1	3.14159	.7854	2	6.28319	3.1416
1-16	.19635	.0030	19-32	1.86532	.2768	1 1-16	3.33794	.8866	2 3-16	6.87223	3.7583
3-32	.29452	.0069	21-32	2.06167	.3382	1 3-16	3.73064	1.1075	2 5-16	7.26493	4.2000
3-16	.58904	.0276	11-16	2.15984	.3712	1 5-16	4.12334	1.3539	2 7-16	7.65763	4.6664
7-32	.68722	.0375	23-32	2.25802	.4057	1 7-16	4.51604	1.6230	2 9-16	8.05033	5.1572
9-32	.88357	.0621	25-32	2.45437	.4793	1 9-16	4.90874	1.9175	2 11-16	8.44303	5.6727
11-32	1.07992	.0928	27-32	2.65072	.5591	1 11-16	5.30144	2.2365	2 13-16	8.83573	6.2126
13-32	1.27627	.1296	29-32	2.84707	.6450	1 13-16	5.69414	2.5802	2 15-16	9.22843	6.7771

A square is equal in area to a circle when the side of the square equals 0.88623 multiplied by the diameter of the circle; or when the diameter of the circle equals 1.12838 multiplied by the side of the square.

Any straight line extending from the centre of a circle to the circumference is called a *radius*.

FASTEST TRIPS AROUND THE WORLD.

1519 (Sept. 20)-1522 (Sept. 8), Magellan's ships sailed around the world from Seville, Spain, and back again; 1,083 days. One ship out of five returned to Seville, with 35 of 280 men surviving. Later 4 others got back. Magellan was killed in the Philippines.

1872 (Oct. 2-Dec. 20), a fictitious journey by Phileas Fogg in Jules Verne's novel; 80 days.

1889, by Nellie Bly, 72 days 6 hours 11 minutes.

1890, by George Francis Train of New York, in 67 days 12 hours 3 minutes.

1901, by Chief of Police Charles Fitzmorris of Chicago, in 60 days 13 hours 29 minutes.

1903, by J. Willis Sayre, of Seattle, Wash., in 54 days, 9 hours, 42 minutes.

1903, by Henry Frederick, 54 days 7 hours 2 minutes.

1907, by Col. Burnlay-Campbell, in 40 days 19 hours 30 minutes.

1911, by Andre Jaeger-Schmidt, 39 days 19 hours 42 minutes 38 seconds.

1913, by John H. Mears, 35 days 21 hours 36 minutes.

1924, by U. S. Army airplanes, in 175 days (14 days 15 hours of actual flying).

1926 (June 16, 1.30 A.M.-July 14, 4.06, 5 P.M.), by Edward S. Evans and Linton Wells for The World, in 28 days 14 hours 36 minutes 5 seconds. Their mileage was: by train and motor car, 4,100; by plane, 6,300; by steamer, 8,000.

1928 (June 29-July 22), John H. Mears and Capt. C. B. D. Collyer, circled the globe in 23 days, 15 hours, 21 minutes, 3 seconds. They left New York by seaplane and overtook the Olympic off Long Island. From Cherbourg, July 5, they flew by air across Europe and Asia, reaching Tokio on July 11. They got by steamer to Vancouver, B. C. on July 20 and flew thence to New York City.

1929, by Raffaele Maiullari, who left New York City on May 22, going east, and circled the globe, returning on June 25. His rival, Charles Olsen, left New York on June 7, going west, and got around and was back on July 17. A committee of the Bronx Chamber of Commerce fixed the elapsed time at—Maiullari, 34 days, 2 hours, 40 minutes; Olsen, 39 days, 19 hours.

1929, by the German dirigible balloon, Graf Zeppelin, in 21 days, 8 hours, 26 minutes, from Lakehurst to Lakehurst; *and in* 20 *days*, 4 *hours*, from Friedrichshafen to Friedrichshafen.

Following is the log, in Eastern Daylight Time, as reported by the Associated Press, on the voyage from Lakehurst to Lakehurst.

The Graf Zeppelin left Lakehurst on Sept. 1, at 8.18 A. M., and landed at Friedrichshafen on Sept. 4, at 3.52 A. M. That journey required 67 hours, 35 minutes.

Thursday, Aug. 8.

12:40 A. M.—Left Lakehurst, N. J., for Friedrichshafen.

Saturday, Aug. 10.

8:03 A. M.—Landed at Friedrichshafen, completing trip of 4,200 miles in 55 hours 23 minutes.

Wednesday, Aug. 14.

11:35 P. M.—Left Friedrichshafen for Tokio.

Monday, Aug. 19.

5:25 A. M.—Arrived over Tokio and landed at Kasumigaura Airport two hours later, completing 6,880 miles in 101 hours 50 minutes.

Friday, Aug. 23.

2:13 A. M.—Left Kasumigaura for Los Angeles.

12:00 Noon—Wirelessed position 1,500 miles east of Tokio, flying at altitude of 1,100 feet.

Saturday, Aug. 24.

8:00 A. M.—About 1,800 miles east-northeast of Tokio, Lat. 43.50 degrees N., Long. 174.10 degrees E.

10:00 P. M.—Most northerly point of Pacific flight, Lat. 46 degrees N., Long. 161 degrees W.

Sunday, Aug. 25.

2:25 A. M.—Lat. 45.30 degrees N., Long. 154 degrees W.

10:02—Sighted off San Francisco Bay.

Monday, Aug. 26.

9:11 A. M.—Landed at Los Angeles, completing flight of about 5,500 miles from Tokio in 78 hours 58 minutes.

Tuesday, Aug. 27.

4:14 A. M.—Left Los Angeles for Lakehurst, N. J 8:13 P. M.—Passed El Paso, Texas.

Wednesday, Aug. 28.

11:39 A. M.—Kansas City, Mo.; 6:25 P. M.—Chicago; 10:40 P. M.—Detroit.

Thursday, Aug. 29.

12:13 A. M.—Cleveland; 12-57 A. M.—Akron, Ohio; 1:56 A. M.—Newcastle, Pa.; 4:06 A. M.—Bellefonte, Pa.; 7:02 A. M.—Reached New York; 8:13 A. M.—Landed at Lakehurst, N. J.

TRADE ROUTES.

(By Jacques W. Redway in the N. Y. Sun.)

The great continental trails were creations of the Indian's predecessor, the bison. The bison required salt and the salt licks were many miles away from the grazing grounds. In their journeys to and from the salt licks herds of bisons sought the lowest passes across mountain ranges with unerring instinct.

The Indian took a lesson from the bison—and the iron horse now speeds over those same lines of the least lift against gravity discovered by the bison.

Parts of the Baltimore & Ohio, the Erie and the New York Central Railway lines follow old Indian trails that also were bison trails.

Not much about the character of the traffic over the Indian trails is definitely known.

A league of five strong tribes, the Iroquois Confederacy, was necessary to hold the strategic position in central New York, where continental trails from the east, south and west converged.

Portage paths were an echo of the shortage of furs required to keep humanity in Europe warm. The North American fur region was opened to traffic when the fur region of China had become well-nigh exhausted.

Indian trappers and European collectors transported their catches by canoe up stream to the head of navigation. From that point canoe and contents were carried to the headwaters of a stream flowing in an opposite direction.

Fort Stanwix, now the city of Rome, N. Y., was built to defend the portage path between Wood Creek and the Mohawk River. This portage connected canoe routes leading north and west with those pointing eastward. Almost within a stone's throw of old Fort Stanwix are now the terminals of two railways and the junction of two canals.

Another portage path had a great future. Up the Mississippi to the Illinois and up the Illinois to the Des Plaines, and up the Des Plaines almost in sight of Lake Michigan the fur catch from the lower country was paddled.

Then a very short portage—the shortest of all routes—to Chicago River and Lake Michigan marked the beginning of the end of a long journey from the heart of one continent to the heart of another.

Fort Dearborn was built to guard this portage path from marauders, and Fort Dearborn became the city of Chicago.

When the huntsman of the Stone Age discovered that jade would take a better cutting edge than could be imparted to flint, jade was imported from the Gobi in central Asia, and jade held supreme place as a cutting tool until in turn it was superseded by bronze. The traffic in jade created the beginning of a great trade route that continued up to the time of the Alexandrian conquest; then it gave way to less hazardous routes of trade.

The discovery of amber in the Baltic Sea region opened trade routes thereto as far back as the earlier Neolithic Age, and the amber found markets and buyers wherever there were human beings who loved ornaments. For a time amber was the principal article of traffic in the commerce of Europe.

The discovery of copper and tin in Cornwall, England, quickly led to the alloying of the two metals to make bronze; it made also an end to the later Stone Age, for tools of stone could not compare in usefulness with those of metal. As a result existing trade routes were greatly extended in all directions in order to fill the demand.

A very important traffic in salt grew into existence during the Bronze Age. The salt mines in the vicinity of Hallstatt, Salzberg, and Krakauvin, old Austria, furnished the article that passed over local trade routes in central Europe; indeed, for a time, salt was the most important factor of commerce.

The commerce of Europe began with the Neolithic trails that are comparable to the old Indian trails. They came into being for the same cause. In the creation of them they followed the same geographic principle.

As a rule they kept to the river valleys; they forced mountain ranges at the lowest passes, always seeking the least lift against gravity. There were portage paths between rivers flowing in opposite directions, and those of chief importance are now canals.

Traffic routes of the Bronze Age, internal or marine are parts of the traffic systems of today.

DIAMONDS AND OTHER PRECIOUS STONES.

The South African diamond fields were discovered, near Kimberley, in 1866, when a child picked up a stone weighing 21¼ carats, which was sold in the rough for $2,500. In 1868, a Hottentot negro found a diamond of 83½ carats. He sold it for $2,000 to a dealer who got $56,000 therefor. This stone has been valued since, at $125,000, and is the famous Star of South Africa, in the collection of the Earl of Dudley, of England.

Since 1866 the South African fields have yielded diamonds of the total value of $1,375,000,000.

The sale of diamonds is controlled by a syndicate working in agreement with the producing mines It is said the world market will not absorb more than $60,000,000 of diamonds each year, and the problem of governing output increases as the world source of supply becomes more widely spread. There was a time when the Union produced over ninety per cent of the world production, but in recent years new fields have been discovered in non-British parts of Africa and in South America. But the Union of South Africa has increased production in the last few years and still controls the world market.

The largest diamond ever found was the Cullinan, in 1905, in South Africa—3,024¾ carats, or about 1¾ pounds. The stone was bought in 1907 by the Transvaal Government and presented to King Edward. It was cut up, and is added to the collection of crown jewels in the Tower of London.

The diamond, says Charles Sprague, Jr., is found under many diverse conditions. The most important sources are in pipes or dykes known as "kimberlite," consisting of three organically different layers of earth.

The first is the oxidized yellow ground ranging from 35 to 140 feet below the surface; then the hydrated blue ground, commonly known as diamondiferous earth; lastly, the well preserved "hardenbank," dating back to prevolcanic days.

Then, the ancient conglomerates of the auriferous Witwatersrand. Next, the extensive river deposits in the basins of the Vaal, Harts, Orange and Kasai Rivers. The stones found in these basins have been washed down from the higher ground through countless centuries. The alluvial diamonds found in the river basins have, as a rule, been larger in size and of better quality than in the dry diggings.

The recovery of diamonds from the yellow ground is a simple process, but the treatment of blue ground presents difficulties owing to the greater density. The rock from the open mines is hauled in cable cars to the summit of an incline plane where it is emptied down a chute into the jaws of a gyratory crusher. It is then broken up between rollers two inches from each other.

The cutting of diamonds is a minutely careful process. Formerly the jewelers of Amsterdam solely performed this operation, but an increasingly large part is now being done in Kimberley, Johannesburg and Pretoria. The diamond is embedded in soft lead or babbit metal and held in an arm-like vise against a revolving friction disc treated with fine particles of sand. All the facies are ground in this manner under microscopic inspection.

Among other famous diamonds from South African fields is the largest of the Kimberley diamonds, 442 carats; and the largest stone from the De Beers mines, weighing 503 carats. This latter stone was found imperfect and it was necessary to cut it down to 228½ carats. The Porter-Rhodes diamond, while weighing less, 152 carats, is of greater value, estimated at more than $300,000.

$32,250,000 IN JEWELS BURIED WITH CHINESE EMPRESS.

The following is an official account of the jewels buried with China's last manchu Empress, the Dowager Tzuttsi, at Pekin, and looted in August, 1928, by Chang Tso's soldiers when they evacuated and fled to the north.

For her to rest on: a mattress of gold thread embroidered with pearls; over that a silk coverlet strewn with a layer of pearls; over this, lace with pearls woven into a figure of Buddha; at her head and feet jade carved as lotus leaves.

On her robe were strung pearls on gold thread; her jacket was embroidered with these gems from Eastern fisheries, and a rope of them circled her body nine times.

Eighteen pearl images of Buddha were laid by her arms. A chaplet of pearls was set on her head. Gold, jade and gem Buddhas, 108 of them, were laid by her side; 200 gems carved as peaches, pears, apricots, dates and three melons of jade were placed at her feet.

A gem portraying a growing lotus was at her left side; on her right was a coral tree. Interstices in the coffin were filled level with pearls and gems, a pearl network was over all.

One gem ornament of 8 galloping horses, another of 18 holy men of Buddha were contributed by "a certain prince" and tucked under the coverlet.

The appraiser's total of $32,250,000 did not include the 8 galloping horses, each carved from a separate gem, all different in color, nor the 18 holy men chiseled of various precious stones.

The Empress' tomb cost $4,000,000.

PERSIAN ROYAL GEMS.

A committee of French and Dutch jewelers, appointed by Riza Kahn, in 1929, has valued the Persian royal gems at $170,000,000. not including the Darya-i-Noor (Sea of Light) diamond, which the experts say is beyond price.

There are 10 lbs. of pearls, 12 lbs. of rubies, and 13 lbs. of emeralds, the largest valued at $175,000.

The Peacock Throne, taken from Delhi, India, is set down at $50,000,000.

The Shah's string of pearls worn at the Durbars, is estimated to be worth $250,000.

RELATIVE HARDNESS OF CERTAIN GEMS AND SUBSTANCES.

Diamond	10.0	Pyrite	6.3	Platinum	4.3	Copper	3.0
Corundum	9.0	Augite	6.0	Bell-metal	4.0	Gold	3.0
Steel	8.5	Feldspar	6.0	Brass	4.0	Meerschaum	3.0
Topaz	8.0	Hematite	6.0	Dolomite	4.0	Ross metal	3.0
Beryl	7.8	Iridium	6.0	Fluorite	4.0	Silver	3.0
Andalusite	7.5	Magnetite	6.0	Marble	4.0	Wood's metal	3.0
Tourmaline	7.3	Opal	6.0	Phosphorbronze	4.0	Mica	2.8
Agate	7.0	Orthoclase	6.0	Serpentine	4.0	Alum	2.5
Flint	7.0	Hornblende	5.5	Aragonite	3.5	Amber	2.5
Garnet	7.0	Apatite	5.0	Arsenic	3.5	Bismuth	2.5
Iridosmium	7.0	Asbestos	5.0	Antimony	3.3	Galena	2.5
Quartz	7.0	Calamine	5.0	Barite	3.3	Sulphur	2.5
Glass	6.5	Iron	5.0	Boric acid	3.0	Anthracite	2.2
Platin-iridium	6.5	Palladium	4.8	Calcite	3.0	Aluminum	2.0
						Asphalt	2.0
						Gypsum	2.0
						Rock salt	2.0
						Stibnite	2.0
						Alabaster	1.7
						Tin	1.5
						Silver chloride	1.3
						Graphite	1.0
						Kaolin	1.0
						Talc	1.0
						Loess	0.3
						Wax	0.2

BIRTH STONES.

Month.	Ancient.	Modern.	Month.	Ancient.	Modern.	Month.	Ancient.	Modern.
Jan.	Garnet	Hyacinth	May	Agate	Emerald	Sept.	Chrysolite	Beryl
Feb.	Amethyst	Amethyst	June	Emerald	Agate	October	Aquamarine	Pearl
March	Jasper	Bloodstone	July	Onyx	Ruby	Nov.	Topaz	Topaz
Apr.	Sapphire	Diamond	Aug.	Carnelian	Topaz	Dec.	Ruby	Bloodstone

The National Wholesale Jewelers Association in convention at Providence, R. I., in June, 1927, urged that Chinese jade be substituted for topaz as the birth stone for November.

The *garnet* is credited with endowing the wearer with constancy and fidelity; the *amethyst* betokens sincerity; *bloodstone*, or *aquamarine*, courage and truthfulness; *diamond*, innocence; *emerald*, happiness; *pearl*, or *moonstone*, health and long life; *ruby*, a contented mind; *sardonyx*, or *peridot*, felicity; *sapphire*, wisdom; *opal*, or *tourmaline*, hope. *topaz*, fidelity; *turquoise*, or *lapis lazuli*, prosperity and success.

In the calendar year 1928, imports of diamonds into the United States were as follows (values in parenthesis)—rough, uncut, 291,302 carats ($11,935,-191); cut but not set, 440,437 carats, ($42.396,162); glaziers', engravers', and miners' stones, 38,342 carats ($2,756,895).

In 1928, pearls and parts, not strung or set, were imported to the value of $7,163,905.

Diamonds valued at $4,000,000,000 are worn in this country.

Cathode-ray tubes are used to detect synthetic, or imitation, gems, particularly diamonds and sapphires. The cathode-ray is faster than the x-ray.

The Turf.

(Years lacking in these tables indicate no race in those years. *Time* is expressed in minutes and seconds. *Value* means the winner's share of the purse.)

A *mile* is 5,280 feet, or 1,760 yards. A *furlong* is one-eighth of a mile, or 660 feet, or 220 yards.

BELMONT PARK.

THE FUTURITY STAKES (2-YEAR-OLDS).

¾ mile, 1888-1891; 1,263 yards, 1 foot, 1892-1901; ¾ mile, 1902-1924; 7 furlongs, straight, 1925-1926; about ⅞ mile (Widener Course), straight, 1927 and since. Sheepshead Bay, N. Y., 1888-1909; Saratoga N. Y., 1910-1914; Belmont Park, N. Y., 1915 and since. Main track is 12 furlongs, 6 ft., 3 in.

Year.	Winner.	Wght	Time.	Value.	Year.	Winner.	Wght	Time.	Value.
1910..	Novelty	127	1.12 1-5	$25,360	1921..	Bunting	117	1.11 2-5	$40,700
1913..	Pennant	119	1.15	15,060	1922..	Sally's Alley	116	1.12	47,550
1914..	Trojan	117	1.16 4-5	22,110	1923..	St. James	130	1.10 2-5	64,810
1915..	Thunderer	122	1.11 4-5	16,590	1924..	Mother Goose	114	1.10 4-5	65,730
1916..	Campfire	125	1.13 4-5	22,950	1925..	Pompey	127	1.23	58,480
1917..	Papp	127	1.12	15,450	1926..	Scapa Flow	122	1.22	65,980
1918..	Dunboyne	127	1.12 4-5	30,280	1927..	Anita Peabody	124	1.21 4-5	91,790
1919..	Man o' War	127	1.11 3-5	26,650	1928..	High Strung	122	1.19	97,990
1920..	Step Lightly	116	1.12 1-5	35,870	1929..	Whichone	125	1.19 3-5	105,730

Winners before 1910—(1888) Proctor Knott; (1889) Chaos; (1890) Potomac; (1891) His Highness; (1892) Morello; (1893) Domino; (1894) The Butterflies; (1895) Requital; (1896) Ogden; (1897) L'Alouette; (1898) Martimus; (1899) Chacornac.

(1900) Ballyhoo Bey; (1901) Yankee; (1902) Savable; (1903) Hamburg Belle; (1904) Artful; (1905) Ormondale; (1906) Electioneer; (1907) Colin; (1908) Maskette; (1909) Sweep.

BELMONT STAKES (3-YEAR-OLDS).

1½ miles, 1867-1873; 1½ miles, 1874-1889; 1¼ miles, 1890-1892; 1½ miles, 1893-1894; 1¼ miles, 1895; 1¾ miles, 1896-1903; 1¼ miles, 1904-1905; 1¾ miles, 1906-1925; 1½ miles, 1926.

Jerome Park, N. Y., 1867-1889; Morris Park, N. Y., 1890-1904 Belmont Park, N. Y., 1905 and since.

Year.	Winner.	Wght	Time.	Value.	Year.	Winner.	Wght	Time.	Value.
1906..	Burgomaster	126	2.20	$22,700	1919..	Sir Barton	126	2.17 2-5	$11,950
1907..	Peter Pan	126	.....	22,765	1920..	Man o' War	126	2.14 1-5	7,950
1908..	Colin	126	.....	22,765	1921..	Grey Lag	126	2.16 4-5	8,650
1909..	Joe Madden	126	2.20	24,550	1922..	Pillory	126	2.18 4-5	39,200
1910..	Sweep	126	2.22	9,700	1923..	Zev	126	2.19	38,000
1913..	Princess Eugene	109	2.18	2,825	1924..	Mad Play	126	2.18 4-5	42,880
1914..	Luke McLuke	126	2.20	3,025	1925..	American Flag	126	2.17 1-5	38,500
1915..	The Finn	126	2.18 2-5	1,825	1926..	Crusader	126	2.32 1-5	48,550
1916..	Friar Rock	126	2.22	4,100	1927..	Chance Shot	126	2.32 2-5	60,910
1917..	Hourless	126	2.17 4-5	5,800	1928..	Vito	126	2.33 1-5	63,430
1918..	Johren	126	2.20 2-5	8,950	1929..	Blue Larkspur	126	2.32 4-5	59,650

Winners before 1906—(1867) Ruthless; (1868) Gen. Duke; (1869) Fenian.

(1870) Kingfisher; (1871) Harry Bassett; (1872) Joe Daniels; (1873) Springbok; (1874) Saxon; (1875) Calvin; (1876) Algerine; (1877) Cloverbrook; (1878) Duke of Magenta; (1879) Spendthrift.

(1880) Grenada; (1881) Saunterer; (1882) Forester; (1883) Geo. Kinney; (1884) Panique; (1885) Tyrant; (1886) Inspector B.; (1887) Hanover; (1888) Sir Dixon; (1889) Eric.

(1890) Burlington; (1891) Foxford; (1892) Patron; (1893) Comanche; (1894) Henry of Navarre; (1895) Belmar; (1896) Hastings; (1897) Scottish Chieftain; (1898) Bowling Brook; (1899) Jean Beraud.

(1900) Ildrim; (1901) Commando; (1902) Masterman; (1903) Africander; (1904) Delhi; (1905) Tanya.

LAWRENCE REALIZATION (3-YEAR-OLDS).

1⅛ miles, 1889-1913 and 1918 and since; 1⅛ miles 1916-1917. Sheepshead Bay, 1889-1912; Belmont Park, 1913 and since. Run before 1899 as the Realization.

Year.	Winner.	Wght	Time.	Value.	Year.	Winner.	Wght	Time.	Value.
1913..	Rock View	127	2.51	$2,475	1923..	Zev	126	2.44 3-5	$24,410
1916..	Star Hawk	117	2.32 3-5	2,775	1924..	Aga Khan	116	2.48 2-5	25,120
1917..	Omar Khayyam	126	2.33 2-5	5,950	1925..	Marconi	116	2.43 4-5	26,500
1918..	Johren	126	2.55 1-5	10,725	1926..	Espino	126	2.42 3-5	26,100
1919..	Vexatious	123	2.47 3-5	20,540	1927..	Nimba	123	2.45	29,470
1920..	Man O' War	126	2.40 4-5	15,040	1928..	Reigh Count	126	2.44 3-5	28,430
1921..	Touch Me Not	126	2.43 1-5	17,850	1929..	The Nut	119	2.45 3-5	31,760
1922..	Kai Sang	126	2.42 2-5	21,400					

Winners before 1913—(1889) Salvator; (1890) Tournament; (1891) Potomac; (1892) Tammany; (1893) Daily America; (1894) Dobbins; (1895) Bright Phoebus; (1896) Requital; (1897) The Friar; (1898) Hamburg; (1899) Ethelbert.

(1900) Prince of Melbourne; (1901) The Parader; (1902) Maj. Daingerfield; (1903) Africander; (1904) Ort Wells; (1905) Sysonby; (1906) Accountant; (1907) Dinna Ken; (1908) Fair Play; (1909) Fitz Herbert; (1910) Sweep.

Best time at 1⅛ miles before 1910—2.45, in 1909.

MATRON STAKES (2-YEAR-OLDS).

¾ mile, straight. Morris Park, 1892-1904; Belmont Park, 1905-1909; Pimlico, 1910; Belmont Park, 1911 and since.

Year.	Winner.	Wght	Time.	Value.	Year.	Winner.	Wght	Time.	Value.
1905..	Burgomaster	124	1.12 1-5	$10,405	1910..	Bashti	117	1.13	$8,655
	Perverse	109	1.11 1-5	10,485	1914..	Pebbles	130	1.15	1,130
1906..	Ballot	122	1.12	10,250		Charter Maid	110	1.14	1,045
	Adoration	116	1.11 4-5	9,030	1923..	Tree Top	109	1.11 3-5	4,150
1907..	Colin	129	1.12	9,340	1924..	Blue Warbler	127	1.13 4-5	10,625
	Stamina	119	1.11 4-5	8,940	1925..	Taps	119	1.13 2-5	15,075
1908..	Helmet	124	1.12 2-5	9,625	1926..	Pantella	124	1.13 2-5	18,275
	Maskette	124	1.20 4-5	5,895	1927..	Glade	114	1.12 3-5	21,025
1909..	Radium Star	114	1.14 4-5	8,995	1928..	Dreadnaught	115½	1.12	21,725
	Greenvale	111	1.15	8,535	1929..	Dustemall	115	1.11	25,250
1910..	Naushon	125	1.12 4-5	9,485					

Winners before 1905—(1892) Sir Frances; (1893) Domino; (1894) Agitator; (1899) Indian Fairy; (1900) Beau Gallant; (1901) Heno; (1902) Grey Friar and Eugenia Burch; (1903) Minute Man and Armenia; (1904) Bedouin and Sandria.

Best time prior to 1905—1.08 1-5, by Sandria, in 1904.

BELMONT PARK.

WITHERS STAKES (3-YEAR-OLDS).

1 mile, Jerome Park, 1874-1889; Morris Park, 1890-1904; Belmont Park, 1905 and since.

YEAR.	Winner.	Wght	Time.	Value.	YEAR.	Winner.	Wght	Time.	Value.
1905..	Blandy	126	1.44 3-5	$6,220	1919..	Sir Barton	118	1.38 4-5	$8,075
1906..	Accountant	126	1.38 4-5	6,850	1920..	Man O' War	118	1.35 4-5	4,825
1907..	Frank Gill	126	1.40	7,775	1921..	Leonardo II	118	1.37 2-5	5,475
1908..	Colin	126	1.41	12,090	1922..	Snob II	118	1.35 4-5	7,240
1909..	Hilarious	126	1.41 1-5	11,070	1923..	Zev	118	1.37 2-5	18,300
1910..	The Turk	126	1.40	3,000	1924..	Bracadale	118	1.39	19,000
1913..	Rock View	118	1.39 2-5	2,325	1925..	American Flag	118	1.38 1-5	19,600
1914..	Charlestonian	115	1.39 4-5	2,900	1926..	Haste	118	1.37 3-5	22,800
1915..	The Finn	118	1.39 2-5	1,425	1927..	Chance Shot	118	1.39 4 5	23,250
1916..	Spur	118	1.38 2-5	2,900	1928..	Victorian	118	1.39	22,330
1917..	Hourless	118	1.39	5,475	1929..	Blue Larkspur	118	1.36	28,250
1918..	Motor Cop	118	1.39 3-5	7,100					

Winners before 1905 (1874) Dublin; (1875) Aristides; (1876) Fiddlesticks; (1877) Bombast; (1878) Duke of Magenta; (1879) Dan Sparling.

(1880) Fernciiffe; (1881) Crickmore; (1882) Forester; (1883) Geo. Kinney; (1884) Panique; (1885) Tyrant; (1886) Biggonet; (1887) Hanover;(1888) Sir Dixon; (1889) Diablo.

(1890) King Eric; (1891) Picknicker; (1892) Tammany; (1893) Dr. Rice; (1894) Domino; (1895) Lucania; (1896) Handspring; (1897) Octagon; (1898) The Huguenot; (1899) Jean Beraud.

(1900) Kilmarnock; (1901) The Parader; (1902) Compute; (1903) Shorthose; (1904) Delhi.

JUVENILE STAKES (2-YEAR-OLDS).

½ mile 1874-1891; ⅝ mile, 1892 and since. Jerome Park, 1874-1890; Morris Park, 1891-1904; Belmont Park, 1905 and since.

Year.	Winner.	Wght	Time.	Value.	Year.	Winner.	Wght	Time.	Value.
1914..	Hauberk	112	1.00 2-5	$3,020	1922..	McKee	112	0.57 3-5	$13,200
1915..	Lena Misha	108	0.59	2,325	1923..	Peter King	115	0.58 1-5	13,250
1916..	Hourless	112	0.59 1-5	3,900	1924..	Arcady	112	1.01 4-5	11,600
1917..	Lucullite	122	0.59	6,050	1925..	Galetlan	122	0.57 2-5	14,250
1918..	Elfin Queen	112	0.58 3-5	7,100	1926..	Draconis	112	0.53	16,150
1919..	Bonnie Mary	122	0.59 2-5	5,850	1927.	Dice	125	1.01	15,700
1920..	Tryster	115	0.58 3-5	5,850	1928.	Blue Larkspur	122	0.59 3-5	17,750
1921..	Column	115	0.57 4-5	13,800	1929.	Black Majesty	115	0.59 4-5	17,250

Winners before 1914—(1874) Meco; (1875) Faithless; (1876) Idalia; (1877) Perfection; (1878) Plevna; (1879) Sensation.

(1880) Spinaway; (1881) Onondaga; (1882) Henlopen; (1883) Reveler; (1884) Triton; (1885) Portland; (1886) Tremont; (1887) Kingfish; (1888) Fides, and French Park (dead heat); (1889) Druidess.

(1890) St. Charles; (1891) Osric; (1892) Dr. Rice; (1895) Senella; (1894) Prince of Monaco; (1896) Casseopia; (1897) Firearm; (1898) Glenheim; (1899) Doublet.

(1900) Tommy Atkins; (1901) Blue Girl; (1902) Mizzen; (1903) Broomstick; (1904) Song and Wine; (1905) First Water; (1906) De Mund; (1907) Smoker; (1908) Joe Madden; (1909) Waldo; (1910) Seth; (1913) Punch Bowl.

Best time at ⅝ mile—0.47 1-4, in 1891. Best time at ⅝ mile prior to 1914—0.57 4-5, in 1904.

SUBURBAN HANDICAP (3-YEAR-OLDS AND OVER).

1¼ miles, Sheepshead Bay, 1884-1912; Belmont Park, 1913 and since.

YEAR.	Winner.	Wght	Time.	Value.	YEAR.	Winner.	Wght	Time.	Value.
1913..	Whisk Broom II	139	2.00	$3,000	1922..	Capt. Alcock	108	2.05 2-5	$8,200
1915..	Stromboli	122	2.05	3,925	1923..	Grey Lag	135	2.03	7,800
1916..	Friar Rock	100	2.03	3,450	1924..	Mad Hatter	125	2.03 3-5	9,150
1917..	Boots	122	2.05 1-5	4,900	1925..	Sting	122	2.04 1-5	11,300
1918..	Johren	110	2.06	7,500	1926..	Crusader	104	2.03	13,150
1919..	Corn Tassel	108	2.02 1-5	5,200	1927..	Crusader	127	2.02 2-5	11,857
1920..	Paul Jones	106	2.09 3-5	6,350	1928..	Dolan	105	2.06 3-5	13,675
1921..	Audacious	120	2.02 1-5	8,100	1929..	Bateau	112	2.03 2-5	14,100

Winners before 1913—(1884) Gen. Monroe; (1885) Pontiac; (1886) Troubadour; (1887) Eurus; (1888) Elkwood; (1889) Raceland.

(1890) Salvator; (1891) Loantaka; (1892)Montana; (1893) Lowlander; (1894) Ramapo; (1895) Lazzarone; (1896) Henry of Navarre; (1897) Ben Brush; (1898) Tillo; (1899) Imp.

(1900) Kinley Mack; (1901) Alcedo; (1902) Gold Heels; (1903) Africander; (1904) Hermis; (1905) Beldame; (1906) Go Between; (1907) Nealon; (1908) Ballot: (1909) Fitz Herbert; (1913) Olambala.

Best time at 1¼ miles before 1913—2.03, in 1908

METROPOLITAN HANDICAP (3-YEAR-OLDS AND OVER).

Morris Park, 1891-1904; Belmont Park, 1905 and since. 1½ miles, 1891-1896; 1 mile, 1907 and since.

YEAR.	Winner.	Wght	Time.	Value.	YEAR.	Winner.	Wght	Time.	Value.
1910..	Fashion Plate	105	1.37 4-5	$3,800	1921..	Mad Hatter	127	1.37 2-5	$8,150
1913 .	Whisk Broom II	126	1.39	3,500	1922..	Mad Hatter	129	1 36 3-5	8,550
1914 .	Buskin	114	1.37 4-5	4,200	1923..	Grey Lag	133	1.38	7,600
1915..	Stromboli	118	1.39 4-5	2,325	1924..	Laurano	101	1.38 1-5	9,150
1916..	The Finn	120	1.38	3,350	1925..	Sting	114	1.37	6,625
1917..	Ormesdale	111	1.39 1-5	3,850	1926..	Sarazen	129	1.38	9,125
1918..	Trompe La Mort	102	1.38 2-5	3,865	1927..	Black Maria	116	1.37 2-5	8,225
1919..	Laulus	115	1.45 2-5	3,865	1928..	Nimba	114	1.40	8,575
1920..	Wildair	107	1.38 4-5	3,865	1929..	Petee Wrack	120	1.40	8,600

Winners before 1910—(1891) Tristan; (1892) Pessara; (1893) Charade; (1894) Ramapo; (1896) Counter Tenor; (1897) Voter; (1898) Bowling Brook; (1899) Filigrane.

(1900) Ethelbert; (1901) Banastar; (1902) Arsenal; (1903) Gunfire; (1904) Irish Lad; (1905) Sysonby and Race King; (1906) Grapple; (1907) Glorifier; (1908) Jack Atkin; (1909) King James.

The 1905 race was a dead heat between Sysonby and Race King.

Tryster (120 pounds) ran 1 mile at Empire City' N. Y. 1922, and won the Scarsdale Handicap, in 138 1-5.

Other 1929 Winners at Belmont Park—*Keene Memorial*, Mokatam; *Fashion Stakes*, Keepon; *Toboggan Handicap*, Osmand; *Appleton Memorial Steeple*, Fairfield; *Nursery Handicap*, Flying Heels; *Brook Steeple*, Ruler; *Champagne Stakes*, Whichone; *Tomboy Handicap*, Red Rag; *Jerome Handicap*, Soul of Honor; *Twin City Handicap*, Petee-Wrack; *Grand National Steeplechase*, Arc Light.

BELMONT PARK.

NATIONAL STALLION RACE (2-YEAR-OLDS).

⅝ mile, 1898-1908; 5½ furlongs (in 1909; ⅝ mile, 1910 and since. Morris Park, N. Y., 1898-1904 Belmont Park, N. Y., 1905 and since. Run on straight course.

Year.	Winner.	Wght	Time.	Value.	Year.	Winner.	Wght	Time.	Value.
1898..	Jean Beraud	113	0.59	$15,502	1907..	Colin	122	0.58	$10,066
1899..	Pupil	122	0.58 3-5	14,527	1908..	Sir Martin	122	.....	9,875
1900..	Bonnibert	122	1.00 3-4	15,352	1909..	Sweep	122	1.08 1-5	12,248
1901..	Cunard	122	1.01	11,155	1910..	Semprolus	122	0.58 4-5	4,927
1902..	Mizzen	117	0.59 1-5	10,837	1926..	Chance Shot	122	0.58 3-5	13,095
1903..	Magistrate	122	0.58	12,483	1927..	Grouchet	122	0.59 4-5	22,710
1904..	Tanya	119	0.58 1-5	10,975	1928..	Blue Larkspur	117	0.59	25,470
1905..	First Water	122	1.03 2-5	9,879	1929..	Crazy Coot	117	1.00 1-5	25,740
1906..	Charles Edward	122	0.59 2-5	8,083					

COACHING CLUB AMERICAN OAKS HANDICAP. (3-YEAR-OLDS, FILLIES).

1⅛ miles in 1917; 1¼ miles in 1918; 1⅛ miles, 1919 and since. Belmont Park, N. Y.

Year.	Winner.	Wght	Time.	Value.	Year.	Winner.	Wght	Time.	Value.
1917..	Wistful	124	1.53 3-5	$2,300	1924..	Princess Doreen	121	2.19 1-5	$12,875
1918..	Rose d'Or	111	2.06 3-5	5,050	1925..	Flo. Nightingale	111	2.17 4-5	13,400
1919	Polka Dot	111	2.20 1-5	7,790	1926..	Edith Cavell	117	2.20 3-5	12,100
1920..	Cleopatra	117	2.18 4-5	4,075	1927..	Nimba	111	2.19 4-5	15,775
1921..	Flambette	112 ½	2.17 2-5	4,850	1928..	Bateau	121	2.24	14,825
1922..	Prudish	111	2.18 2-5	11,700	1929..	Sweet Verbena	114	2.18	16,825
1923..	How Fair	112 ½	2.18 2-5	11,775					

JOCKEY CLUB GOLD CUP (3-YEAR-OLDS AND OVER).

1½ miles in 1920; 2 miles, 1921 and since. Belmont Park, N. Y.

Year.	Winner.	Wght	Time.	Value.	Year.	Winner.	Wght	Time.	Value.
1920..	Man O' War	118	2.28 4-5	$5,850	1925..	Altawood	120	3.24 3-5	$13,050
1921..	Mad Hatter	125	3.22 2-5	12,100	1926..	Crusader	114	3.26	13,300
1922..	Mad Hatter	125	3.22 3-5	12,700	1927..	Chance Play	125	3.23	12,000
1923..	Homestretch	114	3.24 1-5	11,300	1928..	Reigh Count	114	3.23	10,860
1924..	My Play	125	3.25 3-5	14,150	1929..	Diavolo	125	3.24	10,900

JAMAICA.

YOUTHFUL STAKES (2-YEAR-OLDS).

5½ furlongs to and including 1925; 5 furlongs in 1926. Jamaica, Queens County, N. Y.

Year.	Winner.	Wght	Time.	Value.	Year.	Winner.	Wght	Time.	Value
1916..	Tumbler	109	1.07 3-5	$1,925	1923..	Tester	112	1.06	$5,350
1917..	Lucullite	120	1.06 4-5	2,325	1924..	Elf	109	1.05 3-5	5,350
1918..	Lord Brighton	105	1.06 1-5	5,050	1925..	Chance Play	116	1.05 1-5	5,350
1919..	Man o' War	120	1.06 3-5	3,850	1926..	Thrace	117	1.00 2-5	5,350
1920..	Tryster	130	1.07 1-5	5,050	1927..	Ariel	117	0.59	9,300
1921..	Lord Baltimore	116	1.07 1-5	5,350	1928..	Kopeck	112	1.01	10,250
1922..	Bud Lerner	116	1.06 1-5	5,350	1929..	Sarazen II	117	0.59	10,500

Winners before 1916—(1903) Hazelwood; (1913) Gainer (run at Belmont Park); (1915) Paddy Whack.

KINGS COUNTY HANDICAP (3-YEAR-OLDS AND OVER).

¾ mile in 1903; 1⅛ miles, since, except 1⅛ miles in 1913. Jamaica, N. Y.

Year.	Winner.	Wght	Time.	Value.	Year.	Winner.	Wght	Time.	Value.
1913..	Lahore	115	1.51 1-5	$1,500	1922..	Mad Hatter	126	1.46	$5,100
1915..	Stromboli	124	1.48	2,100	1923..	Grey Lag	128	1.44 4-5	4,950
1916..	Capra	98	1.45 3-5	2,925	1924..	Zev	130	1.44	5,700
1917..	Stromboli	124	1.46 3-5	3,475	1925..	Leopardess	104	1.44	5,000
1918..	Cudgel	130	1.46 1-5	3,850	1926..	Mirador	97	1.44 3-5	6,700
1919..	Royce Rools	110	1.45 4-5	4,850	1927..	Navigator	106	1.45 2-5	6,550
1920..	Ormonde	105	1.47 4-5	3,250	1928..	Nassak	114	1.45	5,900
1921..	Mad Hatter	124	1.45	5,150	1929..	Bargello	107	1.44 3-5	7,250

Winners before 1913—(1903) The Musketeer; (1904) Florham Queen; (1905) Rapid Water; (1906) Israfel; (1907) Buttling;(1908) Fause; (1910) Fayette.

EXCELSIOR HANDICAP (3-YEAR-OLDS AND OVER).

1 1-16 miles. Jamaica, N. Y., 1903-1910; Belmont Park, in 1913; Jamaica, N. Y.; 1915 and since.

Year.	Winner.	Wgt.	Time.	Value.	Year.	Winner.	Wgt.	Time.	Value.
1913...	Meridian	120	1.44 3-5	$2,575	1922...	Sennings P'k	115	1.44 4-5	$5,850
1915...	Addie M	97	1.45 4-5	1,925	1923...	Grey Lag	130	1.45	5,850
1916...	Sand Marsh	111	1.46	2,425	1924...	Rialto	115	1.46	5,850
1917...	Roamer	123	1.45 2-5	2,825	1925...	Sting	106	1.42 3-5	5,850
1918...	Geo. Smith	117	1.45 2-5	3,850	1926...	Turf Idol	108	1.45 3-5	6,400
1919...	Naturalist	122	1.45 2-5	3,850	1927...	Amberjack	102	1.44	6,200
1920...	Boniface	117	1.45 1-5	4,850	1928...	Brown Flash	114	1.46 3-5	6,200
1921...	Blazes	118	1.47 1-5	8,550	1929...	Mowlee	115	1.45 1-5	7,200

Winners before 1913—(1903) Blackstock; (1904) Rostand; (1905) Santa Catalina; (1906) Merry Lark; (1907) Dr. Gardner; (1908) McCarter; (1910) Guy Fisher.

Other 1929 Winners at Jamaica—*Wood Memorial Stakes*, ($11,000), Essare; *Colorado Stakes*, Crack Brigade; *Paumonok Handicap*, Mel Foo; *Jamaica Handicap*, Polydor.

SARATOGA.

HOPEFUL STAKES (2-YEAR-OLDS).

¾ mile prior to 1925; 6½ furlongs, 1925 and since. Saratoga, N. Y.

Year.	Winner.	Wght.	Time.	Value.	Year.	Winner.	Wght.	Time.	Value.
1910..	Novelty	130	1.14	$19,140	1921..	Morvich	130	1.12 3-5	$34,900
1913..	Bringhurst	112	1.12 2-5	4,100	1922..	Dunlin	115	1.12 2-5	33,950
1914..	Regret	127	1.16 2-5	9,590	1923..	Diogenes	115	1.12 3-5	46,800
1915..	Dominant	130	1.13 4-5	9,150	1924..	Master Charlie	130	1.13	48,700
1916..	Campfire	130	1.14 3-5	18,850	1925..	Pompey	127	1.17 4-5	42,850
1917..	Sun Briar	130	1.15 3-5	30,600	1926..	Lord Chaucer	115	1.19 4-5	48,850
1918..	Eternal	115	1.13 3-5	30,150	1927..	Brooms	115	1.20	55,740
1919..	Man O' War	130	1.13	24,600	1928..	Jack High	127	1.18 2-5	54,100
1920..	Leonardo II	115	1.12 2-5	33,850	1929..	Boojum	117	1.17	54,750

Winners before 1910—(1903) Delhi; (1904) Tanya; (1905) Mohawk II; (1906) Peter Pan; (1907) Jim Gaffney; (1908) Helmet; (1909) Rocky O'Brien.

Best time at ¾ mile before 1910—1.12 1-5, in 1906-1908.

TRAVERS MIDSUMMER DERBY STAKES (3-YEAR-OLDS).

1¾ miles, 1864-1889; 1½ miles in 1891-1892; 1¼ miles in 1893-1894; 1⅛ miles in 1895; 1¼ miles in 1897 1½ miles in 1901-1903; 1¼ miles, 1904 and since. Saratoga, N. Y.

Year.	Winner.	Wght.	Time.	Value.	Year.	Winner.	Wght.	Time.	Value.
1910..	Dalmatian	129	2.10	$4,825	1921..	Sporting Blood	115	2.05 4-5	$10,550
1913..	Rock View	129	2.06 3-5	2,725	1922..	Little Chief	123	2.13 2-5	11,325
1914..	Roamer	123	2.04	3,000	1923..	Wilderness	120	2.04	13,550
1915..	Lady Rotha	106	2.11 2-5	2,150	1924..	Sun Flag	115	2.04 2-5	14,675
1916..	Spur	129	2.05	3,125	1925..	Dangerous	115	2.10 4-5	13,425
1917..	Omar Khayyam	129	2.08 4-5	5,350	1926..	Mars	123	2.04 3-5	15,050
1918..	Sun Briar	120	2.03 1-5	7,700	1927..	Brown Bud	120	2.05 3-5	29,925
1919..	Hannibal	120	2.02 4-5	9,835	1928..	Petee-Wrack	117	2.08	30,550
1920..	Man O' War	129	2.01 4-5	9,275	1929..	Beacon Hill	117	2.04 1-4	31,825

The 1874 race was a dead heat between Attilla and Acrobat. Attilla won on run-off, 3.08 3-4.

In 1915 Trial by Jury finished first, but was disqualified.

Winners before 1910—(1864) Kentucky; (1865) Maiden; (1866) Merrill; (1867) Ruthless; (1868) Banshee; (1869) Glenleg.

(1870) Kingfisher; (1871) Harry Bassett; (1872) Joe Daniels; (1873) Tom Bowling; (1874) Attila; (1875) D'Artagnan; (1876) Sultana; (1877) Baden Baden; (1878) Duke of Magenta; (1879) Falsetto.

(1880) Grenada; (1881) Hindoo; (1882) Charley B.; (1883) Barnes; (1884) Rataplan; (1885) Bersan; (1886) Inspector B.; (1887) Carey; (1888) Sir Dixon; (1889) Long Dance.

(1890) Sir John; (1891) Vallera; (1892) Azra; (1893) Stowaway; (1894) Henry of Navarre; (1895) Liza; (1897) Rensselaer.

(1901) Blues; (1902) Hermis; (1903) Ada Nay; (1904) Broomstick; (1905) Dandeloin; (1906) Galavant; (1907) Frank Gill; (1908) Dorante; (1909) Hilarious.

Best time at 1¾ miles—3.06, in 1875.

SARATOGA (SWEEPSTAKES) SPECIAL (2-YEAR-OLDS).

5 1-2 furlongs, 1901-1905; 3-4 mile, 1906 and since; Saratoga, N. Y.

Year.	Winner.	Wght.	Time.	Value.	Year.	Winner.	Wght.	Time.	Value.
1910..	Novelty	122	1.14 2-5	$12,250	1921..	Morvich	122	1.12 1-5	$10,500
1913..	Roamer	119	1.13	6,500	1922..	Goshawk	122	1.12 1-5	12,750
1914..	Regret	119	1.11 3-5	5,125	1923..	St. James	122	1.11 3-5	12,750
1915..	Dominant	122	1.16	5,125	1924..	Sunny Man	122	1.12 3-5	13,000
1916..	Campfire	122	1.13 1-5	5,625	1925..	Haste	122	1.12 2-5	12,000
1917..	Sun Briar	122	1.15	11,750	1926..	Chance Shot	122	1.13	15,750
1918..	Hannibal	122	1.16 1-5	11,000	1927..	Ariel	122	1.12 3-5	18,000
1919..	Golden Broom	122	1.12 4-5	8,500	1928..	Blue Larkspur	122	1.13 3-5	16,750
1920..	Tryster	122	1.12 3-5	9,500	1929..	Whichone	122	1.13 4-5	16,500

Winners before 1910—(1901) Goldsmith; (1902) Irish Lad; (1903) Aristocracy; (1904) Sysonby; (1905) Mohawk II; (1906) Salvadore; (1907) Colin; (1901) Sir Martin; (1909) Waldo.

ALABAMA STAKES (3-YEAR-OLDS, FILLIES).

1¼ miles, 1872-1900; 1⅛ miles, 1901-1903; 1⅛ miles in 1904; 1 1-16 miles in 1905; 1⅛ miles, 1906-1916; 1¼ miles, 1917 and since. Saratoga, N. Y.

Year.	Winner.	Wght.	Time.	Value.	Year.	Winner.	Wght.	Time.	Value.
1906..	Running Water	116	1.52 2-5	$3,850	1919..	Vexatious	114	2.04 1-5	$6,575
1907..	Kennyetto	116	1.54 1-5	3,850	1920..	Cleopatra	126	2.09 1-5	7,265
1908..	Mayfield	106	2.01	3,850	1921..	Prudery	124	2.07 4-5	7,275
1909..	Maskette	124	1.59 2-5	3,850	1922..	Nedna	114	2.04 1-5	7,275
1910..	Ocean Bound	124	1.55	3,850	1923..	Untidy	124	2.08	8,050
1913..	Flying Fairy	113	1.56 1-5	1,455	1924..	Priscilla Ruley	117	2.08 4-5	9,925
1914..	Addie M	113	1.54 2-5	1,740	1925..	Maid at Arms	124	2.07	10,625
1915..	Water Blossom	126	2.05 2-5	9,850	1926..	Rapture	124	2.06	9,275
1916..	Malachite	109	1.57 3-5	1,160	1927..	Nimba	124	2.06 4-5	12,925
1917..	Sunbonnet	124	1.54 3-5	1,720	1928..	Nixie	121	2.10 1-5	11,550
1918..	Eyelid	117	2.07	3,850	1929..	Aquastella	121	2.04 4-5	11,775

Stamina finished first in 1908 but was disqualified.

Winners before 1906—(1872) Woodbine; (1873) Minnie W.; (1874) Regardless; (1875) Olitipa; (1876) Merciless; (1877) Susquehanna; (1878) Belle; (1879) Ferida.

(1880) Glidella; (1881) Thora; (1882) Belle of Runnymede; (1883) Miss Woodford; (1884) Tolu; (1885) Ida Hope; (1886) Millie; (1887) Grisette; (1888) Bella B.; (1889) Princess Bowling.

(1890) Sinaloa II; (1891) Sallie McClelland; (1892) Ignite; (1897) Poetess; (1901) Morningside; (1902) Par Excellence; (1903) Stamping Ground; (1904) Baldaine; (1905) Tradition.

Roamer, when 7 years old, carrying 110 lbs., on Aug. 21, 1918, in a race against time, on the Saratoga track, ran 1 mile in 1.34 4-5.

The 1-mile record on that track in a regular race—1.36 1-5—was made by Sun Briar on Aug. 6, 1918; and by Fairy Wand, on Aug. 5, 1919.

SARATOGA.

UNITED STATES HOTEL STAKES (2-YEAR-OLDS).

1½ miles, 1880-1891; 1⅛ miles, 1892-1893; ⅞ mile in 1894; ⅝ mile in 1895; 1 mile in 1897; 1⅛ miles 1898-1899; 5½ furlongs, 1901-1904; ¾ mile, 1905 and since. For 3-year-olds and over in 1894-1895. Saratoga, N. Y.

Year.	Winner.	Wght	Time.	Value.	Year.	Winner.	Wght	Time.	Value.
1910..	Nausnon	122	1.14	$8,240	1921..	Morvich	125	1.11 1-5	$9,075
1913..	Old Rosebud	125	1.13 2-5	2,475	1922..	Martingale	130	1.15	10,075
1914..	Garbage	107	1.12 2-5	3,690	1923..	St. James	113½	1.12 3-5	10,125
1915..	Dominant	108	1.13 2-5	3,900	1924..	Sunny Man	125	1.13	10,225
1916..	Deer Trap	110	1.14	5,850	1925..	Pompey	125	1.16 3-5	10,650
1917..	Papp	130	1.14 2-5	8,975	1926..	Scapa Flow	112	1.14 2-5	11,525
1918..	Billy Kelly	127	1.12 2-5	8,825	1927..	Nassak	115	1.12 2-5	13,250
1919..	Man o' War	130	1.12 2-5	7,600	1928..	Cornstockery	118	1.13	13,275
1920..	Nancy Lee	119	1.11 4-5	7,900	1929..	Caruso	122	1.12	14,000

Winners before 1910—(1880) Luke Blackburn; (1881) Hindoo; (1882) Frankie B; (1883) Drake Carter; (1884) Kosciusko; (1885) Favor; (1886); Inspector B.; (1887) Hanover; (1888) Ballston; (1889) Retrieve.

(1890) Sinaloa II; (1891) Bermuda; (1892) Copyright; (1893) Deception; (1894) Pacemaker; (1895) Axiom; (1897) Braw Lad; (1898) Geo. Keene; (1899) Kinley Mack.

(1901) Masterman; (1902) Skilful; (1903) Montreson; (1904) Woodsaw; (1905) Burgomaster; (1906) De Mund; (1907) Restigouche; (1908) Hilarious; (1909) Grasmere.

GRAND UNION HOTEL STAKES (2-YEAR-OLDS).

3-4 mile, Saratoga, N. Y.

Year.	Winner.	Wght	Time.	Value.	Year.	Winner.	Wght	Time.	Value.
1910..	Iron Mask	114	1.12 4-5	$8,040	1921..	Kai Sang	127	1.12 3-5	$9,050
1913..	Black Broom	107	1.13 1-5	2,440	1922..	Zev	115	1.15	9,775
1914..	Garbage	127	1.13 3-5	3,985	1923..	Big Blaze	112	1.11 2-5	9,700
1915..	Puss in Boots	104	1.13 3-5	4,100	1924..	Sunsard	112	1.15 4-5	10,000
1916..	Hourless	125	1.12 3-5	5,850	1925..	Haste	125	1.12 1-5	10,000
1917..	Sun Briar	130	1.16 2-5	8,550	1926..	Kiev	115	1.13	12,000
1918..	Sweep On	127	1.12 2-5	8,525	1927..	Vito	115	1.13	13,200
1919..	Man o' War	130	1.12	7,600	1928..	Twink	122	1.16	12,025
1920..	Prudery	127	1.12	7,600	1929..	Jim Dandy	118	1.15 4-5	13,725

Winners before 1910—(1901) King Hanover; (1902) Grey Friar; (1903) Highball; (1904) Siglight; (1905) Battleaxe; (1906) Penarris; (1907) Colin; (1908) Edward; (1909) Chickasaw.

Best time at ¾ mile before 1910—1.13, in 1902, and 1907.

SARATOGA CUP (3-YEAR-OLDS AND OVER.)

2¼ miles, 1865-1886; 2 miles, 1891; 1⅛ miles, 1902-1920; 1¼ miles, 1921 and since; Saratoga, N. Y.

Year.	Winner.	Wght	Time.	Value.	Year.	Winner.	Wght	Time.	Value.
1910..	Countless	113	2.58 3-5	$4,100	1921..	Exterminator	126	3.04 3-5	$5,000
1913..	Sam Jackson	124	3.08 2-5	1,650	1922..	Exterminator	126	3.00 2-5	5,525
1914..	Star Gaze	126	3.10	2,175	1923..	My Own	116	2.57 1-5	6,850
1915..	Roamer	123	3.01 4-5	2,225	1924..	Mr. Mutt	116	3.00 3-5	8,300
1916..	Friar Rock	113	3.03	2,375	1925..	Mad Play	126	2.59 2-5	7,150
1917..	Omar Khayyam	113	3.07 4-5	5,050	1926..	Espino	116	3.00 2-5	7,650
1918..	Johren	113	3.02 1-5	5,250	1927..	Chance Play	126	3.03 3-5	7,100
1919..	Exterminator	126	2.58	5,350	1928..	Reigh Count	118	2.55	6,500
1920..	Exterminator	126	2.56 2-5	4,950	1929..	Diavolo	126	2.58	7,350

Winners before 1910—(1865) (1866) Kentucky; (1867) Muggins; (1868) Lancaster; (1869) Bayonet.

(1870) Helmbold; (1871) Longfellow; (1872) Harry Bassett; (1873) Joe Daniels; (1874) Springbok; (1875) Springbok and Preakness); (1876) Tom Ochiltree; (1877) (1878) Parole; (1879) Bramble.

(1880) Long Taw; (1881) Checkmate; (1882) Thora; (1883) (1884) Gen. Monroe; (1885) Bob Miles; (1886) Volante.

(1891) Los Angeles; (1901) Blues; (1902) Advance Guard; (1903) Africander; (1904) Beldame; (1905) Caughnawaga; (1906) Go Between; (1907) Running Water; (1909) Olambala.

Best time at 2¼ miles—3.56¼, in 1875.

Other 1929 Winners at Saratoga—*Flash Stakes*, Gallant Fox; *Saratoga Handicap*, Diavolo; *The Miller*, Marine; *The Whitney*, Bateau; *Spinaway*, Goose Egg; *Sanford Stakes*, Hi-Jack; *Adirondack Handicap*, War Saint; *Albany Handicap*, Pete; *The Troy*, Cowlitz; *Grab Bag Handicap*, Caruso; *Huron Handicap*, The Nut; *Consolation Claiming*, Gregory; *Merchants and Citizens Handicap*, Petee-Wrack; *Steeplechase Handicap, Huffy.*

INTERNATIONAL RACES.

AT BELMONT PARK, NEW YORK—1½ MILES—3-YEAR-OLDS.

Year.	Winner.	Time.	Second Horse.	Value.	Remarks.
1923	Zev	2.35 2-5	Papyrus	$80,600	No third horse. E. Sande rode Zev.

BELMONT PARK, NEW YORK—¾ MILE—3-YEAR-OLDS AND OVER.

1924	Wise Counsellor	1.11 4-5	Epinard	29,000	F. Keogh rode winner. Ladkin ran third.

AQUEDUCT, NEW YORK—1-MILE—3-YEAR-OLDS AND OVER.

1924	Ladkin	1.36 2-5	Epinard	28,750	C. Kummer rode Ladkin. Wise Counsellor ran third.

LATONIA, KY.—1¼ MILES—3-YEAR-OLDS AND OVER.

1924	Sarazen	2.00 4-5	Epinard	55,000	G. Babin rode winner. Mad Play was third.

AQUEDUCT.

DWYER STAKES (3-YEAR-OLDS). BROOKLYN DERBY 1887-1917.

1¼ miles in 1887; 1¼ miles, 1888-1897; 1½ miles, 1898-1909; 1¼ miles, 1910-1914; 1⅛ miles, 1915-1924; 1 5-16 miles in 1925. 1½ miles, 1926 and since. Gravesend, 1887-1910; Belmont Park, in 1913; Aqueduct, N.Y. 1914 and since. Run as Brooklyn Derby before 1918.

Year.	Winner.	Wght	Time.	Value.	Year.	Winner.	Wght	Time.	Value.
1914	Roamer	117	2.05 3-5	$2,300	1922	Ray Jay	117	1.52 3-5	$7,300
1915	Norse King	111	1.54	2,275	1923	Dunlin	123	1.51 1-5	7,150
1916	Chicle	116	1.51 3-5	2,950	1924	Ladkin	123	1.49 4-5	7,750
1917	Omar Khayyam	125	1.54 1-5	3,850	1925	American Flag	126	2.10 3-5	7,500
1918	War Cloud	124	1.50 1-5	4,850	1926	Crusader	123	2.29 3-5	15,000
1919	Purchase	118	1.52 3-5	4,850	1927	Kentucky II	108	2.31 4-5	18,500
1920	Man o' War	126	1.49 1-5	4,850	1928	Genie	110	2.31 3-5	19,600
1921	Grey Lag	123	1.49	7,100	1929	Grey Coat	117	2.34	19,450

Winners prior to 1914—(1887) Hanover; (1888) Emperor of Norfolk; (1889) Cynosure.

(1890) Burlington; (1891) Russell; (1892) Patron; (1893) Rainbow; (1894) Tobbins; (1895) Keeman; (1896) Handspring; (1897) Octagon; (1898) The Huguenot; (1899) Ahom.

(1900) Petruchio; (1901) Bonnibert; (1902) Maj. Daingerfield; (1905) Whorler; (1904) Bryn Mawr; (1905) Cavingorm; (1906) Belmere; (1907) Peter Pan (1908) Fair Play; (1909) Joe Madden. (1910) Talmatian; (1913) Rock View.

BROOKLYN HANDICAP (3-YEAR-OLDS AND OVER).

1¼ miles, 1887-1914; 1½ miles, 1915 and since.
Gravesend, N. Y., 1887-1910; Belmont Park, N. Y., 1913; Aqueduct, N. Y., 1914 and since.

Year.	Winner.	Wght	Time.	Value.	Year.	Winner.	Wght	Time.	Value.
1914	Buckhorn	113	2 08	$3,750	1922	Exterminator	135	1.50	$7,600
1915	Tartar	103	1.50 3-5	3,850	1923	Little Chief	114	1.50	7,600
1916	Friar Rock	108	1 50	3,850	1924	Hephaistos	106	1.50 4-5	7,600
1917	Borrow	117	1.49 2-5	4,850	1925	Mad Play	123	1.50	7,600
1918	Cudgel	129	1.50 1-5	4,850	1926	Single Foot	110	1.50 2-5	11,950
1919	Eternal	105	1.49 4-5	5,000	1927	Peanuts	112	1.48 4-5	13,150
1920	Cirrus	108	1.50	5,850	1928	Black Panther	105	1.51 1-5	13,750
1921	Grey Lag	110	1.49 4-5	7,600	1929	Light Carbine	97	1.50 3-5	14,300

Winners before 1914—(1887) Dry Monopole; (1888) The Bard; (1889) Exile.

(1890) Castaway II; (1891) Tenny; (1892) Judge Morrow; (1893) Diablo; (1894) Dr. Rice; (1895) Hornpipe; (1896) Sir Walter; (1897) Howard Mann; (1898) Ornament; (1899) Bannastar.

(1900) Kinley Mack; (1901) Conroy; (1902) Reina; (1903) Irish Lad; (1904) The Picket; (1905) Delhi; (1903) Irish Lad; (1904) The Picket; (1905) Delhi (1906) Tokalon; (1907) Superman; (1908) Celt; (1909) King James; (1910) Fitz Herbert; (1913) Whisk Broom.

GREAT AMERICAN STAKES (2-YEAR-OLDS).

⅞ mile, Aqueduct, 1889-1910; Belmont Park, 1913; Aqueduct, 1914 and since.

Year.	Winner.	Wght	Time.	Value.	Year.	Winner.	Wght	Time.	Value.
1914	Lady Barbary	109	1 01 3-5	$1,925	1922	Goshawk	115	.59 1-5	$7,600
1915	Ormesdale	120	1.01 4-5	2,325	1923	Rustic	112	.58 4-5	7,600
1916	Campfire	112	1.00	3,900	1924	Swope	114	1.00 2-5	7,600
1917	Sir Briar	112	1 01 2-5	5,250	1925	Navigator	122	1.00	7,600
1918	Donboyne	115	.59 2-5	6,600	1926	Pantella	112	0.59 4-5	13,050
1919	Bonnie Mary	127	.58 2-5	5,050	1927	Dice	130	1.00	12,950
1920	Touch Me Not	112	.59 1-5	6,600	1928	Soul of Honor	115	0.59 2-5	13,800
1921	Broomster	115	.59 3-5	7,600	1929	Grattan	125	1.00	15,650

Winners before 1914—(1889) St. Carlo; (1890) Russell; 1891, St. Florian; (1892) Sir Walter; (1892) Domino (1894) Waltzer; (1895) Applegate; (1896) Gee Kessler; 1897, Previous; (1898) Jean Bereaud; (1899) Vulcain.

(1900) Prince Charles; (1901) Blue Girl; (1902) Dalesman; (1905) Broomstick; (1904) Song and Wine; (1905) Burgomaster; (1906) Water Pearl; (1907) Cohert; (1908) Sir Martin; (1909) Starbottle; (1910 Babbler; (1913) Gainer.

Best time at ⅞ miles before 1914 — 0.59 3-5, in 1913.

TREMONT STAKES (2-YEAR-OLDS).

⅞ mile. Gravesend, N. Y., 1901-1913; Aqueduct, N. Y., 1914 and since.

Year.	Winner.	Wght.	Time.	Value.	Year.	Winner.	Wght.	Time.	Value.
1914	Ed Crump	115	1.15 1-5	$1,925	1922	Martingale	115	1.12 2-5	$7,600
1915	Tea Caddy	107	1.15	2,325	1923	Transmute	125	1.12 3-5	7,600
1916	Ticket	107	1.13 2-5	3,900	1924	YoungMartin	115	1.13 4-5	7,600
1917	Gold Tassel	112	1.13 2-5	5,250	1925	Flight of Time	115	1.13	7,600
1918	Lord Brighton	125	1.12 4-5	5,800	1926	Draconis	125	1.12 4-5	11,300
1919	Man o' War	130	1.13	4,800	1927	Diavolo	115	1.12 1-5	11,200
1920	Inchcape	115	1.12	5,400	1928	Jack High	110	1.13	12,050
1921	Olympus	112	1.13 3-5	7,600	1929	Sarazen II	125	1.14 4-5	13,550

Winners before 1914—(1887) Guarantee; (1888) Oregon; (1889) Padisha.

(1890) Chatham; (1891) Spinalong; (1892) Don Alonzo (1893) Dobbins; (1894) Gotham; (1895) Handspring, (1896) Don de Oro; (1897) Handball; (1898) Jean Bereaud; (1899) Marlbert.

(1900) Blues; (1901) Whiskey King; (1902) Artvis; (1903) Magistrate; (1904) Merry Larks; (1905) Bohemian; (1906) Water Pearl; (1907) King James; (1908) Fayette; (1909) Waldo; (1910) Footprint.

Best time before 1914—1.09 3-5, in 1908.

Other 1929 Winners at Aqueduct—*Carter Handicap*, Osmand (won also in 1928); *Brookdale Handicap*, Diavolo; *Glendale Steeple*, Arc Light; *Clover Stakes*, Murky Cloud; *Queen's County Handicap*, Comstockery; *Shevlin Stakes*, Jack High; *Edgemere Handicap*, Distraction; *Bay Shore Handicap*, Distraction; *Oakdale Claiming*, Martis; *Babylon Handicap*, Flying Gal; *Arverne Handicap*, Nusa Kan.

EMPIRE CITY.

EMPIRE CITY DERBY (3-YEAR-OLDS).

1⅛ miles, 1917-1920; 1¼ miles, 1921 and since. Empire City, Westchester County, N. Y.

Year.	Winner.	Wght	Time.	Value.	Year.	Winner.	Wght	Time.	Value.
1917..	Rickety	117	1.52 1-5	$3,850	1924..	Ordinance	130	2.06 1-5	$7,650
1918..	Jack Hare, Jr.	122	1.53 2-5	3,850	1925..	Silver Fox	126	2.06 4-5	6,750
1919	Purchase	130	1.56 2-5	3,850	1926..	Blondin	126	2.06 1-5	7,050
1920..	Wildair	125	1.53 1-5	4,650	1927..	Bois de Rose	116	2.08	7,000
1921..	Grey Leg	129	2.07 1-5	6,500	1928..	Genie	129	2.10	7,550
1922..	Hephaistos	110	2.07	6,550	1929..	Healy	121	2.05 4-5	6,400
1923..	Pettifogger	107	2.05 2-5	7,600					

EMPIRE CITY HANDICAP (3-YEAR-OLDS AND OVER).

1¼ miles in 1900; 1½ miles 1907-1922; 1¼ miles 1923 and since. Empire City, N. Y., except 1915, when run at Belmont Park.

Year.	Winner.	Wght	Time.	Value.	Year.	Winner.	Wght	Time.	Value.
1910..	Dalmatian	118	1.51	$4,850	1922..	Grey Lag	132	1.54	$6,550
1914..	Buckhorn	120	1.54	3,200	1923..	Tryster	115	2.05 2-5	6,400
1915..	Gainer	109	1.51 3-5	2,775	1924..	Sting	98	2.03	8,100
1916..	Short Grass	127	1.51 1-5	3,500	1925..	Mad Play	129	2.08	7,100
1917..	Spur	112	1.56 3-5	3,850	1926..	Peanuts	112	2.05	6.550
1918..	Roamer	128	1.51	3,850	1927..	Peanuts	124	2.06	6,000
1919..	Lanius	115	1.51 4-5	3,850	1928..	Recreation	100	2.08 2-5	6,150
1920..	Naturalist	117	1.53	4,650	1929..	Sun Edwin	118	2.05 3-5	6,350
1921..	Yellow Hand	115	1.51	7,000					

Winners before 1910—(1900) Charentus; (1907) Prince Ahmed; (1908) Pinkola; (1909) Maltbie.

Other 1929 Winners at Empire City—*East View Stakes*, Mokatam; *Whirl Stakes*, Mokatam; *Mt. Vernon Handicap*, Light Carbine; *Yonkers Handicap*, Distraction.: *New Rochelle*, Stormy Dawn.

HAVRE DE GRACE.

EASTERN SHORE HANDICAP (2-YEAR-OLDS).

5½ furlongs, 1913-1915; ¾ mile, 1916 and since. Havre de Grace, Md.

Year.	Winner.	Wght	Time.	Value.	Year.	Winner.	Wght	Time.	Value.
1916..	Hourless	127	1.14	$4,050	1923..	Lord Balto II	114	1.13 1-5	$7,700
1917..	Tippity Witchet	118	1.06 2-5	1,610	1924..	Single Foot	122	1.13	9,650
1918..	Billy Kelly	135	1.15 3-5	1,300	1925..	Conter	122	1.12 4-5	15,175
1919..	Constancy	122	1.12 2-5	7,400	1926..	Osmand	123	1.13	15,275
1920..	Careful	124	1.13 1-5	7,000	1927..	Happy Time	117	1.12 2-5	22,550
1921..	Morvich	130	1.13 2-5	7,100	1928..	Neddie	116	1.13	24,400
1922..	Bluemont	106	1.15	7,900	1929..	Dedicate	121	1.13	24,250

Winners before 1916—(1913) Tranid; (1914); Gaelic; (1915) Slipsod.

Best time at 5½ furlongs—1.07, in 1913.

POTOMAC HANDICAP (3-YEAR-OLDS).

1⅛ miles. Havre de Grace, Md.

Year.	Winner.	Wght	Time.	Value.	Year.	Winner.	Wght	Time.	Value.
1919..	Sir Barton	132	1.46 2-5	$6,900	1925..	Senalado	116	1.46 1-5	$12,975
1920..	Man o' War	138	1.44 4-5	6,800	1926..	Chance Play	123	1.47	13,250
1921..	Tryster	127	1.46 2-5	7,300	1927..	Jock	112	1.44 3-5	19,350
1922..	Lucky Hour	122	1.46 3-5	7,000	1928..	Sun Beau	114	1.46	18,500
1923..	Dunlin	114	1.49	6,900	1929..	Rose of Sharon	119	1.46 3-5	20,000
1924..	Donaghee	108	1.46 1-5	8,025					

HAVRE DE GRACE CUP HANDICAP (3-YEAR-OLDS AND OVER).

1⅛ miles, except in 1918 when it was 1 mile and 70 yards. Havre de Grace, Md.

Year.	Winner.	Wght	Time.	Value.	Year.	Winner.	Wght	Time.	Value.
1912..	Adams Express	119	1.54	$1,530	1921..	Capt. Alcock	115	1.52 2-5	$15,500
1913..	Nightstick	106	1.53	1,580	1922..	Bunting	120	1.53 3-5	7,200
1914..	Robt. Bradley	110	1.53	1,400	1923..	Enchantment	118	1.50 4-5	7,000
1915..	Roamer	129	1.51 1-5	1,495	1924..	Valador	102	1.51	8,475
1916..	Finn	129	1.52 1-5	3,125	1925..	Senalado	113	1.52 4-5	13,750
1917..	Omar Khayyam	126	1.53	2,550	1926..	Crusader	122	1.50	14,250
1918..	Slippery Elm	104	1.44	1,380	1927..	Chance Play	124	1.52	19,150
1919..	Cudgel	129	1.50	7,200	1928..	Osmand	121	1.53 4-5	19,500
1920..	Porter	129	1.54	6,800	1929..	Sun Beau	117	1.55 3-5	19,600

ABERDEEN STAKES (2-YEAR-OLDS).

4½ furlongs; Havre de Grace, Md.

Year.	Winner.	Wght	Time.	Value.	Year.	Winner.	Wght	Time.	Value.
1913..	Enver Bey	109	0.55	$1,450	1922..	Woodland	113	0.54 2-5	$3,400
1914..	Jesse jr.	104	0.55	1,210	1923..	June Flower	119	0.54 3-5	3,510
1915..	Geo. Smith	108	0.53 4-5	1,110	1924..	Single Foot	116	0.53	3,410
1916..	None Such	108	0.54 4-5	1,135	1925..	Rock Man	116	0.53	9,825
1917..	Tippity Witchet	113	0.54 3-5	1,430	1926..	Club Steak	113	0.54 2-5	11,050
1918..	Ormonda	107	0.55 2-5	1,595	1927..	Rose Eternal	113	0.54 1-5	10,875
1919..	Paul Jones	109	0.55 3-5	892	1928..	Click	116	0.55 2-5	9,725
1920..	Careful	119	0.54 2-5	3,550	1929..	Good as Gold	113	0.54	9,600
1921..	St. Maurice	119	0.53 2-5	3,650					

Other 1929 Havre de Grace Winners—*Harford Handicap*, Petee Wrack; *Jenning's Handicap*, *Handicap*, My Sis; *Chesapeake Stakes*, Voltear; *Philadelphia Handicap*, Boba Shela.

LAUREL.

WASHINGTON HANDICAP (3-YEAR-OLDS AND OVER). 1¼ miles. Laurel, Md.

Year.	Winner.	Wght	Time.	Value.	Year.	Winner.	Wght	Time.	Value.
1911..	S. J. Johnson	116	1.55 2-5	$2,460	1922..	Oceanic	104	2.04 4-5	$23,470
1912..	Manager	124	1.51 4-5	2,290	1923..	Rialto	109	2.04	24,250
1913..	Lahore	112	1.54	2,860	1924..	Big Blaze	105	2.04 1-5	26,200
1914..	Roamer	124	1.49 3-5	1,970	1925..	Joy Smoke	112	2.09 4-5	25,200
1915..	Gainer	104	2.04 3-5	1,930	1926..	Mars	118	2.03	24,150
1916..	Boots	122	1.51 1-5	2,010	1927..	Display	112	2.02 2-5	26,200
1917..	King Neptune	95	1.59 1-5	1,950	1928..	Mike Hall	124	2.03 3-5	27,150
1918..	Midway	111½	1.51 2-5	$1,950	1929..	Sun Beau	125	2.02 4-5	26,100

The Washington Handicap was run 1911-1918 at 1⅛ miles.

MARYLAND HANDICAP (3-YEAR-OLDS). 1¼ miles. Laurel, Md.

Year.	Winner.	Wght	Time.	Value.	Year.	Winner.	Wght	Time.	Value.
1914..	Last Coin	123	1.12 3-5	$2,370	1923..	My Own	126	2.02 3-5	8,850
1915..	Dodge	116	1.15	2,520	1924..	Sarazen	126	2.02 2-5	8,925
1916..	Kohinoor	109	1.13 2-5	2,770	1925..	Maid-at-Arms	113	2.07 3-5	8,900
1917..	Tippity Witchet	122	1.16	2,525	1926..	Crusader	126	2.05 2-5	8,850
1919..	Sir Barton	133	2.02 2-5	7,750	1927..	Brown Bud	123	2.03 4-5	16,100
1920..	Blazes	110	2.03 3-5	7,500	1928..	Sun Beau	116	2.05 1-5	16,050
1921..	Copper Demon	113	2.04 1-5	8,250	1929..	Vanity	104	2.03	16,800
1922..	Bunting	125	2.04 4-5	$8,325					

The Maryland Handicap was run 1914-1917 for 2-year-olds at ¾ mile.

MANOR (SPALDING LOWE JENKINS, 1928) HANDICAP (2-YEAR OLDS).
1 mile. Laurel, Md.

Year.	Winner.	Wght	Time.	Value.	Year.	Winner.	Wght	Time.	Value.
1919..	On Watch	120	1.40	$2,500	1925..	Crusader	116	1.41 4-5	11,100
1920..	By Jiminy	111	1.43	3,850	1926..	Adios	116	1.41 1-5	12,225
1921..	Missionary	106	1.41 2-5	4,600	1927..	Eugene S.	105	1.39	11,825
1922..	Cherry Pie	116	1.41	6,340	1928..	Twink	120	1.39 4-5	12,750
1923..	Big Blaze	116	1.41	6,180	1929..	Sun Craig	107	1.40 2-5	12,500
1924..	American Flag	117	1.40	$9,225					

LAUREL STAKES (ALL AGES).
¾ mile, 1914-1918; 1 mile, 1919 and since. Laurel, Md.

Year.	Winner.	Wght	Time.	Value.	Year.	Winner.	Wght	Time.	Value.
1914..	Last Coin	107	1.12 2-5	$1,540	1922..	Exterminator	132	1.40	$10,070
1915..	Back Bay	103	1.17	1,395	1923..	Dunlin	120	1.41 2-5	9,675
1916..	Leochares	127	1.12 1-5	1,385	1924..	Wise Counsellor	120	1.38 2-5	10,225
1917..	Westy Hogan	125	1.13 2-5	1,975	1925..	Single Foot	110	1.41 3-5	9,975
1918..	Lathleen	118	1.13	1,675	1926..	Croyden	107½	1.38	10,850
1919..	Porter	123	1.41	6,000	1927..	Osmand	115	1.38 1-5	10,700
1920..	Blazes	120	1.40	7,750	1928..	Osmand	123	1.38 4-5	11,150
1921..	Careful	115	1.40	8,750	1929..	Curate	108	1.38	10,425

Run 1914-1923 as Laurel Handicap.

Other 1929 Winners at Laurel—*Selima Stakes*, Khara; *Capitol Handicap*, Finite; *Richard Johnson Stakes*, Caruso; *Gov. Ogle Steeple*, Briguell.

TIA JUANA.

COFFROTH HANDICAP (3-YEAR-OLDS AND OVER).
1¼ miles; Tia Juana, Mexico.

Year.	Winner.	Wght	Time.	Value.	Year.	Winner.	Wght	Time.	Value.
1917..	Sasin	115	2.22	$4,000	1925..	Atherstone	104	2.07 2-5	$56,425
1921..	Be Frank	131	2.05 3-5	14,775	1926..	Carlaris	100	2.02 3-5	70,700
1922..	Mulciber	113	2.06 2-5	15,000	1927..	Sir Harry	103	2.03 2-5	85,500
1923..	Rebuke	104	2.06 1-5	29,475	1928..	Crystal Pennant	100	2.05	92,700
1924..	Runstar	123	2.05 2-5	43,650	1929..	Golden Prince	112	2.02 3-5	98,250

TIA JUANA DERBY (3-YEAR-OLDS).
1¼ miles; Tia Juana, Mexico.

Year.	Winner.	Wght	Time.	Value.	Year.	Winner.	Wght	Time.	Value.
1921..	Crack o' Dawn	116	1.52 4-5	$4,000	1926..	Carlaris	116	1.49 4-5	23,775
1922..	Wedding Prince	116	1.56 4-5	4,000	1927..	Justice F.	119	1.54 1-5	29,000
1923..	Blanc Seing	122	1.52 1-5	6,325	1928..	Doctor Wilson	122	1.56 4-5	30,300
1924..	Deep Thought	122	1.54	12,050	1929..	Naishatur	115	1.51	30,100
1925..	Hedgefence	116	1.53 3-5	$17,050					

TIA JUANA CUP (3-YEAR-OLDS AND OVER).
2 miles. Tia Juana, Mexico.

Year.	Winner.	Wght	Time.	Value.	Year.	Winner.	Wght	Time.	Value.
1921..	Sailor	107	3.28 1-5	$3,900	1926..	All Over	93	3.29	11,350
1922..	East Indian	108	3.29	4,000	1927..	Backbone	115	3.23 1-5	11,000
1923..	Lighter	102	3.28 2-5	6,525	1928..	Handy Mandy	113	3.25 2-5	11,450
1924..	Little Chief	125	3.24	11,600	1929..	Scimitar	106	3.25 2-5	11,250
1925..	Sunspero	118	3.27 3-5	$10,300					

The 1928 **Tia Juana Futurity** was won by Spooky; 115 lbs.; time, 1.00 2-5; distance, 5 fur., won, $10,540.

LOUISVILLE (CHURCHILL DOWNS).

The American Turf Association, which in Jan., 1929, voted to increase its capital to $15,000,000, owns the running tracks at Churchill Downs, Latonia, and Lexington, in Kentucky; and at Lincoln Fields; Washington Park, and Fairmont, in Illinois.

KENTUCKY DERBY (3-YEAR-OLDS).

1½ miles, 1875-1895; 1¼ miles, 1896 and since; Churchill Downs, Louisville, Ky.

YEAR.	Winner.	Wght	Time.	Value.	YEAR.	Winner.	Wght	Time.	Value.
1910..	Donau	117	2.06 2-5	$4,850	1920..	Paul Jones	126	2.09	$30,375
1911..	Meridian	117	2.05	4,850	1921..	Behave Yourself	126	2.04 1-5	38,450
1912..	Worth	117	2.09 2-5	4,850	1922..	Morvich	126	2.04 3-5	46,775
1913..	Donerail	117	2.04 4-5	5,475	1923..	Zev	126	2.05 2-5	53,625
1914..	Old Rosebud	114	2.03 2-5	9,125	1924..	Black Gold	126	2.05 1-5	52,775
1915..	Regret	112	2.05 2-5	11,450	1925..	Flying Ebony	126	2.07 3-5	52,950
1916..	George Smith	117	2.04	9,750	1926..	Bubbling Over	126	2.03 4-5	50,075
1917..	Omar Khayyam	117	2.04 3-5	16,600	1927..	Whiskery	126	2.06	51,000
1918..	Exterminator	114	2.10 4-5	14,700	1928..	Reigh Count	126	2.10 2-5	55,375
1919..	Sir Barton	112½	2.09 4-5	20,825	1929..	Clyde Van Dusen	126	2.10 4-5	53,950

Winners before 1910—(1875) Aristides; (1876) Vagrant; (1877) Baden Baden; (1878) Day Star; (1879) Lord Murphy.

(1880) Fonso; (1881) Hindoo; (1882) Apollo; (1883) Leonatus; (1884) Buchanan; (1885) Joe Cotton; (1886) Ben Ali; (1887) Montrose; (1888) Macbeth II; (1889) Spokane.

(1890) Riley; (1891) Kingman; (1892) Azra; (1893) Lookout; (1894) Chant; (1895) Halma; (1896) Ben Brush; (1897) Typhoon II; (1898) Plaudit; (1899) Manuel.

(1900) Lieut. Gibson; (1901) His Eminence; (1902) Alan-a-Dale; (1903) Judge Himes; (1904) Elwood; (1905) Agile; (1906) Sir Huon; (1907) Pink Star; (1908) Stone Street; (1909) Wintergreen.

KENTUCKY JOCKEY CLUB STAKES (2-YEAR-OLDS.) 1 MILE.

Year.	Winner.	Wght	Time.	Value.	Year.	Winner.	Wght	Time.	Value.
1920..	Tryster	122	1.38 2-5	$23,695	1925..	Canter	122	1.41	$23,315
1921..	Startle	119	1.38 3-5	22,175	1926..	Valorous	122	1.42 3-5	26,785
1922..	Enchantment	122	1.38 4-5	25,315	1927..	Reigh Count	122	1.40	28,480
1923..	Wise Counsellor	122	1.37 2-5	26,990	1928..	Clyde Van Dusen	122	1.38 4-5	32,800
1924..	Master Charlie	122	1.38 1-5	26,010	1929..	Desert Light	122	1.39	26,865

CLARK HANDICAP (3-YEAR-OLDS AND OVER).

2 miles, 1875-1880; 1¼ miles, 1881-1895; 1⅛ miles, 1896-1901; 1 1-16 miles, 1902-1921; 1⅛ miles, 1922-1924; 1 1-16 miles, 1925 and since. Churchill Downs, Louisville, Ky. Run as Clark Stakes, 1875-1901.

Year.	Winner.	Wght	Time.	Value.	Year.	Winner.	Wght	Time.	Value.
1910..	King's Daughter	124	1.45 3-5	$1,600	1920..	Boniface	121	1.45 4-5	$10,360
1911..	Star Charter	105	1.47 4-5	1,990	1921..	Ginger	112	1.45	9,495
1912..	Adams Express	122	1.45 1-5	1,620	1922..	Exterminator	133	1.50	11,375
1913..	Buckhorn	122	1.48 1-5	2,080	1923..	Audacious	120	1.54 3-5	11,200
1914..	Belloc	95	1.45	2,510	1924..	Chilhowee	100	1.54 2-5	11,200
1915..	Hodge	108	1.44 3-5	2,380	1925..	Spic and Span	103	1.47 3-5	12,000
1916..	Hodge	120	1.45 2-5	2,520	1926..	San Utar	114	1.46 2-5	13,750
1917..	Old Rosebud	117	1.45 1-5	2,230	1927..	Helen's Babe	113	1.46	12,325
1918..	Beaverkill	104	1.48 1-5	2,380	1928..	Jock	122	1.45	10,925
1919..	Midway	117	1.46 3-5	4,360	1929..	Martin Flynn	113	1.46 3-5	10,975

Winners before 1910—(1875) Voltigeur; (1876) Creedmoor; (1877) McWhirter; (1878) Leveller; (1879) Falsetto.

(1880) Kinkead; (1881) Hindoo; (1882) Runnymede; (1883) Ascender; (1884) Buchanan; (1885) Bersau; (1886) Blue Wing; (1887) Jim Gore; (1888) Gollifet; (1889) Spokane.

(1890) Riley; (1891) High Tariff; (1892) Azra; (1893) Boundless; (1894) Chant; (1895) Halma; (1896) Ben Eder; (1897) Ornament; (1898) Plaudit; (1899) Corsini.

(1900) Lieut. Gibson; (1901) His Eminence; (1902) Death; (1903) Love's Labor; (1904) Colonial Girl; (1905) Batts; (1906) Hyperion II; (1907) The Minks; (1908) Polly Prim; (1909) Miami.

GRAINGER MEMORIAL HANDICAP (3-YEAR-OLDS AND OVER). 1¼ MILES.

Year.	Winner.	Wght	Time.	Value.	Year.	Winner.	Wght	Time.	Value.
1913..	Rudolfo	119	2.05 4-5	$12,150	1922..	Exterminator	138	2.04 2-5	9,950
1914..	Luke McLuke	100	2.02 4-5	11,500	1923..	Cherry Tree	102	2.03 3-5	11,450
1915..	Borrow	126	2.10 2-5	11,700	1924..	Modest	101	2.03 4-5	12,025
1916..	Ed Crump	121	2.04 3-5	11,650	1925..	King Nadi	102	2.04 1-5	10,750
1917..	King Gorin	108	2.04 1-5	12,200	1926..	King Nadi	119	2.04 3-5	11,550
1918..	Cudgel	132	2.03	12,000	1927..	Flat Iron	115	2.04	11,000
1919..	Midway	122	2.10 2-5	11,300	1928..	Royal Julian	109	2.07 2-5	10,375
1920..	King Gorin	122	2.04 1-5	12,375	1929..	Toro	126	2.05	9,200
1921..	Woodtrap	106	2.03 1-5	$12,350					

KENTUCKY OAKS (3-YEAR-OLDS, FILLIES).

1⅛ miles, 1875-1890; 1¼ miles, 1891-1895; 1⅛ miles, 1896-1919.

Year.	Winner.	Wght	Time.	Value.	Year.	Winner.	Wght	Time.	Value.
1910..	Samaria	112	1.50 1-5	$1,910	1920..	Lorraine	116	1.58 2-5	$5,470
1911..	Bettie Sue	112	1.48	1,910	1921..	Nancy Lee	116	1.50 2-5	8,980
1912..	Flamma	112	1.51 1-5	1,910	1922..	Startle	116	1.52 3-5	9,920
1913..	Cream	112	1.47 3-5	1,950	1923..	Untidy	116	1.53	10,060
1914..	Bronze Wing	117	1.45 3-5	2,320	1924..	Princes Doreen	116	1.51 4-5	10,160
1915..	Water Blossom	117	1.46 3-5	1,530	1925..	Deeming	116	1.54	10,280
1916..	Kathleen	112	1.47 2-5	2,410	1926..	Black Maria	121	1.55 2-5	10,960
1917..	Sunbonnet	112	1.46 4-5	3,035	1927..	Mary Jane	121	1.53 2-5	10,900
1918..	Viva America	112	1.46 4-5	2,580	1928..	Easter Stockings	116	1.51 3-5	9,140
1919..	Lillian Shaw	117	1.45	4,190	1929..	Rose of Sharon	121	1.51	10,080

Winners before 1910—(1875) Vinaigrette; (1876) Necy Hale; (1877) Felicia; (1878) Belle of Nelson; (1879) Liahtunah.

(1880) Longitude; (1881) Lucy May; (1882) Katie Creel; (1883) Vera; (1884) Modesty; (1885) Lizzie Dwyer; (1886) Pure Rye; (1887) Florimore; (1888) Ten Penny; (1889) Jewel Ban.

(1890) English Lady; (1891) Miss Hawkins; (1892) Miss Dixie; (1893) Monrovia; (1894) Selika; (1895) Voladora; (1896) Souffle; (1897) White Frost; (1898) Crocket; (1899) Rush.

(1900) Etta; (1901) Lady Schorr; (1902) Wainamoinen; (1903) Lemco; (1904) Audience; (1905) Janeta; (1906) Kings Daughter; (1907) Wing Ting; (1908) Ellen-a-Dale; (1909) Floreal.

PIMLICO.

PREAKNESS STAKES (3-YEAR-OLDS).

1½ miles, 1873-1888; 1¼ miles in 1889; 1 mile, 1909-1910; 1½ mile, 1911-1924; 1 3-16 miles, 1925 and since. Pimlico, Md.

Year.	Winner.	Wght	Time.	Value.	Year.	Winner.	Wght	Time.	Value
1910..	Layminster	84	1.40 3-5	$3,300	1920..	Man o' War	126	1.51 3-5	$23,000
1911..	Watervale	112	1.51	2,700	1921..	Broomspun	114	1.54 1-5	43,000
1912..	Col. Holloway	107	1.56 3-5	1,450	1922	Pillory	114	1.51 3-5	51,600
1913..	Buskin	117	1.53 2-5	1,670	1923	Vigil	114	1.53 3-5	52,000
1914..	Holiday	108	1.53 4-5	1,355	1924..	Nellie Morse	121	1.57 1-5	54,000
1915..	Rhine Maiden	104	1.58	1,275	1925..	Coventry	126	1.59	52,700
1916..	Damrosch	115	1.54 4-5	1,380	1926..	Display	126	1.59 4-5	53,625
1917..	Kalitan	116	1.54 2-5	4,800	1927..	Bostonian	126	2.01 2-5	58,100
1918..	War Cloud	117	1.53 3-5	12,250	1928..	Victorian	126	2.00 1-5	61,025
1918..	Jack Hare, Jr.	115	1.53 2-5	11,250	1929..	Dr. Freeland	126	2.01 3-5	52,325
1919..	Sir Barton	126	1.53	24,500					

Winners before 1910—(1873) Survivor; (1874) Culpepper; (1875) Tom Ochiltree; (1876) Shirley; (1877) Cloverbrook; (1878) Duke of Magenta; (1879) Harold.

(1880) Grenada; (1881) Saunterer; (1882) Vanguard; (1883) Jacobus; (1884) Knight of Ellerslie; (1885) Tecumseh; (1886) The Bard; (1887) Dunbine; (1888) Refund; (1889) Buddhist; (1909) Effendi.

PIMLICO FUTURITY (2-YEAR-OLDS; COLTS AND FILLIES). 1 mile. Pimlico, Md.

Year.	Winner.	Wght	Time.	Value.	Year.	Winner.	Wght	Time.	Value.
1921..	Morvich	122	1.42	$42,750	1925..	Canter	117	1.40 4-5	$53,350
1922..	Blossom Time	119	1.39 4-5	41,015	1926..	Fair Star	119	1.40 3-5	59,660
	Sally's Alley	116	1.39 1-5	41,015	1927..	Glade	114	1.41 4-5	53,310
1923..	Beau Butler	122	1.39 4-5	54,030	1928..	High Strung	122	1.39	50,750
1924..	Stimulus	122	1.39 4-5	49,220	1929..	Flying Heels	117	1.47	55,810

The 1922 race was run in two divisions.

DIXIE HANDICAP (3-YEAR-OLDS AND OVER).

Dinner Party Stakes in 1870; Reunion Stakes in 1871; Dixie Stakes, 1872-1888; Dixie Handicap, 1924 and since.

3-year-olds prior to 1924. 2 miles prior to 1924; 1 3-16 miles, 1924 and since. Pimlico, Md.

Year.	Winner.	Wght	Time.	Value.	Year.	Winner.	Wght	Time.	Value.
1924..	Chacolet	116	1.59 1-5	$24,840	1927..	Mars	124	1.59 2-5	$26,375
1925..	Sarazen	130	2.02	25,950	1928..	Mike Hall	110	1.59	24,975
1926..	Sarazen	128	2.00 4-5	24,550	1929..	Diavolo	112	2.00	27,600

Winner of Dixie Stakes—(1870) Breakness; (1871) Harry Bassett; (1872) Hubbard; (1873) Tom Bowling; (1874) Vandalite; (1875) Tom Ochiltree; (1876) Vigil; (1877) King Faro; (1878) Duke of Magenta; (1879) Monitor; (1880) Grenada; (1881) Crickmore; (1882) Monarch; (1885) George Kinney; (1884) Loftin; (1885) East Lynne; (1886) The Bard; (1887) Hanover; (1888) Taragon.

Best time at 2 miles—3.33 in 1886.

WALDEN (STAKES) HANDICAP (2-YEAR-OLDS).

¾ mile, 1907, 1908; 1 mile, 1909 and since. Walden Stakes until 1926. Pimlico, Md.

Year.	Winner.	Wght	Time.	Value.	Year.	Winner.	Wght	Time.	Value.
1910..	Zeus	122	1.46 3-5	$2,020	1921..	Relay	108	1.44 1-5	$8,150
1911..	Penobscot	99	1.41 4-5	1,930	1922..	Oui Oui	104	1.40 1-5	8,455
1912..	Ten Point	112	1.40	1,910	1923..	Stanwix	108	1.39 4-5	8,150
1913..	Superintendent	119	1.41 4-5	1,950	.....	Senator Norris	112	1.39 2-5	8,360
1914..	Double Eagle	112	1.40 3-5	1,420	1924..	Single Foot	117	1.39 4-5	11,100
1915..	Col. Vennie	122	1.42	1,415	1925	Mars	112	1.42	9,725
1916..	Columbine	109	1.41	2,160	1926..	Rip Rap	119	1.41	11,250
1917..	War Cloud	125	1.40 2-5	4,350	1927	Reigh Count	126	1.41	11,300
1918..	War Pennant	127	1.40 4-5	3,950	1928..	Twink	123	1.46	11,050
1919..	Dominique	122	1.42	3,950	1929..	Ned O	113	1.47 3-5	11,400
1920..	Iale Dell	112	1.40 2-5	8,600					

Won in 1907, by Jubilee; in 1908, by Trance; in 1909, by Fauntleroy.

Other *1929* Winners at Pimlico—*Oaks*, Altitude; *Spring Handicap*, Sortis0 *Spring Juvenile*, Mintolga *Riggs Handicap* ($22,050) Glen Wild; *Manly Steeple*, Are Light; *Pimlico Cup*, Diavolo

BOWIE.

SOUTHERN MARYLAND (BRYAN MEMORIAL) HANDICAP0 3 YEAR-OLDS AND OVER.

1⅛ miles in 1922; 1 mile, 1923-1926; 1½ miles 1927 and since. Bowie, Md.

Year.	Winner.	Wght	Time.	Value.	Year.	Winner.	Wght	Time.	Value.
1922	Lucky Hour	118	1.49 4-5	$3,800	1926..	Glister	104	1.43	$21,300
1923	Reparation	112	1.41 3-5	7,590	1927..	Cloudland	106	1.47 1-5	27,250
1924..	Donaghee	110	1.42 1-5	7,730	1928..	Misstep	114	1.43 1-5	43,000
1925	Sarazen	126	1.40 2-5	13,025	1929..	Bateau	113	1.46 2-5	39,600

Run as the Southern Maryland Handicap 1922-1923.

ENDURANCE HANDICAP (2-YEAR-OLDS).

1 mile, 1922-1926; 1 mile, 70 yds. 1927 and since. Bowie, Md.

Year.	Winner.	Wght	Time.	Value.	Year.	Winner.	Wght	Time.	Value.
1922	Oui Oui	110	1.43 4-5	$3,765	1926..	Dolan	109	1.42 2-5	$9,650
1923	Tree Top	109	14.5 4-5	5,910	1927..	Sortie	105	1.43	10,875
1924	Sumpter	114	1.42 2-5	7,640	1928..	Soul of Honor	112	1.44	9,725
1925	High Star	111	1.42 2-5	9,075					

The 1929 *Bowie Handicap* was won by Diavolo; the *Prince Georges*, by Inception

LATONIA.

LATONIA DERBY (3-YEAR-OLDS).

1½ miles; Latonia, Ky. Known, 1883-1886, as Hindoo Stakes.

Year.	Winner.	Wght	Time.	Value.	Year.	Winner.	Wght	Time.	Value.
1910..	Joe Morris	117	2.33 2-5	$2,925	1920..	Upset	126	2.32	$16,300
1911..	Governor Gray	124	2.30 2-5	3,550	1921..	Brother Batch	126	2.47 3-5	14,900
1912..	Free Lance	114	2.31	4,250	1922..	Thibodaux	126	2.33 4-5	15,000
1913..	Gowell	117	2.33 1-5	5,725	1923..	The Clown	118	2.32 3-5	15,680
1914..	John Gund	122	2.30 2-5	6,025	1924..	Chilhowee	118	2.30 1-5	25,600
1915..	Royal II	122	2.32	10,125	1925..	Broadway Jones	118	2.31	25,225
1916..	Dodge	127	2.37	9,950	1926..	Bagenbaggage	121	2.33 1-5	24,500
1917..	Liberty Loan	122	2.30 4-5	9,950	1927..	Handy Mandy	109	2.28 3-5	24,250
1918..	Johren	127	2.33	9,923	1928..	Toro	121	2.41 1-5	22,525
1919..	Be Frank	119	2.37 3-5	16,000	1929..	Buddy Basil	118	2.30 2-5	23,075

The 1888 race was a dead heat, on first try, between Los Angeles and White. Los Angeles won on the run-off. The 1900 race was a walkover.

Winners before 1910—(1883) Leonatus; (1884) Audrain; (1885) Bersan; (1886) Silver Cloud; (1887) Libretto; (1889) Los Angeles; (1889) Hindoocraft.

(1890) Bill Letcher; (1891) Kingman; (1892) Newton; (1893) Buck McCann; (1894) Lazzarone; (1895) Halma; (1896) Ben Brush; (1897) Ornament; (1898) Han d'Or; (1899) Prince McClurg.

(1900) Lieut. Gibson; (1901) Hernando; (1902) Harry New; (1903) Woodlake; (1904) Elfwood; (1905) The Foreman; (1906) Sir Huon; (1907) The Abbot, (1908) Pinkoloc; (1909) Olambala.

Best time before 1910—2.34½, in 1895.

LATONIA CHAMPIONSHIP STAKES (3-YEAR-OLDS). 1¼ miles. Latonia, Ky.

Year.	Winner.	Wght	Time.	Value.	Year.	Winner.	Wght	Time.	Value.
1919..	Mad Hatter	122	3.06	$45,090	1925..	King Nadi	126	3.06 2-5	$23,285
1920..	Cleopatra	119	2.56 4-5	22,815	1926..	Display	126	2.58 4-5	23,795
1921..	Sporting Blood	126	3.05 3-5	26,635	1927..	Rolled Stocking	126	2.55 2-5	25,680
1922..	Rockminster	126	2.55 3-5	24,080	1928..	Sun Beau	126	3.00 3-5	27,300
1923..	In Memoriam	126	3.00 4-5	55,000	1929..	The Nut	126	3.26	34,235
1924..	Chilhowee	126	2.54 3-5	25,935					

LATONIA OAKS (3-YEAR-OLDS, FILLIES).

1¼ miles, Latonia, Kentucky. Not run, 1910-1919.

Year.	Winner.	Wght	Time.	Value.	Year.	Winner.	Wght	Time.	Value.
1907..	Lillie Turner	112	2.07 3-5	$3,110	1924..	Befuddle	121	2.02 2-5	$9,340
1908..	Chulita	109	2.06 4-5	3,090	1925..	Rothermel	121	2.06	9,920
1909..	Crystal Maid	117	2.14	2,190	1926..	Edith Cavell	126	2.03	10,920
1920..	Busy Signal	121	2.02 3-5	5,080	1927..	Handy Mandy	130	2.04 2-5	11,020
1921..	Flambette	126	2.03 2-5	8,870	1928..	Eastern Stockings	126	2.03 2-5	9,040
1922..	Marg. Winsor	121	2.10	9,340	1929..	Rose of Sharon	126	2.11 3-5	9,160
1923..	Tip Toe Inn	121	2.09 3-5	9,900					

Winners before 1907—(1887) Unte; (1888) Lavini a Belle; (1898) Retrieve.

(1890) English Lady; (1891) Ida Pickwick; (1892) Lake Breeze; (1893) Dare Vela; (1894) Orinda; (1895) Leaflet; (1896) Souffle; 1897) Lou Bamble; (1898) Sardonia; (1899) May Hempstead.

(1900) Anthracite; (1901) Lady Schorr; (1902) Flora Pomona; (1903) Esherin; (1904) Outcome; (1905) Lady Savoy; (1906) Content.

Best time before 1907—2.06, in 1905.

Other 1929 Winners at Latonia—*Independence Handicap*, Broadside; *Inquirer Handicap*, Pigeon Hole; *Cincinnati Trophy*, Tannery; *Harold Stakes*, Morsel; *Autumn Handicap*, Brown Wisdom; *Covington Handicap*, Easter Stockings; *Ft. Thomas Handicap*, Bellsmith; *Latonia Cup*, Ben Machree; *Queen City Handicap*, Try Too ($16,100).

LEXINGTON.

BREEDERS FUTURITY (2-YEAR-OLDS).

⅛ mile, 1910-1911; 4½ furlongs in 1912; ⅝ mile, 1913-1916; ¾ mile, less 170 feet, 1913 and since. Lexington, Ky.

Year.	Winner.	Wght	Time.	Value.	Year.	Winner.	Wght	Time.	Value.
1910..	Housemaid	115	0.48 3-5	$2,543	1920..	Believe Idle Hour	120	1.09 1-5	$6,393
1911..	The Manager	115	0.48	4,848	1921..	Gentility	119	1.11 3-5	12,827
1912..	Helios	115	0.54	4,154	1922..	Donges	127	1.09 4-5	15,018
1913..	Imperator	115	1.00 3-5	5,803	1923..	Worthmore	122	1.11 2-5	16,201
1914..	Luke	118	1.00 3-5	3,800	1924..	Candy Kid	122	1.12 1-5	15,984
1915..	Kinney	118	1.00 4-5	4,259	1925..	Flight of Time	127	1.08 4-5	16,527
1916..	Harry Kelly	118	0.58 4-5	3,614	1916..	Wood Lore	122	1.11	17,899
1917..	Escoba	123	1.10 3-5	7,246	1927..	Wacker Drive	122	1.13	18,070
1918..	Col. Livingston	120	1.09 3-5	5,574	1928..	Current	125	1.08 4-5	21,231
1919..	Blazes	123	1.09 3-5	6,018	1929..	Gallant Knight	122	1.12 3-5	19,229

NEW ORLEANS.

LOUISIANA DERBY (3-YEAR-OLDS).

1⅛ miles. Jefferson Park, New Orleans.

Year.	Winner.	Wght	Time.	Value.	Year.	Winner.	Wght	Time.	Value.
1923..	Amole	118	1.57 4-5	$9,180	1927..	Boo	114	1.51 4-5	$14,250
1924..	Black Gold	126	1.57 3-5	14,750	1928..	Jack Higgins	118	1.52	15,450
1925..	Quatrain	126	1.56	17,350	1929..	Calf Roper	117	1.56	
1926..	Bagenbaggage	116	1.51 1-5	9,800					

At the Fair Grounds the 1929 *New Orleans Handicap* was won by Vermajo, 103½ lbs.; time 1.46 2-5; $33,037.

THE FIRST INTERNATIONAL HORSE RACE—APRIL 25, 1829.

(From the London Times of Tuesday, April 28, that year.)

The long-talked-of match between Rattler, the American horse, and Miss Turner, the Welsh mare, for 400 sovereigns, was decided on Saturday, over ten miles of ground, between Cambridge and Godmanchester, commencing at the second milestone from Cambridge.

This was the first occasion on which the merits of Rattler had been brought into action in this country, although he had won all his matches in America.

The fame of Tom Thumb, his brother traveller from New York, who recently trotted 100 miles in little more than ten hours, had placed Rattler so high in the scale of excellence, however, that few persons could be found to bet against him.

By the articles it was stipulated that the mare should have a minute's start.

The mare was ridden by little Davy, in a jockey silk cap and jacket, boots and spurs.

Shortly after 12, all being in readiness, the road was cleared, and at a given signal the mare was started at a pace of at least 20 miles an hour.

A clear minute having elapsed, Rattler, who was all activity and impatience, as if perfectly conscious of the struggle he was about to be engaged in, was then let go, and almost instantaneously laid himself down to his work with extraordinary speed.

At the close of the tenth mile the horse was fully 60 yards in front, having completed the distance in thirty minutes and forty seconds.

POLO.

1929 National Indoor Matches.

Open—Brooklyn Riding and Driving—C. Pflug, J. Smith, W. Sackman.

Class A Optimists—R. Guest, W. Guest, S. Iglehart.

Class B Princeton—W. B. Duryea, A. B. Borden, W. Post.

Class C—124th Field Artillery—L. E. Everett, H. H. F. Gossett, G. L. Ferguson.

Class D—124th Field Artillery (Chicago)—L. B. Callahan R. Mura, B. Schuh.

Intercollegiate—Harvard—T. Glynn, F. Clark, E. I. Gerry, Jr.

Interpreparatory—Berkshire, New England—R. L. Gerry, G. Sherman, Jr., P. Iglehart.

INTERNATIONAL POLO CUP RECORD.

1886 (Newport, R. I.)—England, 2 matches; America, 0. America: 1, W. Thorn; 2, R. Belmont; 3, F. P. Keene; Back, T. Hitchcock. England: 1, Capt. T. Hone; 2, Hon. R. T. Lawley; 3, Capt. M. Little; Back, J. Watson.

1900 (unofficial, no challenge, Hurlingham, England)—England, 1 match; America, 0. America: 1, W. McCreery; 2, F. J. Mackey; 3, F. P. Keene; Back, L. McCreery. England: 1, Capt. Beresford; 2, F. M. Freake; 3, W. S. Buckmaster; Back, J. Watson.

1902 (Hurlingham, England)—England, 2 matches; America, 1. America: 1, R. L. Agassiz; 1, M. Waterbury; 2, J. E. Cowdin; 2, L. Waterbury; 3, F. P. Keene; Back, L. Waterbury; Back, R. L. Agassiz. England: 1, C. P. Nickalls; 2, P. W. Nickalls; 2, F. M. Freake; 2, G. A. Miller; 3, W. Buckmaster; 3, G. A. Miller; 3, P. W. Nickalls; Back, C. D. Miller; Back, W. Buckmaster. America won first match, 2 to 1; England won second, 6 to 1; and third, 7 to 1.

1909 (Hurlingham, England)—America, 2 matches; England, 0. America: 1, L. Waterbury; 2, J. M. Waterbury jr.; 3, H. P. Whitney; Back, D. Milburn. England: 1, Capt. H. Wilson; 1, Harry Rich; 2, F. M. Freake; 3, P. W. Nickalls; 3, Lord Wodehouse. Back, Capt. J. H. Lloyd. America won first match by 9 to 5, and second by 8 to 2.

1911 (Meadow Brook, L. I.)—America, 2 matches; England, 0. America: 1, L. Waterbury; 2, J. M. Waterbury jr.; 3, H. P. Whitney; Back, D. Milburn. England: 1, Capt. Leslie Cheape; 2, Lieut. A. N. Edward; 3, Capt. J. H. Lloyd; Back, Capt. Wilson. America won first match by 4½ to 3, and second by 4½ to 3½.

1913 (Meadow Brook, L. I.)—America, 2 matches; England, 0. America: 1, L. Waterbury; 1, L. E. Stoddard; 2, J. M. Waterbury jr.; 2, L. Waterbury; 3, H. P. Whitney; Back, D. Milburn. England: 1, Capt. Leslie Cheape; 2, F. M. Freake; 2, Capt. A. Noel Edwards; 3, Capt. R. C. Ritson; Back, Capt. Lockett. America won first match by 5½ to 3, and second match by 4½ to 4¼.

1914 (Meadow Brook, L. I.)—England, 2 matches; America, 0. America: 1, R. La Montagne; 2, J. M. Waterbury jr.; 3, L. Waterbury; Back, D. Milburn. England: 1, Capt. H. A. Tomkinson; 2, Capt. Cheape; 3, Major F. W. Barrett; Back, Capt. V. N. Lockett. England won first match by 8½ to 3, and second by 4 to 2¾.

1921 (Hurlingham, England)—America, 2 matches; England, 0. America: 1, Louis E. Stoddard; 2, T. Hitchcock jr.; 3, J. Watson Webb; Back, D. Milburn. England: 1, Lieut. Col. H. A. Tomkinson; 2, Major F. W. Barrett; 3, Lord Wodehouse; Back, Major Lockett. America won first match by 11 to 4, and second by 10 to 6.

1924 (Meadow Brook, L. I.)—United States, 2 matches; England, 0. United States: 1, J. Watson Webb; 2, Thomas Hitchcock jr.; 3, Malcolm Stevenson; Back, Devereux Milburn. England: 1, Major T. W. Kirkwood; 2, Major F. B. Hurndall; 3, Major E. G. Atkinson; Back, Lewis L. Lacey. United States won the first match, 16 to 5, and the second, 14 to 5.

1927 (Meadow Brook, L. I.)—America, 2 matches; England, 0. America: 1, Watson Webb; 2, Thomas Hitchcock jr.; 3, Malcolm Stevenson; Back, Devereux Milburn. England: 1, Capt. R. George; 2, Capt. J. P. Denning; 3, C. T. I. Roark; Back, Major E. G. Atkinson. America won the first match, 13 to 3; the second, 8 to 5.

International Military Title Cup—Winners (cup presented by Meadow Brook Club): (1923) at Westbury, N. Y., U. S. Army team won over British Army team, 10-7, 12-10, 10-3. (1925) at Hurlingham Club, London, England, U. S. Army team won over British Army team, 8-4, 6-4.

U. S. POLO ASSOC. CHAMPIONSHIPS.

Open—(1904) Wanderers, 4½; Freebooters, 3. (1910) Ranelagh, 7¾; Point Judith Perroquets, 3¾. (1912) Cooperstown, 9; Bryn Mawr, 5¾. (1913) Cooperstown, 7; Point Judith, 2¾. (1914) Meadow Brook Magpies, 11; Point Judith-Narragansett, 8¾. (1916) Meadow Brook, 8; Coronado, 3. (1919) Meadow Brook, 5; Cooperstown, 4. (1920) Meadow Brook, 12; Cooperstown, 3. (1921) Great Neck, 8; Rockaway, 6. (1922) Argentine, 14; Meadow Brook, 7. (1923) Meadow Brook, 12; British Army, 9. (1924) Midwick, 6; Wanderers, 5. (1925) Orange County, 11; Meadow Brook, 9. (1926) Hurricanes, 7; Argentines, 6. (1927) Sands Point, 11; British India Army, 7. (1928) Meadow Brook, 8; U. S. Army, 5. (1929) Hurricanes 11; Sands Point 7

Senior—Discontinued since 1921.

Junior—(1900) Philadelphia, 8½; Rockaway, 3¼. (1901) Rockaway, 13; Dedham, 7. (1902) Rockaway, 12½; Westchester, 9. (1903) Lakewood, 14¾. Bryn Mawr, 6¼. (1904) Rockaway, 14; Bryn Mawr, 9½. (1905) Bryn Mawr, 6½; Squadron A, 3¾. (1906) Bryn Mawr Freebooters, 12½; Rockaway, 8½. (1907) Bryn Mawr, 10; Onwentsia, 5¾. (1908) New Haven, 15½; Squadron A, 4¼. (1909) New Haven, 7¼, Bryn Mawr, 3. (1910) Myopia, 7¼; Bryn Mawr, 6¾. (1911) Bryn Mawr, 12; Cooperstown, ½. (1912) Cooperstown, 11; Piping Rock, 6¾. (1913) Cooperstown, 10¼; Great Neck, 7. (1914) Meadow Brook Magpies, 11; Aiken Tigers, 5½. (1915) Bryn Mawr, 10½; Point Judith, 8½. (1916) Meadow Brook, 11½; Point Judith, 2¾. (1919) Meadow Brook, 4¼; Philadelphia, 3¼. (1920) Bryn Mawr Foxhunters, 9; Philadelphia, 5. (1921) Meadow Brook Foxhunters, 17; Philadelphia, 3. (1922) U. S. Army, 8; Meadow Brook, 7. (1923) U. S. Army, 14; Point Judith, 6. (1924) Midwick, 16; Rockaway, 3) (1925) U. S. Army, 12; Bryn Mawr, 3. (1926, U. S. Army, 16; Bryn Mawr, 6; (1927) U. S. Army, 13; Rumson, 11; (1928) Old Oaks, 12; U. S. Army, 8, (1929) Old Aitken 12; Mid West 5.

Intercollegiate Championship, (1928): Penn. Military College, 7½; Yale, 6½. (1929) Harvard 6; Yale 3.

HANDBALL.

National Amateur Athletic Union Single Wall Championship, held at New York City, March 3-10, 1929.

Result final round only: Schmookler, T. C., defeated Alexander, T. C., 14—21, 21—8, 21—15, 21—7.

National Amateur Athletic Union One Wall Doubles Championship, held at New York City, April 22-27, 1929.

Result, final round only: E. Gallowin and S. Alexander defeated J. Seaman and S. Goldman, 21—17, 21—13, 21—7.

WEIGHT LIFTING.

National Amateur Athletic Union Championship, held at New York City, April 3-4, 1929. Results:

118 lbs.—Robert T. Knodle, Hagerstown, Md., 682 lbs.; 2, John Eberle, Brooklyn, 605 lbs.

128 lbs.—A. Gaukler, German American A. C., N. Y., 665¼ lbs.; 2, Roller, Deutsche Eiche, W. N. Y., N. J., 660 lbs.

136 lbs.—Richard D. E. Batchtell, Arcade A. C., Hagerstown, Md., 852½ lbs.; 2, H. Tamminen, German American A. C., N. Y., 759 lbs.

148 lbs.—Max Rohrer, Cooper A. C., Brooklyn, 891 lbs.; 2, Ernie E. Sundberg, Multnomah A. A. C., 880 lbs.

165 lbs.—A. Faas, Cooper A. C., Brooklyn, 902 lbs.; 2, J. Horn, German American A. C., N. Y., 885½ lbs.

181 lbs.—Albert Manger, Baltimore, 957 lbs.; 2, E. Leonhard, Cooper A. C., Brooklyn, 946 lbs.

Heavyweight—Willy Rohrer, Cooper A. C., Brooklyn, 1045 lbs.; 2, A. Rohrmann, Deutsche Eiche, W. N. Y., N. J., 836 lbs.

WINNERS AT OTHER NORTH AMERICAN TRACKS IN 1929.

Fairmount Park (Collinsville, Ill.)—*Fairmount Derby*, 1¼ miles, Karl Eitel, 118 lbs., 2.11, $23,580. *Collinsville Handicap*, ¾ mile, Greenock, 106 lbs. 1 12 2-5, $5.870. *Stadiler Hotel Stakes*, 5½ furlongs, Thistle Ann, 119 lbs., 1.08 1-5, $5,450. *Jefferson Hotel Stakes*, 5½ furlongs, McEveley, 116 lbs., 1.07 3-5, $5,670.

Arlington Park (Arlington Heights, Ill.)—*The Classic*, 1¼ miles, Blue Larkspur, 126 lbs, 2.14 2-5, $59,900. *Post and Paddock Stakes*, 5½ furlongs, Thistle Ann, 119 lbs., 1.05 4-5, $15,675. *Arlington Handicap*, 1⅛ miles, Misstep, 123 lbs., 1.50 2-5, $22,075. *Stars and Stripes Handicap*, 1⅛ miles, Dowagiac, 108 lbs., 1.50 3-5, $15,550. *American National Handicap*, 6 furlongs, Cayuga, 110 lbs., 1.17, $8,750. *Cherry Circle Claiming*, 7 furlongs, from Chute, Eskimo, 110 lbs., 1.15 1-5, $8,100. *Lassie Stakes*, 5½ furlongs, Capture, 117 lbs., 1.06, $9,175. *The Hyde Park*, 5½ furlongs, Try Too, 115 lbs., 1.05 4-5, $9,225; *North Shore Handicap*, 1 mile, Glen Wild, 107 lbs., 1.49, $9,425. *City and Suburban Handicap*, 1¼ miles, William T., 104 lbs., 2.09 3-5, $8,025.

Hawthorne (Cicero, Ill.)—*Hawthorne Handicap*, 1 1-16 miles, My Dandy, 1.44 1-5, $28,500. *The Chicago Test*, 1 1-16 miles, Rose of Sharon, 117 lbs., 1.44 4-5, $7,400. *Chicago Juvenile Handicap*, 6 furlongs, Sydney, 112 lbs., 1.12, $10,250. *Crusaders SpecialHandicap*, 1⅛ miles, Easter S., 112 lbs., 1.50 1-5, $7,100. *Fort Dearborn Handicap*, 1⅛ miles, Karl Eitel, 110 lbs., 1.49 2-5, $9,475. *Gold Cup*, 1¼ miles, Sun Beau, 126 lbs., 2.01 3-5, $21.900.

Bainbridge Park (near Cleveland, O.)—*Ohio State Derby*, 1⅛ miles, Thistle Fyrn, 113 lbs., 1.51 3-5, $11.880.

Woodbine Park (Toronto, Can.)—*King's Plate*, 1¼ miles, Shorelint, 117 lbs., 1.57 3-5, $10,710, *Toronto Cup Handicap*, 1⅛ miles, Sunfire, 107 lbs., 1.51 3-5, $12,720. *Toronto Autumn Cup Handicap*. 1¼ miles, Gaffsman, 114 lbs., 2.06 1-5, $8,550. *Coronation Stakes*, 6 furlongs, Spearhead, 115 lbs., 1.15 1-5, $3,970. *Stanley Produce Stakes*, 1¼ miles, Frisius, 123 lbs., 2.05 4-5, $11,125. *Hendrie Steeplechase*, 3 miles, Huffy, 148 lbs., 5.51 1-5, $4,990.

Devonshire Park (Windsor, Can.)—*Frontier Handicap*, 1 1-16 miles, Gaffsman, 107 lbs., 1.44 2-5, $9,250. *Devonshire Champion Stakes*, 1¼ miles, Lady Broadcast, 107 lbs., 2.03 3-5, $15,400.

Washington Park (Homewood, Ill.)—*American Derby*, 1¼ miles, Windy City, 118 lbs., 2.10, $47,550. *Peabody Memorial Handicap*, 1¼ miles, Montanaro, 98 lbs., 2.04, $10,050. *Illinois Oaks*, 1⅛ miles, Rose of Sharon, 119 lbs., 1.51 3-5 $9,425. *Curran Memorial Handicap*, 5½ furlongs, Caruso, 119 lbs., 1.06 2-5, $6,470.

Lincoln Fields (Crete, Ill.)—*Crete Handicap*, 6 furlongs, Misstep, 128 lbs., 1.14 2-5, $5,240. *Joliet Handicap*, Capture, 112 lbs., 6 furlongs, 1.12, $5,620. *Lincoln Handicap*, 1¼ miles, Blackwood, 108 lbs., 2.10 1-5, $21,000. *Steger Handicap*, 1 mile, Misstep, 129 lbs., 1.37 1-5, $5,080. *Dearborn Handicap*, 7 furlongs, Try Too, 118 lbs., 1.24 4-5, $4,860. *Marquette Handicap*, 1⅛ miles, Golden Prince, 112 lbs., 1.50, $8,640.

TROTTING AND PACING ON THE ICE.

At Clayton, New York, in February, 1929, U. O. Webb. of Edwards, N. Y., drove his horse, Northern Baron, a mile over the ice in 2.08¾—an unofficial world record.

At Saranac Lake, on Feb. 22, George E., a 6-year-old pacer owned by Jack Gardner, Springfield, Mass., equaled the ice track official record by racing the final heat of the 2:19 trot and pace staged by the Saranac Lake Driving Club in 2:14¼.

Gardner, after taking two straight heats with George E., drove his horse around the first lap in 1:07 and was clocked in 2:14¼, crossing under the wire on the last lap. George E. left the other starters, Hal Boy and Alexander B., in the rear. They finished in the order named.

GRAND PRIX DE PARIS WINNERS—1 MILE 7 FURLONGS.

Yr.	Horse.	Owner.	Yr.	Horse.	Owner.	Yr.	Horse.	Owner.
1863	The Ranger	Mr. Savile.	1885	Paradox....	Mr. Bro-Cloete.	1906	Spearmint..	Major E. Loder.
1864	Vermont....	H. Delamarre.	1886	Minting....	R. Vyner.	1907	San Souse II.	Baron Rothsc'ld
1865	Gladiateur..	Count F. de La-grange.	1887	Tennbreuse.	M. P. Airmart.	1908	North East.	W. K. Vand'blt
			1888	Stuart.....	M. P. Donon.	1909	Verdun II..	Baron Rothsc'ld
1866	Ceylon.....	Duke of Beauf't.	1889	Vasistas....	M. H. Delam're.	1910	Nuage.....	M m e . Chere-meteff.
1867	Fervacques	D. de Mont'y.	1890	Fitz Roye..	Baron A. de Schickler.			
1868	Earl.....	Mar.of Hastings.				1911	As d'Atout..	Mar. de Ganay.
1869	Glaneur....	M. Lupin.	1891	Clamart....	M. E. Blanc.	1912	Houli.....	M. A. Fould.
1870	Sornette....	Major Fridolin.	1892	Ruell.....	M. E. Blanc.	1913	Bruleur....	M. E. de St. Alary.
1871	No race on a	ccount of war.	1893	Rogatsky..	M. Webb.			
1872	Cremorne...	Mr. Savile.	1894	Dolma-Baghtche.	Baron A. de Schickler.	1914	Sardanap'ls.	Baron Rothsc'ld
1873	Boiard.....	M. Delamarre.				1919	Gal. Light..	Baron Rothsc'ld
1874	Trent.....	W. R. Marshall.	1895	Andree.....	M. E. Blanc.	1920	Comrade...	E. de St. Alary.
1875	Salvator....	M. Lupin.	1896	Arreau.....	M. E. Blanc.	1921	Lemonora...	Joseph Watson.
1876	Kisber.....	A. Baltazzi.	1897	Doge.....	M. J. Armand.	1922	Kefalin....	M. Abatellos.
1877	St. Christo-phe.....	Count Lagrange.	1898	Le Ro. Soleil	Baron de Roth-schild.	1923	Filibert de Savoie...	C. Ranucci.
1878	Thurio.....	Pr. Soltykoff.	1899	Perth.....	M Cailiant.	1924	Transvaal...	L. Mantacheff.
1879	Nubienne...	M. Blanc.	1900	Semendria..	Baron Schickler.	1925	La Reine Lumiere..	Baron J. A. de Rothschild.
1880	Robert the Devil....	O. Brewer.	1901	Cheri.....	M. Caillant.			
			1902	Kizil Kour-gan.....	M. E. de St. Alary.	1926	Take My Tip	Sen. James Hen-nessy.
1881	Foxhall....	Mr. Keene.						
1882	Bruce.....	Mr. Rymiel.	1903	Quo Vadis..	M. E. Blanc.	1927	Fiterari.....	M. P. Moulings.
1883	Frontin....	Duke Castrie.	1904	Ajax.....	M. E. Blanc.	1928	CrideGuerre	Ogden Mills.
1884	Little Duck.	Duke Castrie.	1905	Finasseur...	M. E. Ephrussi.	1929	Hotweed....	N. Birkin.

The Grand Prix de Paris is for 3-year-olds of all countries. The race dates from 1863. It is run at the Longchamps course, near Paris. The value of the purse in 1928 was $30,400, at current exchange.

Hotweed, winner of the 1929 Grand Prix de Paris, won, also, the 1929 French Derby.

Other 1929 winners in France were—*Christmas Handicap*, at Vincennes, Amazone; *Grand Prix de Nice*, at Nice, La Fleur; *Prix du Jockey Club* (French derby), at Chantilly, Hotweed; *Grand Hurdle*, at Auteuil, Largo; *Arc de Triomphe*, Teddy, at Longchamps, (650,000 francs.)

A brief but sensational career on the turf in Ireland and England was closed by Trigo on Sept. 18, 1929, when this three-year-old son of Bandford by Athasi captured the Irish St. Leger at the Curragh. Trigo, winner of the Epsom Derby and the St. Leger last week in England, has been retired to the stud.

Trigo won the Irish St. Leger by a short head from Visellus, with Aine Forest third, ten lengths back. The distance was a mile and three-quarters, as in the English classic, and ten ran. The race was worth about $9,000.

The Derby winner started an overwhelming favorite at 1 to 7.

Trigo closed his career on the same course he started as a two-year-old last year. His owner is W. Barnett, of Dublin.

The *Argentine Derby* (Grand Premier Nacional) at Buenos Aires, Oct. 13, 1929, (2,500 metres) was won by Lacio; 2.35 4-5.

Peruvian National Derby, 1 mile, 2 furlongs, won on Oct. 14, 1929, by Lucifer; 2.05.

HORSE RACING IN ENGLAND IN 1929.

Newmarket—*Two Thousand Guineas*, Mr. Jewks; *Two-Year Old Stakes*, Pepperminto; *One Thousand Guineas*, Taj Mah; *Jockey Club Stakes*, Cyclonic: The *Cesarewitch*, West Wicklow. *Cambridgeshire Stakes*, Doule Life.

Ascot—*Royal Hunt Cup*, Songe; *Ascot Gold Cup*, Inversbin; *Prince of Wales Stakes*, Lyme Regis (owned by King George); *Ascot Stakes*, Old Orkney.

Epsom—*Oaks Stakes*, Pennycomequick; *Coronation Cup Stakes*, Reigh Count (American horse).

Doncaster—*St. Leger Stakes*, Trigo (1929 Derby Winner); *Doncaster Cup*, Athford (brother of Trigo).

Lincoln—*Lincolnshire Handicap*, Elton.

Liverpool—(Aintree) *Spring Cup*, Adieu; *Grand National Steeplechase*, Gregalach.

ENGLISH EPSOM DERBY STAKES WINNERS.

(For 3-year-olds, colts and fillies; weight-for-age; colts, 126 pounds; fillies, 121 pounds; distance originally 1 mile, then 1 mile and 4 furlongs and 29 yards; about 1½ miles in 1921 and since.)

Yr.	Horse.	Owner.	Jockey.
1780	Diomed	Sir E. Bunbury	S. Arnull.
1781	Y. Eclipse	Mr. O'Kelly	Hindley.
1782	Assassin	Lord Egremont	S. Arnull.
1783	Saltram	Mr. Parker	Hindley.
1784	Sergeant	Mr. O'Kelly	J. Arnull.
1785	Aimwell	Lord Clermont	Hindley.
1786	Noble	Mr. Panton	J. White.
1787	Sir Peter Teazle	Lord Derby	S. Arnull.
1788	Sir Thomas	Prince of Wales	W. Smith.
1789	Sky Scraper	Duke of Bedford	Chifney, Sr.
1790	Rhadamanthus	Lord Grosvenor	J. Arnull.
1791	Eager	Duke of Bedford	Stephenson.
1792	John Bull	Lord Grosvenor	Buckle.
1793	Waxy	Sir F. Poole	Clift.
1794	Daidalus	Lord Grosvenor	Buckle.
1795	Spread Eagle	Sir F. Standish	A. Wheatley
1796	Didelot	Sir F. Standish	J. Arnull.
1797	Fidget Colt	Duke of Bedford	J. Singleton.
1798	Sir Harry	Mr. Cookson	S. Arnull.
1799	Archduke	Sir F. Standish	J. Arnull.
1800	Champion	Mr. Wilson	Clift.
1801	Eleanor	Sir C. Bunbury	Sanders.
1802	Tyrant	Duke of Grafton	Buckle.
1803	Ditto	Sir H. Williams'n	Clift.
1804	Hannibal	Lord Egremont	W. Arnull.
1805	Card'l Beaufort	Lord Egremont	Fitzpatrick.
1806	Paris	Lord Foley	Shepherd.
1807	Election	Lord Egremont	J. Arnull.
1808	Pan	Sir H. Williams'n	Collinson.
1809	Pope	Duke of Grafton	Goodison.
1810	Whalebone	Duke of Grafton	Clift.
1811	Phantom	Sir J. Shelly	Buckle.
1812	Octavius	Mr. Ladbrooke	W. Arnull.
1813	Smolensko	Sir C. Bunbury	Goodison.
1814	Blucher	Lord Stawell	W. Arnull.
1815	Whisker	Duke of Grafton	Goodison.
1816	Prince Leopold	Duke of York	Wheatley.
1817	Azar	Mr. Payne	Robinson.
1818	Sam	Mr. Thornhill	S. Chifney.
1819	Tiresias	Duke of Portland	Clift.
1820	Sailor	Mr. Thornhill	S. Chifney.
1821	Gustavus	Mr. Hunter	S. Day.
1822	Moses	Duke of York	Goodison.
1823	Emilius	Mr. Udney	Buckle.
1824	Cedric	Sir J. Shelly	Robinson.
1825	Middleton	Sir J. Shelly	Robinson.
1826	Lapdog	Lord Egremont	Dockeray.
1827	Mameluke	Lord Jersey	Robinson.
1828	Cadland	Duke of Rutland	Robinson.
1829	Frederick	Mr. Gratwicke	Forth.
1830	Priam	Mr. Chifney	S. Day.
1831	Spaniel	Lord Lowther	Wheatley.
1832	St. Giles	Mr. Ridsdale	Scott.
1833	Dangerous	Mr. Saddler	Chapple.
1834	Plenipotentiary	Mr. Batson	Conolly.
1835	Mundig	Mr. Bowes	Scott.
1836	Bay Middleton	Lord Jersey	Robinson.
1837	Phosphorus	Lord Berner	G. Edwards.
1838	Amato	Sir G. Heathcote	Chapple.
1839	Bloomsbury	Mr. W. Ridsdale	Templeman.
1840	Little Wonder	Mr. Robertson	Macdonald.
1841	Coronation	Mr. Rawlinson	Conolly.
1842	Attila	Colonel Anson	Scott.
1843	Cotherstone	Mr. Bowes	Scott.
1844	Orlando	Colonel Peel	Flatman.
1845	Merry Monarch	Mr. Gratwicke	F. Bell.
1846	Pyrrhus	Mr. Gully	S. Day.
1847	Cossack	Mr. Pedley	Templeman.
1848	Surplice	Lord Clifden	Templeman.
1849	Flying D'tchm'n	Lord Eglinton	Marlow.
1850	Voltigeur	Lord Zetland	J. Marson.
1851	Teddington	Sir J. Hawley	J. Marson.
1852	Daniel O'Rourke	Mr. Bowes	F. Butler.
1853	West Australian	Mr. Bowes	F. Butler.
1854	Andover	Mr. Gully	A. Day.
1855	Wild Dayrell	Mr. Popham	R. Sherwood
1856	Ellington	Adm. Harcourt	Alderoft.
1857	Blink Bonny	Mr. W. I. Anson	Charlton.
1858	Beadsman	Sir J. Hawley	Wells.
1859	Misjid	Sir J. Hawley	Wells.
1860	Thormanby	Mr. Merry	Custance.
1861	Kettledrum	Col. Towneley	Bullock.
1862	Caractus	Mr. C. Snewny	J. Parsens.
1863	Macaroni	Mr. R. C. Naylor	T. Chaloner.
1864	Blair Athol	Mr. W. I. Anson	J. Snowden.
1865	Gladiateur	Co't de Lagrange	H. Grimsh'w
1866	Lord Lyon	Mr. Sutton	Custance.
1867	Hermit	Mr. H. Chaplin	J. Daley.
1868	Blue Gown	Sir J. Hawley	Wells.
1869	Pretender	Mr. J. Johnstone	J. Osborne.
1870	Kingcraft	Lord Falmouth	T. French.
1871	Favonius	Baron Rothschild	T. French.
1872	Cremorne	Mr. H. Saville	Maidment.
1873	Doncaster	Mr. J. Merry	F. Webb.
1874	George Frederick	Mr. Cartwright	Custance.
1875	Galopin	Prince Balthyany	Morris.
1876	Kisber	Mr. Baltazzi	Maidment.
1877	Silvio	Lord Falmouth	F. Archer.
1878	Sefton	Mr. Crawfurd	Constable.
1879	Sir Bevys	Mr. Acton	G. Fordham
1880	Bend Or	Duke of Westm'r	F. Archer.
1881	Iroquois	P. Lorillard	F. Archer.
1882	Shotover	Duke of Westm'r	T. Cannon.
1883	St. Blaise	Sir F. Johnstone	C. Wood.
1884	*Harvester	Sir J. Willoughby	S. Loates.
	*St. Gatien	Mr. Hammond	C. Wood.
1885	Melton	Lord Hastings	F. Archer.
1886	Ormonde	Duke of Westm'r	F. Archer.
1887	Merry Hampton	Mr. Abington	J. Watts.
1888	Ayrshire	Duke of Portland	F. Barrett.
1889	Donovan	Duke of Portland	T. Loates.
1890	Sainfoin	Sir J. Miller	J. Watts.
1891	Common	Sir F. Johnstone	S. Barrett.
1892	Sir Hugo	Lord Bradford	Allsop.
1893	Isinglass	Mr. McCalmont	T. Loates.
1894	Ladas	Lord Rosebery	J. Watts.
1895	Sir Visto	Lord Rosebery	S. Loates.
1896	Persimmon	Prince of Wales	J. Watts.
1897	Galtee More	Mr. Gubbins	C. Wood.
1898	Jeddah	Mr. Larnach	O. Madden.
1899	Flying Fox	Duke of Westm'r	M. Cannon
1900	Diamond Jubilee	Prince of Wales	H. Jones.
1901	Volodyovski	W. C. Whitney	L. Reiff.
1902	Ard Patrick	Mr. Gubbins	J. H. Martin
1903	Rock Sand	Sir J. Miller	Maher.
1904	St. Amant	L. de Rothschild	K. Cannon.
1905	Cicero	Lord Rosebery	Maher.
1906	Spearmint	Major E. Loder	Maher.
1907	Orby	Richard Croker	J. Reiff.
1908	Signorinetta	Chev. Ginistrelli	W. Bullock.
1909	Minoru	King Edward	H. Jones.
1910	Lemberg	Mr. Fairie	B. Dillon.
1911	Sunstar	Mr. J. B. Joel	G. Stern.
1912	Tagalie	Mr. Raphael	J. Reiff.
1913	Aboyeur	Mr. Cunliffe	Piper.
1914	Durbar II	H. B. Duryea	M. MacGee.
1915	Pommern	Mr. S. Joel	S. Donoghue
1916	Fifinella	Mr. E. Hulton	J. Childs.
1917	Gay Crusader	Mr. Fairie	S. Donoghue
1918	Gainsborough	Lady J. Douglass	J. Childs.
1919	Grand Parade	Lord Glanely	Templeman.
1920	Spion Kop	Major G. Loder	F. O'Neill.
1921	Humorist	J. B. Joel	S. Donoghue
1922	Captain Cuttle	L'd Woolavingt'n	S. Donoghue
1923	Papyrus	Benj. Irish	S. Donoghue
1924	Sansovino	Lord Derby	T. Weston
1925	Manna	H. E. Morriss	S. Donoghue
1926	Coronach	L'd Woolav'gton	J. Childs
1927	Call Boy	Frank Curzon	E. Elliott.
1928	Felstead	Sir Hugo C. Owen	H. Wragg
1929	Trigo	William Barnett	J. Marshall

* Dead heat; stakes divided.

Record time—2.34 2-5, over the new course, in 1927, by Call Boy, and in 1928 by Felstead, a son of Spion Kop; record over the older course, 2.34 4-5, in 1920, by Spion Cop. In 1922, Captain Cuttle ran the new course in 2.34 3-5.

Steve Donoghue won the Derby 6 times.

The 1929 Epsom Derby was run in 2:36 2-5. The purse was $73,000, of which the winner got $57,000. Trigo was a 33 to 1 bet. There were 26 starters in the race. Walter Gay, owned by Lord Woolavington, a 100 to 8 bet, was second; Brienz, at 50 to 1, was third. Cragadour, the favorite before the race, finished in the ruck.

The 1929 Calcutta Sweepstake, with three prizes totaling £135,000, or about $657,045 each; the London Stock Exchange, with two first prizes of £125,000, or about $608,375 each, and the Baltic Sweep, in which first money totaled nearly £100,000, or about $486,700, were the big pools.

BEST AMERICAN HORSE RACING (RUNNING) RECORDS.

Distance.		Horse.	Age, Years	Weight, Pounds.	Time.	Date.	Track.
Miles.	*Furl'gs.*				*Min. Sec.*		
1-4		Bob Wade	4	122	21 1-4	1890, Aug. 20	Butte, Mont.
3-8		Atoka	6	105	33 1-2	1906, Sept. 7	Butte, Mont.
1-2		Donau	2	115	46 1-5	1909, March 13	Santa Anita, Cal.
		Amon	2	115	46 1-5	1911, Feb. 9	Juarez, Mex.
	4 1-2	Distinction	2	107	52 2-5	1919, June 10	Latonia, Ky.
5-8		Pan Zareta	5	120	57 1-5	1915, Feb. 10	Juarez, Mex.
	5 1-2	Iron Mask	6	150	1 03 2-5	1914, March 8	Juarez, Mex.
†3-4		Kingston	7	139	1 08	1891, June 22	Sheepshead Bay, N. Y.
3-4		Iron Mask	6	115	1 09 3-5	1914, Jan. 4	Juarez, Mex.
	6 1-2	Boojum	2	117	1 17	1929, Aug. 31	Saratoga, N. Y.
7-8		Roseben	5	126	1 22	1906, Oct. 16	Belmont Park, N. Y.
*1		Roamer	7	110	1 34 4-5	1918, Aug. 21	Saratoga, N. Y.
1		Cherry Pie	3	113	1 35 2-5	1923, Sept. 3	Belmont Park, N. Y.
1 1-16		Dot	3	100	1 42 1-5	1923, Sept. 7	Belmont Park, N. Y.
1 1-8		Hot Toddy	4	110	1 48 2-5	1929, Sept. 31	Belmont Park, N. Y.
1 3-16		Sir Barton	4	133	1 55 3-5	1920, Aug. 28	Saratoga, N. Y.
1 1-4		Whisk Broom II	6	139	2 00	1913, June 28	Belmont Park, N. Y.
1 5-16		Ballot	4	126	2 09 3-5	1908, July 1	Sheepshead Bay, N. Y.
1 3-8		Man o' War	3	126	2 14 1-5	1920, June 12	Belmont Park, N. Y.
1 1-2		Handy Mandy	3	109	2 28 3-5	1927, June 25	Latonia, Ky.
1 5-8		Man o' War	3	126	2 40 4-5	1920, Sept. 4	Belmont Park, N. Y.
1 3-4		Chilhowee	3	126	2 54 3-5	1924, Oct. 18	Latonia, Ky.
1 7-8		Jolly Cephas	8	95	3 16 4-5	1925, Jan. 11	Tijuana, Mex.
2		Exterminator	5	128	3 21 4-5	1920, Sept. 15	Belmont Park, N. Y.
2 1-16		War Whoop	4	96	3 34 1-4	1905, Sept. 23	Toronto, Can.
2 1-8		Joe Murphy	4	99	3 42	1894, Aug. 30	Chicago, Ill.
2 1-4		Mike Hall	3	111	3 48 3-5	1927, Nov. 5	Latonia, Ky.
2 3-8		Wiki Jack	4	97	4 15	1925, Feb. 8	Tijuana, Mex.
2 1-2		Kyrat	3	88	4 24 1-2	1899, Nov. 18	Newport, Ky.
2 5-8		Worthman	5	101	4 51 2-5	1925, Feb. 22	Tijuana, Mex.
2 3-4		Just Right	6	94	4 50 3-5	1925, March 1	Tijuana, Mex.
2 7-8		Bosh	5	100	5 23	1925, March 8	Tijuana, Mex.
3		Mamie Algol	5	105	5 19	1907, Feb. 16	New Orleans, La.
4		*Lucretia Borgia	4	85	7 11	1897, May 20	Oakland, Cal.
		Sotemia	5	119	7 10 4-5	1912, Oct. 7	Louisville, Ky.

*Against time. †Over old Futurity course at Sheepshead Bay, N. Y., 170 feet less than ¾ mile.

Note—A furlong is one-eighth of a mile, 220 yards, or 660 feet, or 40 rods.

The best Canadian record for 1 mile—1.37 3-5—was made by Cliff Edge, at Fort Erie, Ont., July 3, 1911: the best English record, 1.32 4-5, was made by Kepplestone, at Brighton, June 25, 1925; and by Hermos, and by Spionetta (dead heat) at Brighton, Aug. 4, 1927.

OVER A STRAIGHT COURSE.

Distance.		Horse.	Age, Years	Weight, Pounds.	Time.	Date.	Track.
Miles.	*Furl'gs.*				*Min. Sec.*		
1-2		Young Martin	2	115	45 1-5	1924, April 28	Belmont Park, N. Y.
	4 1-2	Preceptor	2	112	51	1908, May 19	Belmont Park, N. Y.
5-8		Pen Rose	2	110	55 3-5	1918, Sept. 12	Belmont Park, N. Y.
	5 1-2	Plater	2	107	1 02 2-5	1902, Oct. 21	Morris Park, N. Y.
3-4		Artful	2	130	1 08	1904, Oct. 15	Morris Park, N. Y.
	6 1-2	Lady Vera	2	90	1 16 3-5	1906, Oct. 19	Belmont Park, N. Y.
7-8		Paris	2	110	1 22 2-5	1914, Sept. 12	Belmont Park, N. Y.
1		*Salvator	4	110	1 35 1-2	1890, Aug. 28	Monmouth Park, N. J.
		Kildeer	4	91	1 37 1-4	1892, Aug 13	Monmouth Park, N. J.
1 1-4		Banquet	3	108	2 03 3-4	1890, July 17	Monmouth Park, N. J.

*Against time. Race horses make better time over oval or circular tracks.

HURDLE (STEEPLECHASE) RECORDS.

Distance.		Horse.	Age, Years	Weight, Pounds.	Time.	Date.	Track.
Miles.	*Furl'gs.*				*Min. Sec.*		
1		Governor Boyd	6	127	1 47	1901, June 5	Newport, Ky.
1 1-16		Artemus	4	132	1 52	1896, June 8	Bay District, Cal.
1 1-8		Bob Thomas	6	137	2 02	1891, Aug. 5	Chicago (Hawthorne); Ill.
		Phil Becker	5	133	2 02	1897, June 5	Ingalls Park, Ill.
		Odd Eyes	5	129	2 02	1901, July 16	Butte, Mont.
		Nitrate	6	158	2 02	1904, April 2	Ascot Park, Cal.
1 3-16		Hickorynut	7	140	2 09 2-5	1921, April 23	Tijuana, Mex.
1 1-4		Jim McGowan	4	127	2 16	1882, Nov. 9	Brighton Beach, N. Y.
		El Rio Shannon	7	130	2 16	1904, June 21	Seattle, Wash.
1 3-8		Rainier	5	129	2 34	1901, Sept. 2	Butte, Mont.
1 1-2		Montalvo	5	133	2 43 1-4	1896, Feb. 20	Bay District, Cal.
1 5-8		Mazo	5	130	3 05 1-5	1901, Oct. 7	Chicago (Harlem), Ill.
1 3-4		Filon d'Or	4	143	3 11 3-4	1900, May 23	Morris Park, N. Y.
2		Charawind	6	161	3 41 3-5	1903, Oct. 5	Morris Park, N. Y.
2 1-4		Baby Bill	6	150	4 23 1-2	1897, April 17	Oakland, Cal.
2 1-2		Midgeley	4	158	4 55	1896, Oct. 3	Gravesend, N. Y.

LARGEST WINNINGS BY ONE HORSE IN A YEAR.

The largest total winnings on American tracks, in any one year, by any one horse, have been as follows:

Year.	Horse.	Amount.	Year.	Horse.	Amount.	Year.	Horse.	Amount.
1902..	Maj. Daingerf'ld	$57,685	1911..	Worth	$16,645	1920..	Man o' War	$166,140
1903..	Africander	70,810	1912..	Star Charter	14,655	1921..	Morvich	115,234
1904..	Delhi	75,225	1913..	Old Rosebud	19,057	1922..	Pillory	95,654
1905..	Sysonby	144,380	1914..	Roamer	29,015	1923..	Zev	272,008
1906..	Accountant	83,570	1915..	Borrow	20,195	1924..	Sarazen	95,640
1907..	Colin	131,007	1916..	Campfire	49,735	1925..	Pompey	121,630
1908..	Sir Martin	78,590	1917..	Sun Briar	59,505	1926..	Crusader	166,033
1909..	Joe Madden	44,905	1918..	Eternal	56,137	1927..	Anita Peabody	111,905
1910..	Novelty	72,630	1919..	Sir Barton	88,250	1928..	High Strung	153,590

PURCHASE PRICES OF NOTED RACE HORSES.

American.		Foreign.		Foreign.	
Tracery	$265,000	Call Boy	$300,000	Clarissimus	$80,320
Rock Sand	150,000	Prince Palatine	209,000	Port au Feu	80,000
Friar Rock	130,000	Fiterari	205,000	Adam	80,000
Whiskaway	125,000	Charles O'Malley	200,000	Bona Vista	80,000
Inchcape	115,000	Flying Fox	189,000	Pietermaritz'b'g	80,000
The Finn	110,000	Cyllene	167,500	Nuage	80,000
St. Blaise	100,000	Diamond Jubilee	151,200	Negofol (½)	80,000
Playfellow	100,000	Jardy	150,000	Flair	78,000
Fair Play	100,000	Craganour	150,000	Archaic	77,500
Tryster	100,000	Ormonde	150,000	Meddler	75,400
Carlaris	100,000	Captain Cuttle	150,000	Common	75,400
Mad Play	90,000	Val d'Or	140,000	Apelle	75,000
Snob II	85,000	Apelle	125,000	Bright Knight	75,000
Ordinance	85,000	Cyllene	125,000	Slieve Gallion	75,000
Happy Thoughts	75,000	Rock Sand	125,000	Melton	75,000
Sun Edwin	75,000	Dark Ronald	125,000	Wool Winder	75,000
Meddler	72,500	Sceptre	125,000	Blue Ensign	72,500
Watercress	71,000	Sir Gallahad	125,000	Doncaster	70,000
Campfire	70,000	St. Germains	125,000	Ormonde	70,000
Hamburg	70,000	Biniou	120,000	St. Gatien	70,000
Sir Martin	70,000	Your Majesty	112,500	The Bard	70,000
Sweeper II	70,000	Louvois	112,500	Silvern	70,000
Wise Counsellor	66,000	Ard Patrick	110,000	Carbine	68,250
Colt by Man O'War	65,000	Galtee More	110,000	La Fleche	66,150
Playfellow	62,000	Lancaster	110,000	Aboyeur	65,000
Hermis	60,000	D'ke of W'stm'r't'r	109,200	H'y of Hereford	65,000
Nicholas	60,000	Gouvernant	100 000	Blair Athol	62,500
War Feathers	55,000	Minoru	100,000	Bronzino	62,400
Nasturtium	50,000	Poisoned Arrow	100,000	Grand Parade	61,000
Grey Lag	50,000	The Satrap	100,000	Bridge of Canny	60,000
Goshawk	50,000	Warden of Marshes	100,000	Argosy	60,000
Tryster	50,000	Adam's Apple	95,000	Kangaroo	60,000
Chilhowee	50,000	Lycaon	93,600	Ormonde	60,000
K'y Cardinal	50,000	Kendall	90,000	Rosicrucian	60,000
Chantey	50,000	Matchbox	90,000	Caius	60,000
Brown Prince II	50,000	Polar Star	90,000	Tetratema	60,000
Harry Mandy	50,000	Salamandra	83,200		

LEADING AMERICAN JOCKEYS (EXCLUDING STEEPLECHASES).

Year.	Jockey.	Mounts.	Won.	P.C.	Year.	Jockey.	Mounts.	Won.	P.C.
1895	C. Perkins	762	192	25	1912	P. Hill	967	168	17
1896	C. Reiff	822	292	35	1913	M. Buxton	887	146	16
1897	H. Martin	803	173	21	1914	T. McTaggart	787	157	20
1898	T. Burns	973	277	28	1915	M. Garner	775	151	19
1899	T. Burns	1,064	273	26	1916	F. Robinson	791	178	23
1900	C. Mitchel	854	195	23	1917	W. Crump	803	151	19
1901	W. O'Connor	1,047	253	24	1918	F. Robinson	864	185	21
1902	J. Ranch	1,069	276	26	1919	C. Robinson	896	190	21
1903	G. C. Fuller	918	229	25	1920	J. Butwell	721	152	21
1904	E. Hildebrand	1,169	297	25	1921	C. Lang	696	135	19
1905	D. Nichol	861	221	26	1922	M. Fator	859	188	22
1906	W. Miller	1,394	388	28	1923	I. Parke	718	173	24
1907	W. Miller	1,194	334	28	1924	I. Parke	844	205	24
1908	V. Powers	1,260	324	26	1925	A. Mortensen	987	187	19
1909	V. Powers	704	173	25	1926	R. Jones	1,172	190	16
1910	G. Garner	947	200	20	1927	L. Hardy	1,130	207	18
1911	T. Koerner	813	162	20	1928	J. Inzelone	1,052	155	15

EQUINE HIGH JUMPING,

The record breaking high jump of 8 ft. 13-16 in., made by Mrs. Stuyvesant Peabody's Great Heart at the South Shore Country Club, Chicago, June 8, 1923, draws attention again to this interesting feature of equine effort. When it is considered that the average height of a jumper is 16 hands, a leap of more than thirty inches higher, handicapped by the weight of saddle and rider, constitutes a feat not equaled in human competition. The eight greatest high jumpers of record have been Filemaker, Heatherbloom, Confidence, The Wasp, Hercules, Ironsides, Skyscraper, and Great Heart. Confidence held the record of 8 ft. 1-2 in. made at Ottawa, in 1912, for a little more than a decade, only to have it eclipsed by five-sixteenths of an inch during the past season.

Confidence duplicated this jump at Syracuse, N. Y., in 1916 with Dick Donnelly up, as was the case at Ottawa. Prior to Great Heart's jump this was the best on record for a public competition, although Heatherbloom is credited with clearing 8 ft. 2 in. in a practice jump before numerous witnesses and there are reports of 8 ft. 3 in. jumps made abroad.

FAMOUS STADIUMS OF AMERICA.

City.	Location.	Seats.	City.	Location.	Seats.
Chicago	Grant Park (Munie)	125,000	Princeton	Princeton University	42,000
Philadelphia	Sesquicentennial	125,000	Cambridge	Harvard University	41,000
Berkeley	University of California	90,000	Pittsburgh	Forbes Field (B. B.)	41,000
Ann Arbor	University of Michigan	86,000	Boston	Braves Field (B. B.)	40,000
New York	Yankee Stadium (B. B.)	82,000	Seattle	University of Washington	40,000
New Haven	Yale University Bowl	80,000	New York	Columbia Univ. Baker Field	35,000
Baltimore	Venable Stadium	78,000	Syracuse	Syracuse University	35,000
Philadelphia	Univ. of Pa. Franklin Field	76,000	St. Louis	Sportsman Park (B. B.)	34,000
Columbus	Ohio State University	75,000	Morgantown	Univ. of West Virginia	33,000
Los Angeles	Los Angeles	75,000	Providence	Brown University	32,000
Pittsburgh	University of Pittsburgh	75,000	Washington	Griffith Park (B. B.)	32,000
Chicago	Univ. of Chicago Stagg Field	60,000	Detroit	Navin Field (B. B.)	30,000
Urbana	University of Illinois	60,000	San Diego	San Diego Stadium	30,000
Chicago	Comiskey Park (B. B.)	60,000	Brooklyn	Ebbetts Field (B. B.)	28,000
New York	Polo Grounds (B. B.)	55,000	Bloomington	University of Indiana	25,000
Evanston	Northwestern, Dyche Stadium	55,000	Ithaca	Cornell University	21,500
Minneapolis	University of Minnesota	55,000	Cleveland	Doun Field (B. B.)	21,000

The Roman Coliseum built A. D. 82 seated 50,000 and could accommodate 20,000 more standing. At Buenos Aires, Argentina, in 1929, a sports stadium to hold 60,000 persons was built by a club.

WINNINGS OF NOTED RUNNING HORSES.

(Includes amounts got also in second and third place up to end of 1928.)

American. Horse.	Races Won.	Winnings.
Zev	23	$313,639
Exterminator	50	252,596
Man o'War	20	249,465
Display	19	237,181
Sarazen	27	225,000
Crusader	18	203,261
Mad Hatter	32	194,525
Domino	19	193,550
Sysonby	14	184,438
Colin	15	180,912
Princess Doreen	34	174,745
Morvich	12	172,909
Reigh Count	11	168,670
Ballot	20	154,545
High Strung	5	153,590
Canter	18	151,926
Pompey	13	143,495
Victorian	14	142,100
Chance Shot	8	142,077
Kingston	89	138,917
Chance Play	16	137,946
Grey Lag	25	136,675
Mad Play	15	136,432
Osmand	18	134,250
Mars	13	128,786
Jolly Roger	16	126,865
Boniface	34	119,950
Toro	9	119,770
Boot to Boot	10	119,054
Hanover	32	118,872
Banquet	62	118,535
Miss Woodford	37	118,270
Single Foot	18	117,624
Sir Harry	10	117,602
Sir Barton	13	116,857
Peter Pan	10	116,450
Raceland	70	116,391
Potomac	11	115,885
Delhi	8	115,640
Wise Councellor	10	115,470
Strathmeath	59	114,958
Salvator	16	113,710
Tammany	9	113,290
Anita Peabody	7	113,105
His Highness	13	113,080
Firenze	48	112,586
Misstep	12	112,350
Dobbins	21	111,012
Black Gold	18	110,503
Carlaris	14	110,461
Black Maria	18	110,350
Chacolet	14	109,244
Whiskery	12	108,065
Tournament	12	107,407
Sally's Alley	8	104,362

American. Horse.	Races Won.	Winnings.
Crystal Pennant	9	103,767
King James	24	103,405
Beldame	17	102,570
Sir Harry	6	102,422
Tryster	17	102,000
Africander	19	101,345
Joy Smoke	26	100,045
English.		
Isinglass	11	291,275
Donovan	18	277,215
Coronach	10	247,370
Rock Sand	16	238,900
Bayardo	22	223,665
Lemberg	17	204,795
Flying Fox	9	203,200
Sceptre	13	197,915
Pretty Polly	22	189,965
Fairway	7	180,485
Ayrshire	11	179,500
La Fleche	16	178,765
Persimmon	7	174,203
St. Frusguin	10	168,530
Orme	14	165,630
Book Law	7	156,675
Gladiateur	16	155,856
Colorado	9	153,540
Stedfast	21	153,250
Velasquez	9	146,427
Ormonde	16	142,325
Diamond Jubilee	6	141,547
Polyphontes	4	136,180
Surefoot	8	133,380
Galtee Moore	10	130,696
St. Amant	6	129,320
Cyllene	9	128,150
Lord Lyon	17	127,825
Swynford	8	127,540
Saucy Sue	8	126,670
Tristan	29	126,306
Toboggan	7	125,375
Straight Lace	11	123,855
Rayon d'Or	17	122,140
Seabreeze	11	121,330
Lemonora	3	120,400
Manna	4	119,670
Diophon	8	119,000
Papyrus	9	118,446
Thebais	27	116,370
Robert the Devil	12	115,808
Flamingo	6	114,775
Signorina	11	114,505
Epsom Lad	5	112,533
Achievement	16	112,225
Jannette	17	111,004

English. Horse.	Races Won.	Winnings.
Tranquil	8	110,795
Nell Gow	7	109,930
Tetratema	13	109,335
Amphion	14	105,781
Your Majesty	5	105,650
Tracery	6	104,985
Bendigo	6	103,330
Cremorne	20	103,139
Goletta	11	102,820
Iroquois	12	101,613
Minting	9	101,090
French.		
Ksar	11	335,340
Mon Talisman	5	333,160
Biribi	6	284,955
Fiterari	4	280,780
Massine	12	241,559
Nino	5	227,736
Sardanapale	11	211,505
Ptolemy	8	210,420
Priori	6	205,144
Filbert de Savole	8	193,525
Kefallin	11	181,710
Maintenon	13	181,705
La Camargo	24	176,768
Flechois	15	176,527
Perth	10	155,987
Asteroide	7	155,530
Tricard	12	152,902
Fairy Legend	5	146,700
Cerulea	8	145,272
Take My Tips	4	144,413
Petit Frere	12	141,026
Coyote	9	140,332
Verdun	8	137,410
Ajax	5	130,985
Finasseur	7	130,170
St. Bernard	7	126,839
Sea Sick	18	126,655
Dorina	6	121,310
Felton	4	119,450
Oversight	16	117,895
Asterus	7	117,151
Diplomate	11	116,790
Northeast	9	111,660
Predicateur	13	111,054
Cyrus	13	110,942
Coq Gaulois	17	110,220
Flamant	6	109,940
Bruleur	5	108,890
Bois Josselyn	8	103,832
Aethelstan	9	102,665
Banstar	5	100,740

HEAVIEST WINNING STABLE IN EACH YEAR.

Yr.	Name of Stable Owner.	Amt. Won.
		Dollars.
1902	Green B. Morris	98,350
1903	W. C. Whitney	102,569
1904	H. W. Duryea	200,107
1905	Jas. R. Keane	228,724
1906	Jas. R. Keene	155,519
1907	Jas. R. Keene	397,342
1908	Jas. R. Keene	282,342
1909	S. C. Hildreth	159,150
1910	S. C. Hildreth	152,645
1911	S. C. Hildreth	47,473
1912	J. W. Schorr	58,225
1913	Hy. P. Whitney	55,056
1914	J. W. Schorr	85,326
1915	L. S. Thompson	104,106
1916	H. G. Bedwell	71,100
1917	A. K. Macomber	68,578
1918	J. K. L. Ross	99,179
1919	J. K. L. Ross	209,303
1920	Hy. P. Whitney	270,675
1921	H. F. Sinclair (Rancocas Stb.)	263,500
1922	H. F. Sinclair (Rancocas Stb.)	239,503
1923	H. F. Sinclair (Rancocas Stb.)	438,849
1924	Hy P. Whitney	240,193
1925	Glen Riddle Stables	199,143
1926	Hy. P. Whitney	407,139
1927	Hy. P. Whitney	328,769
1928	E. B. McLean	234,640

TOTAL PURSES AND STAKES ON AMERICAN RUNNING TRACKS, BY YEARS.

Year.	Tot. Purses.	Year.	Tot. Purses.	Year.	Tot. Purses.	Year.	Tot. Purses.
	Dollars.		*Dollars.*		*Dollars.*		*Dollars.*
1906	5,420,381	1912	2,391,625	1918	3,425,347	1924	10,825,446
1907	5,375,554	1913	2,920,963	1919	4,642,869	1925	12,577,270
1908	4,351,691	1914	2,994,525	1920	7,773,407	1926	13,884,820
1909	3,146,695	1915	2,853,037	1921	8,435,083	1927	13,935,610
1910	2,942,333	1916	3,842,471	1922	9,096,215	1928	13,332,361
1911	2,337,957	1917	4,066,253	1923	9,675,811		

The Tijuana (Mex.) track paid out $973,475 in stakes and other purses, in 1928; Belmont Park, $769,285; Latonia, $736,225; Pimlico, $523,555.

Saratoga, $500,885; Lincoln Fields (Chicago), $493,680; Fair Grounds (New Orleans), $475,480; Hawthorne (Chicago), $470,592; Arlington Park (Chicago), $467,840.

Aqueduct, $466,440; Havana, $466,000; Fairmount (Chicago), $431,375; Jefferson Park (New Orleans), $430,305; Churchill Downs (Louisville), $425,068; Laurel, $364,610.

Jamaica, $357,345; Havre de Grace, $339,695; Empire City, $329,665.

TROTTING AND PACING RECORDS.

(Revised by W. H. Gocher, Sec., National Trotting Assoc., Hartford, Conn.)

TROTTING RECORDS.

¼ mile, Temple Harvester, Aurora, Ill., Aug. 5, 1925, 58½.

¼ mile, Ethelinda, Aurora, Ill., July 29, 1925, 1.30

¼ mile, Queen Volo, Aurora, Ill., Aug. 5, 1925. 1.30.

1 mile (world's record), Peter Manning*, Lexington, Ky., Oct. 4, 1922, 1.56¾.

1 mile, in a race, Tilly Brooke, Toledo, Ohio, Sept. 18, 1894, 1.59.

1 mile, on half-mile track, Peter Manning*, Reading, Pa., Sept. 16, 1926, 2.02¼.

1 mile, by a stallion, Lee Axworthy*, Lexington, Ky., Oct. 8, 1916, 1.58½.

1 mile, by a gelding, Peter Manning*, Lexington, Ky., Oct. 4, 1922, 1.56¾.

The two-year-old gelding, Trusty Brewer, Lexington, Oct. 10, 1928, and Contender, Toledo, O., Oct. 12, 1928, 2.05¼.

The four-year-old gelding, Doane, on July 12, 1928, and Hollyrood Harrod (driven by Mrs. J. L. Dodge) Lexington, Ky., Oct. 15, 1929, 2.02¼.

1 mile, by a mare, Nedda*, Lexington, Ky., Oct. 4, 1922, 1.58¼.

1 mile, with running mate, Uhlan*, Lexington, Ky., Oct. 9, 1913, 1.54½.

1 mile, by a yearling, Airdale*, Lexington, Ky., Oct. 2, 1912, 2.15¾.

1 mile, by a two-year-old, Hanover Bertha, Lexington, Ky., Oct. 15, 1929, 2.02.

1 mile, by a three-year-old, Mr. McElwyn*, Lexington, Ky., Oct. 14, 1924, and Spencer, Lexington, Ky., Oct. 3, 1928. 1.59¾.

1 mile, by a four-year-old, Guy McKinney, Phoenix, Ariz., Nov. 24, 1927. 1.58¼.

1 mile, by a five-year-old, Peter Manning*, Lexington, Ky., Oct. 6, 1921, 1.57¾.

1 mile, by a six-year-old, Peter Manning*, Lexington, Ky., Oct. 4, 1922, 1.56¾.

1 mile, to high-wheel sulky, Major Delmar*, Memphis, Tenn., Oct. 26, 1904, 2.07.

1 mile, to high-wheel sulky on half-mile track, Peter Billiken*, Goshen, N. Y., Aug. 20, 1914, 2.14¼.

1½ miles, Red Top, Toledo, Ohio, July 13, 1925, 3.14½.

2 miles, Peter Manning, North Randall, Ohio, Aug. 15, 1925, 4.10¼.

2 miles on half-mile track, Peter Manning, Birmingham, Ala., Oct. 23, 1925, 4.23.

3 miles, Nightingale*, Nashville, Tenn. (reg.), Oct. 20, 1893, 6.55½.

3 miles in race, Fairy Wood, Minneapolis, Minn., July 1, 1895, 7.16½.

4 miles, Bertie R., Blackpool, England†, Sept. 11, 1899, 9.58.

4 miles, Senator L., San Jose, Cal. (reg.), Nov. 2, 1894, 10.12.

5 miles in race, half-mile track, Imogene Constantine, Quebec, Canada, Sept. 29, 1919, 12.08¼.

10 miles, Pascal*, New York, N. Y. (reg.), Nov. 2, 1893, 26.15.

10 miles in race, Controller, San Francisco, Cal. (reg.), Nov. 23, 1878, 27.23¼.

20 miles, Capt. McGowan*, Boston, Mass. (reg.), Oct. 31, 1865, 58.25.

30 miles, Gen. Taylor*, San Francisco, Cal., Feb. 21, 1857, 1.47.59.

50 miles, Ariel*, Albany, N. Y., May 5, 1846, 3.55.40¼.

100 miles, Conqueror*, Centreville, L. I., Nov. 12, 1853, 8.55.53.

Trotting records by a team, Uhlan and Louis Forest, Lexington, Ky., Oct. 11, 1912, 2.03¼.

Three abreast: Belle Hamlin, Globe, Justina, Cleveland, O., July 29, 1891, 2:14.

Four in hand, Damania, Belnut, Maud, and Mustapha, Chicago, Ill., July 4, 1896, 2:30.

Trotting record with running mate, 1 mile, against time, Uhlan, Lexington, Ky Oct. 9, 1913, 1.54½.

The $36,739 Hambletonian Stake, the world's richest purse for trotters, was won at Lexington, Ky., Oct. 8, 1929, by Walter Dear, a 3-year-old, owned and bred by William H. Cane, of Hackensack, N. J.

The American Pacing Derby ($12,500), was won at Kalamazoo, Mich., July 16, 1929, by Counterpart, an 8-year-old roan stallion.

The Fox Futurity, Coney Island, Cincinnati, O., Sept. 16, 1929 ($11,089), was won by Sampson Hall, a 3-year-old. It was the first day of trotting on that track in 23 years.

The Kentucky Futurity ($14,000), Lexington, Ky., Oct. 1, 1929, was won by Walter Dear.

PACING RECORDS.

¼ mile, Directum I.*, Syracuse, N. Y., Sept. 14, 1916, .55¾.

¼ mile, Phil O'Neil, Columbus, Ohio, Sept. 21, 1925, 1.12½.

¼ mile, Theodore Guy, Aurora, Ill., Aug. 1, 1925, 1.29.

⅛ mile, Jean Grattan, Columbus, Ohio, Aug. 26, 1925, 1.45½.

1 mile, Dan Patch†, St. Paul, Minn., Sept. 8, 1906, 1.55.

1 mile, by a stallion, Dan Patch†, St. Paul, Minn., Sept. 8, 1906, 1.55.

1 mile, by stallion, in open, Directum I.*, Syracuse, N. Y., Sept. 15, 1915, 1.56¾.

1 mile, by a gelding, Prince Alert†, New York, N. Y.†, Sept. 23, 1903, 1.57.

1 mile, driven by a woman, Highland Scott (Mrs. E. Roland Harriman), Goshen, N. Y., Aug. 22, 1928, 1.59¼.

1 mile by gelding, in open, Winnipeg, Toledo, O., Oct. 15, 1928. 1.57¾.

1 mile, in a race, Directum I., Columbus, Ohio, Sept. 30, 1914, 1.58.

1 mile, by mare, in a race, Miss Harris M., Toledo, Ohio, July 23, 1918, 1.58¼.

1 mile, half-mile track, in race, Single G., Des Moines, Iowa, Aug. 26, 1918, and Winnipeg, Louisville, Ky., Sept. 12, 1928. 2.00.

1 mile, yearling filly, Rose McGee*, Lexington, Ky., Aug. 12, 1914, 2.19¼.

1 mile, yearling colt, Frank Perry*, Lexington, Ky., Sept. 12, 1911, 2.15.

1 mile, two-year-old colt, Calumet Adam, Lexington, Ky., Oct. 7, 1928, 2.04½.

1 mile, two-year-old filly, Silver Bells, Lexington, Ky., Oct. 4, 1924, 2.04¾.

1 mile by two-year-old colt, in race on ½ mile track, Cold Cash, Malone, N. Y., Sept. 12, 1928, 2.05¼.

1 mile by three-year-old gelding in race, Red Pluto, Indianapolis, Sept. 9, 1927, 2.06.

1 mile, three-year-old, Highland Scott, Lexington, Ky., Sept. 21, 1926, 1.59¼.

1 mile, four-year-old, William, Grand Rapids, Mich., Aug. 5, 1914, 2.00.

1 mile, high-wheel sulky, Dan Patch*, Macon, Ga.†, Nov. 30, 1903, 2.04¾.

2 miles, Dan Patch*, Macon, Ga.†, Nov. 30, 1903, 4.17.

3 miles, Elastic Pointer, Kendallville, Ind., Oct. 1, 1909, 7.31½.

4 miles, Joe Jefferson, Knoxville, Iowa (reg.), Nov. 13, 1891, 10.10.

5 miles, Marconi, Quebec, Canada, Sept. 10, 1917, 12.02¾.

PACING RECORDS—BY A TEAM.

1 mile against time, Minor Heir and Geo. Gano, Columbus, Ohio, Oct. 1, 1912, 2.02.

1 mile in a race, Billy M. and Doctor M., Springfield, Ill., Sept. 24, 1914, 2.07¼.

1 mile in a race, ½ mile track, Colleen and Deputy Sheriff, Des Moines, Iowa, Aug. 28, 1916, 2.07¼.

PACING RECORDS—TO WAGON.

1 mile, Dan Patch*, Memphis, Tenn., Oct. 27, 1903, 1.57¼.

1 mile, in a race, Angus Pointer, Memphis, Tenn., Oct. 20, 1904, 2.04½.

2 miles, Longfellow, Vallejo, Cal., June 23, 1869, 5.27½.

3 miles, Longfellow, Sacramento, Cal., Sept. 7, 1869, 7.53.

4 miles, Longfellow, San Francisco, Cal., Dec. 31, 1869, 10.42½.

5 miles, Lady St. Clair, San Francisco, Cal., Dec. 11, 1874, 12.54¾.

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*Against time. †Paced by runner to sulky carrying a wind or dust shield, the runner preceding the racer.

BASEBALL.

The first baseball diamond was laid out in 1839, at Cooperstown, N. Y., by General Abner Doubleday

The World Series baseball contest in 1929 was between the Philadelphia Athletics (American League), and the Chicago Cubs (National League).

The Athletics won 4 out of the 5 games—first (3-1); 2nd (9-3); 4th (10-8); 5th (3-2).
The Cubs won only the third game—3 to 1.

OOMPOSITE SCORE OF THE FIVE GAMES.

Philadelphia Athletics

Players.	G.	A.B.	R.	H.	2B.	3B.	H.R.	T.B.	R.B.I.	B.B.	S.O.	Pct.	P.O.	A.	E	Pct.
Bishop, 2b	5	21	2	4	0	0	0	4	1	2	3	.190	9	12	0	1.000
Haas, cf	5	21	3	5	0	0	2	11	6	1	3	.238	5	0	0	1.000
Cochrane, c	5	15	5	6	1	0	0	7	0	7	0	.400	59	2	0	1.000
Simmons, lf	5	20	6	6	1	0	2	13	5	1	4	.300	4	0	0	1.000
Foxx, 1b	5	20	5	7	1	0	2	14	5	1	1	.350	38	1	0	1.000
Miller, rf	5	19	1	7	1	0	0	8	4	0	2	.368	13	0	1	.929
Dykes, 3b	5	19	2	8	1	0	0	9	4	1	1	.421	3	4	2	.778
Boley, ss	5	17	1	4	0	0	0	4	1	0	3	.235	4	13	0	1.000
Summa	1	1	0	0	0	0	0	0	0	0	1	.000	0	0	0	.000
Burns	1	2	0	0	0	0	0	0	0	0	1	.000	0	0	0	.000
French	1	1	0	0	0	0	0	0	0	0	1	.000	0	0	0	.000
Ehmke, p	2	5	0	1	0	0	0	1	0	0	0	.200	0	4	0	1.000
Earnshaw, p	2	5	1	0	0	0	0	0	0	0	4	.000	0	2	0	1.000
Grove, p	2	2	0	0	0	0	0	0	0	0	1	.000	0	1	0	1.000
Quinn, p	1	2	0	0	0	0	0	0	0	0	2	.000	0	0	0	.000
Walberg, p	2	1	0	0	0	0	0	0	0	0	0	.000	0	1	1	.500
Romme., p	1	0	0	0	0	0	0	0	0	0	0	.000	0	0	0	.000
Totals	5	171	26	48	5	0	6	71	26	13	27	.281	135	40	4	.978

Chicago Cubs

Players.	G.	A.B.	R.	H.	2B.	3B.	H.R.	T.B.	R.B.I.	B.B.	S.O.	Pct.	P.O.	A.	E.	Pc
McMillan, 3b	5	20	0	2	0	0	0	2	0	2	6	.109	6	9	0	1.000
English, ss	5	21	1	4	2	0	0	6	0	1	6	.190	8	12	4	.833
Hornsby, 2b	5	21	4	5	1	1	0	8	1	1	8	.238	9	11	1	.952
Wilson, cf	5	17	2	8	0	1	0	10	0	4	3	.471	14	0	1	.933
Cuyler, rf	5	20	4	6	1	0	0	7	4	1	7	.300	8	0	1	.889
Stephenson, lf	5	19	3	6	1	0	0	7	3	2	2	.316	13	1	0	1.000
Grimm, 1b	5	18	2	7	0	0	1	10	4	1	2	.389	40	1	0	1.000
Taylor, c	5	17	0	3	0	0	0	3	3	0	3	.177	31	4	0	1.000
Heathcote	2	1	0	0	0	0	0	0	0	0	0	.000	0	0	0	.000
Gonzales, c	2	1	0	0	0	0	0	0	0	0	1	.000	2	0	0	1.000
Blair	1	1	0	0	0	0	0	0	0	0	0	.000	0	0	0	.000
Root, p	2	5	0	0	0	0	0	0	0	0	3	.000	0	0	0	.000
Hartnett	3	3	0	0	0	0	0	0	0	0	3	.000	0	0	0	.000
Bush, p	2	3	1	0	0	0	0	0	0	1	3	.000	0	3	0	1.000
Tolson	1	1	0	0	0	0	0	0	0	0	1	.000	0	0	0	.000
Malone, p	3	4	0	1	1	0	0	2	0	0	2	.250	0	1	0	1.000
Blake, p	2	1	0	1	0	0	0	1	0	0	0	1.000	0	0	0	.000
Carlson, p	2	0	0	0	0	0	0	0	0	0	0	.000	0	2	0	1.000
Nehf	2	0	0	0	0	0	0	0	0	0	0	.000	0	0	0	.000
Totals	5	173	17	43	6	2	1	56	15	13	50	.249	131	44	7	.962

Heathcote batted for Taylor in seventh inning, first game. Hartnett batted for Root in seventh inning, first game. Blair batted for Gonzales in ninth inning, first game. Tolson batted for Bush in ninth inning, first game. Heathcote batted for Malone in fifth inning, second game. Hartnett batted for Heathcote in fifth inning, second game. Gonzales batted for Carlson in eighth inning, second game. Summa batted for Earnshaw in ninth inning, third game. Burns batted for Rommel in seventh inning, fourth game. Hartnett batted for Malone in eighth inning, fourth game. French batted for Walberg in ninth inning, fifth game.

COMPOSITE SCORE BY INNINGS.

Philadelphia	0	0	3	3	1	0	12	2	5—26
Chicago	0	0	0	4	3	8	1	0	1—17

Sacrifices—Grimm, Taylor, Miller, Boley 3, Simmons, Earnshaw, Haas.

Double plays—Chicago 4 (English to Hornsby to Grimm 3, Hornsby to Grimm); Philadelphia 2 (Bishop to Boley to Foxx, Dykes to Bishop to Foxx).
Stolen base—McMillan.
Caught stealing—Grimm, Miller, Cuyler.
Wild pitch—Bush.
Left on bases—Philadelphia 35; Chicago 36.

Philadelphia Athletics Pitching Records.

	G.	C.G.	W.	L.	IP.	H.	R.	E.R.	H.B.	B.B.	S.O.	Pct.
Ehmke	2	1	1	0	12⅔	14	3	2	0	3	13	1.000
Earnshaw	2	1	1	1	13⅔	14	6	4	0	6	17	.500
Grove	2	0	0	0	6⅓	3	0	0	0	1	10	.000
Quinn	1	0	0	0	5	7	6	5	0	2	2	.000
Walberg	2	0	1	0	6⅓	3	1	0	0	0	8	1.000
Rommel	1	0	1	0	1	2	1	1	0	1	0	1.000

Chicago Cubs Pitching Records.

	G.	C.G.	W.	L.	IP.	H.	R.	E.R.	H.B.	B.B.	S.O.	Pct.
Root	2	0	0	1	13⅓	12	7	7	0	2	8	.000
Bush	2	1	1	0	11	12	3	1	0	2	4	1.000
Malone	3	1	0	2	13	12	9	6	1	7	11	.000
Blake	2	0	0	1	1⅓	4	2	2	0	0	1	.000
Carlson	2	0	0	0	4	7	3	3	0	1	3	.000
Nehf	2	0	0	0	1	1	2	2	0	1	0	.000

Umpires—William Dineen and Roy Van Graflan (American League); William Klem and Charles B. Moran (National League).

Time of games—First, 2:03; second, 2:29; third, 2:09; fourth, 2:10; fifth, 1:42.

THE 1929 WORLD SERIES, GAME BY GAME.

FIRST GAME (*Chicago, Oct. 8*)

Philadelphia Athletics

	A.B.	R.	H.	P.O.	A.	E.
Bishop, 2b	4	0	0	2	1	0
Haas, cf	3	0	0	1	0	0
Cochrane, c	3	1	1	14	1	0
Simmons, lf	4	1	0	2	0	0
Foxx, 1b	4	1	2	4	0	0
Miller, rf	4	0	1	3	0	0
Dykes, 3b	4	0	1	1	1	1
Boley, ss	4	0	0	0	0	0
Ehmke, p	4	0	1	0	2	0
Totals	34	3	6	37	5	1

Chicago Cubs

	A.B.	R.	H.	P.O.	A.	E.
McMillan, 3b	4	0	1	1	2	0
English, ss	4	0	2	1	3	2
Hornsby, 2b	4	0	0	1	3	0
Wilson, cf	4	0	0	3	0	0
Cuyler rf	4	1	1	1	0	0
Stephenson, lf	4	0	2	4	0	0
Grimm, 1b	2	0	2	8	0	0
Taylor, c	2	0	0	6	0	0
*Heathcote	1	0	0	0	0	0
Gonzales, c	0	0	0	2	0	0
†Blair	1	0	0	0	0	0
Root, p	2	0	0	0	0	0
†Hartnett	1	0	0	0	0	0
Bush, p	0	0	0	0	2	0
§Tolson	1	0	0	0	0	0
Totals	34	1	3	27	10	2

*Batted for Taylor in seventh inning. †Batted for Root in seventh inning. ‡Batted for Gonzales in ninth inning. §Batted for Bush in ninth inning.

Philadelphia (A. L.) 0 0 0 0 0 0 1 0 2—3
Chicago (N. L.) 0 0 0 0 0 0 0 0 1—1

Umpires—William J. Klem (N. L.), at the plate; William H. Dinneen (A. L.), at first base; Charles B. Moran (N. L.), at second base; Roy Van Graflan (A. L.), at third base. **Time**—2:03.

THIRD GAME (*Philadelphia, Oct. 11*).

Chicago Cubs.

	A.B.	R.	H.	P.O.	A.	E.
McMillan, 3b	4	0	0	1	1	0
English, ss	4	1	0	0	2	1
Hornsby, 2b	4	1	2	2	1	0
Wilson, cf	3	0	2	3	0	0
Cuyler, rf	4	0	1	3	0	0
Stephenson, lf	4	0	1	4	0	0
Grimm, 1b	4	0	0	9	0	0
Taylor, c	4	0	0	5	2	0
Bush	3	1	0	0	1	0
Totals	34	3	6	27	7	1

Philadelphia Athletics

	A.B.	R.	H.	P.O.	A.	E.
Bishop, 2b	4	0	1	3	4	0
Haas, cf	5	0	2	0	0	0
Cochrane, c	3	1	2	12	0	0
Simmons, lf	3	0	0	0	0	0
Foxx 1b	4	0	0	9	0	0
Miller, rf	4	0	1	2	0	0
Dykes, 3b	4	0	1	1	0	1
Boley, ss	4	0	2	0	2	0
Earnshaw, p	2	0	0	0	2	0
*Summa	1	0	0	0	0	0
Totals	34	1	9	27	8	1

*Batted for Earnshaw in ninth inning.

Chicago (N. L.) 0 0 0 0 0 3 0 0 0—3
Philadelphia (A. L.) 0 0 0 0 1 0 0 0 0—1

Umpires—Charles B. Moran (N. L.), at the plate; Roy Van Graflan (A. L.), first base; William J. Klem (N. L.), second base; William H. Dinneen (A. L.) third base. **Time**—2:09.

FIFTH GAME (*Philadelphia, Oct. 14*).

Chicago Cubs.

	A.B.	R.	H.	P.O.	A.	E.
McMillan, 3b	4	0	1	2	3	0
English, ss	4	0	1	3	3	0
Hornsby, 2b	4	0	0	2	4	1
Wilson, cf	4	0	1	1	0	0
Cuyler, rf	4	1	1	3	0	0
Stephenson, lf	2	1	1	1	0	0
Grimm, 1b	4	0	1	10	0	0
Taylor, c	4	0	1	4	0	0
Malone, p	3	0	1	0	0	0
Totals	33	2	8	*26	10	1

SECOND GAME (*Chicago, Oct. 9*).

Philadelphia Athletics

	A.B.	R.	H.	P.O.	A.	E.
Bishop, 2b	4	0	0	0	4	0
Haas, cf	5	1	1	1	0	0
Cochrane, c	2	2	1	14	0	0
Simmons, lf	4	2	2	2	0	0
Fox, 1b	5	2	3	7	0	0
Miller, rf	4	0	1	0	0	0
Dykes, 3b	4	1	3	1	0	0
Boley, ss	3	0	1	2	3	0
Earnshaw, p	3	1	0	0	0	0
Grove, p	2	0	0	0	1	0
Totals	36	9	12	27	8	0

Chicago Cubs

	A.B.	R.	H.	P.O.	A.	E.
McMillan, 3b	4	0	0	1	0	0
English, ss	5	0	1	2	3	1
Hornsby, 2b	4	1	1	3	2	0
Wilson, cf	3	1	3	4	0	0
Cuyler, rf	4	0	0	1	0	0
Stephenson, lf	5	1	1	2	0	0
Grimm, 1b	4	0	2	6	1	0
Taylor, c	4	0	2	8	1	0
Malone, p	1	0	0	0	1	0
Blake, p	1	0	1	0	0	0
*Heathcote	0	0	0	0	0	0
†Hartnett	1	0	0	0	0	0
Carlson, p	0	0	0	0	1	0
‡Gonzales	1	0	0	0	0	0
Nehf, p	0	0	0	0	0	0
Totals	37	3	11	27	9	1

*Batted for Malone in fifth inning. †Batted for Heathcote in fifth inning. ‡Batted for Carlson in eighth inning.

Philadelphia (A. L.) 0 0 3 3 0 0 1 2 0—9
Chicago (N. L.) 0 0 0 0 3 0 0 0 0—3

Umpires—William H. Dinneen (A. L.), at the plate; Charles B. Moran (N. L.), first base; Roy Van Graflan (A. L.), second base; William J. Klem (N. L.), third base. **Time**—2:29.

FOURTH GAME (*Philadelphia, Oct. 12*).

Chicago Cubs.

	A.B.	R.	H.	P.O.	A.	E.
McMillan, 3b	4	0	0	1	3	0
English, ss	4	0	0	2	1	0
Hornsby, 2b	5	2	2	1	1	0
Wilson, cf	3	1	2	3	0	1
Cuyler, rf	4	2	3	0	0	1
Stephenson, lf	4	1	1	2	1	0
Grimm, 1b	4	2	2	7	0	0
Taylor, c	3	0	0	8	1	0
Root, p	3	0	0	0	0	0
Nehf, p	0	0	0	0	0	0
Blake, p	0	0	0	0	0	0
Malone, p	0	0	0	0	0	0
*Hartnett	1	0	0	0	0	0
Carlson, p	0	0	0	0	0	0
Totals	35	8	10	24	8	2

Philadelphia Athletics.

	A.B.	R.	H.	P.O.	A.	E.
Bishop, 2b	5	1	2	2	3	0
Haas, cf	4	1	1	2	0	0
Cochrane, c	4	1	2	9	0	0
Simmons, lf	5	2	2	0	0	0
Foxx, 1b	4	2	2	10	0	0
Miller, rf	3	1	2	3	0	1
Dykes, 3b	4	1	3	0	2	0
Boley, ss	3	1	1	1	5	0
Quinn, p	2	0	0	0	0	0
Walberg, p	0	0	0	0	0	1
Rommel, p	0	0	0	0	0	0
†Burns	2	0	0	0	0	0
Grove, p	0	0	0	0	0	0
Totals	36	10	15	27	10	2

Philadelphia Athletics.

	A.B.	R.	H.	P.O.	A.	E.
Bishop, 2b	4	1	1	2	0	0
Haas, cf	4	1	1	1	0	0
Cochrane, c	3	0	0	10	1	0
Simmons, lf	4	1	2	0	0	0
Foxx, 1b	3	0	0	8	1	0
Miller, rf	4	0	2	5	0	0
Dykes, 3b	3	0	0	0	1	0
Boley, ss	3	0	0	1	3	0
Ehmke, p	1	0	0	0	2	0
Walberg, p	1	0	0	0	1	0
†French	1	0	0	0	0	0
Totals	31	3	6	27	9	0

PLAYERS ELIGIBLE FOR 1929 BASEBALL WORLD SERIES.

Philadelphia Athletics (American League)

Player's Name.	Position.	Bats.	Thrs.	Hgt.	Wgt.	Date and Place of Birth.
Max Bishop	Infielder	L.	R.	5.08½	160	Sept. 5, 1899, Waynesboro, Pa.
Joe Boley	Infielder	R.	R.	5.11	170	July 26, 1898, Mahanoy City, Pa.
George Burns	Infielder	R.	R.	6.01	185	Jan. 31, 1893, Niles, Ohio
Edward Collins	Infielder	L.	R.	5.09	158	May 2, 1887, Millerton, N. Y.
James Cronin	Infielder	L.-R.	R.	5.10½	155	Aug. 7, 1906, Oakland, Cal.
James Dykes	Infielder	R.	R.	5.09	180	Nov. 10, 1896, Philadelphia, Pa.
James Foxx	Infielder	R.	R.	5.11	175	Oct. 22, 1907, Sudlersville, Md.
Samuel Hale	Infielder	R.	R.	5.09	165	Sept. 10, 1896, Glenrose, Tex.
Walter French	Outfielder	L.	R.	5.07½	158	July 12, 1899, Moorestown, N. J.
George Haas	Outfielder	L.	R.	6.02	170	Oct. 15, 1903, Montclair, N. J.
De Witt LeBourveau	Outfielder	L.	R.	5.11	180	Aug. 24, 1896, Dana, Cal.
Edmund Miller	Outfielder	R.	R.	5.11½	187	Aug. 30, 1894, Vinton, Iowa.
Al Simmons	Outfielder	R.	R.	5.11	198	May 22, 1903, Milwaukee, Wis.
Homer Summa	Outfielder	L.	R.	5.10	170	Nov. 3, 1899, Gentry, Mo.
Gordon Cochrane	Catcher	L.	R.	5.10½	175	April 6, 1903, Bridgewater, Mass.
Ralph Perkins	Catcher	R.	R.	5.09	165	Feb. 27, 1896, Gloucester, Mass.
Wm. Breckenridge	Pitcher	R.	R.	5.11	175	Oct. 27, 1906, Tulsa, Okla.
George Earnshaw	Pitcher	R.	R.	6.04	200	Feb. 15, 1900, New York, N. Y.
Howard Ehmke	Pitcher	R.	R.	6.02½	182	April 24, 1894, Silver Creek, N. Y.
Robert Grove	Pitcher	L.	L.	6.02½	174	March 6, 1900, Lonaconing, Md.
John Quinn	Pitcher	R.	R.	6.00	200	July 5, 1885, Hazleton, Pa.
Edwin Rommel	Pitcher	R.	R.	6.02	180	Sept. 13, 1897, Baltimore, Md.
William Shores	Pitcher	R.	R.	6.00	180	May 26, 1905, Abilene, Tex.
George Walberg	Pitcher	L.	L.	6.01	185	July 27, 1899, Seattle, Wash.
Carroll Yerkes	Pitcher	R.	L.	5.11	164	June 13, 1903, McSherrytown, Pa

Chicago Cubs (National League)

Player's Name.	Position.	Bats.	Thrs.	Hgt.	Wgt.	Date and Place of Birth.
Clyde Beck	Infielder	R.	R.	5.10	150	Jan. 6, 1902, Los Angeles, Cal.
Clarence Blair	Infielder	L.	R.	6.02	190	July 13, 1903, Texarkana, Tex.
Elwood English	Infielder	R.	R.	5.10	155	March 2, 1907, Fredonia, Ohio.
Charles Grimm	Infielder	L.	L.	5.11½	177	Aug. 25, 1899, St. Louis, Mo.
Rogers Hornsby	Infielder	R.	R.	5.11	175	April 27, 1896, Winters, Tex.
Norman McMillan	Infielder	R.	R.	5.11½	175	Nov. 5, 1897, Latta, S. C.
Charles Tolson	Infielder	R.	R.	6.00	185	Nov. 6, 1901, Washington, D. C.
Hazen Cuyler	Outfielder	R.	R.	5.10½	180	Aug. 30, 1899, Harrisville, Mich.
Clifton Heathcote	Outfielder	L.	L.	5.10½	155	Jan. 24, 1898, Glen Rock, Pa.
John F. Moore	Outfielder	L.	R.	5.10½	175	March 23, 1903, Waterville, Conn.
Riggs Stephenson	Outfielder	R.	R.	5.10	180	Jan. 5, 1899, Akron, Ala.
Lewis Wilson	Outfielder	R.	R.	5.06	185	April 26, 1900, Ellwood City, Pa.
Miguel Gonzales	Catcher	R.	R.	6.01	165	Sept. 24, 1892, Havana, Cuba.
Charles Hartnett	Catcher	R.	R.	6.01	185	Dec. 20, 1900, Woonsocket, R. I.
John Schulte	Catcher	L.	R.	5.11	175	Sept. 9, 1897, Fredericktown, Mo.
James Taylor	Catcher	R.	R.	5.11	185	July 27, 1898, Neoga, Fla.
John Blake	Pitcher	L.	R.	5.11	175	Sept. 17, 1899, Anstead, W. Va.
Guy Bush	Pitcher	R.	R.	6.00	160	Aug. 23, 1902, Aberdeen, Miss.
Harold Carlson	Pitcher	R.	R.	6.00	180	May 17, 1894, Rockford, Ill.
Mike Cvengros	Pitcher	L.	L.	5.10	155	Dec. 1, 1902, Pana, Ill.
Henry Grampp	Pitcher	R.	R.	6.01½	187	Sept. 28, 1905, New York, N. Y.
Perce Malone	Pitcher	L.	R.	6.00	190	Sept. 25, 1902, Altoona, Pa.
Arthur Nehf	Pitcher	L.	L.	5.09	175	July 31, 1892, Terre Haute, Ind.
Kenneth Penner	Pitcher	L.	R.	5.11½	172	April 24, 1896, Florence, Ala.
Charles Root	Pitcher	R.	R.	5.11	165	March 17, 1899, Middletown, Ohio.

CHAMPION BATTERS AND THEIR AVERAGES—NATIONAL LEAGUE.

Year.	Player.	Club.	Average.	Year.	Player.	Club.	Average.
1890	Luby	Chicago	.342	1910	Magee	Philadelphia	.331
1891	Hamilton	Boston	.338	1911	Wagner	Pittsburgh	.334
1892	Brouthers	Boston	.335	1912	Zimmerman	Chicago	.372
1893	Stenzel	Pittsburgh	.409	1913	Daubert	Brooklyn	.350
1894	Duffy	Boston	.438	1914	Daubert	Brooklyn	.329
1895	Burkett	Cleveland	.423	1915	Doyle	New York	.320
1896	Burkett	Cleveland	.410	1916	Chase	Cincinnati	.339
1897	Keeler	Baltimore	.417	1917	Roush	Cincinnati	.341
1898	Keeler	Baltimore	.387	1918	Wheat	Brooklyn	.335
1899	Delehanty	Philadelphia	.408	1919	Cravath	Philadelphia	.321
1900	Wagner	Pittsburgh	.384	1920	Hornsby	St. Louis	.370
1901	Burkett	St. Louis	.382	1921	Hornsby	St. Louis	.397
1902	Beaumont	Pittsburgh	.367	1922	Hornsby	St. Louis	.401
1903	Wagner	Pittsburgh	.355	1923	Hornsby	St. Louis	.384
1904	Wagner	Pittsburgh	.349	1924	Hornsby	St. Louis	.424
1905	Seymour	Cincinnati	.377	1925	Hornsby	St. Louis	.403
1906	Wagner	Pittsburgh	.339	1926	Hargrave	Cincinnati	.353
1907	Wagner	Pittsburgh	.350	1927	P. Waner	Pittsburgh	.380
1908	Wagner	Pittsburgh	.354	1928	Hornsby	Boston	.387
1909	Wagner	Pittsburgh	.341	1929 (unoff.)	O'Doul	Philadelphia	.400

AMERICAN LEAGUE.

Year.	Player.	Club.	Average.	Year.	Player.	Club.	Average.
1901	Lajoie	Philadelphia	.368	1916	Cleveland	Boston	.386
1902	Delehanty	Washington	.405	1917	Cobb	Detroit	.383
1903	Lajoie	Cleveland	.376	1918	Cobb	Detroit	.382
1904	Lajoie	Cleveland	.355	1919	Cobb	Detroit	.384
1905	Lajoie	Cleveland	.381	1920	Sisler	St. Louis	.409
1906	Stone	St. Louis	.329	1921	Heilmann	Detroit	.394
1907	Cobb	Detroit	.358	1922	Sisler	St. Louis	.419
1908	Cobb	Detroit	.350	1923	Heilmann	Detroit	.403
1909	Cobb	Detroit	.354	1924	Ruth	New York	.378
1910	Cobb	Detroit	.377	1925	Heilmann	Detroit	.393
1911	Cobb	Detroit	.385	1926	Manush	Detroit	.377
1912	Cobb	Detroit	.420	1927	Heilmann	Detroit	.398
1913	Cobb	Detroit	.410	1928	Manush	St. Louis	.378
1914	Cobb	Detroit	.390	1929 (unoff.)	Fonseca	Cleveland	.369
1915	Cobb	Detroit	.370				

BASEBALL WORLD'S CHAMPIONSHIPS—1884-1928

YEAR.	Winners.	G'm's Won.	Losers.	G'm's Won.	YEAR.	Winners.	G'm's Won.	Losers.	G'm's Won.
1884..	Provid'ce, N.L.	3	Met'p't'ns,A.A.	0	1911..	Phila., A. L....	4	N. Y., N. L....	2
1885..	Chicago, N. L..	3	St. Louis, A.A..	3 tie	1912..	Boston, A. L...	4	N. Y., N. L....	3
1886..	St. Louis, A. A.	4	Chicago, N. L..	2	1913..	Phila., A. L...	4	N. Y., N. L....	1
1887..	Detroit, N. L...	10	St. Louis, A. A.	4	1914..	Boston, N. L..	4	Phila., A. L....	0
1888..	N. Y., N. L....	10	St. Louis, A. A.	4	1915..	Boston, A. L...	4	Phila., N. L...	1
1889..	N. Y., N. L....	6	B'klyn, A. A....	3	1916..	Boston, A. L...	4	B'klyn, N. L...	1
1890..	Louisville, N.L.	3	B'klyn, A. A....	3 tie	1917..	Chicago, A. L..	4	N. Y., N. L....	2
1892..	Boston, N. L...	5	Clevel'd, N. L..	0	1918..	Boston, A. L...	4	Chicago, N. L..	2
1894..	N. Y., N. L....	4	Balto., N. L....	0	1919..	Cincinnati,N.L.	5	Chicago, A. L..	3
1895..	Clevel'd, N. L..	4	Balto., N. L....	1	1920..	Clevel'd, A. L..	5	B'klyn, N. L...	2
1896..	Balto., N. L....	4	Clevel'd, N. L..	0	1921..	N. Y., N. L....	5	N. Y., A. L....	3
1897..	Balto, N. L....	4	Boston, N. L...	1	1922..	N. Y., N. L....	4	N. Y., A. L....	0
1903..	Boston, A. L...	5	Pittsb'gh, N.L..	3	1923..	N. Y., A. L....	4	N. Y., N. L....	2
1905..	N. Y., N. L....	4	Phila., A. L....	1	1924..	Wash., A. L....	4	N. Y., N. L....	3
1906..	Chicago, A. L..	4	Chicago, N. L..	2	1925..	Pittsb'gh, N. L.	4	Wash., A. L....	3
1907..	Chicago, N. L..	4	Detroit, A. L...	0	1926..	St. Louis, N. L.	4	N. Y., A. L....	3
1908..	Chicago, N. L..	4	Detroit, A. L...	1	1927..	N. Y., A. L....	4	Pitts., N. L....	0
1909..	Pittsb'gh, N.L..	4	Detroit, A. L...	3	1928..	N. Y., A. L....	4	St. Louis, N. L.	0
1910..	Phila., A. L....	4	Chicago, N. L..	1	1929..	Phila, A. L....	4	Chicago, N. L..	1

The paid attendance and receipts by games were—first, 50,740 ($219,738); second, 49,987 ($217,311); third, 29,991 ($140,815); fourth, 29,991 ($140 815); fifth, 29,991 ($140,815); total, 190,490 ($859,494).

The two leagues and the two clubs, as organizations, received, each of the four, $128,047.86. The players in the two clubs divided $388,086.66 among them. The Commissioner's share was $35,949.40.

RECEIPTS AND ATTENDANCE SINCE 1903.

YR.	Clubs.	G.	Atten-dance.	Receipts.	YR.	Clubs.	G.	Atten-dance.	Receipts.
1903	Bost., A. L.-Pitts., N. L..	8	100,429	$50,000	1917	Chicago, A.L.-N.Y., N.L..	6	128,654	$425,878
1905	N.Y., N.L.-Athletics, A.L.	5	91,723	68,436	1918	Boston, A.L.-Chicago, N.L.	6	186,483	179,619
1906	White Sox, A.L.-Cubs, N.L.	6	99,845	106,550	1919	Cincin'ti, N.L.-Chi'go, A.L.	8	236,928	722,414
1907	Chicago, N.L.-Detroit, A.L.	5	78,068	101,728	1920	Cleve., A.L.-B'klyn, N.L..	7	174,349	564,800
1908	Chicago, N.L.-Detroit, A.L.	5	62,223	94,975	1921	N. Y., N. L.-N. Y., A. L..	8	269,976	900,233
1909	Pitts., N.L.-Detroit, A.L..	7	145,295	188,302	1922	N. Y., N. L.-N. Y., A. L..	5	185,947	605,475
1910	Athletics, A.L.-Chi'go, N.L	5	125,222	173,980	1923	N. Y., A. L.-N. Y., N. L..	6	301,430	1,063,815
1911	Athletics, A.L.-Giants, N.L.	6	179,851	342,364	1924	Wash., A. L.-N. Y., N. L..	7	283,695	1,093,104
1912	Red Sox, A.L.-Giants, N.L.	8	252,037	490,833	1925	Pitts., N. L.-Wash., A. L.	7	282,830	1,182,854
1913	Athletics, A.L.-Giants, N.L.	5	150,992	325,980	1926	St. L., N.L.-N. Y., A.L...	7	328,051	1,207,864
1914	Boston, N. L.-Phila., A. L.	4	111,909	226,739	1927	N. Y., A. L.-Pitts., N. L..	4	201,105	783,217
1915	Boston, A. L.-Phila., N.L..	5	143,351	320,361	1928	N. Y., A. L.-St. Louis, N. L.		199,075	777,290
1916	Boston, A.L.-B'klyn, N.L..	5	162,859	385,590	1929	Phila, A. L.-Chic, N. L....		190,490	859,484

BASEBALL PENNANT WINNERS—NATIONAL LEAGUE.

Year.	Winner.	Won.	Lost.	Per Cent.	Manager.	Clubs.	Year.	Winner.	Won.	Lost.	Per Cent.	Manager.	Clubs.
1876..	Chicago.....	52	14	.788	Spalding.....	8	1903..	Pittsburgh....	91	49	.650	Clarke.....	8
1877..	Boston.....	31	17	.646	H. Wright...	6	1904..	New York.....	106	47	.693	McGraw.....	8
1878..	Boston.....	41	19	.683	H. Wright...	6	1905..	New York.....	105	48	.686	McGraw.....	8
1879..	Providence....	55	23	.705	G. Wright...	8	1906..	Chicago.....	116	36	.763	Chance.....	8
1880..	Chicago.....	67	17	.798	Anson.....	8	1907..	Chicago.....	107	45	.704	Chance.....	8
1881..	Chicago.....	56	28	.667	Anson.....	8	1908..	Chicago.....	95	55	.643	Chance.....	8
1882..	Chicago.....	55	29	.655	Anson.....	8	1909..	Pittsburgh....	110	42	.724	Clarke.....	8
1883..	Boston.....	63	35	.643	Morrell.....	8	1910..	Chicago.....	104	50	.676	Chance.....	8
1884..	Providence....	84	28	.750	Bancroft....	8	1911..	New York.....	99	54	.647	McGraw.....	8
1885..	Chicago.....	87	25	.776	Anson.....	8	1912..	New York.....	103	48	.682	McGraw.....	8
1886..	Chicago.....	90	34	.725	Anson.....	8	1913..	New York.....	101	51	.664	McGraw.....	8
1887..	Detroit.....	79	45	.637	Watkins.....	8	1914..	Boston.....	94	59	.615	Stallings.....	8
1888..	New York.....	84	47	.641	Mutrie.....	8	1915..	Philadelphia...	90	62	.592	Moran.....	8
1889..	New York.....	83	43	.659	Mutrie.....	8	1916..	Brooklyn.....	94	60	.610	Robinson.....	8
1890..	Brooklyn.....	86	43	.667	McGunnigle..	8	1917..	New York.....	98	56	.636	McGraw.....	8
1891..	Boston.....	87	51	.630	Selee.....	8	1918..	Chicago.....	84	45	.651	Mitchell.....	8
1892..	Boston.....	102	48	.680	Selee.....	12	1919..	Cincinnati.....	96	44	.686	Moran.....	8
1893..	Boston.....	86	44	.662	Selee.....	12	1920..	Brooklyn.....	93	61	.604	Robinson.....	8
1894..	Baltimore.....	89	39	.695	Hanlon.....	12	1921..	New York.....	94	56	.614	McGraw.....	8
1895..	Baltimore.....	87	43	.669	Hanlon.....	12	1922..	New York.....	93	61	.604	McGraw.....	8
1896..	Baltimore.....	90	39	.698	Hanlon.....	12	1923..	New York.....	95	58	.621	McGraw.....	8
1897..	Boston.....	93	39	.705	Selee.....	12	1924..	New York.....	93	60	.608	McGraw.....	8
1898..	Boston.....	102	47	.685	Selee.....	12	1925..	Pittsburgh....	95	58	.621	McKechnie..	8
1899..	Brooklyn.....	101	47	.682	Hanlon.....	12	1926..	St. Louis.....	85	65	.578	Hornsby.....	8
1900..	Brooklyn.....	82	54	.603	Hanlon.....	8	1927..	Pittsburgh....	94	60	.610	Bush.....	8
1901..	Pittsburgh....	90	49	.647	Clarke.....	8	1928..	St. Louis.....	95	59	.617	McKecknie..	8
1902..	Pittsburgh....	103	36	.741	Clarke.....	8	1929..	Chicago.....	98	54	.645	McCarthy..	8

AMERICAN LEAGUE.

Year.	Winner.	Won.	Lost.	Per Cent.	Manager.	Clubs.	Year.	Winner.	Won.	Lost.	Per Cent.	Manager.	Clubs.
1900..	Chicago.....	82	52	.607	Comiskey....	8	1915..	Boston.....	101	50	.669	Carrigan....	8
1901..	Chicago.....	83	53	.610	Griffith.....	8	1916..	Boston.....	91	63	.591	Carrigan....	8
1902..	Philadelphia...	83	53	.610	Mack.....	8	1917..	Chicago.....	100	54	.649	Rowland.....	8
1903..	Boston.....	91	47	.659	Collins.....	8	1918..	Boston.....	75	51	.595	Barrow.....	8
1904..	Boston.....	95	59	.617	Collins.....	8	1919..	Chicago.....	88	52	.629	Gleason.....	8
1905..	Philadelphia...	92	56	.622	Mack.....	8	1920..	Cleveland.....	98	56	.636	Speaker.....	8
1906..	Chicago.....	93	58	.616	Jones.....	8	1921..	New York.....	98	55	.641	Huggins.....	8
1907..	Detroit.....	92	58	.613	Jennings....	8	1922..	New York.....	94	60	.610	Huggins.....	8
1908..	Detroit.....	90	63	.588	Jennings....	8	1923..	New York.....	98	54	.645	Huggins.....	8
1909..	Detroit.....	98	54	.645	Jennings....	8	1924..	Washington....	92	62	.597	Harris.....	8
1910..	Philadelphia...	102	48	.680	Mack.....	8	1925..	Washington....	96	55	.636	Harris.....	8
1911..	Philadelphia...	101	50	.669	Mack.....	8	1926..	New York.....	91	63	.591	Huggins.....	8
1912..	Boston.....	105	47	.691	Stahl.....	8	1927..	New York.....	110	44	.714	Huggins.....	8
1913..	Philadelphia...	96	57	.627	Mack.....	8	1928..	New York.....	101	53	.656	Huggins.....	8
1914..	Philadelphia...	99	53	.651	Mack.....	8	1929..	Philadelphia...	104	46	.693	Mack.....	8

OTHER CLUBS AND PLAYERS RECORDS IN 1929

NATIONAL LEAGUE.

Player. Club.	G.	A.	B.	R.	H.	H.R.	S.H.	S.B.	Pct
O'Dou., Phila.	154	636	149	254	32	123	2		.400
Cvengros, Chic.	33	15	5	6	0	1	0		.400
Herman, Bklyn.	146	569	105	217	21	111	21		.381
Hornsby, Chic.	156	602	155	229	39	145	2		.380
Terry, N. Y.	150	608	104	226	14	113	12		.372
Greenwich, N. Y.	26	33	7	12	0	2	1		.364
Mays, N. Y.	37	33	3	12	0	5	0		.364
Steph'son, Chic.	136	495	92	179	17	108	10		.362
Cuyler, Chic.	130	509	111	182	15	105	43		.358
Klein, Phila.	149	616	124	219	43	145	5		.356

AMERICAN LEAGUE.

	G.	A.	B.	R.	H.	H.R.	R.B.I.	S.B.	Pct
Zinn,'Cleveland	20	41	7	16	1	6	0		.390
Fonseca, Cleve.	148	566	98	209	6	100	17		.369
Simmons, Phila.	143	580	114	211	34	154	4		.364
Manush, St. L.	142	575	85	204	6	78	8		.355
Fothergill, Detr.	115	276	42	98	6	57	4		.355
Foxx, Phila	149	517	123	183	33	118	10		.354
Lazzeri, N. Y.	147	547	101	193	18	107	9		.353
Ruth, N. Y.	135	498	121	172	46	151	5		.346
Combs, N. Y.	142	585	119	202	3	55	11		.345
Heilman, Detroit.	125	455	86	157	15	115	6		.345

NATIONAL LEAGUE.

	G	H	B	B.	S.	O.	C.	G.	W.	L.	Pct.
Mays, N. Y.	37	140	32	31	1				7	2	.778
Rooth, Chicago.	43	287	83	112	19				19	6	.760
Bush, Chicago.	51	276	105	88	18				18	7	.720
Grimes, Pitts.	33	245	75	61	18				17	7	.708
Frankh'se, St. L.	30	147	44	36	6				7	3	.700
Malone, Chicago.	40	281	101	161	20				22	10	.688
Carlson, Chicago.	31	131	31	34	6				11	5	.688
Walker, N. Y.	29	198	55	65	13				14	7	.667
Johnson, St. L.	42	186	48	66	12				13	7	.650
Moss, Brooklyn.	39	215	76	60	7				11	6	.647
Hubbell, N. Y.	39	273	68	107	19				18	11	.621

AMERICAN LEAGUE.

	G.	H.	B.	B.	S.	O.	C.	G.	W.	L.	Pct.
Zachary, N. Y.	26	131	28	34	7				12	0	1.000
Rommel, Phila.	32	130	34	19	4				12	2	.857
Grove, Phila.	42	279	81	168	19				21	6	.778
Ehmke, Phila.	11	48	14	19	2				7	2	.778
E'nshaw, Phila.	44	233	125	140	13				23	8	.742
Yde, Detroit.	29	98	61	23	4				7	3	.700
Shores, Phila.	39	146	59	47	5				11	5	.688
Farrell, Cleve.	42	255	111	93	18				21	10	.677
Collins, St. L.	26	162	72	46	11				11	6	.647
Heimach, N. Y.	35	143	29	26	3				11	6	.647
M'berry, Wash.	49	232	71	114	16				19	12	.613

National League.

	Chicago.	Pitts.	N. Y.	St. Louis.	Phila.	Bklyn.	Cinn.	Boston.	Won.	Lost.	Percent.
Chicago	..	9	12	15	17	16	14	15	98	54	.645
Pittsburgh	13	..	8	16	11	13	13	14	88	65	.575
New York	10	13	..	16	16	7	12	13	84	67	.556
St. Louis	5	6	9	..	13	12	19	14	78	74	.513
Philadelphia	5	11	5	9	..	13	11	17	71	82	.464
Brooklyn	6	9	14	10	9	..	11	11	70	83	.458
Cincinnati	8	9	10	3	11	11	..	14	66	88	.429
Boston	7	8	9	8	5	11	8	..	56	98	.364
Games lost	54	65	67	74	82	83	88	98			

National—O'Doul, Phillies, .400. Runs—Hornsby, Cubs, 155. Runs batted in—Wilson, Cubs, 153. Hits—O'Doul, Phillies, 254. Doubles—Frederick, Dodgers, 53. Triples—L. Waner, Pirates, 20. Homers—Klein, Phillies, 43. Stolen bases—Cuyler, Cubs, 43 Pitching—Root, Cubs, won 19, lost 6.

American League.

Club.	Phila.	N. Y.	Cleve.	St. Louis.	Wash.	Detroit	Chicago.	Boston.	Won.	Lost.	Percent.
Philadelphia	..	14	14	11	16	18	13	18	104	46	.693
New York	8	..	8	14	12	13	16	17	88	66	.571
Cleveland	7	14	..	10	14	11	12	13	81	71	.533
St. Louis	10	8	12	..	9	12	17	11	79	73	.520
Washington	4	10	8	13	..	12	12	12	71	81	.467
Detroit	4	9	11	10	10	..	12	14	70	84	.455
Chicago	9	6	9	4	10	10	..	11	59	93	.388
Boston	4	5	9	11	10	8	11	..	58	96	.377
Games lost	46	69	71	73	81	84	93	96			

American — Batting — Fonseca, Indians, .369. Runs—Gehringer, Tigers, 130. Runs batted in—Simmons, Athletics, 154. Hits—Alexander, Tigers; Gehringer, Tigers, 214. Doubles—Johnson, Tigers, 48. Triples—Gehringer, Tigers, 19. Homers—Ruth, Yankees, 46. Stolen bases, Tigers, 27. Pitching—Grove, Athletics, won 21, lost 6.

RECORD IN MINOR LEAGUES.

International Legue.

	W.	L.	Pct.		W.	L.	Pct.
Rochester	103	65	.613	Buffalo	83	84	.497
Toronto	92	76	.548	Newark	81	85	.488
Baltimore	90	78	.536	Reading	80	88	.482
Montreal	88	79	.527	Jersey City	51	115	.307

American Association.

	W.	L.	Pct.		W.	L.	Pct.
Kansas City	111	56	.665	Louisville	75	90	.455
St. Paul	102	64	.614	Columbus	75	91	.452
Minneapolis	89	78	.533	Milwaukee	68	98	.410
Indianapolis	78	89	.467	Toledo	68	100	.405

Southern League.

	W.	L.	Pct.		W.	L.	Pct.
Birmingham	93	60	.608	Atlanta	78	75	.510
Nashville	90	63	.588	Little Rock	63	81	.409
New Orleans	89	64	.582	Mobile	57	95	.375
Memphis	88	66	.571	Chattanooga	55	99	.357

Texas League.

	W.	L.	Pct.		W.	L.	Pct.
Wichita Falls	49	30	.620	Waco	42	40	.512
Shreveport	45	33	.577	Houston	41	41	.500
Dallas	44	36	.550	Beaumont	37	44	.457
Fort Worth	43	37	.538	San Antonio	21	61	.256

Eastern League.

	W.	L.	Pct.		W.	L.	Pct
Albany	97	57	.630	New Haven	73	80	.477
Bridgeport	91	63	.591	Springfield	71	83	.461
Providence	81	70	.536	Allentown	61	90	.404
Pittsfield	77	75	.507	Hartford	60	93	.392

Three I League.

	W.	L.	Pct.		W.	L.	Pct.
Quincy	82	56	.594	Bloomington	70	70	.500
Decatur	81	57	.587	Peoria	61	76	.445
Evansville	79	57	.581	Springfield	59	77	.434
Terre Haute	72	66	.522	Danville	46	91	.336

New York-Pennsylvania League.

	W.	L.	Pct.		W.	L.	Pct.
Binghamton	83	56	.597	Elmira	66	72	.478
Williamsport	79	60	.568	Scranton	64	75	.460
Harrisburg	75	62	.547	Hazleton	63	74	.460
York	71	66	.518	Wilkes-Barre	50	86	.368

Mississippi Valley League.

	W.	L.	Pct.		W.	L.	Pct.
Dubuque	75	51	.595	Burlington	63	63	.500
Waterloo	72	54	.571	Keokuk	69	65	.480
Davenport	69	57	.548	Ced. Rapids	58	67	.464
Moline	63	63	.500	Rock Island	43	83	.341

Piedmont League.

	W.	L.	Pct.		W.	L.	Pct.
Durham	85	51	.625	High Point	67	72	.482
Greensboro	83	54	.606	Henderson	54	85	.388
Winston-Sal.	77	63	.550	Salisbury	48	89	.350

New England League.

	W.	L.	Pct.		W.	L.	Pct.
Manchester	45	22	.672	Portland	32	39	.451
Lynn	45	24	.652	Brockton	28	37	.431
New Bedford	34	27	.557	Nashua	25	37	.403
Lewiston	32	31	.508	Gloucester	19	43	.306

South Atlantic League.

	W.	L.	Pct.		W.	L.	Pct.
Knoxville	45	26	.634	Spartanb'g	32	33	.457
Augusta	42	29	.592	Greenville	32	40	.444
Asheville	38	32	.543	Macon	29	42	.408
Charlotte	38	33	.535	Columbia	28	44	.389

Pacific Coast League.

	W.	L.	Pct.		W.	L.	Pct.
Hollywood	61	42	.592	San Fran.	56	48	.439
Missions	61	43	.578	Oakland	55	49	.429
Los Angeles	58	46	.558	Sacramento	39	65	.375
Portland	57	46	.553	Seattle	28	76	.269

TENNIS RECORDS.

NATIONAL (U. S.) TENNIS CHAMPIONS—DOUBLES (TURF).

Year.	Doubles Champions.
1881...	C. M. Clark and F. W. Taylor.
1882-84	R. D. Sears and J. Dwight
1885...	R. D. Sears and J. S. Clark
1886-87	R. D. Sears and J. Dwight
1888...	O. S. Campbell and V. G. Hall
1889...	H. W. Slocum jr. and H. A. Taylor
1890...	V. G. Hall and C. Hobart
1891-92	O. S. Campbell and R. P. Huntington jr.
1893-94	C. Hobart and F. H. Hovey
1895...	M. G. Chase and R. D. Wrenn
1896...	C. B. Neel and S. R. Neel
1897-98	L. E. Ware and G. P. Sheldon jr.
1899-01	D. F. Davis and H. Ward
1902-03	R. F. Doherty and H. L. Doherty
1904-06	H. Ward and B. C. Wright
1907-10	F. B. Alexander and H. H. Hackett
1911...	R. D. Little and G. F. Touchard
1912-14	M. E. McLoughlin and T. C. Bundy
1915-16	W. M. Johnston and C. J. Griffin
1917...	*F. B. Alexander and H. A. Throckmorton
1918...	Vincent Richards and W. T. Tilden, 2d.
1919...	N. E. Brookes and G. R. Patterson
1920...	W. M. Johnston and C. J. Griffin
1921-22	W. T. Tilden, 2d. and Vincent Richards
1923...	W. T. Tilden, 2d. and B. I. C. Norton
1924...	H. O. Kinsey and R. G. Kinsey
1925-26	R. N. Williams and Vincent Richards
1927...	W. T. Tilden 2nd and F. T. Hunter
1928...	G. M. Lott, Jr., and John Hennessey
1929...	G. M. Lott, Jr. and John Doeg

*Patriotic tournament without championships.

National (U. S.) Tennis Champions in Singles (Outdoor)—(1881-87), R. D. Sears; (1888-89), H. W. Slocum; (1890-92), O. S. Campbell; (1893-94), R. D. Wrenn; (1895), F. H. Hovey; (1896-97), R. D. Wrenn; (1898-1900), M. D. Whitman; (1901-02), W. A. Larned; (1903), H. L. Doherty; (1904), H. Ward; (1905), B. C. Wright; (1906), W. J. Clothier; (1907-11), W. A. Larned; (1912-13) M. E. McLoughlin; (1914), R. N. Williams; (1915), W. M. Johnston; (1916), R. N. Williams; (1917-18), R. L. Murray; (1919), W. M. Johnston; (1920-25), W. T. Tilden, 2d; (1926-27), J. R. Lacoste (France), (1928) Henri Cochet (France); (1929) W. T. Tilden, 2nd.

NATIONAL (U. S.) INDOOR TENNIS CHAMPIONS.

Yr.	Champion.	Doubles Champions.
1900	J. A. Allen....	Calhoun Cragin & J. P. Paret.
1901	H. Ward.....	C. Cragin & O. M. Bostwick.
1902	J. P. Paret....	W. C. Grant & Robert LeRoy.
1903	W. C. Grant..	W. C. Grant & Robert LeRoy.
1904	W. C. Grant..	W. C. Grant & Robert LeRoy.
1905	E. B. Dewhurst	T. R. Pell & H. F. Allen.
1906	W. C. Grant..	F. B. Alexander & H. H. Hackett
1907	T. R. Pell....	F. B. Alexander & H. H. Hackett
1908	W. C. Grant..	F. B. Alexander & H. H. Hackett
1909	T. R. Pell....	W. C. Grant & T. R. Pell.
1910	G. F. Touchard	G. F. Touchard & C. R. Gardner
1911	T. R. Pell....	F. B. Alexander & T. R. Pell.
1912	W. C. Grant .	F. B. Alexander & T. R. Pell.
1913	G. F. Touchard	W. C. Grant & G. C. Shafer.
1914	G. F. Touchard	W. C. Grant & G. C. Shafer.
1915	G. F. Touchard	G. F. Touchard & W. M. Washburn.
1916	R. L. Murray .	A. M. Lovibond and Dr. W. Rosenbaum.
1917	S. H. Voshell..	F. B. Alexander & Dr. W. Rosenbaum
1918	S. H. Voshell..	G. C. Shafer & Lieut. K. Smith.
1919	V. Richards...	W. T. Tilden, 2d & V. Richards.
1920	W. T. Tilden, 2d	W. T. Tilden 2d & V. Richards.
1921	F. T. Anderson	V. Richards & S. H. Voshell.
1922	F. T. Hunter..	F. T. Anderson & S. H. Voshell.
1923	V. Richards...	V. Richards & F. T. Hunter.
1924	V. Richards...	V. Richards & F. T. Hunter.
1925	Jean Borotra..	Jean Borotra & A. Asthalter.
1926	J. R. Lacoste.	W. T. Tilden & F. C. Anderson.
1927	J. Borotra....	J. Borotra & J. Brugnon.
1928	W. Aydelotte .	P. G. Rockafellow and W. Aydelotte.
1929	J. Borotra....	F. T. Hunter and W. T. Tilden.

INTERCOLLEGIATE (U. S.) TENNIS CHAMPIONS.

Yr.	Champion.	College.	Doubles Champions.	College.
1883	J. S. Clark (Spring).....	Harvard.....	J. S. Clark and H. A. Taylor (Spring)....	Harvard.
	H. A. Taylor (Fall).....	Harvard.....	H. A. Taylor and P. E. Presbrey (Fall)...	
1884	W. P. Knapp.....	Yale.....	W. P. Knapp and W. B. S. Thorne.....	Yale.
1885	W. P. Knapp.....	Yale.....	W. P. Knapp and A. L. Shipman.....	Yale.
1886	G. M. Brinley.....	Trinity.....	W. P. Knapp and W. L. Thatcher.....	Yale.
1887	P. S. Sears.....	Harvard.....	P. S. Sears and Q. A. Shaw, jr.....	Harvard.
1888	P. S. Sears.....	Harvard.....	V. G. Hall and O. S. Campbell.....	Columbia.
1889	R. P. Huntington, jr.....	Yale.....	O. S. Campbell and A. E. Wright.....	Columbia.
1890	F. H. Hovey.....	Harvard.....	Q. A. Shaw, jr, and S. T. Chase.....	Harvard.
1891	F. H. Hovey.....	Harvard.....	F. H. Hovey and R. D. Wrenn.....	Harvard.
1892	W. A. Larned.....	Cornell.....	R. D. Wrenn and F. B. Winslow.....	Harvard.
1893	M. G. Chace.....	Brown.....	M. G. Chace and C. R. Budlong.....	Brown.
1894	M. G. Chace.....	Yale.....	M. G. Chace and A. E. Foote.....	Yale.
1895	M. G. Chace.....	Yale.....	M. G. Chace and A. E. Foote.....	Yale.
1896	M. D. Whitman.....	Harvard.....	L. E. Ware and W. M. Scudder.....	Harvard
1897	S. G. Thomson.....	Princeton.....	L. E. Ware and M. D. Whitman.....	Harvard.
1898	L. E. Ware.....	Harvard.....	L. E. Ware and M. D. Whitman.....	Harvard.
1899	D. F. Davis.....	Harvard.....	Holcombe Ward and D. F. Davis.....	Harvard.
1900	R. D. Little.....	Princeton.....	F. B. Alexander and R. D. Little.....	Princeton.
1901	F. B. Alexander.....	Princeton.....	H. A. Plummer and S. L. Russell.....	Yale.
1902	W. J. Clothier.....	Harvard.....	W. J. Clothier and E. W. Leonard.....	Harvard.
1903	E. B. Dewhurst.....	U. of Penn....	B. Colston and E. Clapp.....	Yale.
1904	R. LeRoy.....	Columbia.....	K. H. Behr and G. Bodman.....	Yale.
1905	E. B. Dewhurst.....	U. of Penn....	E. B. Dewhurst and Register.....	Pennsylvania.
1906	R. LeRoy.....	Columbia.....	Wells and Spaulding.....	Yale.
1907	G. P. Gardner.....	Harvard.....	N. W. Niles and A. S. Dabney.....	Harvard.
1908	N. W. Niles.....	Harvard.....	H. M. Tilden and A. Thayer.....	Pennsylvania.
1909	W. F. Johnson.....	U. of Penn....	W. F. Johnson and A. Thayer.....	Pennsylvania.
1910	R. A. Holden, jr.....	Yale.....	D. Mathey and B. N. Dell.....	Princeton.
1911	E. H. Whitney.....	Harvard.....	D. Mathey and Butler.....	Princeton.
1912	G. M. Church.....	Princeton.....	G. M. Church and W. H. Mace.....	Princeton.
1913	R. N. Williams, 2d.....	Harvard.....	W. M. Washburn and J. J. Armstrong...	Harvard.
1914	G. M. Church.....	Princeton.....	R. N. Williams, 2d, and Richard Harte..	Harvard.
1915	R. N. Williams, 2d.....	Harvard.....	R. N. Williams, 2d, and Richard Harte..	Harvard.
1916	G. C. Caner.....	Harvard.....	G. C. Caner and Richard Harte.....	Harvard.
1917-1918	—No tournaments.			
1919	C. S. Garland.....	Yale.....	C. S. Garland and K. N. Hawkes.....	Yale.
1920	L. M. Banks.....	Yale.....	A. Wilder and L. Wiley.....	Yale.
1921	Philip Neer.....	Stanford.....	J. B. Fenno, jr., and E. W. Feiblemen....	Harvard.
1922	L. E. Williams.....	Yale.....	P. Neer and J. Davies.....	Stanford.
1923	C. Fischer.....	Phila. C. C....	L. N. White and L. Thalheimer.....	Texas.
1924	W. Scott.....	Washington...	L. N. White and L. Thalheimer.....	Texas.
1925	E. G. Chandler.....	California....	G. Stratford and G. Hillis.....	California.
1926	E. G. Chandler.....	California....	E. G. Chandler and T. Stow.....	California.
1927	Wilmer Allison.....	Texas.....	J. Van Ryn and K. Appel.....	Princeton.
1928	Julius Seligson.....	Lehigh.....	Ralph McElvenny and Alan Herrington..	Stanford
1929	Berkeley Ball.....	Texas.....	Benj. Gorcha Koff and Arthur Kussman..	Occidental.

NATIONAL (U. S.) CLAY COURT TENNIS CHAMPIONS.

Year	Champion.	Doubles Champions.	Year	Champion.	Doubles Champions.
1910	M. H. Long	F. G. Anderson-W. T. Hayes.	1920	Roland Roberts	R. Roberts-V. Richards.
1911	W. T. Hayes	J. Winston-H. Whitehead	1921	W. T. Hayes	W. T. Hayes-C. B. Herd.
1912	R.N.Williams,2d	H. H. Hackett-W. M. Hall.	1922	W. T. Tilden, 2d	R. Burdick-F. Bastian.
1913	J. R. Strachan	J. R. Strachan-C. J. Griffin.	1923	W. T. Tilden, 2d	R. Kinsey-H. Kinsey.
1914	C. J. Griffin	N. Browne-C. Wayne.	1924	W. T. Tilden, 2d	R. Kinsey-H. Kinsey.
1915	R.N.Williams, 2d	G. M. Church-D. Mathey.	1925	W. T. Tilden, 2d	W. Westbrook-H. Snodgrass.
1916	W. E. Davis	G. M. Church-D. Mathey	1926	W. T. Tilden, 2d	L. White-L. Thalheimer.
1917*		C. S. Garland-S. Hardy.	1927	W. T. Tilden, 2d	J. Hennessey-L. Williams.
1918	W. T. Tilden, 2d.	C. S. Garland-S. Hardy.	1929	Emmett Pare	Gil. Hall-Fritz Mercur.
1919	W. M. Johnston.	W. Johnston-S. Hardy.			

*Patriotic tournament without championships. 1928 Not held.

Karel Kozeluh, Bohemian champion, defeated Vincent Richards in the third annual national (U. S.) professional championship, in Sept., 1929—6—4; 6—4; 4—6; 4—6; 7—5.

NATIONAL (U. S.) WOMEN TENNIS CHAMPIONS.

Yr.	Singles Champions.	Doubles Champions.	Mixed Doubles Champions.
1887	Miss Ellen F. Hansell.		
1888	Miss B. L. Townsend.		
1889	Miss B. L. Townsend.		
1890	Miss E. C. Roosevelt	Misses E. C. & G. W. Roosevelt.	
1891	Miss Mabel E. Cahill	Miss M. E. Cahill & Mrs. F. Morgan.	
1892	Miss Mabel E. Cahill	Misses M.E.Cahill & A.M.McKinley	Miss M. E. Cahill & Clar. Hobart.
1893	Miss Aline M. Terry	Misses A. M. Terry & H. Butler	Miss E.C.Roosevelt & Clar. Hobart.
1894	Miss Helen R. Helwig	Misses H.R.Helwig & J.P.Atkinson.	Miss J. P. Atkinson & E. P. Fischer.
1895	Miss J. P. Atkinson	Misses J.P.Atkinson & H.R.Helwig.	Miss J.P.Atkinson & E.P.Fischer.
1896	Miss Elizabeth H. Moore	Misses E.H.Moore & J.P.Atkinson	Miss J.P.Atkinson & E.P.Fischer.
1897	Miss J. P. Atkinson	Misses J.P.Atkinson & K. Atkinson	MissLauraHenson & D.L.Magruder.
1898	Miss J. P. Atkinson	Misses J. P. Atkinson & K. Atkinson.	Miss Carrie Neely & E. P. Fischer.
1899	Miss Marion Jones	Misses M. McAteer and J. Craven.	Miss Edith Rastall & A. L. Hoskins.
1900	Miss Murtie McAteer	Misses E. Parker & H. Champlin	Miss M. Hunnewell & Alf. Codman.
1901	Miss Elizabeth H. Moore	Misses M. McAteer & J. P. Atkinson.	Miss Marion Jones & R. D. Little.
1902	Miss Marion Jones	Misses M. Jones & J. P. Atkinson	Miss E. H. Moore & W. C. Grant.
1903	Miss Elizabeth H. Moore	Misses E. H. Moore & C. B. Neely	Miss Chapman & Harry Allen.
1904	Miss May Sutton	Misses M. Sutton & M. Hall	Miss E. H. Moore & W. C. Grant.
1905	Miss Elizabeth H. Moore	Misses H. H. Homans & C. B. Neely	Mr. and Mrs. Clarence Hobart.
1906	Miss Helen H. Homans	Mrs. L. F. Coé & Mrs. D. F. Platt	Miss Coffin & E. B. Dewhurst.
1907	Miss Evelyn Sears	Misses Neely & Weimer	Miss Sayres & W. F. Johnson.
1908	Mrs. Barger Wallach	Misses E. Sears & M. Curtis	Miss E. Rotch & N. W. Niles.
1909	Miss Hazel Hotchkiss	Misses H. Hotchkiss & E. Rotch	Miss H. Hotchkiss & W. F. Johnson.
1910	Miss Hazel Hotchkiss	Misses E. Rotch & H. Hotchkiss	Miss Hotchkiss & J. R. Carpenter, jr.
1911	Miss Hazel Hotchkiss	Misses E. Sears and H. Hotchkiss	Miss Hotchkiss & W. F. Johnson.
1912	Miss Mary Browne	Misses M. Browne & D. Green	Miss M. Browne & R.N.Williams,2d.
1913	Miss Mary Browne	MissM.Browne&Mrs.R.H.Williams.	Miss M. Browne & W. T. Tilden, 2d.
1914	Miss Mary Browne	MissM.Browne&Mrs.R.H.Williams.	Miss M. Browne & W. T. Tilden, 2d.
1915	Miss Molla Bjurstedt	Mrs.G.W.Wightman & MissEl.Sears.	Mrs.G.W.Wightman&H.C.Johns'n.
1916	Miss Molla Bjurstedt	Misses M. Bjurstedt & E. Sears	Miss E. Sears & W. E. Davis.
1917	Miss Molla Bjurstedt	Misses M. Bjurstedt & E. Sears	Miss M. Bjurstedt & I. C. Wright.
1918	Miss Molla Bjurstedt	Misses E. Goss & M. Zinderstein	Mrs. G. W. Wightman & I.C. Wright.
1919	Mrs. Geo. W. Wightman	Misses E. Goss & M. Zinderstein	Miss M. Zinderstein & V. Richards.
1920	Mrs. F. I. Mallory	Misses E. Goss & M. Zinderstein	Mrs.G.W.Wightm'n&W.F.Johns'n.
1921	Mrs. F. I. Mallory	Miss M. Brown & Mrs. L. R. Williams	Miss M. Brown & W. M. Johnston.
1922	Mrs. F. I. Mallory	Mrs. M. Z. Jessup & Miss H. Wills	Mrs. F. Mallory & W.T.Tilden, 2d.
1923	Miss Helen Wills	Mrs. B.C.Covell & Miss K. McKane	Mrs. F. Mallory & W.T.Tilden, 2d.
1924	Miss Helen Wills	Mrs. G.W.Wightman & Helen Wills	Miss Helen Wills & V. Richards.
1925	Miss Helen Wills	Helen Wills & Mary Browne	Miss K. McKane & J. B. Hawkes.
1926	Mrs. F. I. Mallory	Misses E. Ryan & E. Goss	Miss E. Ryan & J. Borotra.
1927	Miss Helen Wills	Mrs. K. McK. Godfree & Miss E. Harvey	Miss E. Bennett & H. Cochet.
1928	Miss Helen Wills	Miss Wills & Mrs. Wightman	Miss Wills & J. B. Hawkes.
1929	Miss Helen Wills	Mrs. M. Watson & Mrs. L. R. C. Michell	Miss B. Nuthall & G. M. Lott.

NATIONAL (U. S.) INDOOR WOMEN TENNIS CHAMPIONS.

Year	Champion.	Doubles Champions.	Year	Champion.	Doubles Champions.
1909	Miss M. Wagner	Miss Moore-Miss Marcus.	1921	Mrs.F.I.Mallory	Mrs.W'tman-MissZ'derstein.
1910	Miss. F. Schmitz	Miss Wagner-Miss Kutroff.	1922	Mrs.F.I.Mallory	Mrs. Jessup-Mrs. Godfrey.
1911	Miss M. Wagner	Miss Bunce-Miss Fleming.	1923	Mrs. B. E. Cole	Mrs. Cole-Mrs. Godfrey.
1913	Miss M. Wagner	Miss Wagner-Miss Kutroff.	1924	Mrs.M.Z.Jessup	Mrs.M.Z.Jessup-Mrs.W'tman
1914	Miss M. Wagner	Mrs. Weaver-Miss C. Cassel.	1925	Mrs.M.Z.Jessup	Mrs. Corbiere-Mrs. Endicott.
1915	MissM.Bjurstedt	Mrs. McLean-Mrs. Weaver.	1926	Miss E. Ryan	MissesE.Ryan-M.K.Browne.
1916	MissM.Bjurstedt	Miss Wagner-Miss Bjurstedt	1927	Mrs. Wightman	Mrs. Wightman-Mrs. Jessup.
1917	Miss M. Wagner	Miss Wagner-Miss Taylor.	1928	Miss E. Sigoneay	Miss E. Sigoneay-Miss S. Palfrey.
1918	MissM.Bjurstedt	Mrs. Weaver-Miss Goss.			
1919	Mrs. Wightman	Mrs.W'tman-MissZ'derstein	1929	Miss M. Blake	Mrs.Wightman-D. S. Palfrey.
1920	Miss H. Pollak.	Miss Pollak-Mrs. Morris.			

1929 WIGHTMAN CUP WOMEN'S INTERNATIONAL TEAM MATCH AT FOREST HILLS.

United States.	England.	Winner.
Miss Helen Jacobs	Miss Betty Nuthall	United States, 7-5, 8-6
Miss Helen Wills	Mrs. M. Watson	United States, 6-1, 6-4
Miss Helen Jacobs	Mrs. M. Watson	England, 6-3, 6-2
Miss Helen Wills	Miss Betty Nuthall	United States, 8-6, 8-6
Miss Edith Cross	Mrs. L. R. C. Michell	United States, 6-3, 3-6, 6-3
Miss Wills and Miss Cross	Mrs. Watson and Mrs. Michell	England, 6-4, 6-1
Mrs. Wightman and Miss Jacobs	Mrs. B. C. Covell and Mrs. D. C. Shepherd-Barron	England, 6-2, 6-1

United States won	4 Matches	8 Sets	71 Games
England won	3 Matches	7 Sets	76 Games

RESULTS OF SEVEN YEARS' PLAY, 1923-1929.

United States won	4 Series	27 Matches	62 Sets	500 Games
England won	3 Series	22 matches	51 Sets	486 Games

DAVIS CUP INTERNATIONAL TENNIS MATCHES—CHALLENGE ROUND.

Yr.	Winner.	Loser.	Score	Yr.	Winner.	Loser.	Score	Yr.	Winner.	Loser.	Score
1900	U. S.....	British....	3-0	1909	Austr'lasia.	U. S.....	5-0	1922	U. S.....	Australia..	4-1
1902	U. S.....	British....	3-2	1911	Austr'lasia.	U. S.....	5-0	1923	U. S.....	Australia..	4-1
1903	British....	U. S.....	4-1	1912	British....	Austr'lasia.	3-2	1924	U. S.....	Australia..	5-0
1904	British....	Belgium...	5-0	1913	U. S.....	British....	3-2	1925	U. S.....	France....	5-0
1905	British....	U. S.....	5-0	1914	Austr'lasia.	U. S.....	3-2	1926	U. S.....	France....	4-1
1906	British....	U. S.....	5-0	1919	Austr'lasia.	British....	4-1	1927	France....	U. S.....	3-2
1907	Australia..	British....	3-2	1920	U. S.....	Austr'lasia.	5-0	1928	France....	U. S.....	4-1
1908	Australia..	U. S.....	3-2	1921	U. S.....	Japan	5-0	1929	France....	U. S.....	3-2

In the 1929 Davis Cup Challenge Round, France defeated the United States 3 matches to 2.

The scores—July 26—Henri Cochet (F.) defeated Wm. Tilden (U. S.) 6-3, 6-1, 6-2; Jean Borotra (F.) defeated George Lott (U. S.) 6-1, 3-6, 6-4, 7-5; July 27—John Van Ryn and William Allison (U. S.) defeated Cochet and Borotra (F.) 6-1, 8-6, 6-4; July 28—Tilden (U. S.) defeated Borotra (F.) 4-6, 6-1, 6-4, 7-5; Cochet (F.) defeated Lott (U. S.) 6-1, 3-6, 6-0, 6-3.

Pre-Challenge Rounds—European Zone—*First:* Austria, 2; Czechoslovakia, 3; Belgium, 3; Roumania, 0; Denmark, 3; Chili, 0; Greece, 3; Jugoslavia, 1; Hungary, 3; Norway, 2; Monaco, 3; Switzerland, 2; Egypt, 4; Finland, 1; Holland over Portugal, by default.

Second: Germany, 3; Spain, 2; Italy, 5; Ireland, 0; Czechoslovakia, 4; Denmark, 1; Hungary, 3; Monaco, 2; Holland, 3; Egypt, 2; So. Africa, 5; Sweden, 0; Great Britain, 5; Poland, 0.

Third: Germany, 3; Italy, 2; Czechoslovakia, 4; Denmark, 1; Hungary, 3; Holland, 2; Great Britain, 3; So. Africa, 0.

Semi-final: Germany, 4; Czechoslovakia, 1; Great Britain, 3; Hungary, 2.

Final Germany, 3; Great Britain, 2.

In the American Zone the United States beat Canada, 5-0; then the United States beat Japan, 4-1, and Cuba beat Mexico, 4-1. The United States then beat Cuba, 5-0.

The United States team next beat Germany, 5-0, only to be beaten by France, 3-2, in the end.

English Championships—*Men's Singles*—Henri Cochet, France; *Men's Doubles*—Wilmer Allison and John Van Ryn, United States; *Women's Singles*—Miss Helen Wills, United States; *Women's Doubles*—Mrs. Phoebe Watson and Mrs. Peggy Saunders Michell, England; *Mixed Doubles*—Miss Helen Wills and Frank Hunter, United States.

French Championships—*Men's Singles*—Rene Lacoste, France; *Men's Doubles*—Rene Lacoste and Jean Borotra, France; *Women's Singles*—Miss Helen Wills, United States: *Women's Doubles*—Senorita Elia De Alvarez, Spain, and Miss Kea Bouman, Holland; *Mixed Doubles*—Miss Eileen Bennett, England, and Henri Cochet, France.

International Matches (at Mexico City, Oct. 13, 1929)—Jack Van Ryn, of East Orange, N. J., defeated Ben Gorchakoff, of San Francisco, U. S. intercollegiate doubles champion, in the fifth Mexican national championship, while Miss Marion Williams, of La Jolla, Calif., defeated Miss Marjorie Gladman, of Los Angeles, intercollegiate doubles champion of the United States, in two straight sets. The score in the Van Ryn-Gorchakoff final was 6—3, 4—6, 6—1, 6—8, 6—4. In the Williams-Gladman match it was 7—5, 7—5.

NATIONAL AMATEUR COURT TENNIS CHAMPIONS.

Singles—(1892) R. D. Sears; (1893) Fiske Warren; (1894-95) B. S. de Garmendia; (1896) L. M. Stockton; (1897) G. R. Fearing jr.; (1898-99) L. M. Stockton; (1900) E. H. Miles; (1901-04) Joshua Crane jr.; (1905) C. E. Sands; (1906-25) Jay Gould; (1926) C. S. Cutting; (1927) G. D. Huban; (1928-'29) H. Morgan.

Doubles—(1916) Jay Gould, W. H. T. Huhn; (1920-24) Jay Gould, J. W. Wear; (1925) Fulton Cutting, C. S. Cutting; (1926) Jay Gould, J. W. Wear; (1928-'29) J. Gould, W. C. Wright.

NATIONAL AMATEUR RACQUET CHAMPIONS.

(1890-91) B. S. de Garmendia; (1892) J. S. Tooker; (1893-94) B. S. de Garmendia; (1895) J. S. Tooker; (1896-97) B. S. de Garmendia; (1898) F. F. Rolland, Canada; (1899) Q. A. Shaw jr.

(1900) E. H. Miles, England; (1901) Q. A. Shaw jr.; (1902) C. H. Mackay; (1903) Payne Whitney; (1904) G. H. Brooke; (1905) L. Waterbury; (1906) P. D. Haughton; (1907) R. Fincke; (1908) Q. A. Shaw jr.; (1909) H. F. McCormick; (1910) Q. A. Shaw jr.; (1911-12) R. Fincke; (1913-14) L. Waterbury; (1915) C. C. Pell; (1916) S. G. Mortimer; (1917-22) C. C. Pell; (1923) S. G. Mortimer; (1924-25) C. C. Pell; (1926) S. G. Mortimer; (1927) C. C. Pell; (1928) C. C. Pell; (1929) H. D. Sheldon.

Gold Racquets Winners—(1911-12) J. G. Douglass; (1913) H. F. McCormick; (1914-23) C. C. Pell; (1924) S. G. Mortimer; (1925) C. C. Pell; (1927) C. C. Pell; (1928) S. G. Mortimer; (1929) C. C. Pell.

National Doubles Champions, 1926—R. A. Gardner, H. Linn; (1927) C. C. Pell and S. G. Mortimer, (1928) J. C. F. Simpson, C. N. Bruce (Eng.); (1929) C. C. Pell and S. G. Mortimer.

NATIONAL AMATEUR SQUASH (TENNIS) CHAMPIONS.

(1922-12) Dr. Alf. Stillman 2d; (1913) Geo. Whitney; (1914) Dr. Alf. Stillman 2d; (1915-17) E. S. Winston; (1918) F. V. S. Hyde; (19.9) J. W. Appel; (1920) A. J. Cordier; (1921) F. V. S. Hyde; (1922) Thos. Coward; (1923) R. E. Fincke; (1924) R. L. Farrelly; (1925) Wm. Rand jr.; (1926) F. V. S. Hyde; (1927-'28- 29) R. B Haines

Squash Racquets—(1925-'26) W.P. Dixon; (1927) Myles Baker; (1928) H. N. Rawlins, jr.; (1929) J. L. Pool 2nd.

SKI JUMPING.

At Brattleboro, Vt., on Feb. 22, 1929, Strand Mikkelson of the Greenfield (Mass.) Outing Club was crowned the new national senior ski jumping champion, wresting the title from Lars Haugen of the St. Paul (Minn.) Athletic Club in the National Ski Association championships conducted by the Brattleboro Outing Club.

Mikkelson jumped 141 and 131 feet while Haugen's two jumps measured 136 and 130 feet.

The jumpers were rated on both form and distance, the percentages being based on the new international metric system. About 3,500 attended the events.

The Class B title went to Guttorm Paulsen of the Norge Ski Club of Chicago, who jumped 132 and 127 feet. Ray Mikkelson of the same club was second. He is a brother of the Class A winner.

Casper Oimen of the Norge Ski Club was looked upon as likely winner of the Class A title but he fell after jumping 155 feet, and sprained a shoulder. He did not compete further.

Alfred Olsen of the Swedish Ski Club outscored a field of nine entries and captured the interstate ski jumping tournament with 19.06 points. The event, which was contested under ideal weather conditions on the 800-foot chute on the slope of Bear Mountain, N. Y., was witnessed by 5,000 persons.

R. P. Gendron, also of the Swedish Ski Club, who was in second place with 18.83 points, shared with Olsen the honor of making the longest jump, 105 feet. Gendron jumped this distance on both of his tries, while Olsen did 104 feet on his first jump.

Lars Olsen, another Swedish Ski Club contestant, gained permanent possession of the Swedish Ski Club Challenge Trophy, when he scored his third successive victory in the eleven mile metropolitan cross-country ski race conducted in the morning. Olsen completed the distance in 1:01:57, twenty seconds faster than the time of Algot Larson, his teammate. Eight of the nine starters finished the course.

GOLF RECORDS.

AMERICAN (UNITED STATES) GOLF CHAMPIONS

Yr.	National Open.	National Amateur.	Nat'l Women's Amateur.	Yr.	National Open.	National Amateur.	Nat'l Women's Amateur.
1894	W. Dunn	W.G.Lawrence		1912	J. J. McDermott	J. D. Travers	Marg. Curtis.
1895	H. Rawlins	C. B. M'donald	Mrs. C. S. Brown	1913	Fr. Ouimet	J. D. Travers	Glad. R'nscroft.
1896	Jos. Foulis	H. J. Whigham	Beatrix Hoyt.	1914	W. C. Hagen	Fr. Ouimet	Mrs. H. Jackson.
1897	Jos. Floyd	H. J. Whigham	Beatrix Hoyt.	1915	J. D. Travers	R. A. Gardner	Mrs. C. V'rbeck.
1898	Fred. Herd	F. S. Douglas	Beatrix Hoyt.	1916	Ch. Evans, Jr.	Ch. Evans, Jr.	Alexa Stirling.
1899	W. Smith	H M. Har'man	Ruth Underhill.	1917	J. Hutchison	No match	No match.
1900	H'y Vardon	W. J. Travis	F. C. Griscom.	1918	No match	No match	No match.
1901	W. Anderson	W J Travis	Genev. Hecker.	1919	W. C. Hagen	S. D. Herron	Alexa. Stirling.
1902	L. Auchterlonie	L. N. James	Genev. Hecker.	1920	Edw. Ray	Ch. Evans, Jr.	Alexa. Stirling.
1903	W. Anderson	W. J. Travis	Bess. Anthony.	1921	Jas. Barnes	T. Guilford	M. Hollins.
1904	W. Anderson	H. C. Egan	Georg. Bishop.	1922	G. Sarazen	J. Sweetser	G. Collett.
1905	W. Anderson	H. C. Egan	Paul. MacKay.	1923	R. T. Jones, Jr.	M. R. Marston	E. Cummings.
1906	Alex Smith	E. M. Byers	Har. S. Curtis.	1924	C. Walker	R. T. Jones, Jr	Mrs. D.C.Hurd.
1907	Alex. Ross	J. D. Travers	Marg. Curtis.	1925	W. Macfarlane	R. T. Jones, Jr.	G. Collett.
1908	Fred. McLeod	J. D. Travers	Cath. C. Harley.	1926	R. T. Jones, Jr.	G. Von Elm	Mrs. G. Stetson.
1909	Geo. Sargent	R. A. Gardner	Dor. Campbell.	1927	T. Armour	R. T. Jones, Jr.	Mrs. M. Horn.
1910	Alex. Smith	W. C. Founes	Dor. Campbell.	1928	T. Farrell	R. T. Jones, Jr.	G. Collett.
1911	J. J. McDermott	H H Hilton	Marg. Curtis.	1929	R. T. Jones, Jr.	H. R John'n, Jr.	G. Collett.

AMERICAN SECTIONAL GOLF CHAMPIONS.

Year.	Western Open.	Western Amateur.		Metropolitan Amateur.	
		Men.	Women.	Men.	Women.
1899	W. Smith	D. R. Forgan		H. M. Harriman	
1900	No match	Wm. Waller		W. J. Travis	Genev. Hecker.
1901	L. Auchterlonie	P. B. Hoyt	Bess. Anthony	F. S. Douglas	Genev. Hecker.
1902	W. Anderson	H. C. Egan	Bess. Anthony	W. J. Travis	Mrs. E. A. Manice.
1903	Alex. Smith	W. E. Egan	Bess. Anthony	F. S. Douglas	Mrs. E. A. Manice.
1904	W. Anderson	H. C. Egan	Fr. Everett	H. Wilcox	Mrs. A. E. Manice.
1905	Arthur Smith	H. C. Egan	Mrs. C. L. Dering.	C. H. Seely	Mrs. C. T. Stout.
1906	Alex. Smith	D. E. Sawyer	Mrs. C. L. Dering.	J. D. Travers	Mrs. C. T. Stout.
1907	Robt. Simpson	H. C. Egan	Lill. French	J. D. Travers	Georg. M. Bishop.
1908	W. Anderson	Mason Phelps	Mrs. W F. Anderson	C. H. Seely	Georg. M. Bishop.
1909	W. Anderson	Ch. Evans, Jr.	Vic. Llewellyn	W. J. Travis	Julia R. Mix.
1910	C. Evans, Jr.	Mason Phelps	Mrs. Th. Harris	F. Herreshoff	Lil. B. Hyde.
1911	R. Simpson	Alb. Seckel	Car. Painter	J. D. Travers	Lil. B. Hyde.
1912	McD. Smith	Ch. Evans, Jr.	Car. Painter	J. D. Travers	Mrs. V. M. Earle.
1913	J. J. McDermott	W. K. Wood	Myra Helmer	J. D. Travers	Marion Hollins.
1914	J. M. Barnes	Ch. Evans, Jr.	Mrs. H. Hammond.	Osw. Kirby	Lil. B. Hyde.
1915	T. J. McNamara	Ch. Evans, Jr.	E. Rosenthal	W. J. Travis	Lil. B. Hyde.
1916	W. Hagen	Hein. Schmidt	Mrs. F. C. Letts	Osw. Kirkby	Mrs. Q. F. Feitner.
1917	J. M. Barnes	Fr. Quimet	Mrs. F. C. Letts		Mrs. W. A. Gavin.
1918	No match	No match	El. Rosenthal		Mrs. L. C. Stockton.
1919	J. M. Barnes	H. G. Legg	Mrs. Perry Fisk	Osw. Kirkby	Marion Hollins.
1920	J. Hutchinson	Ch. Evans, Jr.	Mrs. F. C. Letts, Jr.	E. Sawyer	Mrs. Q. F. Feitner.
1921	W. Hagen	Ch. Evans, Jr	Mrs. Melvin Jones.	G. A. White	Mrs. W. A. Gavin.
1922	M. Brady	Ch. Evans, Jr.	Mrs. D. Gault	J. Sweetser	Alexa. Stirling.
1923	J. Hutchinson	Ch. Evans, Jr.	Miss M. Burns	F. W. Dyer	Alexa. Stirling.
1924	W. Mehlhorn	H. R. Johnston	Miss E. Cummings.	W. M. Reekie	Miss M. Hollins.
1925	M. Smith	K. Carter	Miss S. L. Reinhart	J. Sweetser	Miss M. R. Jenney.
1926	W. Hagen	F. Dolp	Miss D. Page	W. M. Reekie	Miss M. Orcutt.
1927	W. Hagen	B. Stein	Mrs. H. Pressler	E. Driggs	Miss M. Orcutt.
1928	A. Espinosa	Frank Dolp	Mrs. H. Pressler	G. Homans	Miss M. Orcutt.
1929	T. Amour	D. Moe	Mrs. O. S. Hill	M. J. McCarthy, Jr.	Miss M. Orcutt.

Year.	Massachusetts Amateur.	Trans-Mississippi.	Southern.	Eastern Women's.
1903	A. G. Lockwood	J. R. Maxwell	A. W. Gaines	
1904	A. Carnegie, 2d	H. P. Bend	Andr. Manson	
1905	A. G. Lockwood	War. Dickinson	Andr. Manson	
1906	A. G. Lockwood	C. T. Jaffray	Leigh Carroll	Miss Fanny Osgood.
1907	J. G. Anderson	Spr. Abbott	Nels. Whitney	Miss Mary B. Adams.
1908	T. R. Fuller	E. H. Seaver	Nels. Whitney	Miss Fanny Osgood.
1909	P. Gilbert	H. G. Legg	J. P. Edrington	Miss Mary B. Adams.
1910	H. W. Stucklen	H. G. Legg	F. G. Byrd	Miss Fanny Osgood.
1911	J. G. Anderson	H. G. Legg	W. P. Stewart	Mrs. R. H. Barlow.
1912	Heinrich Schmidt	H. G. Legg	W. P. Stewart	Mrs. R. H. Barlow.
1913	Francis Ouimet	Stu. Stickney	Nels. Whitney	Mrs. R. H. Barlow.
1914	Francis Ouimet	J. Cady	Nels. Whitney	Mrs. H. A. Jackson.
1915	Francis Ouimet	A. B. Swift	C. L. Dixon, Jr.	Mrs. C. H. Vanderbeck.
1916	J. P. Guilford	H. G. Legg	R. G. Bush, Jr.	Mrs. W. A. Gavin.
1917		S. W. Reynolds	R. T. Jones, Jr.	
1918		G. L. Cop'ey		
1919	Francis Ouimet	Nels. Whitney	Francis Ouimet	Mrs. R. H. Barlow.
1920	F. J. Wright, Jr.	Robert McKee	R. T. Jones, Jr.	Mrs. R. H. Barlow.
1921	J. P. Guilford	Geo. Von Elm	Perry Adair	Mrs. C. H. Vanderbeck
1922	Francis Ouimet	R. E. Knepper	R. T. Jones, Jr.	Miss G. Collett.
1923	K. Mosser	E. Held	Perry Adair	Miss G. Collett.
1924	J. P. Guilford	J. Manion	Henry R. Wenzler	Miss G. Collett.
1925	F. Ouimet	C. Wolff	G. Crismann	Miss M. Orcutt.
1926	F. J. Wright, Jr.	E. Held	E. Spicer	Mrs. G. H. Stetson.
1927	E. E. Lowery	John Goodman	H. Ehle	Miss G. Collett.
1928	F. J. Wright, Jr.	A. Bartlett	G. Watt	Miss G. Collett.
1929	F. J. Wright, Jr.	R. McCrary	S. Perry	Miss M. Orcutt.

Ryder Cup, Pro Team Match—England 7; United States 5.

Intercollegiate Championships—Individual, T. Aycock (Marshall Forrest) Team, Princeton.

Public Course Championship—C. Kauffmann (Soncrant).

French Open—A. Boomer (Compston); Amateur, J. Westland (U. S.); R. Fletcher (Eng.)

German Open—P. Alliss (H. Smith).

Cuban Amateur—A. Yates (N. Newton).

Bermuda Amateur—A. C. Gosling (N. Thompson).

Canadian Women's Open—Miss Helen Hicks (Miss Edith Quier).

BRITISH AMATEUR GOLF CHAMPIONS.

Year.	Winner.	Year.	Winner.	Year.	Winner.	Year.	Winner.
1887.	H. Hutchinson.	1896.	F. G. Tait.	1905.	A. G. Barry.	1920.	C. Tolley.
1888.	J. Ball, Jr.	1897.	A. J. T. Allan.	1906.	Jas. Robb.	1921.	W. Hunter.
1889.	J. E. Laidlay.	1898.	F. G. Tait.	1907.	J. Ball, Jr.	1922.	E. W. Holderness.
1890.	J. Ball, Jr.	1899.	J. Ball, Jr.	1908.	E. A. Lassen.	1923.	R. Wethered.
1891.	J. E. Laidlay.	1900.	H. H. Hilton.	1909.	R. Maxwell.	1924.	E. W. Holderness.
1892.	J. Ball, Jr.	1901.	H. H. Hilton.	1910.	J. Ball.	1925.	R. Harris.
1893.	Peter Anderson.	1902.	C. Hutchings.	1911.	H. H. Hilton.	1926.	J. Sweetser (U. S.)
1894.	J. Ball, Jr.	1903.	R. Maxwell.	1912.	J. Ball.	1927.	Dr. W. Tweddell.
1895.	L. B. Melville.	1904.	W. J. Travis (U. S.)	1913.	H. H. Hilton.	1928.	T. P. Perkins.
				1914.	J. L. C. Jenkins.	1929.	C. Tolley.

BRITISH WOMEN OPEN GOLF CHAMPIONS.

Year.	Winner.	Year.	Winner.	Year.	Winner.	Year.	Winner.
1895.	Lady Marg. Scott.	1903.	Rhona Adair.	1910.	E. Grant-Suttie.	1922.	J. Wethered.
1896.	Amy Pascoe.	1904.	Lottie Dod.	1911.	Dotothy Campbell.	1923.	D. Chambers.
1897.	Edith Orr.	1905.	Bertha Thompson.	1912.	G. Ravencroft.	1924.	J. Wethered.
1898.	L. Thompson.	1906.	Mrs. Kennion.	1913.	Muriel Dodd.	1925.	J. Wethered.
1899.	May Hecht.	1907.	May Hezlet.	1914.	Cecil Leitch.	1926.	Cecil Leitch.
1900.	Rhona Adair.	1908.	Miss Titterton.	1920.	Cecil Leitch.	1927.	Mlle. S. La Chaume.
1901.	M. Graham.	1909.	Dorothy Campbell.	1921.	Cecil Leitch.	1928.	Mlle. L. Le Blan.
1902.	May Hezlet.					1924.	Joyce Wethered.

BRITISH OPEN GOLF CHAMPIONS.

Year.	Winner.	Year.	Winner.	Year.	Winner.	Year.	Winner.
1863.	W. Parke, Sr.	1879.	J. Anderson.	1894.	J. H. Taylor.	1909.	J. H. Taylor.
1864.	T. Morris, Sr	1880.	R. Ferguson.	1895.	J. H. Taylor.	1910.	J. Braid.
1865.	A. Strath.	1881.	R. Ferguson.	1896.	Hy. Vardon.	1911.	Hy. Vardon.
1866.	W. Parke, Sr	1882.	R. Ferguson.	1897.	H. H. Hilton.	1912.	E. Ray.
1867.	T. Morris, Sr	1883.	W. Fernie.	1898.	Hy. Vardon.	1913.	J. H. Taylor.
1868.	T. Morris, Jr.	1884.	J. Simpson.	1899.	Hy. Vardon.	1914.	Hy. Vardon.
1869.	T. Morris, Jr	1885.	R. Martin.	1900.	J. H. Taylor.	1920.	Geo. Duncan.
1870.	T. Morris, Jr.	1886.	D. Brown.	1901.	J. Braid.	1921.	J. Hutchinson.
1871.	No match.	1887.	W. Parke, Jr.	1902.	A. Herd.	1922.	W. Hagen (U. S.)
1872.	T. Morris, Jr	1888.	J. Burns.	1903.	Hy. Vardon.	1923.	A. G. Havers.
1873.	T. Kidd.	1889.	W. Parke, Jr.	1904.	J. White.	1924.	W. Hagen (U. S.)
1874.	Mungo Park.	1890.	J. Ball.	1905.	J. Braid.	1925.	J. Barnes (U. S.)
1875.	W. Parke, Sr.	1891.	H. Kirkaldy.	1906.	J. Braid.	1926.	R. T. Jones, Jr. (U.S.)
1876.	R. Martin.	1892.	H. H. Hilton.	1907.	A. Massy.	1927.	R. T. Jones, Jr. (U.S.)
1877.	J. Anderson.	1893.	W. Auchterlonie.	1908.	J. Braid.	1928.	W. Hagen (U. S.)
1878.	J. Anderson.					1929.	W. Hagen (U. S.)

CANADIAN AMATEUR GOLF CHAMPIONS.

Year.	Winner.	Year.	Winner.	Year.	Winner.	Year.	Winner.
1896.	S. Gillespie.	1904.	J. P. Taylor.	1911.	G. H. Hutton.	1922.	C. C. Fraser.
1897.	W. A. H. Kerr.	1905.	G. S. Lyon.	1912.	G. S. Lyon.	1923.	W. T. Thompson.
1898.	G. S. Lyon.	1906.	G. S. Lyon.	1913.	G. H. Turpin.	1924.	F. Thompson.
1899.	V. C. Brown.	1907.	G. S. Lyon.	1914.	G. S. Lyon.	1925.	D. Carrick.
1900.	G. S. Lyon.	1908.	A. Wilson.	1919.	Wm. B. Luckie.	1926.	R. Somerville.
1901.	W. A. H. Kerr.	1909.	E. Legge.	1920.	C. B. Grier.	1927.	D. Carrick.
1902.	F. R. Martin.	1910.	Fritz Martin.	1921.	F. Thompson.	1928.	R. Somerville.
1903.	G. S. Lyon.					1929.	E. Held.

CANADIAN OPEN GOLF CHAMPIONS.

Year.	Winner.	Year.	Winner.	Year.	Winner.	Year.	Winner.
1904.	J. H. Oke.	1910.	D. Kennedy.	1919.	J. D. Edgar.	1924.	Leo Diegel.
1905.	G. Cumming.	1911.	C. R. Murray.	1920.	J. D. Edgar.	1925.	Leo Diegel.
1906.	C. Murray.	1912.	G. Sargent.	1921.	W. H. Trovenger.	1926.	MacD. Smith.
1907.	P. F. Barratt.	1913.	Alb. Murray.	1922.	A. Watrous.	1927.	T. Armour.
1908.	Alb. Murray.	1914.	K. Keffer.	1923.	C. Hackney.	1928.	Leo Diegel.
1909.	K. Keffer.					1929.	Leo Diegel.

SLED DOG RACES IN 1929.

American Dog Derby—At Ashton, Idaho, on Feb. 22, Fred Printz of Cascade, Idaho, won the American Dog Derby in 1 hour 58 minutes 19 seconds for the 25-mile course.

Delbert Groom of Rigby, Idaho, was second in 2 hours 5 minutes 37 seconds, and Warren Brown of McCall, Idaho, was third, in 2 hours 7 minutes 57 seconds.

At Colebrook, N. H., Feb. 22, Roland Lombard of Raymond, Me., was declared winner of the two-day sled dog race after his team had won first place in the second eighteen-mile-leg run. The time for Lombard's team for the thirty-six miles was 2 hours 26 minutes 29 seconds.

Harold Pendergast of North Conway won second place. His team's time was 2 hours 29 minutes 27 seconds.

Eastern International— An American from Alaska drove a team of seven Siberian sled dogs down Grande Allée, Quebec, Feb. 23, and won the Eastern International race and broke the record for the 123-mile course.

Leonhard Seppala, grim after three years of trying, not only beat young Emil St. Godard of Manitoba by about one hour but beat St. Godard's record to prove not only victory but the right to be king of the course.

It was the first time an American had won the race since it was moved to Quebec in 1923 from New Hampshire.

St. Godard was third. Frank Dupuis of Quebec took second place. Seppala's Siberians were fresh, in the opinion of the judges. They were so fresh that they received the condition prizes as well as the prize for speed.

Seppala started with seven dogs and he finished with seven. He drove with hardly a word and without a whip.

For the first time an American made his speech as Seppala took the $1,000 and the cup. The drivers and the total times for three days were as follows:

Drivers	H. M. S.	Drivers	H.M.S.
Sappala	11:06:33	Berube	13:06:07
Dupuis	11:23:12	Chevrette	13:08:09
St. Godard	12:07:14	Lapointe	13:44:43
		Alain	14:50-35

Dog Swim Against Time—On Sept. 25, 1928, Lucky, a German shepherd dog owned by John Schweighart finished a swim from Albany to New York in 44 hours 52 minutes, bettering by approximately five hours the record held by Geo. Creegan. The dog swam two hours at a stretch whereas the human record holder swam the distance in much longer stretches.

FENCING IN 1929.

National Championships: held at New York, May 24. Results: *Epee*: Frank S Righeimer, Yale, defeated Mijer and Nunes; Donald B. Waldhaus, Yale, defeated Nunes and Mijer; Peter Mijer, Washington Square Fencers, defeated Nunes; Leo Nunes, New York Athletic Club, lost three bouts. Righeimer and Waldhaus doublematched twice. In second fence-off Righeimer defeated Waldhaus.

Sabers: Leo Nunes, New York Athletic Club, defeated Huffman, 5—3; Dow, 5—2; Cohn, 5—4. Norman S. Cohn, Fencers Club, defeated Dow, 5—3; Huffman, 5—4. John R. Huffman, New York Athletic Club, defeated Dow, 5—2. Warren A. Dow, Buffalo, lost three bouts.

Foils: Joseph Levis, Fencers Club, defeated Calnan, 5—4; de Jong, 5—4, Righeimer, 5—1. Lieutenant George C. Calnan, U. S. N., defeated Righeimer, 5—0; de Jong, 5—4. Frank S. Righeimer, Yale, defeated de Jong, 5—4. Duris de Jong, New York Athletic Club, lost three bouts.

Intercollegiate Championships: held at New York, March 29. Results: *Individual*—Saber—Frederick Gidding, Army. Epée—Francis E. Righeimer, Yale. Foils—Francis E. Righeimer, Yale.

Team—Saber—Columbia. Epée—*Army. Foils—Navy.

Three-Weapon—*Yale. *Retains Championship.

Women's National Championship—Won by Mrs. Leon M. Schoonmaker. Women's Team Championship, won by the Fencers Club Team (N. Y.)

European Team Championship)—Won by Italy; second, Belgium; third, Hungary.

SURF CASTING.

For the first time in the history of surf casting, the world's championship at the art of heaving the four-ounce lead for the longest distance in official competition went, in 1929, to the Pacific Coast.

The new mark of 527 feet 5 inches was set in the East versus West telegraphic casting tournament on August 25, by August P. Libenars Jr., of the Pacific Rod and Gun Club.

The previous record, established by Fred Berger n competition was 495 feet 11 inches.

The average for the five-man team of the West was 441 feet 4 inches; the Easterners averaged 398 eet, 9 inches.

FRESH WATER CASTING.

The national records and their holders, are:

Quarter-ounce, distance bait—240 feet, average five casts, Fred Arbogast.

Half-ounce, distance bait—293 1-5 feet, average, five casts, Walter Newcombe.

Five-eighth-ounce, distance plug—244 feet, average five casts, Fred Arbogast.

Quarter-ounce, accuracy bait—100 per cent, V. Deane Reese.

Half-ounce, accuracy bait—99 8-10 per cent, William Stanley.

BASKETBALL IN 1929.

Amateur Athletic Union National Championship, Kansas City, March 11-16. Final Game:

Cooks—51.	G.	FT.	F.	Henrys—35.	G.	FT.	F.
Harrigan	2	1	3	Spohn, f	2	1	1
Lamb, f	0	0	0	Goff, f	1	1	0
Hewitt, f	1	2	0	Davis, f	1	0	2
Peterson, f	1	2	0	Callahan, f	3	1	1
DeBernardi, c	0	2	1	McBurney, c	4	4	2
Holt, c	9	1	1	Nordyke, g	1	0	1
Burke, g	2	0	1	Broughton, g	1	0	0
Gordon, g	3	0	4	Dunham, g	1	0	3
Hale, g	0	0	0				
Totals	22	7	12	Totals	14	7	10

Eastern Intercollegiate Championship.

Team.	Won.	Lost.	PC.	Pts.
Pennsylvania	8	2	.800	279
Dartmouth	7	3	.700	299
Columbia	5	5	.500	295
Cornell	5	5	.500	284
Yale	4	6	.400	257
Princeton	1	9	.100	219

Western Intercollegate Conference.

Games.	Won.	Lost.	PC.	Pts.
Michigan	10	2	.833	341
Wisconsin	10	2	.833	343
Purdue	9	3	.750	441
Northwestern	7	5	.583	337
Ohio State	6	6	.500	367
Illinois	6	6	.500	307
Iowa	5	7	.417	331
Indiana	4	8	.333	328
Chicago	2	10	.167	288
Minnesota	1	11	.083	300

Missouri Valley Conference.

Team.	Won.	Lost.	PC.	Pts.
Oklahoma	10	0	1000	380
Missouri	7	3	.700	363
Nebraska	5	5	.500	346
Iowa State	4	6	.400	324
Kansas State	2	8	.200	312
Kansas Univ	2	8	.200	283

Southwest Conference.

Team.	Won.	Lost.	PC.
Arkansas	11	1	.917
Univ. of Texas	10	2	.833
Southern Methodist	6	6	.500
Texas Christian	5	7	.416
Texas A. & M.	4	6	.400
Baylor	2	8	.200
Rice Inst.	2	10	.166

Pacific Coast Conference.

SOUTHERN SECTION.

Team.	Won.	Lost	PC.
Univ. of California	9	0	1000
Stanford Univ.	6	3	.667
Southern California	2	7	.222
California at Los Angeles	1	8	.111

NOTHERN SECTION.

Univ. of Washington	10	0	1000
Univ. of Idaho	6	4	.600
Washington State	5	5	.500
Oregon State	4	6	.400
Univ. of Oregon	3	7	.300
Univ. of Montana	2	8	.200

CHAMPIONSHIP SERIES.

Univ. of California	2	0	1000
Univ. of Washington	0	2	.000

Rocky Mountain Conference.

WESTERN DIVISION.

Team.	Won.	Lost.	PC.	Pts.
Montana State	11	1	.916	720
Brigham Young	6	6	.500	554
Utah Aggies	4	8	.333	474
Univ. of Utah	3	9	.250	502

EASTERN DIVISION.

Team.	Won.	Lost.	PC.	Pts.
Colorado Univ.	10	2	.833	387
Wyoming Univ.	11	3	.786	558
Teachers	8	6	.571	415
Denver Univ.	7	7	.500	454
Colorado Coll.	6	6	.500	375
Colorado Aggies	6	6	.500	401
Western State	1	9	.100	306
Mines	1	11	.083	283

CHAMPIONSHIP PLAY-OFF.

Montana State Col.	65	Colorado Univ.	21
Montana State Col.	62	Colorado Univ.	33
Montana State Col.	53	Colorado Univ.	47

Team.	Won.	Lost.	PC.
Montana College	3	0	1000
Colorado University	0	3	.000

The National Catholic High School Championships was won by De La Salle, of Chicago; St. Stanislaus, of Bay, St. Louis, Miss., second.

ICE SKATING.

The International Skating Union of America dissolved on Nov. 14, 1927, and was succeeded by the Amateur Skating Union of the United States, and the Amateur Skating Association of Canada.

The former is now allied with the Amateur Athletic Union of the United States, and is also allied with, and is a member of the Internationale Eislaur Vereinigung of Europe, which is the governing body over ice skating throughout the world.

There is an alliance also between the Amateur Skating Union of the United States, and the Amateur Skating Association of Canada.

OFFICIAL AMATEUR INDOOR RECORDS MADE IN COMPETITION.

Distance.	Time.	Holder.	Place.	Date.
220 Yards....	:18	Fred J. Robson	Boston, Mass.	January 13, 1911
220 Yards....	:18	Chas. I. Gorman	St. John, New Brunswick	March 1, 1927
440 Yards....	:36 1-5	Chas. I. Gorman	St. John, New Brunswick	January 25, 1927
½ Mile.....	:23 4-5	Chas. I. Gorman	St. John, New Brunswick	March 1, 1927
½ Mile.....	1:15 3-5	Ben O'Sickey	Pittsburgh, Pa.	March 1, 1916
¾ Mile.....	2:00 2-5	Percy H. Johnston	Cleveland, Ohio	March 2, 1928
1 Mile.....	2:41 1-5	Morris Wood	Pittsburgh, Pa.	February 13, 1904
1 Mile.....	2:41 1-5	Fred J. Robson	Pittsburgh, Pa.	February 13, 1904
1½ Miles....	4:25	Edmund Lamy	Cleveland, Ohio	January 27, 1910
2 Miles....	5:58 2-5	Joe Moore	Pittsburgh, Pa.	March 25, 1925
3 Miles....	8:58 4-5	Percy H. Johnston	Pittsburgh, Pa.	February 19, 1927
4 Miles....	13:41 4-5	Joe Moore	Brooklyn, N. Y.	February 7, 1927
5 Miles....	16:25 2-5	Percy Johnston	St. Louis, Missouri	February 24, 1927

OFFICIAL AMATEUR LADIES' OUTDOOR RECORDS MADE IN COMPETITION.

Distance.	Time.	Holder.	Place.	Date.
100 Yards....	:11 3-5	Loretta Neitzel	Detroit, Mich.	February 12, 1928
¼ Mile.....	:30 2-5	Loretta Neitzel	Minneapolis, Minn.	February 12, 1928
220 Yards....	:22	Elsie Muller	Bear Mountain, N. Y.	January 20, 1929
440 Yards....	:39 2-5	Loretta Neitzel	Minneapolis, Minn.	February 3, 1929
880 Yards....	1:36	Leila Brooks	Detroit, Mich.	February 5, 1926
1 Mile.....	3:16 4-5	Loretta Neitzel	Minneapolis, Minn.	February 3, 1929

OFFICIAL AMATEUR LADIES' INDOOR RECORDS MADE IN COMPETITION.

Distance.	Time.	Holder.	Place.	Date.
220 Yards....	:22 3-5	Elsie Muller	Pittsburgh, Pa.	March 5, 1926
440 Yards....	:45 3-5	Elsie Muller	Pittsburgh, Pa.	March 5, 1926
880 Yards....	1:27	Leila Brooks	Pittsburgh, Pa.	March 6, 1926
1 Mile.....	3:19 3-5	Elsie Muller	Pittsburgh, Pa.	March 7, 1925

OFFICIAL AMATEUR OUTDOOR RECORDS MADE IN COMPETITION.

Distance.	Time.	Holder.	Place.	Date.
50 Yards....	:05	Robert G. McLean	Lake Placid, N. Y.	1914
75 Yards....	:07 1-5	Chas. I. Gorman	St. John, N. B.	January 17, 1926
100 Yards....	:09 2-5	Charles Jewtraw	Lake Placid, N. Y.	January 6, 1923
220 Yards....	:18	Edward Searles	Bear Mountain, N. J.	January 20, 1929
220 Yards....	:18 2-5	Chas. I. Gorman	Lake Placid, N. Y.	February 12, 1927
220 Yards....	:18 2-5	Allen Potts	Lake Placid, N. Y.	February 14, 1929
440 Yards....	:35 3-5	Chas. I. Gorman	Lake Placid, N. Y.	February 14, 1927
500 Meters..	:42 8	C. Thunberg	Davos, Switzerland	January 19, 1929
⅓ Mile.....	:24 2-5	Chas. I. Gorman	Saranac Lake, N. Y.	February 10, 1927
½ Mile.....	:52 2-5	Clas Thunberg	Saranac Lake, N. Y.	February 11, 1926
½ Mile.....	1:15 1-5	Clas Thunberg	Lake Placid, N. Y.	February 12, 1926
¾ Mile.....	1:55 4-5	Clas Thunberg	Saranac Lake, N. Y.	February 15, 1926
1 Mile.....	2:30 3-5	Irving Jaffee	Oslo, Norway	January 25, 1928
1½ Miles....	4:12 3-5	Clas Thunberg	Lake Placid, N. Y.	February 13, 1926
2 Miles....	5:35 1-5	Valentine Bialis	Lake Placid, N. Y.	February 14, 1929
3 Miles....	8:33 4-5	John Shea	Lake Placid, N. Y.	February 14, 1929
5 Miles....	14:30 2-5	Ross Robinson	Lake Placid, N. Y.	February 12, 1927
6 Miles....	18:38	John S. Johnson	Montreal, Canada	February 26, 1894
7 Miles....	21-43	John S. Johnson	Montreal, Canada	February 26, 1894
8 Miles....	24-55	John S. Johnson	Montreal, Canada	February 26, 1894
9 Miles....	28:04	John S. Johnson	Montreal, Canada	February 26, 1894
10 Miles....	31:11 1-5	John S. Johnson	Montreal, Canada	February 26, 1894
25 Miles....	1:30:15	John C. Karlsen	Minneapolis, Minn.	February 6, 1919

These records have been approved by the Members of the Record Committee as in their opinion correct

The Daily News Silver Skates Derby (2 miles, on Conservatory Lake, Central Park, N. Y. City) was won, on Jan. 15, 1929, by Andrew Roesch of the Iceland Club, time—6:52 2-5.

At Davos, Switzerland, Jan. 19-20, 1929, the 5,000 metres (3 miles, 188.2 yds) was won by I. Ballangrud, of Norway, in 8 min., 24.2 sec. The 1,500 metres (1,640 yds.) was won by C. Thunberg, in 2 min., 19 sec. The 10,000 metres (6 miles, 376.3 yds.) was won by Ballangrud, in 17 min., 43.4 sec.

The North American Amateur speed skating championship, at Saranac Lake, N. Y., Feb. 7-9, 1929, was won by Jack Shea; Valentine Beales, 2nd.; Allen Patts, 3rd. The *Diamond Trophy* races there were won by Shea; Ross Robinson, Toronto, 2nd; Lloyd Guenther, Detroit, 3rd.

The Canadian Championship races, at Montreal Feb. 15-16, 1929, were won by Ross Robinson Willie Logan, St. John, N. B., 2nd; Alex. Hurd Hamilton, Ontario, 3rd

National Championship (N. Y. City, Feb. 19, 1929)—Winners—Men's Senior Singles, R. F. Turner, Boston; Women's Senior Singles, Maribel A. Vinson, Boston; Senior Pairs, Thornton Coolidge and Miss Vinson; Men's Junior Singles, George Hill, Boston; Women's Junior Singles, Mrs. Bruce S. Mapes, Brooklyn; Junior Pairs, R. L. Hapgood and Miss Dorothy Weld, Boston.

North American Championships (Boston, March 5, 1929)—Men's Singles, Montgomery Wilson; Women's Singles, Constance Wilson; Pairs, Constance and Montgomery Wilson.

TYPEWRITING CHAMPION.

Writing 8,129 net words in one hour, George Hossfield, of Paterson, N. J. former world's champion typist, regained his title in the international typewriting contest held at Toronto, Can., Sept. 28, 1929, defeating Albert Tangora, of Paterson, by four words a minute.

Hossfield struck the keys 41,697 times for 8,339 gross words. He had 21 errors, for which he was penalized 210 words. Tangora wrote 8,390 words in the same time but had fifty-five errors. Hossfield averaged 135 words a minute and Tangora 131.

Next came Bernard Stapert, of Paterson ,who wrote 125 words per minute.

Stella Willins, of Brooklyn, N. Y., was fourth with 124, and Irma Wright, of Toronto, was fifth with 112.

Chester Soucek, of Corapolis, Pa., won the amateur title, writing 118 words per minute. Richard Myers, of Bonner's Ferry, Idaho, was second with 115 and Lucy Harding, of Toronto, wrote 112 to take third.

FOOTBALL.

On Jan. 1, 1929, Georgia Tech. beat the University of California 8 to 7 at Pasadena.

In the game at Denver Oct. 19, Captain and Quarterback Earle Clark of Colorado College, made all the points for both teams. He grounded a bad pass back of his own goal for Denver University, and kicked a goal from field for 3 points for Colorado College. Final score: C. C. 3, D. U. 2.

ALABAMA.	
55—Mississippi C...	0
22—Mississippi I...	7
46—Chattanooga...	0
0—Tennessee.....	6
35—Sewanee.....	7
0—Vanderbilt.....	13
24—Kentucky.....	13
14—Georgia Tech...	0
0—Georgia.....	12
196	58

ALBRIGHT.	
68—Cooper Union..	0
0—Bucknell.....	33
46—Roanoke.....	0
33—Mt. St. Mary's.	6
6—W. Maryland..	21
26—St. Joseph.....	0
6—Leb. Valley....	0
73—Alfred.....	0
18—Ursinus.....	0
276	60

AMHERST.	
7—Conn. Aggies...	0
0—Princeton.....	7
33—Lowell Tex....	25
21—Hamilton.....	6
7—Wesleyan.....	0
13—Mass. Aggies...	0
13—Tufts.....	13
0—Williams.....	19
94	70

ARMY.	
26—Boston Univ...	0
33—Gettysburg....	7
23—Davidson.....	7
20—Harvard.....	20
13—Yale.....	21
33—So. Dakota....	6
7—Illinois.....	17
89—Dickinson.....	7
19—Ohio Wesleyan.	6
0—Notre Dame...	7
263	98

AUBURN.	
7—Birmingham So.	0
7—Clemson.....	26
0—Florida.....	19
2—Vanderbilt.....	41
6—Howard.....	0
0—Tennessee.....	27
0—Tulane.....	52
0—Georgia.....	24
0—Georgia Tech...	19
22	208

BATES.	
6—Mass. Aggies...	7
0—Harvard.....	48
0—Tufts.....	19
6—R. I. State.....	6
6—Maine.....	0
26—Bowdoin.....	0
7—Colby.....	6
51	86

BOSTON COLLEGE.	
13—Catholic Univ..	6
42—Maine.....	0
7—Villanova.....	7
23—Dayton.....	7
40—Canisius.....	6
20—Duke.....	12
6—Fordham.....	7
6—Marquette.....	20
33—Boston Univ...	0
12—Holy Cross....	0
202	65

BOSTON UNIV.	
0—Army.....	26
6—New Hampshire	24
27—Vermont.....	6
39—Worcester Tech.	6
6—Springfield.....	34
0—Tufts.....	14
13—Holy Cross....	44
13—Geneva.....	0
0—Boston College.	33
10-	187

BOWDOIN.	
18—Mass. Aggies...	6
6—Williams.....	27
19—Wesleyan.....	0
6—Colby.....	19
0—Rates.....	26
6—Maine.....	25
6—Tufts.....	7
61	110

BROWN.	
6—Springfield.....	7
14—R. I. State.....	6
13—Princeton.....	12
6—Yale.....	14
0—Syracuse.....	6
15—Holy Cross....	14
6—Dartmouth.....	13
66—Norwich.....	6
14—N. Hampshire..	7
0—Colgate.....	32
140	117

BUCKNELL.	
31—St. Thomas....	0
33—Albright.....	0
6—W. & J.....	14
6—Lafayette.....	3
33—Gettysburg....	0
13—Temple.....	0
9—Villanova.....	0
27—Penn State.....	6
0—Fordham.....	14
78—Dickinson.....	0
236	37

CALIFORNIA.	
27—Santa Clara....	6
0—St. Mary's.....	0
14—Wash. State....	0
12—Pennsylvania...	7
21—Olympic Club..	19
15—So. California...	7
53—Montana.....	18
7—Washington.....	0
6—Stanford.....	21
155	78

CARNEGIE TECH.	
21—Bethany.....	0
26—Thiel.....	0
33—West. Reserve..	6
0—W. & J.....	0
0—Notre Dame...	7
19—Wash'on (Mo.).	0
13—Pittsburgh.....	34
20—N. Y. U.....	0
132	47

CATHOLIC UNIV.	
6—Boston Col.....	13
7—Mt. St. Mary's.	0
18—Baltimore.....	0
0—Villanova.....	12
14—Rutgers.....	10
20—Manhattan.....	7
13—Duquesne.....	19
13—Wm. & Mary...	36
48—G. Washington.	6
139	103

CENTRE.	
6—Tennessee.....	40
39—Ky. Wesleyan..	0
60—Morris Harvey.	0
0—St. Xavier.....	14
0—Kentucky.....	33
7—W. Ky. Teach..	0
40—Louisville.....	0
0—Transylvania...	0
15—Georget'n (Ky).	0
167	87

CHICAGO.	
27—Beloit.....	0
13—Indiana.....	7
10—Ripon.....	0
0—Purdue.....	26
15—Princeton.....	7
6—Wisconsin.....	20
6—Illinois.....	20
26—U. of Wash....	6
103	86

CLARKSON.	
6—Alfred.....	0
0—Cornell.....	60
7—Hamilton.....	14
7—Rensselaer.....	0
9—Buffalo.....	12
25—Hobart.....	0
0—Niagara	53
0—St. Lawrence...	31
0—Rochester.....	34
54	204

CLEMSON.	
68—Newberry.....	0
32—Davidson.....	14
26—Auburn.....	7
26—N. C. State.....	0
30—Wofford.....	0
21—So. California..	14
6—Kentucky.....	44
0—V. M. I.....	12
7—Florida.....	13
13—Citadel.....	0
7—Furman.....	6
236	110

COLBY.	
7—N. Hampshire..	20
6—Tufts.....	12
20—Norwich.....	7
19—Newport T. S...	7
19—Bowdoin.....	6
13—Maine.....	7
6—Bates.....	7
90	66

COLGATE.	
59—St. Lawrence...	0
6—Wisconsin.....	13
31—Mich. State....	0
21—Indiana.....	6
52—Providence.....	0
60—Hampden Sid'y.	0
33—Columbia.....	0
21—Syracuse.....	0
32—Brown.....	0
315	19

C. C. N. Y.	
6—Rider.....	6
0—Lowell Tex....	0
0—St. Lawrence...	22
4—Drexel.....	12
45—G. Washington.	0
38—Rensselaer.....	7
0-St. John's (Br.).	25
0—Manhattan.....	21
93	93

COLUMBIA.	
38—Midalebury.....	6
31—Union.....	0
52—Wesleyan.....	0
0—Dartmouth.....	34
33—Williams.....	0
6—Cornell.....	12
0—Colgate.....	33
0—Pennsylvania...	20
0—Syracuse.....	6
160	111

CONN. AGGIES.	
12—N. London S B.	12
0—Amherst.....	7
13—Wesleyan.....	0
20—Maine.....	7
0—Tufts.....	7
19—Coast Guard A.	0
34—Vermont.....	0
0—New Hampshire	7
6—R. I. State....	19
104	59

CORNELL.	
60—Clarkson.....	0
22—Niagara.....	6
40—Hampden-Sid'y.	6
13—Princeton.....	7
12—Columbia.....	6
36—West. Reserve..	0
14—Dartmouth....	18
7—Pennsylvania...	27
204	70

DARTMOUTH.	
67—Norwich.....	0
68—Hobart.....	0
53—Allegheny.....	0
34—Columbia.....	0
34—Harvard.....	7
12—Yale.....	16
13—Brown.....	6
18—Cornell.....	14
6—Navy.....	13
305	56

DELAWARE.	
0—Rutgers.....	19
0—Ursinus.....	0
0—Susquehanna...	6
0—Mt. St. Mary..	39
6—Swarthmore....	19
0—Drexel.....	21
6—Penn M. C.....	18
6—Haverford.....	20
18	142

DETROIT.	
27—DePaul.....	7
18—Dayton.....	0
21—Tulsa.....	6
20—Loyola (N. Or.).	0
6—Marquette.....	6
36—West Virginia..	0
25—Mich. State....	0
7—Oregon State...	14
14—Georgetown....	13
174	146

DICKINSON.	
6—Ursinus.....	6
0—F. & M.....	32
6—Muhlenberg.....	21
7—G. Washington.	6
19—Juniata.....	6
0—Gettysburg....	6
6—Penn. M. C....	7
7—Army.....	89
0—Swarthmore....	32
0—Bucknell.....	78
57	283

DRAKE.	
39—Simpson.....	0
18—Oaklah'a Aggies	6
20—Washing. (Mo.)	0
0—Missouri.....	20
6—Grinnell.....	6
34—Creighton.....	12
7—Notre Dame...	19
7—Iowa State.....	0
14—Temple.....	16
145	79

DREXEL.	
0—West Chester..	12
8—Swarthmore....	14
7—St. John's (Bkn)	12
19—Juniata.....	0
12—C. C. N. Y.....	4
13—Susquehanna...	0
7—Wash'on (Md.).	0
21—Delaware.....	0
7—Haverford.....	0
0—St. Joseph's....	0
94	42

DUKE.	
19—Mercer.....	6
7—Pittsburgh.....	5
13—Navy.....	45
12—Villanova.....	58
12—Boston Col....	20
32—La State.....	6
19—N. C. State....	12
20—Wake Forest...	0
12—Davidson.....	13
146	212

DUQUESNE.	
14—Edinboro.....	0
12—Slippery Rock..	0
7—West Virginia..	7
18—Albion.....	0
7—Loyola (Chi.)...	6
27—Geneva.....	7
19—Catholic U.....	13
31—Westminster...	7
7—Haskell.....	6
14—Waynesburg...	7
156	53

FOOTBALL—*Continued.*

FORDHAM.
43—Westminster... 0
33—St. Bonaventure 0
26—N. Y. U..... 0
7—Holy Cross..... 0
6—Davis & Elkins. 6
0—West Virginia.. 0
7—Boston Col..... 6
40—Thiel..... 7
14—Bucknell..... 0
176 19

F. & M.
7—Pennsylvania .. 14
32—Dickinson..... 0
0—Lebanon Valley 6
18—Ursinus..... 6
13—Swarthmore... 6
14—Penn. M. C... 7
26—Mt. St. Mary.. 11
20—Muhlenberg.... 0
0—Gettysburg.... 25
130 69

GENEVA.
13—Allegheny..... 13
19—Canisius..... 7
0—Davis-Elkins... 7
14—Thiel..... 0
0—Grove City..... 34
7—Duquesne..... 27
0—Waynesburg.... 7
0—Boston Univ... 13
0—Westminster... 21
53 129

GEORGIA.
7—Oglethorpe..... 14
27—Furman..... 0
15—Yale..... 0
19—No. Carolina.. 12
6—Florida..... 18
15—Tulane..... 21
19—N. Y. U..... 27
24—Auburn..... 0
12—Alabama..... 0
144 92

GEORGIA TECH.
27—Miss. A. & M... 13
7—No. Carolina... 18
19—Florida..... 7
14—Tulane..... 20
6—Notre Dame.... 26
7—Vanderbilt..... 23
0—Alabama..... 14
19—Auburn..... 0
99 121

G. WASHINGTON.
7—Manhattan..... 27
0—American U.... 8
6—Dickinson..... 7
0—C. C. N. Y.... 45
6—Wil'm & Mary. 51
7—St. Joseph's.... 12
0—Juaniata..... 32
6—Catholic U.... 48
32 230

GEORGETOWN.
26—Mt. St. Mary's. 0
0—West. Maryla'd 7
13—St. Louis..... 0
19—W. V. Wesleyan 0
27—Lebanon Valley. 0
14—N. Y. U..... 0
0—Navy..... 0
0—West Virginia.. 0
13—Detroit..... 14
112 21

HAMILTON.
6—Alfred..... 6
14—Clarkson..... 7
6—Rochester..... 0
6—Ahmerst..... 21
38—Trinity..... 0
19—Hobart..... 6
0—Haverford..... 28
6—Union..... 25
95 93

HAMPDEN-SIDNEY.
0—V. M. I..... 19
30—Bridgewater.... 0
6—V. P. I..... 37
6—Cornell..... 40
13—Roanoke..... 7
0—Colgate..... 60
24—Lynchburg..... 0
13—Richmond..... 8
92 171

HARVARD.
48—Bates..... 0
35—N. Hampshire.. 0
20—Army..... 20
7—Dartmouth.... 34
14—Florida..... 0
12—Michigan..... 14
12—Holy Cross.... 6
10—Yale..... 6
158 80

HAVERFORD.
0—Ursinus..... 0
19—Susquehanna... 6
19—Trinity..... 0
16—Kenyon..... 7
32—Johns Hopkins.. 8
28—Hamilton..... 0
0—Drexel..... 7
20—Delaware..... 6
134 34

HOBART.
0—Syracuse..... 77
0—Dartmouth.... 68
13—Union..... 28
0—Williams..... 47
0—Clarkson..... 25
6—Hamilton..... 19
7—Alfred..... 19
7—Buffalo..... 13
0—Rochester..... 13
33 309

HOLY CROSS.
19—St. Johns (Br.). 0
14—Providence..... 6
20—Rutgers..... 3
0—Fordham..... 7
7—Marquette..... 0
14—Brown..... 15
44—Boston Univ... 13
6—Harvard..... 12
22—Springfield..... 6
0—Boston Col..... 12
146 74

ILLINOIS.
25—Kansas..... 0
45—Bradley..... 0
7—Iowa..... 7
14—Michigan..... 0
0—Northwestern.. 7
17—Army..... 7
20—Chicago..... 6
27—Ohio State..... 0
155 27

INDIANA.
19—Wabash..... 2
0—Notre Dame... 14
7—Chicago..... 13
6—Colgate..... 21
0—Ohio State..... 0
7—Minnesota..... 19
19—Northwestern.. 14
0—Purdue..... 32
58 115

IOWA.
46—Carroll..... 0
46—Monmouth..... 0
6—Ohio State..... 7
7—Illinois..... 7
14—Wisconsin..... 0
9—Minnesota..... 7
0—Purdue..... 7
0—Michigan..... 0
128 28

IOWA STATE.
27—Grinnell..... 7
0—Missouri..... 19
6—Marquette..... 14
0—Kansas..... 33
7—Oklahoma..... 21
2—Kan. Aggies.... 3
0—Drake..... 7
12—Nebraska..... 31
54 135

JOHNS HOPKINS.
0—Lehigh..... 26
0—Juniata..... 7
7—Richmond..... 21
6—Syracuse..... 85
13—Rand'ph Macon 0
8—Haverford..... 32
2—Swarthmore.... 20
0—St. John's (Md) 33
6—Maryland..... 39
42 263

KANSAS.
0—Illinois..... 25
38—Emporia Tech.. 0
0—Kansas Aggies.. 6
33—Iowa State..... 0
6—Nebraska..... 12
7—Oklahoma..... 0
13—Washin'n (Mo.) 0
0—Missouri..... 7
97 50

KENTUCKY.
40—Maryville..... 0
20—W. & L..... 6
58—C'son Newman.. 0
33—Centre..... 0
44—Clemson..... 6
13—Alabama..... 24
23—V. M. I..... 12
6—Tennessee..... 6
237 54

LAFAYETTE.
23—Muhlenberg.... 0
23—Manhattan..... 0
3—Bucknell..... 6
3—Penn State..... 6
0—W. & J..... 20
20—Rutgers..... 6
0—Temple..... 13
12—Lehigh..... 13
84 64

LEHIGH.
26—Johns Hopkins. 0
20—Penn M. C.... 20
7—Gettysburg..... 7
57—St. John's (Br.). 20
7—Pennsylvania... 10
28—Muhlenberg.... 7
0—Princeton..... 20
0—Rutgers..... 14
13—Lafayette..... 12
158 110

LONG ISLAND U.
0—Rensselaer..... 13
0—Rider..... 19
0—Coast Guard A. 25
37—Wagner..... 0
0—Upsala..... 14
0—Buffalo..... 13
13—N. Y. Aggies... 6
18—Montclair..... 6
13—Cooper Union.. 12
22—Brooklyn C. C.. 11
103 119

LOUISIANA STATE.
59—Louisiana Col.. 0
58—Southwestern... 0
27—Sewanee..... 14
31—Miss. A. & M... 6
53—Louisiana Tech. 7
0—Arkansas..... 32
6—Duke..... 32
13—Mississippi..... 6
0—Tulane..... 21
247 118

MAINE.
7—R. I. State..... 0
0—Boston College. 42
7—Conn. Aggies... 20
7—N. Hampshire.. 21
0—Bates..... 6
7—Colby..... 13
25—Bowdoin..... 6
53 108

MANHATTAN.
21—Newport N. R.. 6
27—G. Washington. 7
0—Lafayette..... 23
0—St. Francis (Pa.) 20
7—St. John's (Br.). 26
7—Catholic U..... 20
3—Oglethorpe..... 14
21—C. C. N. Y..... 0
86 116

MARYLAND.
34—Wash'n (Md.).. 7
0—N. Carolina..... 43
6—S. Carolina..... 26
13—Gallaudet..... 6
6—V. M. I..... 7
13—Virginia..... 13
13—Yale..... 13
24—V. P. I..... 0
39—Johns Hopkins. 6
148 121

MASS. AGGIES.
7—Bates..... 6
6—Bowdoin..... 18
12—Middlebury.... 14
12—Norwich..... 6
19—Worc'ter Tech.. 12
0—Amherst..... 13
0—Springfield..... 13
0—Tufts..... 0
56 82

MICHIGAN.
39—Albion..... 0
16—Mount Union.. 6
17—Michigan State. 0
16—Purdue..... 30
0—Ohio State..... 7
0—Illinois..... 14
14—Harvard..... 12
7—Minnesota..... 6
0—Iowa..... 0
109 75

MICHIGAN STATE.
59—Alma..... 6
0—Michigan..... 17
0—Colgate..... 31
74—Adrian..... 0
40—N. C. State.... 6
38—Case..... 0
33—Miss. Aggies... 19
0—Detroit..... 25
244 104

MIDDLEBURY.
6—Columbia..... 38
0—Williams..... 13
14—Mass. Aggies... 12
0—Springfield..... 19
0—St. Lawrence... 32
0—Providence..... 33
7—Norwich..... 0
19—Vermont..... 0
46 147

MINNESOTA.
39—Coe..... 0
15—Vanderbilt..... 6
26—Northwestern.. 14
54—Ripon..... 0
19—Indiana..... 7
7—Iowa..... 9
6—Michigan..... 7
13—Wisconsin..... 12
179 55

MISSISSIPPI.
7—Vanderbilt..... 19
7—Alabama..... 22
7—Tennessee..... 52
26—Loyola (N. O.) 24
0—So. Methodist.. 52
6—Sewanee..... 6
7—Purdue..... 27
6—La State..... 13
7—Miss. A. & M... 7
73 222

MISSOURI.
19—Iowa State..... 0
20—Drake..... 0
7—Nebraska..... 7
6—Kansas Aggies.. 7
6—Wash'ton (Mo.) 0
0—N. Y. U..... 14
7—Kansas..... 0
13—Oklahoma..... 0
78 28

MONTANA.
19—Mt. St. Charles. 0
6—U. of Wash'n... 6
0—Idaho..... 19
45—I. Union C.... 0
12—Montana St... 14
18—California..... 53
0—Wash. State.... 13
0—California (LA) 14
100 119

FOOTBALL—*Continued.*

MUHLENBERG.
25—Juniata..... 0
0—Lafayette..... 23
21—Dickinson..... 6
7—Leb. Valley.... 0
7—Ursinus..... 9
7—Lehigh..... 28
0—Gettysburg.... 27
0—F. & M..... 20
0—West. Maryland 7
67 120

NAVY.
47—Denison..... 0
15—William & M... 0
7—Notre Dame... 14
45—Duke..... 13
13—Princeton..... 13
2—Pennsylvania... 7
0—Georgetown.... 0
61—Wake Forest... 0
30—W. Va. Wesl'n.. 6
13—Dartmouth.... 6
233 59

NEBRASKA.
0—So. Methodist.. 0
13—Syracuse..... 6
7—Pittsburgh..... 12
7—Missouri..... 7
12—Kansas..... 6
13—Oklahoma..... 13
10—Kansas Aggies.. 6
31—Iowa State..... 12
93 62

NEW HAMPSHIRE.
20—Colby..... 7
24—Boston Univ.... 6
0—Harvard..... 35
21—Maine..... 7
18—Tufts..... 2
52—Lowell Tech.... 7
7—Conn. Aggies... 0
13—Springfield..... 0
7—Brown..... 14
162 78

N. Y. AGGIES.
6—Montclair Nor.. 6
24—Conn. Jr. Col.. 0
12—Cooper Union.. 6
25—Wagner..... 13
0—Brook. C. C.... 33
6—Long Island U.. 13
73 71

N. Y. U.
77—Vermont..... 0
26—W. Va. Wesleyan 0
0—Fordham..... 26
7—Penn. State..... 0
13—Butler..... 6
0—Georgetown.... 14
27—Georgia..... 19
14—Missouri..... 0
20—Rutgers..... 7
0—Carnegie Tech.. 2
184 92

NORTH CAROLINA.
48—Wake Forest... 0
43—Maryland..... 0
18—Georgia Tech... 7
12—Georgia..... 19
38—V. P. I..... 13
32—N. C. State.... 0
40—So. Carolina.... 0
26—Davidson..... 7
41—Virginia..... 7
298 53

N. C. STATE.
6—W. & L..... 27
0—Clemson..... 26
8—Wake Forest... 6
6—Mich. State.... 40
0—No. Carolina... 32
0—Davidson..... 13
12—Duke..... 19
6—Villanova..... 24
6—So. Carolina.... 20
44 207

NORTHWESTERN.
13—Butler..... 0
27—Cornell (Ia.).... 18
7—Wisconsin..... 0
14—Minnesota..... 26
66—Wabash..... 0
7—Illinois..... 0
18—Ohio State..... 6
14—Indiana..... 19
6—Notre Dame... 26
172 95

NORWICH.
0—Dartmouth..... 67
7—Coast G. Acad.. 0
7—Colby..... 20
6—Mass. Aggies... 12
20—Vermont..... 0
20—Worcester Tech. 6
0—Middlebury.... 7
6—Brown..... 66
66 178

NOTRE DAME.
14—Indiana..... 0
14—Navy..... 7
19—Wisconsin..... 0
7—Carnegie Tech.. 0
26—Georgia Tech... 6
19—Drake..... 7
13—So. California... 12
26—Northwestern... 6
7—Army..... 0
145 38

OBERLIN.
19—Kent..... 0
0—DePauw..... 7
0—Mount Union... 13
12—Case..... 6
7—Akron..... 2
0—Wooster..... 27
0—Miami..... 20
8—West. Reserve.. 6
46 81

OHIO.
18—Indiana..... 0
26—West Liberty... 0
21—Ohio Wesleyan. 7
59—Muskingum..... 0
35—Cincinnati..... 0
14—Miami..... 0
54—Denison..... 0
46—Marietta..... 0
33—Wittenberg..... 6
306 13

OHIO STATE.
19—Wittenberg.... 0
7—Iowa..... 6
7—Michigan..... 0
0—Indiana..... 0
2—Pittsburgh..... 18
6—Northwestern... 18
54—Kenyon..... 0
0—Illinois..... 27
95 69

OHIO WESLEYAN.
52—Marietta..... 0
51—Heidelberg..... 20
7—Ohio U..... 21
20—Miami (O.)..... 12
56—West Reserve... 7
41—Denison..... 0
0—Wittenberg..... 0
53—Cincinnati..... 0
6—Army..... 19
286 79

OKLAHOMA.
26—Creighton..... 0
0—Texas..... 21
14—Kansas Ag..... 13
21—Iowa State..... 7
0—Kansas..... 7
13—Nebraska..... 13
0—Missouri..... 13
74 74

OREGON STATE.
37—Williamette.... 6
19—Cal. Aggies..... 0
7—So. California... 21
71—Columbia (Ore.) 7
7—Stanford..... 40
27—Idaho..... 0
0—Wash. State.... 9
0—Oregon..... 16
14—Detroit..... 7
182 106

PENNSYLVANIA.
14—F. & M..... 7
20—Swarthmore.... 6
14—V. P. I..... 8
7—California..... 12
10—Lehigh..... 7
7—Navy..... 2
7—Penn. State.... 19
20—Columbia..... 0
17—Cornell..... 7
116 68

PENN. STATE.
16—Niagara..... 0
15—Lebanon Valley 0
26—Marshall..... 7
0—N. Y. U..... 7
6—Lafayette..... 3
6—Syracuse..... 4
19—Pennsylvania... 7
6—Bucknell..... 27
7—Pittsburgh..... 20
101 75

PITTSBURGH.
53—Waynesburg.... 0
52—Duke..... 7
27—West Virginia.. 7
12—Nebraska..... 7
40—Allegheny..... 0
18—Ohio State..... 2
21—W. & J..... 0
34—Carnegie Tech.. 13
20—Penn. State.... 7
277 43

PRINCETON.
7—Ahmerst..... 0
12—Brown..... 13
7—Cornell..... 13
13—Navy..... 13
7—Chicago..... 15
20—Lehigh..... 0
0—Yale..... 13
66 67

PROVIDENCE.
0—Rutgers..... 17
6—Holy Cross..... 14
0—Canisius..... 0
0—Colgate..... 52
33—Middlebury..... 0
33—Coast Guard A.. 0
19—St. John's (Br.). 6
12—Lowell Tex..... 12
103 101

PURDUE.
26—Kan. Aggies.... 13
30—Michigan..... 16
26—De Pauw..... 7
26—Chicago..... 0
13—Wisconsin..... 0
27—Mississippi..... 7
7—Iowa..... 0
32—Indiana..... 0
187 43

RENSSELAER.
13—Long Island U.. 0
28—Cooper Union.. 0
0—Clarkson..... 7
0—Rochester..... 13
2—Union..... 7
7—C. C. N. Y.... 38
7—Vermont..... 12
7—Worcester..... 6
64 83

RIDER.
6—C. C. N. Y..... 6
19—Long Island U.. 0
14—Upsala..... 6
1—Montclair..... 0
24—Brooklyn C. C.. 0
50—Cooper Union.. 0
27—All-Coast G.... 0
141 12

R. I. STATE.
18—All Coast G.... 12
0—Arnold..... 7
0—Maine..... 7
6—Brown..... 14
6—Bates..... 6
26—Lowell Tech.... 7
26—Coast Guard A.. 0
39—Worcester T.... 0
19—Conn. Aggies... 6
159 52

ROCHESTER.
13—Wesleyan..... 6
27—Alfred..... 0
0—Hamilton..... 6
13—Rensselaer..... 0
20—Buffalo..... 0
7—Springfield..... 7
0—Union..... 7
34—Clarkson..... 0
13—Hobart..... 0
127 26

RUTGERS.
17—Providence..... 0
19—Delaware..... 0
3—Holy Cross..... 20
14—S.John's(An'p). 7
10—Catholic U..... 14
19—Ursinus..... 13
6—Lafayette..... 20
14—Lehigh..... 0
7—N. Y. U..... 20
109 94

SEWANEE.
44—Bryson..... 0
6—Transylvania... 6
14—Louisi'a State.. 27
33—Cumberland.... 6
7—Alabama..... 35
6—Mississippi.... 6
0—Southwestern... 9
0—Tulane..... 18
6—Vanderbilt..... 26
116 133

SO. CALIFORNIA.
76—Califo'a (L.A.).. 0
21—Oregon State... 7
48—U. of Washin'n. 0
64—Occidental.... 0
7—Stanford..... 0
7—California..... 15
66—Nevada..... 0
12—Notre Dame.... 13
72—Idaho..... 0
27—Wash. State.... 7
400 42

SO. CAROLINA.
27—Erskine..... 7
0—Virginia..... 6
26—Maryland..... 6
41—Presbyterian... 0
14—Clemson..... 21
27—Citadel..... 14
0—No. Carolina... 40
2—Furman..... 0
7—Florida..... 20
20—No. Car. State.. 6
164 120

SPRINGFIELD.
7—Brown..... 6
0—E. Stroudsburg. 0
19—Middlebury.... 0
34—Boston Univ.... 6
7—Rochester..... 7
13—Mass. Aggies... 0
0—N. Hampshire.. 13
6—Holy Cross..... 22
20—Vermont..... 0
106 54

STANFORD.
45—West Coast A... 0
6—Olympic Club.. 0
33—Oregon..... 7
57—Calif. (L.A.)..... 0
40—Oregon State... 7
0—So. California... 7
39—Cal. Tech..... 0
6—Washington..... 0
7—Santa Clara.... 13
21—California..... 6
254 40

ST. JOHN'S (BR.)
0—Holy Cross..... 19
12—Drexel..... 7
14—Niagara..... 19
20—Lehigh..... 57
26—Manhattan..... 7
7—Loyola (Md.)... 20
25—C. C. N. Y..... 0
6—Providence..... 19
7—St. Thomas..... 12
7—De Paul..... 19
124 1

FOOTBALL—*Continued.*

ST. LAWRENCE.

0—Colgate	59
0—Syracuse	55
22—C. C. N. Y.	0
6—Niagara	7
32—Middlebury	0
31—Alfred	0
31—Clarkson	0
122	121

ST. MARY'S.

28—W. Coast Army	0
0—California	0
32—Gonzaga	0
17—Olympic Club	0
6—Santa Clara	0
24—Calif'nia (L.A.)	0
54—Nevada	0
31—Oregon	6
192	6

SUSQUEHANNA.

20—Wash'g'n (Md.)	0
6—Haverford	19
6—Delaware	0
0—Drexel	13
0—Juniata	12
0—Ursinus	6
7—Gallaudet	14
6—Penn M. C.	12
45	76

SWARTHMORE.

14—Drexel	8
6—Pennsylvania	20
7—Virginia	12
18—Washington C.	0
6—F. & M.	13
19—Delaware	0
20—Johns Hopkins	2
7—Ursinus	6
32—Dickinson	0
129	67

SYRACUSE.

77—Hobart	0
55—St. Lawrence	0
6—Nebraska	13
85—Johns Hopkins	6
6—Brown	0
4—Penn. State	6
20—Noagara	0
0—Colgate	21
6—Columbia	0
259	46

TEMPLE.

25—Thiel	0
20—St. Thomas	0
28—St. Bonaventure	0
0—W. Maryland	23
0—W. & J.	0
0—Bucknell	13
31—Gallaudet	0
13—Lafayette	0
16—Drake	14
0—Villanova	15
133	65

TENNESSEE

40—Centre	6
20—Chattanooga	0
52—Mississippi	7
6—Alabama	0
39—W. & L.	0
27—Auburn	0
73—Car'n-N'wman	0
13—Vanderbilt	0
6—Kentucky	6
276	19

TEXAS.

13—St. Edward's	0
20—Centenary	0
7—Arkansas	0
21—Oklahoma	0
39—Rice	0
0—So. Methodist	0
0—Baylor	0
12—Tex. Christian	15
0—Texas Aggies	13
112	28

TRINITY.

0—Williams	44
7—Worcester T.	6
0—Haverford	19
0—Hamilton	38
13—Wesleyan	19
20	126

TUFTS.

12—Colby	6
19—Bates	0
7—Conn. Aggies	0
2—N. Hampshire	18
14—Boston Univ	0
12—Amherst	13
7—Bowdoin	6
0—Mass. Aggies	0
74	43

TULANE.

40—Louisiana Nor.	6
13—Texas A. & M.	10
34—Miss. A. & M.	0
60—Southwestern	0
20—Georgia Tech	14
21—Georgia	15
52—Auburn	0
18—Sewanee	0
21—La State	0
279	45

UPSALA.

39—Montclair Nor.	0
14—Buffalo	6
6—Rider	14
13—Brook. C. C.	7
14—Long Island U.	0
0—West Liberty	32
0—Juniata	12
0—Lowell Tex.	26
86	97

UNION.

53—Wagner	0
0—Columbia	31
28—Hobart	13
7—Vermont	13
7—Rensselaer	2
7—Williams	7
7—Rochester	0
25—Hamilton	6
134	72

URSINUS.

6—Dickinson	6
0—Haverford	0
0—Delaware	0
0—F. & M.	18
9—Muhlenberg	7
13—Rutgers	19
6—Susquehanna	0
6—Swarthmore	7
0—Albright	18
40	75

VANDERBILT.

19—Mississippi	7
26—Ouachita	6
6—Minnesota	15
41—Auburn	2
33—Maryville	0
13—Alabama	0
23—Georgia Tech	7
0—Tennessee	13
26—Sewance	6
187	56

VERMONT.

0—N. Y. U.	77
0—Yale	89
6—Boston Univ.	27
13—Union	7
0—Norwich	20
0—Conn. Aggies	34
12—Rensselaer	7
0—Middlebury	19
0—Springfield	20
31	300

VILLANOVA.

32—Lebanon Valley	13
16—Loyola (Md.)	7
7—Boston College	7
12—Catholic U.	0
58—Duke	12
17—Oglethorpe	7
0—Bucknell	9
6—Davis & Elkins	12
24—N. C. State	6
15—Temple	0
187	73

VIRGINIA.

27-Randolph-Mac.	6
6—So. Carolina	0
12—Swarthmore	7
7—V. M. I.	20
32—St. John (An.)	7
13—Maryland	13
12—V. P. I.	32
13—W. & L.	13
7—No. Carolina	41
129	139

V. M. I.

19—Hampden-Sid'y.	0
40—Richmond	0
7—Florida	12
13—Citadel	7
20—Virginia	7
7—Maryland	6
12—Davidson	6
12—Clemson	0
12—Kentucky	23
14—V. P. I.	0
156	61

V. P. I.

19—Roanoke	0
37—Hampden-Sid'y.	6
8—Pennsylvania	14
25—Wil'm & Mary	14
13—No. Carolina	38
36—W. & L.	6
32—Virginia	12
0—Maryland	24
0—V. M. I.	14
170	128

WAGNER.

0—Union	53
38—Conn. Jr. Col.	0
6—Brooklyn C. C.	47
0—Long Island U.	37
13—N. Y. Aggies	25
6—Montclair	7
7—Cooper Union	13
0—Juniata	12
70	194

U. OF WASHINGTON.

47—Whitman	0
6—Montana	6
0—So. California	48
13—Wash. State	20
0—Oregon	14
73—Puget Sound	0
0—Stanford	6
0—California	7
6—Chicago	26
145	127

WASHING'N STATE.

38—Mt. St. Charles.	0
0—California	14
20—U. of Wash't'n.	13
58—Whitman	6
9—Oregon State	0
41—Idaho	7
13—Montana	0
27—Gonzaga	0
7—So. California	27
213	67

W. & J.

33—Ohio Northern	0
60—Ashland	0
14—Bucknell	6
0—Carnegie Tech	0
0—Temple	0
20—Lafayette	0
0—Pittsburgh	21
15—Wittenberg	0
0—West Virginia	6
142	33

W. & L.

64—Lynchburg	6
27—N. C. State	6
6—Kentucky	20
6—West Virginia	26
0—Tennessee	39
6—V. P. I.	36
18—St. John's (Md.)	6
13—Virginia	13
7—Florida	25
147	177

WESLEYAN.

6—Rochester	13
0—Conn. Aggies	13
0—Columbia	52
0—Bowdoin	19
0—Amherst	7
19—Trinity	13
12—Williams	19
37	136

WEST VIRGINIA.

16—W. Va. Wesley'n	0
6—Davis-Elkins	14
7—Duquesne	7
7—Pittsburgh	27
26—W. & L.	6
9—Okla. Aggies	6
0—Fordham	0
0—Detroit	36
0—Georgetown	0
6—W. & J.	0
77	96

W. VA. WESLEYAN.

0—West Virginia	16
39—Concord	0
0—N. Y. U.	26
12—St. Xavier	19
0—Georgetown	19
47—Salem	0
0—Davis & Elk's	13
51—Bethany	0
6—Navy	30
28—Marshall	0
183	123

WILLIAMS.

44—Trinity	0
13—Middlebury	0
27—Bowdoin	6
47—Hobart	0
0—Columbia	33
7—Union	7
19—Wesleyan	12
19—Amherst	0
176	58

WILLIAM & MARY.

19—St. John's (Md.)	0
0—Navy	15
7—Emory-Henry	6
14—V. P. I.	25
39—Bridgewater	0
51—G. Washington	6
19—Roanoke	6
36—Catholic U.	13
25—Richmond	0
210	71

WISCONSIN.

21—S. Dakota State	0
22—Ripon	0
13—Colgate	6
0—Northwestern	7
0—Notre Dame	19
0—Iowa	14
0—Purdue	13
20—Chicago	6
12—Minnesota	13
88	78

YALE.

89—Vermont	0
0—Georgia	15
14—Brown	6
21—Army	13
16—Dartmouth	12
13—Maryland	13
13—Princeton	0
6—Harvard	10
172	69

ROWING.

YALE VS. HARVARD—VARSITY EIGHTS.

Date.	Won By.	Time. Winner.	Time. Loser.	Date.	Won By.	Time. Winner.	Time. Loser.
July 21, 1855	Harvard	.....	.....	June 29, 1899	Harvard	20 52 1-2	21 13
July 26, 1859*	Harvard	19 18	20 18	June 28, 1900	Yale	21 12	21 37
July 27, 1859	Yale	19 14	19 16	June 27, 1901	Yale	23 37	23 45
July 24, 1860	Harvard	18 53	19 05	June 26, 1902	Yale	20 20	20 33
July 29, 1864	Yale	19 01	19 43 1-2	June 25, 1903	Yale	20 19 4-5	20 29 3-5
July 28, 1865	Yale	18 42 1-2	19 09	June 30, 1904	Yale	21 40 1-2	22 10
July 27, 1866	Harvard	18 43 1-2	19 10	June 29, 1905	Yale	22 33 1-2	22 36
July 19, 1867	Harvard	18 13	19 25 1-2	June 28, 1906	Harvard	23 02	23 11
July 24, 1868	Harvard	17 48 1-2	18 38 1-2	June 27, 1907	Yale	21 10	21 13
July 23, 1869	Harvard	18 02	18 11	June 25, 1908	Harvard	20 10	24 45
July 22, 1870	Harvard	Foul	Disq.	July 1, 1909	Harvard	21 50	22 10
June 30, 1876	Yale	22 02	22 33	June 30, 1910	Harvard	20 46 1-2	21 04
June 30, 1877	Harvard	24 36	24 44	June 30, 1911	Harvard	22 44	23 40 1-2
June 28, 1878	Harvard	20 44 3-5	21 29	June 21, 1912	Harvard	21 43 1-2	22 04
June 27, 1879	Harvard	24 15	24 58	June 20, 1913	Harvard	21 42 1-2	22 20
July 1, 1880	Yale	24 25	25 09	June 19, 1914	Yale	21 16	21 16 1-5
July 1, 1881	Yale	22 13	22 19	June 25, 1915	Yale	20 52	21 13 1-2
June 30, 1882	Harvard	20 47 1-2	20 50 1-2	June 23, 1916	Harvard	†20 02	20 17
June 28, 1883	Harvard	25 46	25 59	.....	1917	No race on account of war.	
June 26, 1884	Yale	20 31	20 46	June 1, 1918‡	Harvard	10 58	11 04
July 26, 1885	Harvard	25 15 1-2	26 30	June 20, 1919	Yale	21 42 1-5	21 47 2-5
July 2, 1886	Yale	20 41 1-4	21 05	June 25, 1920	Harvard	23 11	23 46
July 2, 1887	Yale	22 56	23 10 1-2	June 24, 1921	Yale	20 41	20 44 1-5
June 29, 1888	Yale	20 10	21 24 1-2	June 23, 1922	Yale	21 53	22 06
June 28, 1889	Yale	21 39	21 55	June 22, 1923	Yale	22 10	22 35
June 27, 1890	Yale	21 29	21 40	June 20, 1924	Yale	21 58 3-5	22 11 3-5
June 26, 1891	Harvard	21 23	21 57	June 19, 1925	Yale	20 26	20 32 2-5
July 1, 1892	Yale	20 48	21 42 1-2	June 25, 1926	Yale	20 14 2-5	20 21 3-5
June 30, 1893	Yale	25 01 1-2	25 15	June 25, 1927	Harvard	22 35 1-5	22 39
June 29, 1894	Yale	23 47	24 40	June 22, 1928	Yale	20 21 3-5	20 56
June 28, 1895	Yale	21 45	22 15	June 21, 1929	Yale	21 20	21 39

* Citizens, Regatta. † Record for Thames River Course. ‡ 1918 race was a two-mile informal contest at Derby, Conn.

OTHER YALE-HARVARD ROWING CONTESTS (TWO-MILE COURSES).

Year.	Winners—Freshmen Eights.	Winner's Time.	Loser's Time.	Year.	Winners—Four-Oar and Junior Eights.	Winner's Time.	Loser's Time.
1902	Dead heat	10 13	10 13	1902	Harvard	11 19 1-2	11 25 1-2
1903	Yale	9 48 3-5	9 49 1-5	1903	Yale	10 59 2-5	11 10 1-5
1904	Yale	10 20	10 41 1-2	1904	Harvard	12 12	12 15
1905	Harvard	9 59	10 04	1905	Harvard	11 22	11 27
1906	Yale	10 39 2-5	10 41	1906	Yale	11 46	12 14
1907	Harvard	11 11	11 14	1907	Yale	12 33	13 15
1908	Harvard	9 38 1-2	9 47 1-2	1908	Yale	10 33 1-2	10 43
1909	Harvard	11 22	12 09	1909	Harvard	13 14	13 23
1910	Harvard	11 54 1-2	12 02	1910	Harvard	13 00 1-2	13 18
1911	Yale	11 53	11 59 1-2	1911	Harvard	13 37 1-2	13 52
1912	Harvard	10 52	10 54 1-2	1912	Harvard	11 24	11 55
1913	Harvard	10 41	10 45	1913	Harvard	11 52	12 41
1914	Harvard	11 49	12 04	1914	Harvard	11 34	12 02
1915	Yale (1 1-2 miles)	8 06	8 10	1915	Yale	10 40	10 43
1916	Harvard	10 25	10 27	1916	Harvard	10 25	10 27
1917	No race	.....	.....	1917	No race	.....	.....
1918	No race	.....	.....	1918	No race	.....	.....
1919	Harvard	10 36 3-5	10 37 1-5	1919	Harvard	10 40 4-5	10 41 4-5
1920	Yale	10 06	10 10	1920	Yale	10 48	10 56
1921	Yale	12 14	12 32	1921	Harvard	12 29	12 53
1922	Harvard	11 19	.....	1922	Harvard	11 05	11 16
1923	Yale	10 27 3-5	10 46	1923	Yale	10 10	10 38
1924	Yale	10 33	10 45 3-5	1924	Yale	10 41	10 45
1925	Yale	9 51 2-5	10 01	1925	Yale	10 50	10 01
1926	Harvard	11 00	11 12 3-5	1926	Harvard	10 36 3-5	10 43
1927	Yale	9 18	9 22 2-5	1927	Yale	9 23 4-5	9 29
1928	.....	.....	.....	1928	Yale	10 33	10 43 3-5
1929	Yale	11 07	11 09 3-5	1928	Yale	10 45 3-5	11 04 4-5
				1929	Yale	11 00	11 12 4-5

JUNIOR EIGHTS; POUGHKEEPSIE; TWO MILES—SINCE 1926 THREE MILES.

Year.	Winner.	Second.	Third.	Fourth.
1916, June 17	Syracuse....11.15 1-2	Cornell.....11.20	Columbia...11.21	Penn'via....12.06 1-5
1920, June 19	Cornell.....10.45 3-5	Syracuse....10.52	Penn'via....11.14 4-5	Columbia....11.17
1921, June 22	Cornell.....10.38	Penn'via....10.54	Syracuse.....	Columbia.....
1922, June 26	Cornell..... 9.45 3-5	Columbia.... 9.52	Syracuse.... 9.54	Penn'via.... 9.58
1923, June 28	Syracuse.... 9.50	Cornell..... 9.53	Columbia... 9.57	Penn'via....10.03
1924, June 17	Penn'via....10.36 2-5	Washington.10.43	Columbia.....	Syracuse.....
1925, June 22	Washington, 10.26	Cornell.....10.31	Penn'via....10.38	Syracuse....10.43
1926, June 26	Washington, 15.40 1-5	Pen'via.....15.46 1-5	California...16.07 3-5	Syracuse....16.19 2-5
1927, June 30	Washington 15.12 4-5	Columbia....15.23 4-5	California...15.34 1-5	Penn.....15.34 4-5
1928, June 19	Navy.....14.18	Cornell.....14.18 3-5	Syracuse....14.19 4-5	Washington.14.21 2-5
1929, June 24	Cornell.....15.21 1-5	Columbia....15.24	Navy.....15.25 2-5	Washington.15.28 1-5

DUAL AND TRIANGULAR REGATTAS OF 1929.

Date.	Miles.	Winner.	Second.	Time.	Date.	Miles.	Winner.	Second.	Time.
April 13	3	California	Washington	15.14	May 11	1 3-4	Columbia	Princeton	10.46 2-3
April 20	1 5-16	Mass. Tech	Navy	7.35	May 11	1 3-4	Cornell	Mass. Tech	9.27 3-5
April 27	1 3-4	Princeton	Mass. Tech	9.24	May 18	1 3-4	Columbia	Mass. Tech	8.16 3-5
April 27	1 1-2	Columbia	Navy	6.45	May 18	2	Yale	Cornell	10.38
May 4	2	Columbia	Yale	10.12 1-2	May 18	2	Penn	Navy	11.04
May 11	1 5-16	Navy	Syracuse	7.48	May 25	2	Cornell	Syracuse	10.35

UNIVERSITY EIGHT-OAR CREWS; POUGHKEEPSIE; COURSE FOUR MILES.

Year.	Winner.	Second.	Third.	Fourth.	Fifth.
1900, June 30...	Pen'via, 19.44 3-5	Wisc'n, 19.46 2-5	Cornell, 20.04 1-5	Col'bia, 20.08 1-5	Geo't'n 20.19 1-5
1901, July 2...	Cornell, 18.53 1-5	Col'bia, 18.58	Wisc'n, 19.06 4-5	Geo't'n, 19.21	Syra. & Pa. dist.
1902, June 21...	Cornell, 19.05 3-5	Wisc'n, 19.13 3-5	Col'bia, 19.18 3-5	Pen'via, 19.26	Syracuse 19.31 2-5
1903, June 26...	Cornell, 18.57	Geo't'n, 19.27	Wisc'n, 19.29 2-5	Pen'via, 19.30 2-5	Syracuse 19.36 1-5
1904, June 28...	S'acuse, 20.22 3-5	Cornell, 20.31 1-5	Pen'via, 20.32 1-5	Col'bia, 20.45 2-5	Geo't'n, 20.52 3-5
1905, June 28...	Cornell, 20.29	S'acuse, 21.47 2-5	Geo't'n 21.49	Col'bia, 21.53 4-5	Pen'via, 21.59 4-5
1906, June 23...	Cornell, 19.36 4-5	Pen'via, 19.43 4-5	S'acuse, 19.45 1-5	Wisc'n, 20.13 4-5	Col'bia, 20.18 3-5
1907, June 26...	Cornell, 20.02 2-5	Col'bia, 20.04	Navy, 20.13 4-5	Pen'via, 20.33 2-5	Wisc'n, no time.
1908, June 27...	S'acuse, 19.34 1-5	Col'bia, 19.35 4-5	Cornell, 19.39	Pen'via, 19.52 3-5	Wisc'n, 20.00 1-5
1909, July 2...	Cornell, 19.02	Col'bia, 19.04 2-5	S'acuse, 19.15 1-5	Wisc'n, 19.24 1-5	Pen'via, 19.32 1-5
1910, June 26...	Cornell, 20.42 1-5	Pen'via, 20.44 1-5	Col'bia, 20.54 1-5	S'acuse, 21.13	Wisc'n, 21.15 3-5
1911, June 27...	Cornell, 20.10 4-5	Col'bia, 20.16 4-5	Pen'via, 20.33	Wisc'n, 20.34	S'acuse, 21.03 2-5
1912, June 29...	Cornell, 19.21 2-5	Wisc'n, 19.25	Col'bia, 19.41 2-5	S'acuse, 19.47	Pen'via, 19.55
1913, June 21...	S'acuse, 19.28 3-5	Cornell, 19.31	Wash., 19.33	Wisc'n, 19.36	Col'bia, 19.38 1-5
1914, June 26...	Col'bia, 19.37 4-5	Pen'via, 19.41	Cornell, 19.44 1-5	S'acuse, 19.59 2-5	Wash., 20.01 3-5
1915, June 28...	Cornell, 19.36 3-5	L.Stan., 20.37 4-5	S'acuse, 20.43 3-5	Col'bia, 21.00	Pen'via, 21.10 1-5
1916, June 17...	S'acuse, 20.15 2-5	Cornell, 20.22 4-5	Col'bia, 20.41 1-2	Pen'via, 20.52 4-5	.....
1920, June 19...	S'acuse, 11.02 3-5	Cornell, 11.08 1-5	Col'bia, 11.21 1-5	Pen'via, 11.30	.....
1921, June 22...	Navy, 14.07	Calif., 14.22	Cornell, 14.22 1-5	Pen'via,	Syracuse.
1922, June 26...	Navy, 13.33 3-5	Wash., 13.36 1-5	S'acuse, 13.38 3-4	Cornell, 13.38 4-5	Col'bia, 13.45 1-5
1923, June 28...	Wash., 14.03 1-5	Navy, 14.07 2-5	Col'bia, 14.15 4-5	Cornell, 14.19 4-5	Pen'via, 14.21 3-5
1924, June 17...	Wash., 15.02	Wisc'n, 15.09 2-5	Cornell, 15.15 3-5	Pen'via, 15.23 3-5	S'acuse, 15.25
1925, June 22...	Navy, 19 24 4-5	Wash., 19 28	Wisc'n, 1958	Pen'via, 19 59	Cornell, 20 04
1926, June 28...	Wash., 19.28 3-5	Navy, 19.29 3-5	S'acuse, 19.53 4-5	Pen'via 20.03 4-5	Col'bia 20.05 1-5
1927, June 30...	Col'bia, 20.57	Wash., 20.59 3-5	Calif., 21.12 2-5	Navy, 21.21 1-5	Cornell, 21.23
1928, June 19...	Calif., 18.35 4-5	Col'bia, 18.38	Wash., 18.46	Cornell, 19.01	Navy, 19.10
1929, June 24...	Col'bia, 22.58	Wash., 23.08 4-5	Pen'via, 23.41 2-5	Navy, 23.58 4-5	Wisc'n, 24.09 2-5

The 1898 regatta was a three-mile course, on Saratoga Lake. The 1920 race was two miles on Cayuga Lake. The 1921, 1922, 1923 and 1924 races were three-mile events.

FRESHMEN EIGHT-OAR CREWS; POUGHKEEPSIE; COURSE TWO MILES.

Year.	Winner.	Second.	Third.	Fourth.	Fifth.
1901, July 2...	Pen'via 10.20 1-5	Cornell, 10.23	Col'bia, 10.36 1-5	S'acuse, 10.44	.....
1902, June 21...	Cornell, 9.34 4-5	Wisc'n, 9.42 4-5	Col'bia, 9.49	S'acuse, 9.53	Pen'via, 10.05
1903, June 26...	Cornell, 9.18	S'acuse, 9.22 1-5	Wisc'n, 9.32	Col'bia, 9.41	Pen'via, 9.45
1904, June 28...	S'acuse, 10.01	Cornell, 10.12 2-5	Pen'via, 10.18 4-5	Col'bia, 10.28 1-2	.....
1905, June 28...	Cornell, 9.35 2-5	S'acuse, 9.49	Col'bia, 9.53	Pen'via, 9.58 4-5	.....
1906, June 23...	S'acuse, 9.51 3-5	Cornell, 9.55	Wisc'n, 9.55 3-5	Col'bia, 10.07 1-5	Pen'via, 10.13 1-5
1907, June 26...	Wisc'n, 9.58	S'acuse, 10.03	Pen'via, 10.04	Col'bia, 10.05 2-5	Cornell, 10.07 4-5
1908, June 27...	Cornell, 9.29 3-5	S'acuse, 9.38 3-5	Col'bia, 9.43	Wisc'n, 9.55 1-5	Pen'via, 10.42
1909, July 2...	Cornell, 9.07 3-5	S'acuse, 9.14 4-5	Pen'via, 9.21	Wisc'n, 9.22 4-5	Col'bia, 9.26
1910, June 26...	Cornell, 10.40 1-5	Col'bia, 10.53 2-5	S'acuse, 10.53 4-5	Pen'via, 11.00 1-5	Wisc'n, 11.15 1-5
1911, June 27...	Col'bia, 10.13 1-5	Cornell, 10.20 3-5	S'acuse, 10.23 1-5	Pen'via, 10.24 4-5	Wisc'n, 10.38
1912, June 29...	Cornell, 9.31 2-5	Wisc'n, 9.35 2-5	S'acuse, 9.42 3-5	Pen'via, 9.46 2-5	Col'bia, 9.47
1913, June 21...	Cornell, 10.04 4-5	Wisc'n, 10.07 4-5	S'acuse, 10.14 3-5	Pen'via, 10.25 2-5	Col'bia, 10.29
1914, June 26...	Cornell, 10.26	S'acuse, 10.50 1-5	Pen'via, 10.50 2-5	Col'bia, 10.56 1-5	Wisc'n, 10.59
1915, June 28...	S'acuse, 9.29 3-5	Cornell, 9.43	Col'bia, 9.47 4-5	Pen'via, 10.01 2-5	.....
1916, June 19...	Cornell, 11.05 4-5	S'acuse, 11.15 3-5	Pen'via, 11.16 1-5	Col'bia, 11.29 2-5	.....
1920, June 19...	Cornell, 10.45 2-5	S'acuse, 11.03 4-5	Pen'via, 11.10 3-5	Col'bia, 11.15 1-5	.....
1921, June 22...	Cornell, 10.32	S'acuse, 10.36	Pen'via,	Col'bia	.....
1922, June 26...	S'acuse, 9.20 1-5	Cornell,	Columbia,	Pen'via	.....
1923, June 28...	Cornell, 9.27 4-5	Wash'n, 9.28	S'acuse, 9.31	Pen'via, 9.33	Col'bia, 9.38
1924, June 17...	Pen'via, 10.22 3-5	Cornell,	S'acuse,	Col'bia	.....
1925, June 22...	S'acuse, 9.59	Pen'via, 10.04	Col'bia, 10.13	Cornell, 10.19	Wisc'n, 10.24
1926, June 28...	Col'bia, 11.38 3-5	Calif, 11.48 2-5	S'acuse, 11.50	Pen'via, 12.11	Cornell, 12.38
1927, June 30...	Navy, 9.45	S'acuse, 9.50 1-5	Col'bia, 9.53 3-5	Cornell, 9.54 2-5	Penn., 9.58 2-5
1928, June 19...	Navy, 9.42	Cornell, 9.49	S'acuse, 9.53	Wash., 9.54 2-5	Penn., 9.57 1-5
1929, June 24...	S'acuse, 10.23 3-5	Calif., 10.33 3-5	Cornell, 10.42	Navy, 10.45 3-5	Col'bia 10.51

NATIONAL ASSOCIATION, AMATEUR OARSMEN OF AMERICA.

57th Championship Regatta, held at Springfield, Mass., Aug. 2-3, '29—races 1¼ mi. unless otherwise specified.

Event.	First.	Second.	Third.	Time.
Senior ¼ Mile Sculls	E. J. McGreal	W. G. Gilmore	J. Guest	1.22 2-5
Junior Eights	Springfield R. A.	Farragut B. C.		7.32 3-5
Senior Four*	Southside B. C.	Penn. B. C.	Minnesota B. C.	7.23 3-5
Senior 145-lb. Eights	Undine B. C.	Detroit B. C.		7.15 3-5
Senior 145-lb. Double Sculls	Undine B. C.			
Single Sculls	K. Myers	J. Wright, Jr.	R. S. Codman	8.18 4-5
Senior Quadruple Sculls	Bachelors B. C.	Penn. A. C.		7.00 4-5
Senior Eights	Penn A. C.	Springfield R. A.		6.42 2-5
Association Singles	K. Myers	J. Guest	E. Bole	7.28 2-5
Senior Doubles	Bachelors B. C.	Undine B. C.	Minnesota B. C.	6.55
Intermediate Eights	New York A. C.	Detroit B. C.	Springfield R. A.	6.22 1-5
Junior Singles	A. Kosak	S. L. Merola	J. C. Byrnes	8.15 3-5
Senior 145-lb. Singles	C. W. Coulston	H. T. Dinsmore	W. Reed	7.48
Senior 145-lb. Fours†	Undine B. C.	Detroit B. C.	Penn A. C.	

THE CHILDS CUP.

Year.	Place.	Winner.	Year.	Place.	Winner.	Year.	Place.	Winner.
1880..	Schuylkill	Columbia	1914..	Schuylkill	Columbia	1922..	Carnegie Lake...	Princeton
1881..	Schuylkill	Penn.	1915..	Carnegie Lake...	Princeton	1923..	Schuylkill	Columbia
1882..	Schuylkill	Penn.	1916..	Schuylkill	Princeton	1924..	Schuylkill	Penn
1883..	Schuylkill	Cornell	1917..	No race.		1925..	Harlem	Penn
1884..	Schuylkill	Penn.	1918..	Carnegie Lake...	Penn	1926..	Carnegie Lake...	Penn
1885..	Schuylkill	Cornell	1919..	Carnegie Lake...	Penn	1927..	Schuylkill	Princeton
1889..	Schuylkill	Cornell	1920..	Schuylkill	Navy	1928..	Carnegie Lake..	Columbia
1912..	Carnegie Lake...	Columbia	1921..	Harlem	Columbia	1929..	Carnegie Lake...	Columbia
1913..	No race.							

OXFORD-CAMBRIDGE BOAT RACE—4¼ MILES.

(Oxford won 40, Cambridge 40, dead heat 1. The course is 4¼ miles.)

Year.	Date.	Winner.	Time.	Year.	Date.	Winner.	Time.	Year.	Date	Winner.	Time.
1841..	April 14	Cambridge	32.30	1874..	Mar. 28	Cambridge	22.35	1900..	Mar. 31	Cambridge	18.47
1842..	June 11	Oxford....	30.46	1875..	Mar. 20	Oxford....	22.02	1901..	Mar. 30	Oxford....	22.31
1845..	Mar. 15	Cambridge	23.30	1876..	April 8	Cambridge	20.20	1902..	Mar. 22	Cambridge	19.09
1846..	April 3	Cambridge	21.05	1877..	Mar. 24	Dead heat	24.06½	1903..	April 2	Cambridge	19.35
1849..	Mar. 29	Cambridge	22.00	1878..	April 13	Oxford....	22.15	1904..	Mar. 26	Cambridge	21.37
1849..	Dec. 15	Oxford....	.....	1879..	April 5	Cambridge	21.18	1905..	April 1	Oxford....	20.35
1852..	April 3	Oxford....	21.36	1880..	Mar. 22	Oxford....	21.23½	1906..	April 7	Cambridge	19.24
1854..	April 8	Oxford....	25.29	1881..	April 8	Oxford....	21.52	1907..	Mar. 23	Cambridge	20.26
1866..	Mar. 15	Cambridge	25.50	1882..	April 1	Oxford....	20.12	1908..	April 4	Cambridge	19.20
1857..	April 4	Oxford....	22.35	1883..	Mar. 15	Oxford....	21.22	1909..	Mar. 27	Oxford....	19.50
1858..	Mar. 27	Cambridge	21.23	1884..	April 7	Cambridge	21.39	1910..	Mar. 23	Oxford....	20.14
1859..	April 15	Oxford....	24.40	1885..	Mar. 28	Oxford....	21.47	1911..	April 1	Oxford....	18.29
1860..	Mar. 31	Cambridge	26.05	1886..	April 3	Cambridge	22.29½	1912..	April 1	Oxford....	22.05
1861..	Mar. 23	Oxford....	23.30	1887..	Mar. 26	Cambridge	20.52	1913..	Mar. 13	Oxford....	20.53
1862..	April 12	Oxford....	24.41	1888..	Mar. 24	Cambridge	20.48	1914..	Mar. 28	Cambridge	20.23
1863..	Mar. 28	Oxford....	23.06	1889..	Mar. 30	Cambridge	20.14	1915..	19 No r	aces accou	nt war.
1864..	Mar. 19	Oxford....	21.40	1890..	Mar. 26	Oxford....	22.03	1920..	Mar. 27	Cambridge	21.11
1865..	April 8	Oxford....	21.24	1891..	Mar. 21	Oxford....	21.48	1921..	Mar. 30	Cambridge	19.44
1866..	Mar. 24	Oxford....	25.35	1892..	April 9	Oxford....	19.21	1922..	April 1	Cambridge	19.27
1867..	April 13	Oxford....	22.40	1893..	Mar. 22	Oxford....	18.47	1923..	Mar. 24	Oxford....	20.54
1868..	April..	Oxford....	20.56	1894..	Mar. 17	Oxford....	21.39	1924..	April 5	Cambridge	18.41
1869..	Mar. 17	Oxford....	20.05	1895..	Mar. 30	Oxford....	20.50	1925..	Mar. 28	Cambridge	21.50
1870..	April 6	Cambridge	22.04	1896 .	Mar. 28	Oxford....	20.02	1926..	Mar. 27	Cambridge	19.29
1871..	April 1	Cambridge	23.05	1897..	April 3	Oxford....	19.12	1927..	April 2	Cambridge	20.14
1872..	Mar. 23	Cambridge	21.15	1898..	Mar. 26	Oxford....	22.15	1928..	Mar. 3	Cambridge	20.25
1873..	Mar. 29	Cambridge	19.35	1899..	Mar. 25	Cambridge	21.04	1929..	Mar. 23	Cambridge	19.24

SCULLING CHAMPIONS OF THE WORLD.

1880-1884, E. Hanlan; 1884-1887, W. Beach; 1888, P. Kemp; 1888-1889, H. E. Searle; 1890-1896, J. Stanbury; 1896, J. Gaudaur; 1901-1904, G. Towns; 1905, J. Stanbury; 1906-1907, G. Towns; 1907-1908, W. Webb; 1908-1911, R. Arnst; 1912-1914, E. Barry; 1919, A. Felton; 1920, E. Barry; 1921, D. A. Hatfield; 1922, J. Paddon; 1922, W. Hoover; 1923, J. Paddon; 1923, W. E. G. Gilmore; 1924, J. Paddon; 1925-1927, Major Goodsell; 1928. Bert Barry.

The crew of Browne and Nichols School of Cambridge, Mass., won the Thames Cup in the final of this event in the 1929 English Championship Regatta at Henley, England.

YACHTING. (All figures] mean *corrected* time.)

Sir Thomas Lipton challenged for the America's Cup during the summer of 1929, and the New York Yacht Club accepted the challenge which was made through the Royal Ulster Yacht Club.

The event will be the best three-out-of-five races, the first of which will be sailed off Newport, R.II. on September 13, 1930.

The challenging yacht (the keel of which was laid Oct. 30, 1929, at Gosport, England) will have a 76-ft. water line, with Bermudian rig.

ASTOR CUP RACES.

(Held at Newport, R. I., Aug. 16, 1929—Distance, 37½ miles.)

SCHOONER DIVISION.		SLOOP DIVISION.	
Yacht and Owner.	Corr. Times.	Yacht and Owner.	Corr. Times.
1. Pleione, J. V. Santry	4:31:10	1. Anitra, C. I. Harding	4:01:04
2. Lynx, Bradford Ellsworth	4:31:38	2. Istalena, George Pynchon	4:03:11
3. Queen Mab, Horace Binney	4:38:42	3. Valiant, W. W. Aldrich	4:05:03
4. Morning Star, Mrs. M. Mitchell	4:50:36	4. Prestige, H. S. Vanderbilt	4:07:44

King's Cup Race—Held at Newport, R. I., Aug. 17,1929—Distance, 30 miles:

1—Vanitle, G. B. Lambert, 3:11:12; 2—Istalena, G. M. Pynchon, 3:11:28; 3—Chiro, F. Prince 3:13:30; 4—Andriano, W. K. Shaw, 3:14:40; 5—Barbara, H. L. Maxwell, 3:16:40; 6—Prestige, H. S. Vanderbilt, 3:17:18.

INTERNATIONAL RACES FOR THE AMERICA'S CUP.

1851 (Aug. 22) America (Amer.) 10h. 37m.; Aurora (Engl.) 10h. 55m.

1870 (Aug. 8) Magic (Amer.) 3h. 58m. 26 2-10 s.; Cambria (Engl.) 4h. 37m. 38 9-10s.

1871 (Oct. 16, 18, 19, 21, 23) *First race,* Columbia (Amer.) 6h. 19m. 41s.; Livonia (Engl.) 6h. 46m. 45s. *Second race,* Columbia, 3h. 7m. 42s.; Livonia, 3h. 18m. 15s. *Third race,* Columbia (disabled) 4h. 17m. 35s.; Livonia, 4h. 2m. 25s. *Fourth race,* Sappho (Amer.) 5h. 39m. 2s.; Livonia, 6h. 9m. 23s. *Fifth race,* Sappho, 4h. 46m. 17s.; Livonia, 5h. 11m. 44s.

1876 (Aug. 11, 12) *First race,* Madeleine (Amer.) 5h. 23m. 54s.; Countess of Dufferin (Engl.) 5h. 34m. 53s. *Second race,* Madeleine, 7h. 18m. 46s.; C. of Dufferin, 7h. 46m.

1881 (Nov. 9, 10) *First race,* Mischief (Amer.) 4h. 17m. 9s.; Atalanta (Engl.) 4h. 45m. 39½s. *Second race,* Mischief, 4h. 54m. 53s.; Atalanta, 5h. 33m. 47s.

1885 (Sept. 14, 16) *First race,* Puritan (Amer.) 6h. 6m. 5s.; Genesta (Engl.) 6h. 22m. 24s. *Second race,* Puritan, 5h. 3m. 14s.; Genesta, 5h. 4m. 52s.

1886 (Sept. 9, 11) *First race,* Mayflower (Amer.) 5h. 26m. 41s.; Galatea (Engl.) 5h. 38m. 43s. *Second race,* Mayflower, 6h 49m.; Galatea, 7h. 18m. 9s.

1887 (Sept. 27, 30) *First race,* Volunteer (Amer.) 4h. 53m. 18s.; Thistle (Engl.) 5h. 12m. 41¼s. *Second race,* Volunteer, 5h. 42m. 56¼s.; Thistle, 5h. 54m. 45s.

1893 (Oct. 7, 9, 13) *First race,* Vigilant (Amer.) 4h. 5m. 47s.; Valkyrie II (Engl.) 4h. 11m. 35s. *Second race,* Vigilant, 3h. 25m. 1s.; Valkyrie II, 3h. 35m. 36s. *Third race,* Vigilant, 3h. 24m. 39s.; Valkyrie II 3h. 25m. 19s.

1895 (Sept. 7, 10, 12) *First race,* Defender (Amer.) 4h. 59m. 54 9-10s.; Valkyrie III (Engl.) 5h. 8m. 44s. *Second race,* Defender, 3h. 55m. 56s.; Valkyrie III, (disqualified on foul). *Third race,* Defender, 4h. 43m. 43s.; Valkyrie III (withdrew).

1899 (Oct. 16, 17, 20) *First race,* Columbia (Amer.) 4h. 53m. 53s.; Shamrock I (Irish) 5h. 4m. 1s. *Second race,* Columbia, 3h. 27m.; Shamrock I (disabled). *Third race,* Columbia, 3h. 38m. 9s.; Shamrock I, 3h. 44m. 43s.

1901 (Sept. 28, Oct. 3, Oct. 4) *First race,* Columbia (Amer.) 4h. 30m. 24s.; Shamrock II (Irish) 4h. 31m. 44s. *Second race,* Columbia, 3h. 12m. 35s.; Shamrock II, 3h. 16m. 10s. *Third race,* Columbia, 4h. 32m. 57s.; Shamrock II, 4h. 33m. 38s.

1903 (Aug. 22, 27, Sept. 3) *First race,* Reliance (Amer.) 3h. 32m. 17s.; Shamrock III (Irish) 3h. 39m. 20s. *Second race,* Reliance, 3h. 14m. 54s.; Shamrock III, 3h. 16m. 13s. *Third race,* Reliance, 4h. 28m. 6s.; Shamrock III (lost in fog).

1920 (July 15, 17, 20, 21, 23, 24, 26, 27) *First race,* Resolute (Amer.) (disabled); Shamrock IV, 4h. 25m. 12s. *Second race,* (yachts did not finish in 6-hour limit). *Third race,* Resolute, 5h. 24m. 44s.; Shamrock IV, 5h. 22m. 18s. *Fourth race,* Resolute, 3h. 56m. 5s.; Shamrock IV, 4h. 3m. 6s, *Fifth race,* Resolute, 3h. 31m. 12s.; Shamrock IV, 3h. 41m. 10s. *Sixth race,* (yachts did not finish in 6 hours). *Seventh race;* Resolute, 5h. 28m. 35s. Shamrock, IV, 5h. 48m. 29s.

DEFECTS IN COLLEGE ATHLETICS.

(From an Official Summary, issued in 1929, by the Carnegie Foundation.)

The fundamental causes of the defects of American college athletics are two: commercialsim, and a negligent attitude toward the educational opportunity for which the American college exists, says the Carnegie Foundation for the Advancement of Teaching, entitled "American College Athletics."

The authors of the study are Dr. Howard J. Savage, staff member of the Foundation, and Harold W. Bentley, John T. McGovern, and Dean F. Smiley, M.D., secretary of the American Student Health Association.

The Foundation's enquiry into American college sports, originally undertaken at the request of the Association of American Colleges, the National Collegiate Athletic Association, and other representative bodies, has consumed more than three and a half years, entailed personal visits to 130 American and Canadian universities, colleges, and schools, and involved the cooperation of more than 2,000 persons.

The recruiting and subsidizing of American college athletes has been comprehensively studied and specific facts presented concerning this abuse, which is termed "the darkest blot upon American college sport."

Only 26 of the more than one hundred universities and colleges studied were without trace of recruiting, and only 29 without subsidizing.

Of the thousands of individual cases of recruiting and subsidizing studied, alumni were responsible in only 30 per cent, college administrative officers in eight per cent, and athletic officers in 50 per cent. In many instances, the "nationwide commerce" is carried on through the cooperation of several groups or representatives.

Among the means whereby athletes are recruited, correspondence figures the most prominently. Once contact is established between the recruiter and the athlete, relations become closer, and the next step is usually personal persuasion or solicitation. Trips to visit the campus, financed by various methods, are much used in recruiting athletes.

Recruiting seldom, if ever, exists without the use of subsidies.

Subsidies take the form of scholarships, loans, nominal or disproportionately paid jobs, tuition allowances, favors of various kinds, and arrangements whereby athletes are "taken care of"; seldom is payment made in cash.

It is estimated that at least one college athlete in seven is subsidized. Secrecy aggravates both of these abuses, but does not cause either of them.

The prevalence of recruiting and subsidizing in college athletics has led to much "shopping round" by schoolboy athletes, a process of auctioning athletic skill to the highest bidder.

A selection of letters and other documents from the files of the enquiry is printed in the Appendix of the study to illustrate methods and procedures in "shopping round," subsidizing, and recruiting. The means employed by certain coaches and directors of athletics to evade conference rules against personal solicitation and the imitation of recruiting correspondence are also shown and discussed in detail.

In studying the hygiene of athletic training, the Foundation secured the cooperation of Dr. Dean F. Smiley, secretary of the American Student Health Association, in charge of this phase of the enquiry, and of Francis G. Benedict, Ph.D., director of the Nutrition Laboratory at Boston of the Carnegie Institution of Washington; E. V. MacCollum, Ph.D., professor of bio-chemistry in the Johns Hopkins University School of Public Health, Baltimore; President Livingston Farrand of Cornell University; Dr. Joseph E. Raycroft, professor of hygiene at Princeton; and Dr. Thomas K. Richards, instructor in surgery at the Harvard Medical School and chief surgeon of the Harvard Athletic Association, who acted as an advisory and consulting group. Some of the conclusions reached by this group are as follows:

Although there can be no doubt that athletics, if well conducted, may be made to contribute significantly to the physical health of college students, too few now receive their benefits and too many incur positive harm. Certain widespread athletic practices in training, coaching, and play actually jeopardize the physical health of participants.

The notion appears to be widespread that exercise in general and athletics in particular constitute a sort of panacea for all forms of ill health from flat foot to melancholia. As a matter of fact, says the Bulletin, athletics should be regarded as somewhat in the nature of a powerful medicament to be prescribed for one individual in one strength, for another individual in another strength, and for a third individual to be absolutely proscribed.

After a statistical study of 18,667 students in 111 representative universities and colleges, the authors find that the common notion that athetes in general are poorer students than non-athletes, is erroneous. On the other hand, they conclude that participation in sports that require very hard training and long practice hours probably impairs the academic standing of certain athletes.

The fact seems to be that athletes, who from scientific measurements and other data, appear to be the best endowed physically and mentally of all college undergraduates, fail to fulfil this promise of success in college work and do not greatly surpass, as they should their less active fellow-students.

Although in the past it has been generally insisted that athletics inculcate certain desirable traits, like courage, perseverance, and initiative, the study points out that, under proper conditions, athletics may possibly develop such of these traits as are present in a normal young man, but probably do not inculcate them at all.

On the other hand, college athletics, as they are conducted to-day, definitely fail in many cases to utilize and strengthen such desirable social traits as honesty and the sense of fair play, because of the deceit and chicanery with which sports are surrounded. If, therefore, the development of desirable social traits is one of the probable advantages of college athletics, the development of traits that impair the relation of the individual to society is one of the equally probable disadvantages.

The origins of American college athletics, say the authors of the study, go back to Colonial days and the decline of pioneer life. At that time, athletic skill was looked upon as somewhat beneath the dignity of a serious scholar. Certain colleges legislated against athletics as early as 1761. The Princeton faculty in 1787 voted formally that "there are many more amusements more honorable and more useful" for undergraduates than shinny.

Yale began to develop rowing in 1843. Baseball, before 1852, had little standing in colleges.

ASSOCIATION (SOCCER) FOOTBALL.

The 1929 soccer championship of the United States Football Association was won by the Hakoah Club of New York City, which got the final series from the Madison Kennel Club of St. Louis.

The first game was played at St. Louis, on April 1 and was won by Hakoah 2 to 0. The second was played at New York, April 7, and went to the Hakoah, 3 to 0.

PREVIOUS WINNERS.

1913-14—At Pawtucket, R. I., May 16, 1914; Brooklyn Field Club, 2; Brooklyn Celtic F. C., 1; referee, Charles E. Creighton, New York City.

1914-15—At Taylor Stadium, Lehigh University, South Bethlehem, Pa., May 1, 1915; Bethlehem Steel Co. F. C., 3; Brooklyn Celtic F. C., 1; referee, George Lambie, Boston, Mass.

1915-16—At Pawtucket, R. I., May 6, 1916; Bethlehem Steel Co. F. C., 1; Fall River Rovers F. C., 0; referee, David M. Whyte, Brooklyn, N. Y.

1916-17—At Pawtucket, R. I., May 5, 1917; Fall River Rovers F. C., 1; Bethlehem Steel Co. F. C., 0; referee, William Taylor, Pawtucket, R. I.

1918-19—At Harrison, N. J., May 19, 1918; Bethlehem Steel Co. F. C., 3; Fall River Rovers F. C., 0; referee, C. E. Creighton, New York City.

1919-20—At Fall River, Mass., April 19, 1920; Bethlehem Steel Co. F. C., 2; Paterson (N. J.) F. C., 0.

1920-21—At St. Louis, May 2, 1921; Ben Miller A. C. (St. Louis), 2; Fall River F. C. (Quincy, Mass.), 1.

1921-22—At Fall River, Mass., April 19, 1921 Robins Dry Dock F. C. (Brooklyn), 4; Scullin Steel F. C. (St. Louis), 2.

1922-23—At St. Louis, Mo., March 19, 1923; Scullin Steel F. C., 3; Todd Shipyard F. C. (Brooklyn), 2.

1923-24—At St. Louis, Mo., March 20, 1924 Fall River (R. T.) Football Club, 4; Vesper-Buicks, St. Louis, 2.

1924-25—At St. Louis, Mo., April 26, 1925; Boston F. C., 3; Ben Miller, St. Louis, 2.

1925-26—Bethlehem (Pa.) Steel F. C., 7; Ben Miller (St. Louis, Mo.), T. C., 2.

1926-27—Fall River F. C., 7; Carburetor F. C. (Detroit), 0.

1927-28—New York Nationals, 3; Chicago Bricklayers, 0.

MOTOR BOAT RACING.

AMERICAN POWER BOAT ASSOCIATION CHALLENGE CUP WINNERS.

This prize is commonly known as the Gold Cup Trophy.

Yr.	Boat.	Owner.	H. P.	Avg. Speed	Yr.	Boat.	Owner.	H. P.	Avg. Speed
1904	Standard	C. C. Riotte	....	23.6	1916	Miss Minneapolis	M. Minn. B. A.	250	49.7
1904	Vingt-et-Un II	W. S. Kilmer	75	25.3	1917	Miss Detroit II	G. A. Wood	250	56.5
1905	Chip	J Wainwright	10¼	15.9	1918	Miss Detroit III	Det. Yachtsm'n	400	52.1
1906	Chip II	J. Wainwright	....	20.6	1919	Miss Detroit III	G. A. Wood	400	56.3
1907	Chip II	J. Wainwright	15	20.8	1920	Miss America	G. A. Wood	900	70.0
1908	Dixie II	E. J. Schroeder	220	30.9	1921	Miss America	G. A. Wood	900	56.5
1909	Dixie II	E. J. Schroeder	220	32.9	1922	Packard Chriscraft	J. G. Vincent	185	40.6
1910	Dixie III	F. K. Burnham	250	33.6	1923	Packard Chriscraft	J. G. Vincent	200	44.4
1911	Mit II	J. H. Hayden	100	36.1	1924	Baby Bootlegger	C. S. Bragg	240	46.4
1912	P. D. Q. II	A. G. Miles	80	36.8	1925	Baby Bootlegger	C. S. Bragg	240	46.4
1913	Ankle Deep	C.S.Mankowski	300	44.5	1926	Greenwich Folly	G. H. Townsend	....	49.22
1914	Baby Speed Demon II	Paul Blackton	180	50.49	1927	Greenwich Folly	G. H. Townsend	....	48.65
1915	Miss Detroit	M. Det. P. B. A.	250	48.5	1929	Imp	R. F. Hoyt	....	48.45

Speed figures register statute miles per hour. The Gold Cup race was not held in 1928.

HARMSWORTH TROPHY RACE.

The British International (Harmsworth) Trophy Race, held at Detroit, Mich., Aug. 31, and Sept. 2, 1929, was won by Gar Wood's Miss America VIII. The record, by years:

Year.	Place.	Name of Boat.	Owner.	Speed.	Club.
1903	Queenstown, Ireland	Napier I	S. F. Edge	19.96 knots.. 19.53 S. Mi.	Royal Motor Yacht Club.
1904	Solent, Eng	Trefle-A-Quatre	E. B. Thubron	23.13 knots.. 26.63 S. Mi.	Automobile Club de France.
1905	Arcachon, France	Napier II	S. F. Edge	22.61 knots.. 26.03 S. Mi.	Royal Motor Yacht Club.
1906	Solent, Eng	Yarrow-Napier	Lord Montagu and Lord. de Rothschild	13.44 knots.. 15.48 S. Mi.	Royal Motor Yacht Club.
1907	Solent, Eng	Dixie I	E. J. Schroeder	27.6 knots.. 31.78 S. Mi.	Motor Boat Club of America.
1908	Huntington Bay, L. I.	Dixie II	E. J. Schroeder	31.347 knots. 36.11 S. Mi.	Motor Boat Club of America.
1910	Huntington Bay, L. I.	Dixie III	F. K. Burnham	31.3 knots.. 36.04 S. Mi.	Motor Boat Club of America.
1911	Huntington Bay, L. I.	Dixie IV	E. K. Burnham	34.98 knots.. 40.28 S. Mi.	Motor Boat Club of America.
1912	Huntington Bay, L. I.	Maple Leaf IV	Sir E. Mackay Edgar	37.5 knots.. 43.18 S. Mi.	Royal Motor Yacht Club.
1913	Osborne Bay, Eng.	Maple Leaf IV	Sir E. Mackay Edgar	49.02 knots.. 57.45 S. Mi.	Royal Motor Yacht Club.
1920	Osborne Bay, Eng	Miss America	Garfield A. Wood	53.42 knots.. 61.51 S. Mi.	Motor Boat Club of America.
1921	Detroit	Miss America II	Garfield A. Wood	51.89 knots.. 59.75 S. Mi.	Motor Boat Club of America.
1926	Detroit	Miss America V	Garfield A. Wood	53.08 knots.. 61.118 S. Mi.	Yachtsmen's Asso. of America.
1928	Detroit	Miss America VII	Garfield A. Wood	51.594 knots. 59.325 S. Mi.	Yachtsmen's Asso. of America.
1929	Detroit	Miss America VIII	Garfield A. Wood	65.379 knots. 75.287 S. Mi.	Yachtsmen's Asso. of America.

The *President's Cup Race*, held at Washington, D. C., Sept. 15, 1929, was won by Imp, owned by Richard F. Hoyt; best lap speed, 48:301.

AMERICAN MOTOR BOAT RECORDS.

Mile Trials, (average of 6 one mile runs): Miss America VII, owned by Gar Wood, at Miami Beach, Fla., March 23, 1929. Built by Gar Wood, Packard motors. Speed 93.123 m.p.h.

Gold Cup Class, (625 cubic inch boats): Fastest heat (30 miles) Hotsy Totsy, owned by Caleb Bragg, Greenwich, Conn., 1927. Time, 35:06:83; speed, 51.261.

Fastest lap (3 miles), Imp, owned by Richard F. Hoyt, Manhasset Bay, 1926. Time, 3:22; speed, 53.58.

Total race (90 miles), Imp, owned by Richard F. Hoyt, Red Bank, N. J., 1929. Time 1:51:33;48, speed, 48.451.

Unlimited Hydroplane: Fastest Heat (30 miles), Miss America, owned by Gar Wood, Detroit, 1920, Time, 25:44; speed, 70.0.

Fastest lap (5 miles), Miss America, owned by Gar Wood, Detroit, 1920. Speed, 71.4.

Total race (90 miles), Miss America, owned by Gar Wood, Detroit, 1920. Time, 1:28:07; speed, 62.0.

Detroit Sweepstakes; Fastest lap (3 miles), Packard Chris Craft II, owned by Colonel J. G. Vincent, Detroit, 1925. Speed, 58.95.

Total race (150 miles), Packard Chris Craft II, owned by Colonel J. G. Vincent, Detroit, 1925. Time, 2:41:47.10; speed, 55.65.

British International Trophy, Unlimited Hydroplanes: Fastest heat (30 nautical miles), Miss America VIII, owned by Gar Wood, Detroit, Sept. 2, 1929. Speed, 75.287 m.p.h.

Fastest lap (5 nautical miles), Miss America VIII, owned by Gar Wood, Detroit, Sept. 2, 1929. Speed, 79.362 m.p.h.

24 Hours: Rainbow IV, owned by Harry G. Greening, Lake Rosseau, Canada, October 2-3, 1925. Total miles, 1218.88. Speed, 50.78.

1½ Liter Class, (*Trial Runs*): Newg, owned by Miss M. B. Carstairs, England, March 12, 1927 Speed, 39.45.

In competition, Little Spitfire, owned by J. H. Rand, Jr., Detroit, Sept., 3, 1927. Speed, 42.17.

151 Class—Unlimited: 1-mile straightaway, Spitfire V, owned by J. H. Rand, Jr., Albany, N. Y., July 5, 1927. Speed, 62.82

In competition, Spitfire V, owned by J. H. Rand, Jr., San Diego, Calif., Dec. 12, 1927. Speed, 55.42.

One lap in competition, Miss California, owned by Loynes-Harris, San Diego, Calif., Dec. 12, 1927. Speed, 59.68.

161 Class—Limited: In competition, Miss California, owned by Dick Loynes, at Sarasota, Fla., Mar. 8, 1929. Speed, 49.20 m.p.h.

Mile trials, Miss Rioco, owned by J. A. Talbot, Miami Beach, Fla., Mar. 19, 1928. Speed, 50.60.

340 Class: Miss California, owned by Loynes-Harris, Houston, Tex., July 2, 1927. Speed, 50.99.

510 Class: Miss Houston IV, owned by Frank H. Robertson. Louisville, Ky., July 5, 1926. 10 miles—in competition. Speed, 51.28.

7½ miles, Miss Kemah, owned by Henry Falk, Houston, Tex., July 4, 1927. Speed, 53.41.

One Mile Trials: Miss Houston IV, owned by Frank H. Robertson, Louisville, Ky., July 5, 1926. Speed, 53.43.

725 Class: 5 miles, Helen, owned by M. J. A. Mitchell, Louisville, Ky., July 5, 1926. Speed, 61.22.

Mile straightaway, Doc's II, owned by I. R. Van Sant, Peoria, Illinois, October 11, 1925, winning King of Belgians' Trophy. Speed, 61.77.

Single Engine Hydroplanes: 1 mile, Miss Chicago, owned by Sheldon Clark, Detroit, Sept. 3, 1921, Speed, 72.86.

15 miles in competition, Fore, owned by W. D. Foreman, Cincinnati, Ohio. Sept. 29, 1923. Speed. 64.75.

ENGLISH CHANNEL SWIMMERS.

Following is the record of the successful attempts to swim across the Channel between England and France, which at Dover is only twenty miles wide, but quite deep, and usually rough, with a high sweep of the tides.

1875—Capt. Matthew Webb of Eastbourne, England, Aug. 24-25. Dover Sands, England, to Sangatte Beach, France. Time, 21 hours 45 minutes. Estimated distance traveled, 39 miles.

1911—Thomas W. Burgess of London, England. Dover Admiralty Pier to Cape Gris-Nez, France, Sept. 5-6. Time, 22 hours 35 minutes. Estimated distance traveled. 39 miles.

1923—Henry Sullivan of Lowell, Mass. Dover Admiralty Pier to Cape Gris-Nez, Aug. 5-6. Time, 27 hours 23 minutes. Estimated distance covered, 45 miles.

1923—Sebastian Tirabocchi of Buenos Aires, an Italian. Cape Gris-Nez to Dover Sands, England, Aug. 11-12. Time, 16 hours 23 minutes. Estimated distance traveled, 27 miles.

1923—Charles Toth of Boston. Cape Gris-Nez to Dover Sands, Sept. 8-9. Time, 16 hours 54 minutes. Estimated distance traveled, 28 miles.

1926—Gertrude Ederle of New York City. Cape Gris-Nez to Dover, Aug. 6. Time, 14 hours 31 minutes. Estimated distance traveled, over 31 miles.

On June 15, 1925, she swam from the Battery, New York City to Sandy Hook, 21 miles, in 7 hours 11 minutes 30 seconds.

1926—Mrs. Clemington Corson (Millie Gade) of New York City. Cape Gris-Nez to Dover, Aug. 27-28. Time, 15 hours 32 minutes.

In June, 1921, she swam around Manhattan, 28 miles, in 15 hours 57 seconds. Also, in 1921, she swam from New York City to Albany, in laps, in 68 hours.

1926—Ernst Vierkoetter, a baker, of Cologne Germany, Cape Gris-Nez to beach near Dover, Aug. 30. Time, 12 hours 43 minutes. Estimated distance covered, 30½ miles.

1926—Georges Michel, a baker, of Paris, France. Cape Gris-Nez to shore of St. Margaret's Bay, Dover, England, Sept. 9-10. Time, 11 hours 5 minutes.

1926—Norman Leslie Durham, a mattress manufacturer, of London. Cape Gris-Nez to the shore of St. Margaret's Bay, Dover, Sept. 16-17. Time, 13 hours 57 minutes. He won a prize of $5,000 offered by Lord Riddell, owner of the News of the World, to the first British subject who would beat Miss Ederle's time across the Channel.

There were many attempts in 1926 to swim the Channel and one life was sacrificed—that of Luis Rodriguez Delara of Madrid, whose body was washed ashore Sept. 29, at Boulogne.

1927—Venceslas Spacek, newspaper mechanic, of Prague, in Bohemia; from a point on the French coast between Calais and Cape Gris-Nez, to Dover England, June 9, in 10 hours and 45 minutes.

1927—E. H. Temme, 22, a London insurance clerk; from Cape Gris-Nez to Lydden Spout, 2 miles west of Dover, Aug. 5, in 14 hours and 29 minutes.

1927—Miss Mercedes Gleitz, 26, London typist; from Cape Gris-Nez to a point between So. Foreland and St. Margaret's Bay, England, Oct. 7, in 15 hours, 15 minutes.

1927—Mrs. Ivy Gill, 24, a Sheffield, England, typist; from Cape Gris-Nez to Shakespeare Beach, Dover, Oct. 14-15, in 15 hours and 9 minutes.

1928—Miss Ivy Hawke of London; from Cape Griz Nez, France, to Hope Point, near Kingsdown, England; Aug. 18, 9.59 p.m.,—Aug. 19, 5.17 p.m. Time, 19 hours and 18 minutes.

1928—Miss Hilda Sharp, 18, nursemaid, Cape Griz Nez to the English coast, Aug. 24, 12.50 a.m., to 3.48 p.m—14 hours, 58 minutes.

1928—Ishak Helmy, Egyptian, Cape Griz Nez to Dover Cliffs, Sept. 1. Time, 23 hours, 40 minutes.

1929 DISTANCE SWIMS.

10-mile women's professional Wrigley Championship race at Toronto, Ont., August 23. Results: Martha Norelius, New York, first; Ruth Tower, Toronto, second; Mrs. E. Armstrong, Detroit, third. Time: 5 hrs. 24 m. 22 s. Prizes: first, $10,000; second, $3,000; third, $1,000.

15-mile men's professional Wrigley Championship race at Toronto, Ont., August 30. Results: E. F. Keating, New York, first; E. Vierkoetler, Toronto, second; Norman Ross, Chicago, third; S. Sponelor, Port Colborne, Ont., fourth. Time: 8 hrs. 15m. 13 1-5 s. 238 swimmers started. Prizes: first, $25,000; second, $5,000; third, $2,000; fourth, $1,500.

Lake Leman swim. Miss Corry Liebbrand, of Utrecht, swam Lake Leman from Lausanne to Geneva, a distance of approximately 37½ miles on August 14-15. Her time was approximately 23 hrs.

Golden Gate swim, held at San Francisco, Calif., September 15. Won by Dr. George Horsfall; second, C. Stevenson; third, R. Mason, all of San Francisco. Time: 46 m. 34s.

THE OLYMPIC GAMES.

1928 OLYMPIC TRACK AND FIELD RECORDS COMPARED WITH WORLD RECORDS.

Race.	Date.	Place.	Winner.	Country.	Time.	
400 metres relay	1928	Amsterdam	U. S. A.	U. S. A.	41 sec.	
	1924	Paris	U. S. A.	U. S. A.	41 sec.	World's Record.
800 metres	1928	Amsterdam	D. G. A. Lowe	Gr. Brit.	1 min. 51 4/5 sec.	Olympic Record.
	1912	Stockholm	J. E. Meredith	U. S. A.	1 min. 51 9/10 sec.	
	1926		O. Peltzer	Germany	1 min. 51 3/5 sec.	World's Record.
1,500 metres	1928	Amsterdam	H. E. Larva	Finland	3 min. 53 1/5 sec.	Olympic Record.
	1924	Paris	P. Nurmi	Finland	3 min. 53 3/5 sec.	
	1927		O. Peltzer	Germany	3 min. 51 sec.	World's Record.
1,600 metres relay	1928	Amsterdam	U. S. A.	U. S. A.	3 min. 14 1/5 sec.	World's Record.
	1924	Paris	U. S. A.	U. S. A.	3 min. 16 sec.	
3,000 metres steeplechase	1928	Amsterdam	T. A. Loukola	Finland	9 min. 21 4/5 sec.	World's Record.
	1924	Paris	W. Ritola	Finland	9 min. 33 3/5 sec.	
10,000 metres	1928	Amsterdam	P. Nurmi	Finland	30 min. 18 4/5 sec.	Olympic Record.
	1924	Paris	Ritola	Finland	30 min. 23 1/5 sec.	
	1924		Nurmi	Finland	30 min. 6 1/5 sec.	World's Record.
110 metres hurdles	1928	Amsterdam	G. C. Weightman-Smith	So. Africa	14 3/5 sec.	World's Record.
	1920	Antwerp	E. J. Thompson	Canada	14 4/5 sec.	
400 metres hurdles	1928	Amsterdam	Lord Burghley	Gr. Brit.	53 2/5 sec.	Olympic Record.
			M. Taylor	U. S. A.	53 2/5 sec.	Olympic Record.
	1920	Antwerp	F. F. Loomis	U. S. A.	54 sec.	
	1924		F. M. Taylor	U. S. A.	52 sec.	World's Record.
Pole Vault	1928	Amsterdam	Sabin Carr	U. S. A.	13 ft. 9 1/2 in.	Olympic Record.
	1920	Antwerp	F. K. Foss	U. S. A.	13 ft. 5 in.	
	1927		Sabin Carr	U. S. A.	14 ft.	World's Record.
16 pound shot	1928	Amsterdam	J. Kuck	U. S. A.	52 ft. 0 11/16 in.	World's Record.
	1912	Stockholm	P. J. Macdonald	U. S. A.	50 ft. 3 7/8 in.	
Javelin	1928	Amsterdam	E. H. Lundqvist	Sweden	218 ft. 0 5/8 in.	Olympic Record.
	1920	Antwerp	J. Myrra	Finland	215 ft. 9 3/4 in.	
	1927		Penttila	Finland	229 ft. 3 1/8 in.	World's Record.
Discus	1928	Amsterdam	C. Houser	U. S. A.	155 ft. 0 3/16 in.	Olympic Record.
	1924	Paris	C. Houser	U. S. A.	151 ft. 5 1/16 in.	
	1927		C. Houser		158 ft. 1 3/4 in.	World's Record

The 1928 Olympic rowing races were won by—*8-oar shells*, Univ. of Calif.; *single sculls*, H. R. Pearce of Australia; *double sculls*, Costello-McIlvaine of U. S.; *pair-oared, with coxswain*, Schoechlin brothers of Switzerland; *pair-oared, without*, Moeschler-Muller of Germany; *4-oar, without*, England; *4-oar, with*, Italy.

AMERICAN (A.A.U.) SWIMMING RECORDS.

MEN'S SHORT COURSE—FREE STYLE.

Distance.	Time.	Name.	Club.	Place.	Date.
100 yds.	52s.	John Weissmuller.	Illinois A. C.	San Francisco, Cal.	Aug. 10, 1925
100 mtrs.	57 2-5s.	John Weissmuller.	Illinois A. C.	Miami Beach, Fla.	Feb. 24, 1924
150 yds.	1m. 25s.	Walter Laufer.	Illinois A. C.	Chicago, Ill.	Mar. 2, 1929
200 yds.	1m. 56 4-5s.	John Weissmuller.	Illinois A. C.	Ann Arbor, Mich.	May 4, 1927
200 mtrs.	2m. 8s.	John Weissmuller.	Illinois A. C.	Ann Arbor, Mich.	May 4, 1927
220 yds.	2m. 9s.	John Weissmuller.	Illinois A. C.	Ann Arbor, Mich.	May 4, 1927
300 yds.	3m. 7 4-5s.	John Weissmuller.	Illinois A. C.	Chicago, Ill.	June 17, 1927
300 mtrs.	3m. 31s.	John Weissmuller.	Illinois A. C.	Chicago, Ill.	Oct. 24, 1927
400 yds.	4m. 26s.	Arne Borg.	Illinois, A. C.	Monongahela City, Pa.	Dec. 8, 1925
400 mtrs.	4m. 56 3-5s.	Arne Borg.	Illinois, A. C.	Cleveland, Ohio.	Dec. 6, 1925
440 yds.	4m. 56 3-5s.	Arne Borg.	Illinois A. C.	Cleveland, Ohio.	Dec. 16, 1925
500 yds.	5m. 31 2-5s.	Arne Borg.	Illinois A. C.	Detroit, Mich.	Jan. 30, 1926
500 mtrs.	6m. 24 1-5s.	John Weissmuller.	Illinois A. C.	Milwaukee, Wis.	Sept. 30, 1922

BACK STROKE.

Distance.	Time.	Name.	Club.	Place.	Date.
100 yds.	1m. 1 2-5s.	George Kojac.	N.Y. Boys Cl.	Brooklyn, N. Y.	May 5, 1928
100 mtrs.	1m. 8 2-5s.	George Kojac.	N.Y. Boys Cl.	Brooklyn, N. Y.	Feb. 18, 1928
150 yds.	1m. 38 2-5s.	George Kojac.	Rutgers Coll.		Mar. 30, 1929
200 mtrs.	2m. 38 3-5s.	George Kojac.	N.Y. Boys Cl.	Brooklyn, N. Y.	Nov. 26, 1927
200 yds.	2m. 39 1-5s.	George Kojac.	N.Y. Boys Cl.	Brooklyn, N. Y.	Nov. 26, 1927
400 mtrs.	5m. 52 4-5s.	George Fisher.	N. Y. A. C.	New York City.	Feb. 23, 1927

BREAST STROKE.

Distance.	Time.	Name.	Club.	Place.	Date.
100 yds.	1m. 7 2-5s.	Walter Spence.	Bklyn.Cent.Y.	New York City.	Oct. 28, 1927
100 mtrs.	1m. 14s.	Walter Spence.	Bklyn.Cent.Y.	New York City.	Oct. 28, 1927
200 yds.	2m. 30 1-5s.	Walter Spence.	Bklyn.Cent.Y.	Brooklyn, N. Y.	Apr. 20, 1928
200 mtrs.	2m. 46 3-5s.	Walter Spence.	Bklyn.Cent.Y.	Brooklyn, N. Y.	Feb. 18, 1928
220 yds.	2m. 48 1-5s.	Walter Spence.	Bklyn.Cent.Y.	New York City.	Feb. 6, 1926
400 mtrs.	5m. 50 1-5s.	E. Rademacher.	Germany.	New Haven, Conn.	Mar. 9, 1926
440 yds.	5m. 53 1-5s.	E. Rademacher.	Germany.	New Haven, Conn.	Mar. 9, 1926

MEN'S LONG COURSE—FREE STYLE.

Distance.	Time.	Name.	Club.	Place.	Date.
100 yards.	52s.	J. Weissmuller.	Illinois A. C.	Seattle, Wash.	Aug. 1, 1925
100 metres.	57 4-5s.	J. Weissmuller.	Illinois A. C.	San Francisco, Cal.	June 7, 1928
150 yards.	1m. 26s.	J. Weissmuller.	Illinois A. C.	Honolulu, T. H.	Nov. 14, 1928
200 yards.	2m. 16 1-5s.	J. Weissmuller.	Illinois A. C.	Detroit, Mich.	Aug. 4, 1927
200 metres.	2m. 13 3-5s.	J. Weissmuller.	Illinois A. C.	Honolulu, T. H.	Aug. 4, 1927
220 yards.	2m. 13 3-5s.	J. Weissmuller.	Illinois A. C.	Honolulu, T. H.	Aug. 26, 1927
300 yards.	3m. 23 3-5s.	J. Weissmuller.	Illinois A. C.	Honolulu, T. H.	June 22, 1922
300 metres.	3m. 41 1-5s.	J. Weissmuller.	Illinois A. C.	Coral Gables, Fla.	Nov. 29, 1925
400 metres.	4m. 52s.	J. Weissmuller.	Illinois A. C.	Honolulu, T. H.	Aug. 25, 1927
440 yards.	4m. 52s.	J. Weissmuller.	Illinois A. C.	Honolulu, T. H.	Aug. 25, 1927
500 yards.	5m. 47 3-5s.	J. Weissmuller.	Illinois A. C.	Honolulu, T. H.	June 22, 1922
500 meters.	6m. 55s.	J. Weissmuller.	Illinois A. C.	Decatur, Ill.	July 4, 1923
800 meters.	10m. 22 1-5s.	J. Weissmuller.	Illinois A. C.	Honolulu, T. H.	Aug. 27, 1928
880 yards.	10m. 22 1-5s.	J. Weissmuller.	Illinois A. C.	Honolulu, T. H.	Aug. 27, 1927
1000 yards.	12m. 44 3-5s.	Norman Ross.	Illinois A. C.	Honolulu, T. H.	Nov. 1, 1919
1000 metres.	13m. 8 2-5s.	C. L. Crabbe, Jr.	Outrigger Club	Honolulu, T. H.	Apr. 19, 1928
1320 yds.	18m. 7 4-5s.	Norman Ross.	Illinois, A. C.	Coronado Tent City.	July 4, 1917
1500 meters.	20m. 48 3-5s.	C. L. Crabbe, Jr.	Outrigger Club	Honolulu, T. H.	Apr. 19, 1928
1 mile.	21m. 35 3-5s.	C. L. Crabbe, Jr.	Outrigger Club	San Francisco, Cal.	June 7, 1928

BACK STROKE.

Distance.	Time.	Name.	Club.	Place.	Date.
100 yards.	1m. 5 3-5s.	Warren Kealoha.	Hui Makani.	Honolulu, T. H.	June 24, 1922
100 metres.	1m. 9 3-5s.	George Kojac.	Boys' Cl., N. Y.	Detroit, Mich.	June 23, 1928
150 yards.	1m. 49s.	Warren Kealoha.	Hui Makani.	Honolulu, T. H.	July 30, 1921
200 metres.	2m. 36s.	George Kojac.	N. Y. Boys' Cl.	Honolulu, T. H.	Aug. 25, 1927
220 yards.	2m. 36s.	George Kojac.	N. Y. Boys' Cl.	Honolulu, T. H.	Aug. 25, 1927
400 metres.	5m. 52 1-5s.	George Kojac.	N. Y. Boys' Cl.	Massapequa, L. I.	July 30, 1927
440 yards.	6m. 10s.	George Kojac.	N. Y. Boys' Cl.	Massapequa, L. I.	July 17, 1927

BREAST STROKE.

Distance.	Time.	Name.	Club.	Place.	Date.
100 yards.	1m. 11 2-5s.	Walter Spence.	Bkly. Cent. Y.	Massapequa, L. I.	July 17, 1927
100 metres.	1m. 18 2-5s.	Walter Spence.	Bkly. Cent. Y.	Coney Island, N. Y.	July 1, 1925
200 metres.	2m. 55 1-5s.	Walter Spence.	Bkly. Cent. Y.	Massapequa, L. I.	July 29, 1927
220 yards.	2m. 56 1-5s.	Walter Spence.	Bkly. Cent. Y.	Massapequa, L. I.	July 29, 1927
440 yds.	6m. 15 4-5s.	Walter Spence.	Bklyn.Cent.Y.	Massapequa, L. I.	July 28, 1927

RELAY RACING.

400 yds.—4m. 28 2-5s., Illinois Women's Athletic Club (E. Gonnerman, D. VanMaarth, E. Shemaitis, M. L. Quinn), South Bend, Ind., Mar. 23, 1929.

500 yds. 5m. 38 9-10s., Illinois Women's Athletic Club (E. Gonnerman, D. VanMaarth, E. Shemaitis, M. L. Quinn, I Smith), South Bend, Ind., Mar. 23, 1929.

600 yds. 6m. 48 2-5s., Illinois Women's Athletic Club (E. Gonnerman, D. VanMaarth, E. Shemaitis, M. L. Quinn, B. Quinn), South Bend, Ind., Mar. 23, 1929.

300 yds melody—3m. 50 4-5s., Womens Swiming Association of New York (A. Geraghty, L. Lindstrom, C. Ames), Scranton, Pa., May 13, 1917.

WOMEN'S SHORT COURSE RECORDS—FREE STYLE.

Distance.	Time.	Name.	Club.	Place.	Date.
100 yards	60,9s	Ethel Lackie	Illinois A. C.	Philadelphia, Pa.	Mar. 8, 1926
100 metres	1m. 10s.	Ethel Lackie	Illinois A. C.	Toledo, Ohio	Jan. 28, 1926
150 yards	1m. 42 1-5s.	Gertrude Ederle	W. S. A. N. Y.	Miami Beach, Fla.	Feb. 25, 1925
200 yds.	2m. 22s.	Ethel Lackie	Illinois, A. C.	Miami Beach, Fla.	Feb. 24, 1925
200 metres	2m. 40 3-5s.	Martha Norelius	W. S. A. N. Y.	Miami, Fla.	Feb. 28, 1926
220 yards	2m, 40 3-5s.	Martha Norelius	W. S. A. N. Y.	Miami, Fla.	Feb. 28, 1926
300 yards	3m. 45s.	Gertrude Ederle	W. S. A. N. Y.	Miami Beach, Fla.	Feb. 28, 1925
300 metres	4m. 8 1-5s.	Martha Norelius	W. S. A. N. Y.	New Brunswick, N. J.	Apr. 13, 1928
400 yards	5m. 14s.	Martha Norelius	W. S. A. N. Y.	Buffalo, N. Y.	Feb. 5, 1927
400 metres	5m. 48 4-5s.	Martha Norelius	W. S. A. N. Y.	Newark, N. J.	Mar. 9, 1928
440 yards	5m. 48 4-5s.	Martha Norelius	W. S. A. N. Y.	Newark, N. J.	Mar. 9, 1928
500 yards	6m. 32s.	Martha Norelius	W. S. A. N. Y.	Buffalo, N. Y.	Feb. 5, 1927
500 metres	7m. 19 3-5s.	Martha Norelius	W. S. A. N. Y.	Buffalo, N. Y.	Nov. 5, 1927

BACK STROKE.

Distance.	Time.	Name.	Club.	Place.	Date.
50 yds.	32 4-5s.	Joan McSheehy	W. C. Assn.	Brookline Mass.	Mar. 14, 1929
75 yds.	53 4-5s.	Joan McSheehy	W. C. Assn.	Brookline, Mass.	Mar. 14, 1929
100 yds.	1m. 13 2-5s.	Sybil Bauer	Illinois A. C.	St. Paul, Minn.	Mar. 1, 1924
100 mtrs.	1m. 22 1-5s.	Eleanor Holme		San Francisco, Cal.	Aug. 24, 1929
150 yds.	1m. 58 1-5s.	Sybil Bauer	Illinois A. C.	Chicago, Ill.	Apr. 3, 1924
200 mtrs.	3m. 1 3-5s.	Sybil Bauer	Illinois A. C.	Miami, Fla.	Feb. 8, 1924
220 yds.	3m. 1 3-5s.	Sybil Bauer	Illinois A. C.	Miami, Fla.	Feb. 8, 1924
440 yds.	6m. 25 4-5s.	Sybil Bauer	Illinois A. C.	Miami, Fla.	Feb. 10, 1924

BREAST STROKE.

Distance.	Time.	Name.	Club.	Place.	Date.
100 yards	1m. 19 2-5s.	Agnes Geraghty	W. S. A. N. Y.	St. Augustine, Fla.	Feb, 12, 1926
100 metres	1m, 28 4-5s.	Agnes Geraghty	W. S. A. N. Y.	St. Augustine, Fla.	Feb. 13, 1926
200 yds.	2m. 59s.	Agnes Geraghty	W. S. A. N. Y.	St. Augustine, Fla.	Feb. 11, 1926
				New York City	Apr. 20, 1928
200 metres	3m. 18 1-5s.	Agnes Geraghty	W. S. A. N. Y.	Buffalo, N. Y.	Feb. 22, 1928
220 yards,	3m, 20s.	Agnes Geraghty	W. S. A. N. Y.	Buffalo, N. Y.	Feb. 3, 1927
400 metres	7m, 4 4-5s.	Agnes Geraghty	W. S. A. N. Y.	Plymouth, N. H.	Aug. 30, 1925
440 yards	7m, 33s.	Agnes Geraghty	W. S. A. N. Y.	Miami Beach, Fla.	Feb. 8, 1924

WOMEN'S LONG COURSE RECORDS—FREE STYLE.

Distance.	Time.	Name.	Club.	Place.	Date.
100 yds.	1m. 3 2-5s.	Ethelda Bleibtrey	W. S. A. N. Y.	Honolulu, T. H.	May 30, 1921
100 mtrs.	1m. 9 2-5s.	A. Osipowich		San Francisco, Cal.	Aug. 25, 1929
200 mtrs.	2m. 41 3-5s.	A. Osipowich		San Francisco, Cal.	Aug. 22, 1929
220 yards	2m. 46 2-5s.	M. Wehselau	Outrigger C. C.	Honolulu, T. H.	Aug. 26, 1927
300 yards	4m. 5 3-5s.	Martha Norelius	W. S. A. N. Y.	Indianapolis, Ind.	Aug. 16, 1927
300 metres	4m. 18 2-5s.	Martha Norelius	W. S. A. N. Y.	Coral Gables, Fla.	Jan. 21, 1926
400 metres	5m. 49 3-5s.	Martha Norelius	W. S. A. N. Y.	Rockaway, N. Y.	June 30, 1928
440 yards	5m. 51 2-5s.	Martha Norelius	W. S. A. N. Y.	Coral Gables, Fla.	Jan. 23, 1927
500 yards	7m. 3-5s.	Martha Norelius	W. S. A. N. Y.	Indianapolis, Ind.	Aug. 16, 1927
500 metres	7m. 33 1-5s.	Martha Norelius	W. S. A. N. Y.	Coral Gables, Fla.	Jan. 22, 1926
800 metres	12m. 17 4-5s.	Martha Norelius	W. S. A. N. Y.	Massapequa, L. I.	July 31, 1927
880 yards	12m. 17 4-5s.	Martha Norelius	W. S. A. N. Y.	Massapequa, L. I.	July 31, 1927
1000 yards	13m. 39 2-5s.	Martha Norelius	W. S. A. N. Y.	Massapequa, L. I.	July 28, 1927
1000 metres	13m. 39 2-5s.	Martha Norelius	W. S. A. N. Y.	Massapequa, L. I.	July 28, 1927
1500 metres	23m. 44 3-5s.	Martha Norelius	W. S. A. N. Y.	Massapequa, L. I.	July 28, 1927
1 mile	24m. 49s.	Josephine McKim	W. S. A. N. Y.	Rockaway, N. Y.	July 2, 1928

BACK STROKE.

Distance.	Time.	Name.	Club.	Place.	Date.
100 yards	1m. 15 4-5s.	Sybil Bauer	Illinois A. C.	Indianapolis, Ind.	Aug. 24, 1923
100 metres	1m. 22 3-5s.	Sybil Bauer	Illinois A. C.	Scarborough, N. Y.	June 8, 1924
150 yards		No Record Applied For.			
200 metres	3m. 11s.	Sybil Bauer	Illinois A. C.	Detroit, Mich.	Aug. 7, 1925
		Adelaide Lambert	W. S. A. N. Y.	Massapequa, L. I.	July 29, 1927
220 yds.	3m. 11s.	Sybil Bauer	Illinois A. C.	Detroit, Mich.	Aug. 7, 1925
		Adelaide Lambert	W. S. A. N. Y.	Massapequa, L. I.	July 29, 1927

BREAST STROKE.

Distance.	Time.	Name.	Club.	Place.	Date.
100 yards	1m. 25 1-5s.	Agnes Geraghty	W. S. A. N. Y.	Massapequa, L. I.	July 17, 1927
100 metres	1m. 33s.	Agnes Geraghty	W. S. A. N. Y.	Coral Gables, Fla.	Dec. 31, 1925
200 yds.	3m. 16 1-5s.	Agnes Geraghty	W. S. A. N. Y.	Indianapolis, Ind.	Aug. 17, 1927
200 metres	3m. 19 2-5s.	Agnes Geraghty	W. S. A. N. Y.	Rockaway, N. Y.	July 1, 1928
220 yards	3m. 23 1-5s.	Flo. Chambers	San Diego, Cal.	San Diego, Cal.	Dec. 11, 1925
400 metres	7m. 17 2-5s.	Agnes Geraghty	W. S. A. N. Y.	Coral Gables, Fla.	Dec. 27, 1925
440 yds.	7m. 32 4-5s.	Agnes Geraghty	W. S. A. N. Y.	Asheville, N. C.	June 27, 1925

COLLEGE SWIMMING

Intercollegiate Championships, held at Princeton, N. J., March 23, 1929. Results:

150-Yard Back Stroke—Kojac, Rutgers; Cahill, Yale, second; Wohl, Syracuse, third. Time, 1.44 2-5.

50-Yard Dash—Howland, Yale; Bryant, Dartmouth, second; Messimer, Yale, third. Time—0:24 3-5.

200-Yard Freshman Relay—Columbia (Joyce, Ruddy, Rowland, Dolgos); Pennsylvania, second. (Yale, the winner, disqualified.) Time—1:43 2-5.

220-Yard Swim—Howland, Yale; Harms, Fordham, second; Phillips, Rutgers, third. Time—2:22 2-5.

Fancy Dive—Brooks, Princeton; second, Hedges, Princeton; third, Hubbard, Dartmouth. Winner's Points—94.7.

200-Yard Breast Stroke—Moles, Princeton; second, Schott, Williams; third, Time—2:39 1-5.

100-Yard Free Style Swim—Howland, Yale; Messimer, Yale, second; Bryant, Dartmouth, third. Time—0:54 3-5.

INTERNATIONAL AMATEUR ATHLETIC FEDERATION RECORDS.

Revised to Jan. 1, 1929. New records since then not official until approved, in June, 1930.

OFFICIAL WORLD'S RECORDS—RUNNING.

Event.	Time Measurement	Holder.	Nation.	Date.	Place.
100 yards	9.6s.	Chas. Bowman	U. S. A.	July 2, 1927	U. S. A.
100 yards	9.6s.	D. J. Kelly	U. S. A.	June 23, 1906	U. S. A.
100 yards	9.6s.	H. P. Drew	U. S. A.	Mar. 28, 1914	U. S. A.
100 yards	9.6s.	Chas. W. Paddock*	U. S. A.	Mar. 26, 1921	U. S. A.
100 yards	9.6s.	Cyril H. Coaffee	Canada	Aug. 12, 1922	Canada
220 yards	20.6s.	R. A. Locke	U. S. A.	May 1, 1926	U. S. A.
300 yards	30.6s.	B. J. Wefers	U. S. A.	Sept. 26, 1896	U. S. A.
440 yards	47.4s.	J. E. Meredith	U. S. A.	Oct. 27, 1916	U. S. A
600 yards	1m.10.4s.	D. G. Lowe	Great Britain	June 26, 1926	England
880 yards	1m.51.6s.	O. Peltzer	Germany	July 3, 1926	England
1,000 yards	2m.12.2s.	Lawrence Brown	U. S. A.	June 11, 1921	U. S. A.
1,320 yards	3m.2.8s.	T. P. Conneff	U. S. A.	Aug. 21, 1895	U. S. A.
1 mile	4m.10.4s.	Paavo Nurmi	Finland	Aug. 23, 1923	Sweden
2 miles	9m.04.1s.	E. Wide	Sweden	Nov. 12, 1926	Sweden
3 miles	14m.11.2s.	Paavo Nurmi	Finland	Aug. 24, 1923	Sweden
4 miles	19m.15.3-5s.	Paavo Nurmi	Finland	Oct. 1, 1924	Finland
5 miles	24m.6.1-5s.	Paavo Nurmi	Finland	Oct. 1, 1924	Finland
6 miles	29m.59.4s.	A. Shrubb	Great Britain	Nov. 5, 1904	England
7 miles	35m.4.6s.	A. Shrubb	Great Britain	Nov. 5, 1904	England
8 miles	40m.16s.	A. Shrubb	Great Britain	Nov. 5, 1904	England
9 miles	45m.27.6s.	A. Shrubb	Great Britain	Nov. 5, 1904	England
10 miles	50m.40.6s.	A. Shrubb	Great Britain	Nov. 5, 1904	England
15 miles	1h.20m.4.4s.	F. Appleby	Great Britain	July 21, 1902	England
20 miles	1h.51m.54s.	G. Crossland	Great Britain	Sept. 22, 1894	England
25 miles	2h.29m.29.4s.	H. Green	Great Britain	May 12, 1913	England
1 hour	11 miles 1,442 yards	J. Bouin	France	July 6, 1913	Sweden
2 hours	20 miles 952 yards	H. Green	Great Britain	May 12, 1913	England

*(Eight times different dates.)

RUNNING—METRIC DISTANCES.

100 meters	10.4s.	Charles W. Paddock	U. S. A.	Apr. 23, 1921	U. S. A.
200 meters	20.6s.	R. A. Locke	U. S. A.	May 1, 1926	U. S. A.
300 meters	33.2s.	Charles W. Paddock	U. S. A.	Apr. 23, 1921	U. S. A.
400 meters	47.4s.	J. E. Meredith	U. S. A.	Oct. 27, 1916	U. S. A.
500 meters	1m. 3.6s.	O. Peltzer	Germany	June 6, 1926	Hungary
800 meters	1m. 51.6s.	O. Peltzer	Germany	July 3, 1926	England
1,000 meters	2m. 25.8s.	O. Peltzer	Germany	Sept. 18, 1927	France
1,500 meters	3m. 51s.	O. Peltzer	Germany	Oct. 11, 1926	Germany
2,000 meters	5m. 23.4s.	E. Borg	Finland	Aug. 9, 1927	Finland
3,000 meters	8m. 20.4s.	Paavo Nurmi	Finland	July 13, 1926	Finland
5,000 meters	14m. 28.2s.	Paavo Nurmi	Finland	June 19, 1924	Finland
10,000 meters	30m. 6 1-5s.	Paavo Nurmi	Finland	Aug. 31, 1924	Finland
1-2 hour	9957m.	Paavo Nurmi	Finland	Aug. 31, 1924	Finland
1 hour	19,021m. 90cm.	J. Bouin	France	July 6, 1913	Sweden
2 hours	33,056m.	H. Green	Great Britain	May 12, 1913	England

AMERICAN (A. A. U.) TRACK AND FIELD RECORDS.

(*Indicates that the record was made indoors.)

RUNNING.

Distance.	Time.	Holder.	Where Made.	Date.
		Jack Elder	Notre Dame	Mar. 9, 1929
		Loren Murchison	New York City	Jan. 31, 1928
		Albert Francisco	Chicago, Ill.	Mar. 6, 1926
50 yards	6 1-5s.*	Chester Bowman	Chicago, Ill.	Mar. 6, 1926
		James Quinn	New York City	Feb. 20, 1928
100 yards	9 5s.	E. Tolan	Evanston, Ill.	May 25, 1929
100 yards	9.5s.	C. W. Paddock	Los Angeles, Cal.	May 15, 1926
100 yards	9 4-5s.*	Louis A. Clarke	Baltimore, Md.	Feb. 9, 1924
100 yds. (st. bks.)	9 2-5s.	George Simpson	Chicago, Ill.	June 8, 1929
100 yards	9 3-5s.	Charles Borah	Fresno, Calif.	April 27, 1929
220 yards	20 4-5s.	C. W. Paddock	Berkeley, Cal.	Mar. 26, 1921
		C. W. Paddock	West Orange, N. J.	Sept. 6, 1924
220 yards	20.5s.	Roland A. Locke	Lincoln, Neb.	May 1, 1926
220 yards	22 2-5s.*	Loren Murchison	New York City	Jan. 6, 1925
300 yards	30 1-5s.	C. W. Paddock	Redlands, Cal.	Apr. 23, 1921
300 yards	31 1-5s.*	A. Woodring	Buffalo, N. Y.	Feb. 11, 1922
		Loren Murchison	Buffalo, N. Y.	Feb. 17, 1923
440 yards	47s.	M. W. Long	Guttenberg, N. J.	Oct. 4, 1900
440 yards	47 2-5s.	J. E. Meredith	Cambridge, Mass.	May 27, 1916
440 yards	49 3-5s.*	T. J. Halpin	Buffalo, N. Y.	Mar. 15, 1913
		W. F. Koppisch	Buffalo, N. Y.	Mar. 17, 1923
600 yards	1m. 10 4-5s.	M. W. Sheppard	Celtic Park, N. Y.	Aug. 14, 1910
		Thos. Campbell	Chicago, Ill.	Aug. 31, 1922
600 yards	1m. 11 3-5s.*	Alan B. Helffrich	New York City	Mar. 17, 1925
880 yards	1m. 52 1-5s.	J. E. Meredith	Philadelphia, Pa.	May 13, 1916
880 yards	1m. 51 2-5s.*	Lloyd Hahn	New York City	Mar. 3, 1928
1000 yards	2m. 12 1-5s.	Larry Brown	Philadelphia, Pa.	June 11, 1921
1000 yards	2m. 12*	Harold Cutbill	Buffalo, N. Y.	Mar. 18, 1922
1320 yards	3m. 2 4-5s.	T. P. Conneff	Travers Is., N. Y.	Aug. 21, 1895
1320 yards	3m. 3 2-5s.*	Lloyd Hahn	New York City	Mar. 9, 1925
1 mile	4m. 12 3-5s.	N. S. Taber	Cambridge, Mass.	July 16, 1915
1 mile	4m. 12s.*	Paavo Nurmi	Buffalo, N. Y.	Mar. 7, 1925
		J. W. Ray	New York City	Mar. 17, 1925
2 miles	8m. 58 1-5s.*	Paavo Nurmi	New York City	Feb. 14, 1925
2 miles	9m. 17 4-5s.	T. S. Berna	Ithaca, N. Y.	May 4, 1912
3 miles	13m. 56 1-5s.*	William Ritola	New York City	Feb. 24, 1925
3 miles	14m. 22 3-5s.	H. Kolehmainen	Celtic Park, N. Y.	Aug. 17, 1913
4 miles	19m. 27 4-5s.*	William Ritola	New York City	Jan. 20, 1923
4 miles	20m. 2s.	H. Kolehmainen	New York City	Nov. 1, 1913
5 miles	24m. 21 4-5s.*	William Ritola	New York City	Jan. 17, 1925

RUNNING—*Continued.*

(*Indicates that the record was made indoors.)

Distance.	Time.	Holder.	Where Made.	Date.
5 miles	24m. 36 4-5s.	Charles Pores	Great Lakes, Ill.	Sept. 21, 1918
6 miles	30m. 20 2-5s.	H. Kolehmainen	New York City	Nov. 1, 1913
6 miles	30m. 24s.*	H. Kolehmainen	Buffalo, N. Y.	Feb. 1, 1913
7 miles	35m. 35 4-5s.	H. Kolehmainen	New York City	Nov. 1, 1913
7 miles	35m. 36 2-5s.*	H. Kolehmainen	Buffalo, N. Y.	Feb. 1, 1913
8 miles	40m. 48 4-5s.	H. Kolehmainen	New York City	Nov. 1, 1913
8 miles	40m. 47 4-5s.*	H. Kolehmainen	Buffalo, N. Y.	Feb. 1, 1913
9 miles	46m. 3-5s.*	H. Kolehmainen	Buffalo, N. Y.	Feb. 1, 1913
9 miles	46m.	H. Kolehmainen	New York City	Nov. 1, 1915
10 miles	51m. 3 2-5s.	H. Kolehmainen	New York City	Nov. 1, 1913
10 miles	51m. 6 3-5s.*	H. Kolehmainen	Buffalo, N. Y.	Feb. 1, 1913
11 miles 153 yards	1 hour	Albin Stenroos	New York City	May 26, 1925
15 miles	1h. 23m. 24 1-5s.	Charles Pores	New York City	June 1, 1919
20 miles	1h. 58m. 27 3-5s.	James Clark	Celtic Park, N. Y.	Nov. 14, 1909
25 miles	2h. 44m. 50s.*	M. Maloney	New York City	Jan. 8, 1909

RUNNING—METRIC DISTANCES.

Distance.	Time.	Holder.	Where Made.	Date.
60 metres	7 1-5s.*	Robert McAllister	Brooklyn, N. Y.	Jan. 29, 1927
100 metres	10 2-5s.	C. W. Paddock	Redlands, Cal.	Apr. 23, 1921
100 metres	10 4-5s.*	Robert McAllister	Brooklyn, N. Y.	Jan. 22, 1927
200 metres	20 4-5s.	F. C. Wykoff	Los Angeles, Cal.	June 16, 1928
200 metres	21 1-5s. slight curve	H. T. Evans, Jr.	Urbana, Ill.	May 27, 1924
300 metres	33 1-5s.	C. W. Paddock	Redlands, Cal.	Apr. 23, 1921
400 metres	47s.	E. Spencer	California	May 12, 1928
400 metres	49 4-5s.*	M. J. Suttner	Buffalo, N. Y.	Apr. 12, 1924
500 metres	1m. 3 2-5s.	Thos. Campbell	Chicago, Ill.	Aug. 31, 1922
500 metres	1m. 5s*	Phillip Edwards	New York City	Feb. 18, 1929
800 metres	1m. 51 2-5s.	Lloyd Hahn	Boston, Mass.	July 7, 1928
800 metres	1m. 54s.*	Alan B. Helffrich	Washington, D. C.	Feb. 21, 1925
1000 metres	2m. 26 2-5s.*	Lloyd Hahn	New York City	Mar. 26, 1927
1500 metres	3m. 55s.	R. Conger	Boston, Mass.	July 7, 1928
1500 metres	3m. 55 4-5s.*	Lloyd Hahn	Washington, D. C.	Feb. 21, 1925
2000 metres	5m. 22 2-5s.*	Paavo Nurmi	Buffalo, N. Y.	Feb. 12, 1925
3000 metres	8m. 26 2-5s.*	Paavo Nurmi	New York City	Mar. 12, 1925
4000 metres	11m. 30 4-5s.*	Paavo Nurmi	New York City	Mar. 17, 1925
5000 metres	14m. 45s.	C. F. Hunter	Pasadena, Cal	June 26, 1920
5000 metres	14m. 23 1-5s.*	William Ritola	New York City	Feb. 24, 1925
8000 metres	25m. 44s.	W. J. Kramer	Celtic Park, N. Y.	June 2, 1912
10000 metres	31m. 28 2-5s.	Joie Ray	Boston, Mass.	July 7, 1928

WALKING.

Distance.	Time.	Holder.	Where Made.	Date.
1 mile	6m. 28s.*	G. H. Goulding	Buffalo, N. Y.	Dec. 16, 1911
1 mile	6m. 29 3-5s.	F. P. Murray	New York City	Oct. 27, 1883
2 miles	13m. 37s.	G. H. Goulding	New York City	Mar. 18, 1916
2 miles	13m. 38 3-5s.*	G. H. Goulding	Brooklyn, N. Y.	Mar. 30, 1912
3 miles	20m. 49 4-5s.*	G. H. Goulding	Brooklyn, N. Y.	Mar. 30, 1912
3 miles	21m. 4s.*	William Plant	New York City	Feb. 3, 1925
4 miles	28m. 6 1-5s.*	G. H. Goulding	Brooklyn, N. Y.	Mar. 30, 1912
5 miles	35m. 48 2-5s.*	Ugo Frigerio	New York City	Mar. 28, 1925
5 miles	36m. 10s.	G. H. Goulding	New Brunswick, N. J.	Oct. 23, 1915
6 miles	43m. 9 4-5s.*	Ugo Frigerio	New York City	Mar. 28, 1925
6 miles	43m. 28 2-5s.	G. H. Goulding	New Brunswick, N. J.	Oct. 23, 1915
7 miles	50m. 40 4-5s.	G. H. Goulding	New Brunswick, N. J.	Oct. 23, 1915
7 m. 1437yds.4in.	1 hour	R. F. Remer	New York City	Nov. 24, 1918
8 miles	1h. 1m. 34s.	R. F. Remer	New York City	Nov. 24, 1918
9 miles	1h. 10m. 8s.	E. E. Merrill	Boston, Mass.	Oct. 5, 1880
10 miles	1h. 17m. 40 3-4s.	E. E. Merrill	Boston, Mass.	Oct. 5, 1880
14 m. 1115 yards	2 hours	William Plant	New York City	Dec. 5, 1879
15 miles	2h. 2m. 57 3-5s.	William Plant	New York City	Dec. 5, 1879
20 miles	3h. 8m. 10s.	J. B. Clark	New York City	Nov. 13, 1921
25 miles	4h. 3m. 35s.	J. B. Clark	New York City	Nov. 13, 1921

WALKING—METRIC DISTANCES.

3000 metres	12m. 49s.*	William Plant	Brooklyn, N. Y.	Feb. 13, 1926
4000 metres	17m. 39 4-5s.*	Ugo Frigerio	New York City	Mar. 28, 1925
5000 metres	21m. 50 3-5s.*	William Plant	New York City	Feb. 3, 1925
7000 metres	31m. 16 3-5s.*	Ugo Frigerio	New York City	Mar. 28, 1925
8000 metres	35m. 35 3-5s.*	Ugo Frigerio	New York City	Mar. 28, 1925
9000 metres	40m. 10 4-5s.*	Ugo Frigerio	New York City	Mar. 28, 1925
10000 metres	44m. 38s.*	Ugo Frigerio	New York City	Mar. 28, 1925
10000 metres	47m. 5s.	H. R. Hinkel	Yonkers, N. Y.	Nov. 2, 1926

RELAY RACING.

Distance.	Time.	Clubs.	Where Made.	Date.
440 yards (4x110)	41s.	Newark A. C. (Bowman, Currie, Pappas, Cumming)	Lincoln, Neb.	July 4, 1927
400 metres (4x100)	42 2-5s.	Univ. of Pa. (Sherman Landers, Davis, Haymond, Smith)	Philadelphia, Pa.	June 7, 1919
800 metres (4x200)	1m. 25 4-5s.	Univ. of So. California (House, Smith, Borah, Lewis)	Los Angeles, Cal.	May 14, 1927
880 yards (4x220)	1m. 25 4-5s.	Univ. of So. Cal. (House, Smith, Borah, Lewis)	Los Angeles, Cal.	May 14, 1927
880 yards (4x220)	*1m. 33 2-5s.	Newark, N. J., A. C.	New York City	Mar. 16, 1929

RELAY RACING—*Continued*

* Indicates that the record was made indoors.

Distance.	Time.	Holder.	Where Made.	Date.
1 mile (4x440)	3m. 16 2-5s.	American Legion, State of Pa. (Rogers, Eby, Brown, Maxam)	Philadelphia, Pa.	June 11, 1921
1 mile (4x440)	*3m. 21s.	All-Buffalo Team (Habberfield, Koppisch, Sutton, Brandt)	Buffalo, N. Y.	Apr. 17, 1920
1600 mtrs. (4x400)	*3m. 22 3-5s.	Georgetown Univ. (Gegan, Ascher, Swinburne, Burgess)	New York City	Mar. 16, 1926
2 miles (4x880)	7m. 41.4s.	Boston A. A. (Martin, Hahn, Sansone, Welch)	Philadelphia, Pa.	July 6, 1926
2 miles (4x880)	*7m. 41 3-5s.	Georgetown Univ. (Brooks, Swinburne, Holden, Marsters)	New York City	Mar. 7, 1925
4 miles (4x1 mile)	17m. 21 2-5s.	Illinois A. C. (Krogh, Buker, Watson, Ray)	Chicago, Ill.	June 23, 1923
4 miles (4x1 mile)	*17m. 43 2-5s.	Cornell Univ. (Putnam, Finch, Berna, Jones)	Buffalo, N. Y.	Mar. 1, 1912
Medley (Mile, 220, 440, 880)	7m. 25 4-5s.	New York A. C. (Goodwin, Scholz, Tierney, Marsters)	Pelham, N. Y.	Sept. 26, 1925
Medley (Mile, 220, 440, 880)	*7m. 35 2-5s.	Illinois A. C. (Ray, Watson, Dowding, Rose)	Buffalo, N. Y.	Feb. 17, 1922

WOMEN'S AMERICAN RECORDS—TRACK AND FIELD.

Distance.	Time.	Holder.	Where Made.	Date.
30 yds. run	3 4-5s.	Betty Brown	New Haven Nor. Sch.	Gum.
40 yds. run	5 1-5s.*	Rosa M. Grosse	Boston, Mass.	Mar. 26, 1927
50 yds. run	5 4-5s.	Elizabeth Robinson	Chicago, Ill.	July 27, 1929
50 yds. run	6 1-5s.*	Helen M. Filkey	Illinois W.A.C.	Mar. 21, 1928
60 yds. run	7 2-5s.	Helen M. Filkey	Illinois A.W.C.	Aug. 25, 1928
60 yds. run	7 2-5s.*	Helen M. Filkey	Illinois W.A.C.	Apr. 23, 1926 Mar. 30, 1927
70 yds. run	8 2-5s.	Helen M. Filkey	Illinois W.A.C.	Apr. 23, 1926
75 yds. run	8 3-5s.	L. Haydock	Bryn Mawr Coll.	
100 yds. run	11 2-5s.	Helen M. Filkey	Chicago, Ill.	July 20, 1925
100 mtrs. run	11 1-5s.	Elizabeth Robinson	Chicago, Ill.	July 27, 1929
220 yds. run	26 4-5s.	Ellen Brough	Eureka, Cal.	Sept. 3, 1929
300 mtrs. run	43 1-5s.	Rayma Wilson	Pasadena A. & C. C.	Jun. 2, 1928
880 yds. run	2m. 35 4-5s.	Lucille Godbold	Winthrop, Coll.	
800 mtrs. run	2m. 38 3-5s.*	Catherine Donovan	Prudential I. C. A. A.	Jan. 28, 1928
1000 mtrs. run	3m. 28 3-5s.	Lucille Goldbod	Winthrop Coll.	
60 yds. hdls. (4-2 ft.)	8s.	Josephine Schessler	Agnes Scott Coll.	1923
60 yds. hdls. (4-2 ft. 6 in.)	8s.	Helen M. Filkey	Illinois W.A.C.	Jun. 2, 1928
60 yds. hdls.	8 3-5s.*	Hazel Kirk	Newark, N. J.	Feb. 13, 1926
65 yds. hdls. (4-2 ft. 6 in.)	11s.	Mary Worrall	Sargent Sch. Phy. Edu.	
70 yds. hdls. (5-2 ft. 6 in.)	9 3-5s.*	Helen M. Filkey	Illinois W.A.C.	Apr. 23, 1926
80 mtr. hdls.	12 3-5s.	Helen F. Warren	Chicago, Ill.	July 27, 1929
100 yds. hdls. (8-2 ft.)	14 2-5s.	Florieda Batson	Rosemary Hall	
100 yds hdls. (8-2 ft. 6 in.)	14 2-5s.	Camelia Sabie	New Jersey Nor. Sch.	
Running high jump	5 ft. 1-2 in.	Catherine Maguire	Eureka, Cal.	Sept. 3, 1927
Running high jump	4 ft. 11 3-4 in.*	Mildred O. Wiley	Boston S. A.	Feb. 16, 1928
Standing high jump	3 ft. 8 in.	Natalie Wilson	Sargent Sch. Phy. Edu.	
Running broad jump	17 ft. 11 in.	Nellie Todd	Illinois W.A.C.	Aug. 26, 1928
Standing broad jump	8 ft. 3 3-4 in.	Camelia Sabie	New Jersey Nor. Sch.	
Standing broad jump	8 ft. 1 1-4 in.*	Katherine R. Mearls	Boston S. A.	Jan. 17, 1928
Run. hop, step, jump	35 ft. 4 1-2 in.	M. Whitcomb	Dallas, Tex.	May 25, 1929
Pole vault	7 ft. 2 in.	Mildred Carl	N'Hav.Nor. Sch. Gym.	
6-lb. shot	43 ft.	Leslie Perkins	Sargent Sch. Phy. Ed.	
8-lb. shot		Rena MacDonald	Chicago, Ill.	July 27, 1929
8-lb. shot	37 ft. 11 in.*	Rena MacDonald	Boston S. A.	Feb. 16, 1928
8-lb. shot (2 hands)	68 ft. 8 in.	Lucille Godbold	Winthrop Coll.	
12-lb. shot	28 ft. 4 in.	Margaret Mitchell	Wykeham Rise Sch.	
Discus	115 ft. 6 1-2 in.	Lillian Copeland	Pasadena A. & C. C.	Feb. 18, 1928
Javelin (best hand)	129 ft. 1 1-2 in.	Margaret Jenkins	Santa Clara, Cal.	Apr. 15, 1928
Javelin (2 hands)	135 ft. 3 1-2 in.	Katherine Agar	Oakesmere School	
Basketball throw	94 ft. 2 in.	Maud Rosenbaum	Oakesmere School	
Basketball throw	87 ft. 3 in.*	Elinor J. Churchill	Boston, Mass.	Mar. 26, 1927
Hurlball throw	104 ft. 2 1-2 in.	Nell Carroll	Flo. State Coll. for Wo.	
Baseball throw	258 ft. 1 in.	Glora Russell	Chicago, Ill.	July 27, 1929

OUTBOARD MOTOR BOAT RECORDS

Mile Trials, Statute Miles: Class A, Division I, A-21, driven by Charles Harris at Augusta, Me., July 22, 1929. Speed, 25.96 m.p.h.

Class A, Division II: B-2, driven by A. Sutherland at Worcester, Mass., May 29, 1929. Speed 26.31 m.p.h.

Class B, Division I: Miss Hupmobile, owned by T. H. Tupman, driven by John Beneloski, at Balboa, Calif., June 15, 1929. Speed, 39.24 m.p.h.

Class C, Division I: A-63, driven by Millard Jackson at Augusta, Me., July 22, 1929. Speed, 41.14 m.p.h.

Class B, Division II: Crandall Comet, owned by Crandall Boat Co., driven by John Adams, at Balboa, Calif., June 15, 1929. Speed, 40.12 m.p.h.

Class C, Division II: Wild Fire, driven by R. Allen Smith at Cross Lake, La., July 21, 1929. Speed, 41.01 m.p.h.

Class D, Division I: Ceestepper IV, driven by D. Hundertmark at Greenwood Lake, N. Y., Aug. 18, 1929. Speed, 44.17 m.p.h.

Class D, Division II: Blue Streak, owned by Leo M. Baughman, driven by H. G. Ferguson at Balboa, Calif., June 15, 1929. Speed, 47.29 m.p.h.

Class E, Division II: Baby Whale XIII, driven by H. R. Maddocks at Worcester, Mass., May 29, 1928. Speed, 35.02 m.p.h.

Mile Trials, Nautical Miles—Class C, Division I: Bossert Pirate, owned by Walter Peterssen at Albany, N. Y., July 5, 1929. Speed, 34.05 nautical m.p.h.; 39.15 statute m.p.h.

Class D, Division I: Big Ben, owned by Harold Chapman, at Albany, N. Y., July 5, 1929. Speed, 38.09 nautical m.p.h.; 43.80 statute m.p.h.

Class C, Division II: Thisbe, owned by Helen Hentschel, at Albany, N. Y., July 6, 1929. Speed, 34.82 nautical m.p.h.; 40.04 statute m.p.h.

Class D, Division II: Uniplex, owned by W. B. Schulte and W. M. Fry at Detroit, Mich., Sept. 4, 1928. Speed, 32.70 nautical, 37.60 statute.

TRACK AND FIELD EVENTS (N. A. A. U.) IN 1929.

MEN'S SENIOR, OUTDOOR.

Held at Denver, Colo., July 3-5.

100 Yards—10s., Eddie Tolan, Univ. of Michigan; 2. Claude Bracey, Rice Institute.

220 Yards—21.9s., Eddie Tolan, Univ. of Michigan; 2. Frank Wykoff, Los Angeles A. C.

440 Yards—48.4s., R. F. Bowen, Univ. of Pittsburg; 2. William Storje, Olympic Club.

880 Yards—1m. 55.7s., Phil Edwards, New York Univ.; 2. Edwin Genung, Univ. of Washington.

One Mile—4m. 24.6s., Leo Lermond, Boston A. A.; 2. Rufus Kiser, Univ. of Washington.

Six Miles—33m. 47.7s., Louis Gregorie, St. Joseph's C. C.; 2. Harry Chauca, Los Angeles A. C.

Three Mile Walk—23m. 28.6s., Harry Hinkle, New York A. C.; 2. Harry Clark, Forest Hills, Mass., Unattached.

Two Mile Steeplechase—10m. 59.1s., David Abbott, Illinois A. C.; 2. Edward Parker, Denver A. C.

120 Yard Hurdles—14.9s., Steve Anderson, Univ. of Washington; 2. Charles Kaster, Olympic Club.

220 Yard Hurdles—24.1s., Steve Anderson, Univ. of Washington; 2. Richard Rockaway, Ohio State Univ.

440 Yard Hurdles—54.3s., Gordon Allott, Denver A. C.; 2. Morgan Taylor, Illinois A. C.

Running High Jump—6 ft. 3 5-8 ins., Henry Lasalette, Los Angeles A. C.; 2. Henry Coggeshall, Olympic Club.

Running Broad Jump—24ft. 4 1-4 ins., Edward Gordon, Univ. of Iowa; 2. George Martin, Olympic Club.

Running Hop, Step and Jump—48 ft. 6 3-4 ins., Robert Kelley, Olympic Club; 2. Sol Furth, Swedish-American A. C., N. Y.

Pole Vault—13 ft. 9 1-4 ins., Fredrick Sturdy, Los Angeles A. C.; 2. Thomas Warne, Northwestern Univ.

16-lb. Shot Put—50 ft. 2½ ins., Herman Brix, Los Angeles A. C.; 2. Eric Krenz, Olympic Club.

16-lb. Hammer—170 ft. 6 ins., Jack Merchant, Olympic Club; 2. N. G. Wright, New York A. C.

56-lb. Weight—35 ft. 9. in., P. J. McDonald, New York A. C.; 2. Casey Kazanjion, Olympic Club.

Discus—157 ft. 2 in., Eric Krenz, Olympic Club; 2. Ed. Moeller, Los Angeles A. C.

Javelin—204.975 ft., Jess Mortensen, Los Angeles A. C.; 2. Lee Bartlett, Albion College.

Point Score—Olympic Club (San Francisco), 44; Los Angeles A. C., 39; Univ. of Washington, 19; New York A. C., 16; Illinois A. C., 13; Boston A. C., 11; Univ. of Michigan, 10.

MEN'S JUNIOR, OUTDOOR.

100 Yard Dash—10s., Cy Leland, Texas Christian Univ.; 2. Raymond Alf, Denver A. C.

220 Yard Dash—21⅛s., Raymond Alf, Denver A. C.; 2. Maurice Guyer, Los Angeles A. C.

440 Yards Run—49s., Arnold Noyes, Boston A. A.; William Streng, Michigan Central A. C.

880 Yards Run—1m. 55 9-10s., Nelson Greer, Rice Institute; 2. E. B. Blake, Boston A. A.

One Mile Run—4m. 25 4-5s., Harold Manning, Univ. of Wichita; 2. Forest Harvey, Denver A. C.

Six Mile Run—35m. 45 9-10s., Wilton Ivie, Denver A. C.; 2. Clarence James, Denver A. C.

Three Mile Walk—24m. 17 5-10s., Harry L. Clark, Unattached; 2. Elmer Hawly, Illinois A. C.

Two Mile Steeplechase—11m. 24 5-10s., Edward Parker, Denver A.C.; 2. Arthur Honska, Denver A.C.

120 Yard Hurdles—14 9-10s., Jed Welsh, Los Angeles A. C.; 2. Lloyd Bourgeois, New Orleans A. C.

220 Yard Hurdles—24 7-10s., William Carls, Los Angeles A. C.; 2. Bernard Gridley, Wichita H. S.

440 Yard Hurdles—54 3-5s., Gordon Allott, Denver A. C.; 2. Clyde Blanchard, Los Angeles A. C.

Running High Jump—6ft. 4 7-8 ins., Bert Nelson, Butler Univ; tie for second, Howard Arthur, Los Angeles A. C., Lee Philips, Houston, Tex., Unattached and Robert Van Osdell, Los Angeles A. C.

Running Broad Jump—24 ft. 2½ ins., Richard Barber, Los Angeles A. C.; 2. Wilson Charles, Haskell Institute.

Run, Hop, Step and Jump—46 ft. 1¼ ins., Lloyd Bourgeois, New Orleans A. C.; 2. Lee Philips, Houston, Tex., Unattached.

Pole Vault—13 ft. 4¼ ins., Harold McAtee, Michigan State Coll.; tie for second, Marvin Harvey, Denver A. C.; and George Jefferson, Los Angeles A.C.

16-lb. Shot Put—46 ft., Clarence Schleimer, Los Angeles A. C.; 2. Manley Edwards, Los Angeles A. A.

16-lb. Hammer—152 ft. 3½ins., Earl Clark, Denver A. C.; 2. D. F. Lawrence, Denver A. C.

56-lb. Weight—31 ft. 1½ ins., H. Lee Merriman, Beaver Falls, Pa., Unattached; 2. Harry Bowman, Los Angeles A. C.

Discus—142 ft. 3 ins., D. Bealtio, Denver A. C.; 2. G. Corbett, B. Y. U.

Javelin—198 ft. 4 in., L. D. Weldon, Univ. of Iowa; 2. V. Kennedy, U. S. T. C

Point Scores—Denver A. C. 68; Los Angeles A. C., 49; New Orleans A. C., 8; Boston A. A., 8.

Decathlon—Ten Events, Kenneth Doherty, C. A. C., Detroit, Mich., 7,784.680 points; 2. V. Kennedy, U. S. T. C., 7,362.003 points; 3. W. Charles, H. T., 7,240.035 points.

Relay Championships—*880 Yards*—1m. 26 2-5s. Los Angeles A. C. (same team); 2. New York A. C.

1 Mile—3m. 17s., New York A. C. (Scholz, Kerr, Burke, Cuhel); 2. Denver A. C.

2 Miles—7m. 48 4-5s., Boston A. C. (Blake, Noyes, Martin, Lemond); 2. Los Angeles A. C.

4 Miles—18m. 47s., Illinois A. C. (Grubb, Abbott, Conger, White); 2. Denver A. C.

MEN'S SENIOR, INDOOR.

New York City on Feb. 23, 1929. Results:

60 Yards—6 3-5s., James Daley, Holy Cross; 2. Karl Wildermuth, Georgetown.

300 Yards—33 1-5s., Charles H. Engle, Yale Univ.; 2. H. Oestreich, Illinois A. C.

600 Yards—1m. 12s., Philip Edwards, New York Univ.; 2. Ed. Blake, Boston A. A.

1,000 Yards—2m. 13 1-5s., Ray Conger, Illinois A. C.; 2. Sam Martin, Boston A. A.

Two Mile Run—9m. 7s., Edwin Wide, Sweden; 2. Robert Dalrymple, Boston A. A.

Two Mile Steeplechase—9m. 55 2-5s., Eino Purje, Unattached,; 2. Ove Anderson, Unattached.

One Mile Walk—6m. 40 2-5s., H. R. Hinkel, New York A. C.; 2. Mack Weiss, Newark A. C.

70 Yard Hurdles—8 4-5s., E. M. Wells, Boston A. A.; 2. W. O. Baskin, New York A. C.

Standing High Jump—Harold Osborn, Illinois A. C., 5 ft. 2 in.; 2. H. Hedberg, Illinois A. C., 5 ft.

Standing Broad Jump—William Werner, Greenwood Track Club, 10 ft. 6¼ in.; 2. Allen Thomas, Penn A. C., 10 ft. 2½ in.

Running High Jump—Charles W. Major, B'klyn Harriers A. A., 6 ft. 3 in.; 2. Harold Osborn, Illinois A. C., 6 ft.

16-lb. Shot Put, H. Schwarze, Illinois A. C., 50 ft. 3 in.; 2. Dave Adelman, Georgetown Univ., 48 ft. 11½ in.

Pole Vault—Frederick Sturdy, Yale Univ., 13 ft. 9 in.; 2. B. Berlinger, Iniv. of Pennsylvania, 13 ft.

1 7-8 Miles Medley Relay, 7m. 44 3-5s., Brooklyn Central Y.M.C.A. (W. Enos, D. D'Auria, M. Wakely, S. Brown); 2. New York Univ. (H. Warwick, B. Robinson, W. Philips, J. Hickey).

Team Score—Illinois A. C., 29; New York A. C., 19; Boston A. A., 17; Yale, 14; New York Univ., 12; Georgetown Univ., 6; Holy Cross, 5; Newark A. C., 5; Univ. of Pennsylvania, 5; Brooklyn Harriers, 5; Central Y. M. C. A., 5; Greenwood Track, 5.

MEN'S JUNIOR, INDOOR.

Boston, Mass. on February 22, 1929. Results:

60 Yards—6 3-5s., George Morin, Holy Cross; 2. Guarina Pasquantonio, Boston College.

300 Yards—34 1-5s., Meyer Yavner, Unattached; 2. Charles Finn, Boston College.

600 Yards—1m. 15 2-5s., Max Wakely, Central Y. M. C. A.; 2. Harold Klumback, Holy Cross.

1,000 Yards—2m. 23 2-5s., R. K. Baltzer, Mass. Inst. Tech.; 2. William Maher, Holy Cross.

Two Mile Run—9m. 57 3-5s., Robert A. Dalrymple, Boston A. A.; 2. Robert M. Pickey, Tufts.

Two Mile Steeplechase—10m. 24 2-5s., Julius Gilbert, Boston A. A.; 2. F. J. Howard, Univ. of New Hampshire.

One Mile Walk—6m. 40 4-5s., A. W. Bell, Boston A. A.; 2. E. G. Wilson, Boston A. A.

70 Yards Hurdles—(5 hurdles, 3 ft. 6 in. hurdles, 10 yds. apart; 15 yds. to first hurdle; 15 yds. to finish) 9 1-5s., Eric Reidell, Boston Y. M. C. A.; 2. P. V. Toolin, Boston A. A.

Standing High Jump—C. Bradley, Boston Y. M. C. A., 4 ft. 10½ in.; 2. Walter Schwaner, Providence Y. M. C. A., 4 ft. 8 in.

Standing Broad Jump—O. Hokkanen, Quincy, 10 ft. 4½in.; 2. Harold Joyce, Coburn Classical, 10 ft. 2¾in.

Running High Jump—James Stafford, Boston A. A., 6 ft.; 2. Mayo A. Seekins, Colby, 6 ft. (The places were awarded by a jump-off.)

Pole Vault—B. M. Burbank, Boston A. A., 11 ft. 7 in.; 2. Earl Brooks, Univ. of New Hampshire, 11 ft. 4 in.

Putting 16-lb. Shot—Howard Morris, Haverford College, 44 ft. 4 in.; 2. Howard Welodyka, Fairhaven, 43 ft. 11¼ in.

1 7-8 Miles Medley Relay, 7m. 45 4-5s., Boston A. A. (Ingoldsby, Tobin, Rogers. Sansone); 2. Univ. of New Hampshire.

WOMEN'S SENIOR, OUTDOOR.

Chicago, Ill., on July 27, 1929. Results:

60 Yards—5 4-5s., Betty Robinson, Illinois Women's A. C., Chicago; 2. Loretta McNeil, Millrose A. A., N. Y.

100 Yards—11 1-5s., Betty Robinson, Illinois Women's A. C., Chicago; 2. Jessie Cross, Millrose A. A., N. Y.

220 Yards—27 2-5s., Maybelle Gilliland, Millrose A. A., N. Y.; 2. Ruth Waldner, Pennsy. A. A., Philadelphia.

80 Meter Hurdles—12 3-5s., Helen Filkey, Chicago; 2. Evelyn Hall, Illinois Women's A. C., Chicago.

440 Yard Relay—51 1-5s., Millrose A. A., New York; 2. Prudential A. A., Newark, N. J.

Running Broad Jump—17 ft. ¼ in., Nellie Todd, Illinois Women's A. C., Chicago; 2. Margaret Whitcomb, Dallas, Tex.

Running High Jump—4 ft. 9 7-8 in., Jean Shiley, Meadowbrook Club, Phila.; 2. Genevieve Valvado, South Parks, Chicago.

Throwing Baseball—248 ft. 1 in., Glora Russell, No. Calif. A. A., Eureka, Calif.; 2. Fay Langford, Dallas, Tex.

8-lb. Shot Put—42 ft. 3 in., Rena McDonald, Boston; 2. Eleanor Egg, St. Bonaventures, Paterson, N. J.

Javelin Throw—100 ft. 5 in., Estelle Hill, Prudential A. A., Newark, N. J.; 2. Fay Langford, Dallas, Tex.

Throwing Discus—113 ft. 4 in., Rena McDonald, Boston Swim. Ass'n.; 2. Dee Boeckmann, St. Louis, Mo.

WOMEN'S SENIOR, INDOOR.

Boston, Mass., on March 30, 1929. Results:

40 Yard Dash—5 3-5s., Mary Carew, Medford Girls' A. C.; 2. Katherine Mearls, Boston S. A.

220 Yard Dash—29s., Catherine M. Donovan, Prudential Ins. A. A.; 2. Florence MacDonald, Boston S. A.

50 Yard Hurdles—8s., Catherine M. Donovan, Prudential Ins. A. A.; 2. Marietta Ceres, Prudential Ins. A. A.

Standing Broad Jump—Katherine R. Mearls, Boston S. A., 8 ft. 2 ¾ in.; 2. Jean Shiley, Meadowbrook Club, 7 ft. 11 ½ in.

8 lb. Shot Put—Rena MacDonald, Boston S. A., 39 ft. 3 5-8 in.; 2. Bertha Poetschke, Warinanco A. C., N. J., 33 ft. 11 7-8 in.

Running High Jump—Jean Shiley, Meadowbrook Club, 5 ft. 3 1-8 in.; 2. Mildred O. Wiley, Boston S. A., 5 ft. ¼ in.

440 Yards Relay—54 1-5s., Millrose A. A. (Carrie Jensen, Jessie Cross, Loretta McNeil, Maybelle Gilliland); 2. Boston S. A. (Katherine Mearls, Olive Hasenfus, Pansy Madeira, Florence MacDonald).

Basketball Throw—Marietta Ceres, Prudential Ins. A. A., 85 ft. 5½ in.; 2. Rena MacDonald, Boston S. A., 81 ft. 8 ¾ in.

GYMNASTICS RECORDS IN 1929.

Amateur Athletic Union National Championships, held at Philadelphia, Pa., on April 27, 1929. Results:

Rope Climb—Manfred Kraemer, Newark A. C.

Free Calisthenics—Alfred Jochim, Swiss Turn Verein.

Long Horse—Adolph Zink, New York Turn Verein.

Side Horse—Frank Haubold, Swiss Turn Verein.

Horizontal Bar—Alfred Jochim.

Indian Clubs—Robert Job, Hudson Co. Turn Verein, Jersey City, N. J.

Parallel Bars—Alfred Jochim.

Tumbling—William Hermann, Jr., Overbrook High School, Philadelphia, Pa.

Flying Rings—Alfred Jochim.

All Around—Alfred Jochim.

Team Trophy, Swiss Turn Verein, 64 points; 2. New York Univ., 23 points; 3. Philadelphia, 21 points.

Intercollegiate championships held at Philadelphia, Pa., March 23, 1929. Results:

Horizontal Bar—D. O. Wells, Mass. Tech., 557 points; second, T. B. Hughes, Navy, 550.

Side Horse—F. M. Adamson, Navy, 594; second, P. Heller, Princeton, 560.

Parallel Barz—J. I. Stewart, Dartmouth, 584; second, C. G. Zey, Dartmouth, 565.

Flying Rings—W. H. Reynolds, Mass. Tec., 569; second, R. E. Lockwood, Navy, 566.

Tumbling—A. H. Gould, Dartmouth, 601; second, N. Dolloff, Mass. Tech., 583.

Rope Climb—W. J. Galbraith, Navy, 0:04 4-5; second, A. Lofthouse, Princeton, 0:05.

All-round Championship—John Menxies, Chicago, 2,565; second, T. B. Hughes, Navy, 2,488.

HOCKEY.

National Professional Hockey League.—

International Group.	W.	L.	T.	Pts.
Canadiens	22	7	15	59
Americans	19	13	12	50
Toronto	21	18	5	47
Ottawa	14	17	13	41
Maroons	15	20	9	39

American Group	W.	L.	T.	Pts.
Boston	26	13	5	57
Rangers	21	13	10	52
Detroit	19	16	9	47
Pittsburgh	9	27	8	26
Chicago	7	29	8	22

Stanley Cup Champions—1894, Montreal A. A. A.; 1895, Victorias, Montreal; 1896, Victorias, Winnipego 1897-99, Victorias, Montreal; 1900, Shamrocks, Montreal; 1901, Victorias, Winnipeg; 1902, Montreal A. A. A.; 1903-05, Ottawa; 1906, Kenora Thistles; 1906-08, Wanderers, Montreal; 1909, Ottawa; 1910, Wanderers, Montreal; 1911, Ottawa; 1912-13, Victoria; 1914, Toronto; 1915, Vancouver; 1916, Canadiens, Montreal; 1917, Seattle; 1918 Arenas, Toronto; 1919, Seattle and Canadiens (tie); 1920-21, Ottawa; 1922, St. Patrick's, Toronto; 1923, Ottawa; 1924, Canadiens, Montreal; 1925, Victoria, Victoria, B. C.; 1926, Montreal Maroons; 1927, Ottawa; 1928, N. Y. Rangers; 1929, Boston Bruins.

The Canadian-American Hockey League Championship was won by the Boston Tigers, with the Providence Reds second. The final game of the season decided the championship.

The European Hockey Championship was won by Czecho-Slovakia in a series of matches played at Budapest. The final standing being: first, Czecho-Slovakia; second, Poland; third, Austria; fourth, Italy; fifth, Switzerland.

ARCHERY IN 1929.

The Forty-ninth Annual Tournament of the National Archery Association, which was held at Santa Barbara, California, July 30, 31, August 1, 2, 1929, established new records in the Single York Round, Double York Round, Single American Round Double American Round, Flight Shoot for both men and women, and Team Shoot for both men and women.

The new Double York Round record of 257-1,293, made by Dr. E. K. Roberts of Ventura, California, not only established a new N.A.A. record, but also broke the world's Double York Round record of 242-1,251, made by Horace Ford of England in 1857.

Dr. Roberts won the men's championship; Mrs. Audrey Grubbs of Los Angeles, Calif., the women's championship; Dr. G. A. Cathey of Portland, Ore., the men's Flight Shoot championship; and Mrs. H. Prouty of Portland, Ore., the Ladies Flight Shoot championship. The men's and ladies' Team Shoot was won by teams from the Santa Monica Archers.

Senior Division—*Men's Championship*—Dr. E. K. Roberts, Ventura, Calif., Single York Round, 129-655; Double York Round, 257-1,243; Single American Round, 90-658; Double American Round, 180-1,308.

Ladies' Championship—Mrs. Audrey Grubbs, Los Angeles, Calif., Single National Round, 63-329; Double National Round, 119-581; Single Columbia Round, 70-496; Double Columbia Round, 141-991.

Men's Flight Shoot Champion—Dr. G. A. Cathey, Portland, Ore., 353 yds., 10 in.

Ladies' Flight Shoot Champion—Mrs. Horace Prouty, Portland, Ore., 273 yds. 2 in.

Intermediate Division—*Girl Champion*—Miss Betty Jean Hunt, Los Angeles, Calif.; *Boy Champion*—Jack Selby, Los Angeles, Calif.

Junior Division—*Girl Champion*—Kathleen Thorburn, Los Angeles, Calif., *Boy Champion*—Brownell McGrew, Los Angeles, Calif.

Officers for 1930. *President*, Hermann L. Walker, Chicago; *Secretary-Treasurer*, Louis C. Smith, Old South Bldg., Boston.

Eastern Archery Association—*National Round Championship*—Mrs. Dorothy Cummings, Newton Center, Mass., 136-732; *Columbia Round Championship*—Mrs. Dorothy Cummings, Newton Center, Mass., 142-992; *York Round Championship*—P. W. Crouch, Newton Center, Mass., 235-1,091; *American Round Championship*—G. A. Clark, Waltham, Mass., 177-1,153.

INTERCOLLEGIATE TRACK AND FIELD EVENTS IN 1929.

The 53rd Annual Championship Meet of the Intercollegiate Association of Amateur Athletics of America was held at Philadelphia, Pa., May 31 and June 1, 1929. The leading point scores follow: Stanford, 45 3-8; So. California, 21; Pennsylvania, 18 7-8; New York Univ., 14; Yale, 13 5-8; Individual winners:

100 Yard—Karl Wildermuth, Georgetown, 0:10.
220 Yard—Richard G. Kent, Colgate, 0:21 1-10.
440 Yard—Reginald Bowen, Pittsburgh, 0:48 4-10.
**880 Yard*—Phil Edwards, N. Y. U., 1:5 22-10, new record.
One Mile—Joe Hickey, N. Y. U., 4:21 4-10.
**Two Miles*—James L. Reid, Harvard, 9:22, new record.
120 Yard High Hurdles—John S. Collier, Brown, 0:14 6-10.
**220 Yard Low Hurdles*—Sidney B. Kieselhorst, Yale, 0:23 3-10.
16 Pound Shot Put—Harlow Rothert, Stanford, 50 ft. 3 in., new record.
**Discus Throw*—Eric Krenz, Stanford, 153 ft. 4 in.
Javelin Throw—Leo P. Kibby, Stanford, 204 ft. 7 in.
Hammer Throw—Edmund Black, Maine, 163 ft.
Running Broad Jump—Jesse Hill, So. California, 25 ft. 7-8 in., new record.
Running High Jump—Ben Hedges, Princeton, 6 ft. 2¾ in.
Pole Vault—Fred Sturdy, Yale; Ward Edmonds, Stanford; and Jack Williams, So. California, tied at 13 ft. 9 in.
*Retained title.

National Collegiate Athletic Association Championships, Chicago, Ill., June 7-8, 1929. Point scores: Ohio State, 50; Washington, 42; Illinois, 35½; So. California, 32. Individual winners:

100 Yard—Simpson, Ohio State, 0:9 4-10, new world's record.
220 Yard—Simpson, Ohio State, 0:20 8-10, new N. C. A. A. record.
440 Yard—Walter, Northwestern, 0:47 9-10.
880 Yard—Genung, Washington, 1:55.
One Mile—Getz, Alfred, 4:19 4-10.
Two Mile—Abbott, Illinois, 9:30.
120 Yard High Hurdles—Rockaway, Ohio State, 0:14 7-10.
220 Yard Low Hurdles—Anderson, Washington, 0:23 5-10.
Running High Jump—Shelby, Oklahoma, 6 ft. 3 in.
Running Broad Jump—Gordon, Iowa, 24 ft. 8 in.
Shot Put—Rothert, Stanford, 50 ft. 3 in., new N. C. A. A. record.
Hammer Throw—Gwinn, Pittsburgh, 163 ft. 9¾ in.
Javelin Throw—Mortensen, Southern California, 203 ft. 7¾ in.
Discus Throw—Rasmus, Ohio State, 159 ft. 1 7-8 in., betters accepted world's record.
Pole Vault—Edmonds, Stanford, and Warne, Northwestern, tied at 13 ft. 7 7-8 in., new N. C. A. A. record.

University of Pennsylvania Relay Intercollegiate Championships, held at Philadelphia, Pa., April 26-27, 1929: Results:

Two Mile College Championship—Chicago (Williams, Livingston, Letts and Gist); N. Y. U. (Gassner, Hickey, Veit and Edwards), second. Time—7:50.
Half Mile College Championship—Ohio State (Kriss, Strother, Rockaway and Simpson), time—1:27; Yale, second, time—1:27 4-5 (new Carnival record; old record, 1:27 4-5, made by Yale in 1926).
One Mile for College Freshmen—Georgetown (Carlin, Kelly, Briggs and Burke); Pennsylvania, second. Time—3:23.
Normal School One Mile Championship of America—Hampton (C. P. Harris, J. E. Early, G. Gary and J. A. Baldwin); Newark, second. Time—3:27 2-5.
One Mile College Championship—Dartmouth (Houston, Pratt, Ripley and Swope); Syracuse, second. Time—3:20 1-5.
Four Mile College Championship—Penn State (Meisinger, Rekers, Cox and Offenhauser); Indiana, second. Time—17:48 3-5. (New Carnival record; old record, 17:51 1-5, made by Cornell in 1916.)

Yale and Harvard vs. Oxford and Cambridge, International Track Meet, held at Boston, Mass., July 13. Won by Yale-Harvard. Results:

100 Yard—Sidney B. Kieselhorst, Yale; Thomas F. Mason, Harvard, second. Time—0:10 4-10.
120 Yard High Hurdles—Roland St. G. T. Harper, Oxford; Ian R. Mann, Cambridge, second. Time—0:15 6-10.
One Mile Run—David Cobb, Harvard; Charles E. C. Green, Cambridge, second. Time—4:23 8-10.
220 Yard Run—Charles Engle, Yale; George Wilkinson, Cambridge, second. Time—23 2-10.
Two Mile Run—James L. Reid, Harvard; John M. Pumphrey, Oxford, second. Time—9:42 8-10.
220 Yard Low Hurdles—Sidney B. Kieselhorst, Yale; R. M. N. Tisdall, Cambridge, second. Time—0:24 4-10 (new meet record; old record of 0:24 7-10 made by Lord Burghley of Cambridge in 1927).
440 Yard Run—Charles H. Engle, Yale; Frank Tchitcherine, Cambridge, second. Time—0:49 (equals meet record made by B. G. D. Rudd of Oxford in 1921).
880 Yard Run—Thomas Hampson of Oxford; Norwood P. Hallowell, Harvard, second. Time—1:57 6-10.
Pole Vault—Frederick H. Sturdy, Yale, 13 ft. 3½ in. (new meet record; old record of 13 ft. made by Sabin W. Carr in 1925 and equaled by him in 1927); Ashley Pond, Yale, 13 ft., second.
16 lb. Shot Put—John S. O'Gorman, Yale, 42 ft. 10½ in.; Joseph E. Uihlein, Yale, 42 ft. 9 in., second.
Running Broad Jump—R. W. Revans, Cambridge, 22 ft. 11 7-8 in.; Warren C. Rowe, Harvard, 22 ft. 5 ¾in., second.
Running High Jump—Colin Gordon, Oxford, and George W. Kuehne, Harvard, tied for first at 6 ft 2 in.; George V. A. Wolf, Yale, 6 ft. 1 in., third.

Princeton-Cornell vs. Oxford-Cambridge International Track Meet, New York City, July 20, 1929. Won by Princeton-Cornell. Results:

100 Yard Dash—Gorth Wilkinson, Cambridge; Ben H. Hand, Princeton, second. Time—0:10 4-10.
220 Yard Dash—Ben H. Hand, Princeton; Roger Leigh Wood, Oxford, second. Time—0:22 6-10.
440 Yard Run—F. W. Tchitcherine, Cambridge; Roger Leigh Wood, Oxford, second. Time 0:49 8-10.
One Mile Run—John E. Gore, Princeton; Charles E. C. Green, Cambridge, second. Time—4:23 (new meet record; old record, 4:23 8-10, made by H. B. Stallard, Cambridge, in 1921).
Two Mile Run—Orson C. Beaman, Cornell; John M. Pumphrey, Oxford, second. Time—9:33 8-10 (new meet record; old record, 9:44 8-10, made by T. C. Fooks, Cambridge, in 1926).
120 Yard Hurdles—Ben Hedges, Jr., Princeton; R. St. G. Harper, Oxford, second. Time—0:15 6-10 (equals meet record made by Lord David Burghley, Cambridge, in 1925 and 1926).
220 Yard Low Hurdles—John W. Lincoln, Princeton; Frank K. Beyer, Cornell, second. Time—0:26 6-10.
880 Yard Run—Thomas Hampson, Oxford; Robert L. Garland, Princeton, second. Time—1:56 (new meet record).
16 lb. Shot Put—Lawrence H. Levy, Cornell, 46 ft. 4 ins.; John F. Anderson, Cornell, 46 ft ½ in., second.
Running High Jump—Ben Hedges, Jr., Princeton, 6 ft. 2 in.; Colin E. S. Gordon, Oxford, 6 ft., second.
Pole Vault—Everett L. Colyer, Cornell, 12 ft. Ben Hedges, Jr., Princeton, 11 ft., second.
Running Broad Jump—Alson E. Woodruff, Cornell, 22 ft. 6 in.; Reginald Revans, Cambridge 22 ft. 5½ in., second.

BEST INTERCOLLEGIATE RECORDS (I. C. A. A. A. A.)

100-Yard Dash—9 7-10s., J. A. Le Coney, Lafayette, Cambridge, Mass., May 27, 1922, and H. A. Russell, Cornell, Cambridge, Mass., May 29, 1926.
220-Yard Dash—20 9-10s., C. E. Borah, So. California, Philadelphia, Pa., May 28, 1927.
440-Yard Run—47 2-5s., J. E. Meredith, Pennsylvania, Cambridge, Mass., May 27, 1916.
Half-Mile Run—1m. 52 2-10s., P. Edwards, N. Y. Univ., Philadelphia, June 1, 1929.
One-Mile Run—4m. 14 2-5s., J. P. Jones, Cornell, Cambridge, Mass., May 31, 1913.
Two-Mile Run—9m. 22s., S. J. L. Reid, Harvard Univ., Philadelphia, June 1, 1929.
Running Broad Jump—25 ft. 7-8 in., J. Hill, Southern Calif. Univ., Philadelphia, June 1, 1929.
Running High Jump—6 ft. 5¾ in., R. W. King, Stanford, Cambridge, Mass., May 29, 1926.
Putting 16-Pound Shot—50 ft. 3 in., H. Robert, tanSford Univ., Philadelphia, June 1, 1929.
Throwing the Hammer—181 ft. 6½ in., Tootell, Bowdoin, Philadelphia, Pa., May 26, 1923.
Javelin Throw—205 ft. 7¾ in., C. Hines, Georgetown, Philadelphia, Pa., May 28, 1927.
Discus Throw—154 ft. 11 in., E. Krenz, Stanford, Cambridge, Mass., May 26, 1928.
Pole Vault—14 ft. flat, S. W. Carr, Yale, Philadelphia, Pa., May 28, 1927.
120-Yard High Hurdles—14 2-5s., Earl Thomson, Dartmouth, Philadelphia, May 29, 1920.
220-Yard Hurdles—K. D. Grumbles, So. California, Cambridge, Mass., May 29, 1926.
One-Mile Walk—6m. 45 2-5s., W. B. Fetterman jr., Pennsylvania, New York, May 28, 1898.

PUGILISM.

CHAMPIONSHIP HOLDERS, NOVEMBER, 1929 (NEW CLASSIFICATION.)

HEAVYWEIGHT (over 175 lbs.)—Gene Tunney. (Retired).
LIGHTHEAVYWEIGHT (175 lbs.)—Tommy Loughran. (Retired).
MIDDLEWEIGHT (160 lbs.)—Mickey Walker.
WELTERWEIGHT (147 lbs.)—Jackie Fields.
LIGHTWEIGHT (135 lbs.)—Sammy Mandell.
FEATHERWEIGHT (126 lbs.)—C. Battalino.
BANTAMWEIGHT (118 lbs.)—F. Graham.
FLYWEIGHT (112 lbs.)—Fidel La Barba (retired).

RING CHAMPIONS (Old Classification.)

HEAVYWEIGHTS (over 158 lbs.)—1882-1892, John L. Sullivan; 1892-1897, James J. Corbett; 1897-1899, Robert Fitzsimmons; 1899-1906, James J. Jeffries; 1906-1908, Tommy Burns; 1908-1915, Jack Johnson; 1915-18, Jess Willard; 1919-1926, Jack Dempsey; 1926-28, Gene Tunney (retired.)

MIDDLEWEIGHTS (158 lbs.) — 1890-1897, Robert Fitzsimmons; 1897-1907, Tommy Ryan; 1907-1908, Stanley Ketchel; 1908, Bill Papke and Stanley Ketchel; 1908-1910, Stanley Ketchel; 1911-1913, claimed by Frank Klaus, Mike Gibbons, Ed McGoorty and Geo. Chip; 1914-1917, Al McCoy; 1917-1920, Mike O'Dowd; 1921-23, Johnny Wilson. Harry Greb; 1924-25, Harry Greb; 1926, Tiger Flowers; 1927, Mickey Walker.

WELTERWEIGHTS (145 lbs.)—1890-1893, no recognized champion; 1894-1896, Tommy Ryan; 1896-1897, Kid McCoy; 1898-1900, Billy Smith; 1900, Rube Ferns; 1901, Matty Matthews and Rube Ferns; 1901-1904, Joe Walcott; 1904-1908; Dixie Kid; 1914-1916, Kid Graves; 1916, Jack Britton; 1917-1918, Ted (Kid) Lewis; 1919-1922, Jack Britton; 1923-1926, Mickey Walker; 1926, Pete Latzo, 1927-28 Joe Dundee; 1929, Jackie Fields.

LIGHTWEIGHTS (133 lbs.)—1890-1893, Jack McAuliffe; 1893-1899, Kid Lavigne; 1899-1902, Frank Erne; 1902-1908, Joe Gans; 1908-1910, Battling Nelson; 1910-1912, Ad Wolgast; 1912-1914, Willie Ritchie; 1914-1917, Freddie Welsh; 1917-1925, Benny Leonard; 1926, Jimmy Goodrich, Rocky Kansas, Sammy Mandell; 1927-28 Sammy Mandell.

FEATHERWEIGHTS (122 lbs.)—1890-1892, no recognized champion; 1892-1897, George Dixon; 1897, Solly Smith; 1898, Solly Smith and Dave Sullivan; 1898-1900, George Dixon; 1900-1901, Terry McGovern; 1901-1904, Young Corbett; 1904-1908, Tommy Sullivan; 1908-1911, Abe Attell; 1911-1922, Johnny Kilbane; 1923, Johnny Kilbane, Eugene Criqui, Johnny Dundee; 1924, Dundee announced retirement; 1925-1926 Kid Kaplan relinquished title; 1927-1928, Benny Bass, T. Canzoneri, Andre Routis; 1929, C. Battalino.

BANTAMWEIGHTS (116 lbs.) — 1890-1892, George Dixon; 1892-1894, no recognized champion; 1894-1898, Jimmy Barry; 1898-1901, no recognized champion; 1901-1903, Harry Forbes; 1903-1906, Frankie Neil; 1905-1907, no recognized champion; 1907-1913, Johnny Coulon; 1914-1915, Kid Williams; 1916-1920, Pete Herman; 1920-1921, Joe Lynch; 1921, Pete Herman, Johnny Buff; 1922, Johnny Buff, Joe Lynch; 1923, Joe Lynch; 1924, Abe Goldstein, Eddie Martin; 1925, Eddie Martin, Phil Rosenberg; 1926, Charley (Phil) Rosenberg; 1927-1928, B. Graham.

LARGEST CHAMPIONSHIP BATTLE GATE RECEIPTS.

Date.	Winner.	Loser.	Place.	Gate Receipts.
September 22, 1927	Gene Tunney	J. Dempsey	Chicago	$2,650,000
September 23, 1926	Gene Tunney	J. Dempsey	Philadelphia, Pa.	1,895,723
July 2, 1921	Dempsey	Carpentier	Jersey City, N. J.	1,626,580
July 21, 1927	Dempsey	Jack Sharkey	New York City	1,083,529
September 14, 1923	Dempsey	Firpo	New York City	1,082,590
July 26, 1928	Gene Tunney	Tom Heeney	New York City	691,014
September 11, 1924	Wills	Firpo	Jersey City, N. J.	452,850
July 4, 1919	Dempsey	Willard	Toledo, Ohio	452,522
July 12, 1923	Firpo	Willard		434,269
July 2, 1925	Wills	Weinert	New York City	400,000
September 26, 1929	Jack Sharkey	Tom Loughlin	New York City	320,365
July 27, 1922	Benny Leonard	Lew Tendler	Jersey City, N. J.	367,862
May 12, 1923	Heavyweight charity	bouts		350,000
February 27, 1929	Jack Sharkey	Young Stribling	Miami, Fla.	395,369
July 4, 1910	Johnson	Jeffries	Reno, Nev.	270,755
December 14, 1920	Dempsey	Brennan	New York City	200,000

HISTORY OF HEAVYWEIGHT CHAMPIONSHIP BOUTS.

1889—July 8—John L. Sullivan beat Jake Kilrain, 75 rounds, Richbourg, Miss. (Last championship bare knuckle bout.)

*1892—Sept. 7—James J. Corbett defeated John L. Sullivan, 21 rounds, New Orleans. (Used big gloves.)

1894—Jan. 25—James J. Corbett beat Charley Mitchell, 3 rounds, Jacksonville, Fla.

*1897—March 17—Bob Fitzsimmons defeated James J. Corbett, 14 rounds, Carson City, Nev.

*1899—June 9—James J. Jeffries beat Bob Fitzsimmons, 11 rounds, Coney Island, N. Y.

1899—Nov. 2—James J. Jeffries beat Tom Sharkey, 25 rounds, Coney Island, N. Y.

1902—July 25—James J. Jeffries knocked out Bob Fitzsimmons, 8 rounds, San Francisco, Cal.

1903—Aug. 14—James J. Jeffries, knocked out James J. Corbett, 10 rounds, San Francisco, Cal.

1904—Aug. 26—James J. Jeffries knocked out Jack Munroe, 2 rounds, San Francisco, Cal.

1905—James J. Jeffries retired. July 8 Marvin Hart knocked out Jack Root, 12 rounds, Reno. Jeffries refereed and presented the title to the victor. Jack O'Brien also claimed the title.

1906—Feb. 23—Tommy Burns defeated Marvin Hart, 20 rounds, Los Angeles, Cal.

1907—May 7—Tommy Burns knocked out Bill Squires, 1 round, Colma, Cal.

*1908—Dec. 25—Jack Johnson stopped Tommy Burns, 14 rounds, Sydney, Australia. Police halted contest.

1909—July 4—Jack Johnson knocked out Stanley Ketchell, 12 rounds, Colma, Cal.

1910—July 4, Jack Johnson knocked out Jim Jeffries, 15 rounds, Reno, Nev. (Jeffries came back from retirement).

1912—July 4—Jack Johnson won on points from Jim Flynn, 9 rounds, Las Vegas, N. M., (contest stopped by police).

1913—Jack Johnson in trouble with government, quit country.

1914—June 27—Jack Johnson won from Frank Moran, 20 rounds, Paris.

*1915—April 5—Jess Willard knocked out Jack Johnson, 26 rounds, Havana, Cuba.

1916—March 25—Jess Willard beat Frank Moran, 10 rounds (no decision), New York City.

*1919—July 4—Jack Dempsey knocked out Jess Willard, Toledo (Willard failed to answer bell for fourth round).

1920—Sept. 6—Jack Dempsey knocked out Billy Miske, 3 rounds, Benton Harbor, Mich.

1920—Dec. 14—Jack Dempsey knocked out Bill Brennan, 12 rounds, New York City.

1921—July 2—Jack Dempsey knocked out Georges Carpentier, 4 rounds, Boyle's Thirty Acres, Jersey City.

1923—July 4—Jack Dempsey won on points from Tom Gibbons, 15 rounds, Shelby, Mont.

1923—Sept. 23—Jack Dempsey knocked out Luis Firpo, 2 rounds, New York City.

*1926—Sept. 23—Gene Tunney beat Jack Dempsey, 10 rounds, decision, Philadelphia.

1927—September 22—Gene Tunney beat Jack Dempsey, 10 rounds, decision, Chicago.

1928—July 26—Gene Tunney knocked out Tom Heeney, 11 rounds, Yankee Stadium, New York; he announced, shortly after that, his retirement from the ring.

*Title changed hands.

BOXING IN 1929: (Rounds in parentheses.)

Space permits the recording of only the more important bouts. The results are as appearing in Public prints and the Almanac assumes no responsibility.

Date.	Winner.	Loser.	Place.
Jan. 1	J. Sangor..	T. Morgan (10)	Milwaukee.
Jan. 11	J. McLarin.	J. Glick (10)..	N. Y. City.
Jan. 18	T. Canzoneri	A. Santiago (5).	Chicago.
Jan. 18	L. Lomski..	J. Braddock (10)	N. Y. City.
Jan. 25	Y. Stribling.	R. Smilk (3)..	New Orleans.
Jan. 25	J. Sharkey..	Christner (10)..	N. Y. City.
Jan. 26	F. LaBarba.	Macalistic (4)..	Sidney, Aus.
Jan. 28	B. Bass.....	Chapman (1)...	Philadelphia.
Jan. 28	B. Herman..	S. Terris (6)....	N. Y. City.
Feb. 1	Schmeling..	J. Risko (9)....	N. Y. City.
Feb. 1	J. Maloney.	C. O'Kelly (10)	Boston.
Feb. 5	T. Loughran	A. Emanuel (10)	Los Angeles.
Feb. 7	E. Pladner..	J. Hill (6).....	Paris.
Feb. 15	L. Lomski..	T. Griffiths (10)	Detroit.
Feb. 15	J. Fields....	J. Gans (10)...	N. Y. City.
Feb. 18	B. Bass.....	S. Smith (10)..	Philadelphia.
Feb. 18	R. DeVos...	B. Brown)1(..	N. Y. City.
Feb. 21	L. Harvey..	F. Moody (6)..	London.
Feb. 22	M. Walker..	J. Williams (10)	San Francisco.
Feb. 22	Paulino. ...	Christner (10)..	N. Y. City.
Feb. 27	T. Canzoneri	Fernandez (10).	Chicago.
Feb. 27	J. Sharkey..	Stribling (10)..	Miami B. Fla.
Mar. 1	J. McLarnin	J. Glick (2)....	N. Y. City.
Mar. 1	J. Maloney.	T.Heeney(10)..	Boston.
Mar. 2	E. Pladner..	F. Genaro (1)..	Paris.
Mar. 2	F. LaBarba.	B. Grimes (15).	Melbourne, A.
Mar. 4	Fields.....	A. Van Ryan (5)	Detroit.
Mar. 11	J. Braddock.	J. Slattery (9)..	N. Y. City.
Mar. 12	O. Von Pora	†T.Heeney.....	Chicago.
Mar. 15	A. Singer..	B. Taylor (10).	N. Y. City.
Mar. 16	F. LaBarba.	W. Smith (12) .	Sidney, Aus.
Mar. 21	J. Hill....	E. Jarvis (15) .	London.
Mar. 22	J. McLarnin	R. Miller (10)..	N. Y. City.
Mar. 23	J. Dundee..	S. Sanchez (3) .	N. Y. City.
Mar. 25	B. Bass.....	H. Forbes (10).	Philadelphia.
Mar. 25	J. Fields....	Thompson (10).	Chicago.
Mar. 28	T. Loughran	M. Walker (10)	Chicago.
Apr. 5	J. Risko....	O.VonPorat(10)	Boston.
Apr. 12	K. Chocolate	B. Graham (7).	N. Y. City.
Apr. 12	S. Mandell..	B. Duke (10)...	Grand Rapids.
Apr. 15	A. DeKuh..	B. Peterson (10)	N. Y. City.
Apr. 12	A. Mello....	Joe Dundee (10)	Boston.
Apr. 12	J. Britton...	T. Wilson (10) .	Macon, Ga.
Apr. 18	F. Genaro ..	E. Pladner (5) .	Paris.
Apr. 22	K. Chocolate	V. Burrone (10)	N. Y. City.
Apr. 26	T. Canzoneri	S. Dorfman (10)	N. Y. City.
Apr. 29	K. Chocolate	T. Ryan (1)....	N. Y. City.
May 3	G. Jones....	A. Mello (10) ..	N. Y. City.
May 6	H. Brookes .	J. Vestri (15)...	London, Eng.
May 6	B. Bass.....	P. Mack (10) ..	N. Y. City.
May 10	L. Kaplan..	B. Wallace (10)	N. Y. City.
May 11	T. Canzoneri	A. Routis (10) .	Chicago.
May 12	V. Campolo.	R. Roberti (5).	Buenos Aires.
May 14	A. Belanger.	J. Hill (6)....	Toronto.
May 15	†E. Pladner.	K. Francis (12).	Paris.
May 17	I. Fernandez	A. Singer (3)..	N. Y. City.
May 17	Berlazzolo..	J. Maloney (4).	Boston.
May 21	T. Morgan..	B. Salsario (10)	Los Angeles.
May 22	K. Chocolate	F. LaBarba (10)	N. Y. City.
May 24	T. Loughran	E. Schaaf (10) .	Boston.
June 3	G. Godfrey .	J. Byrne (7)....	Philadelphia.
June 3	G. Jones....	A. Mello (6)....	Boston.
June 5	K. Chocolate	V. Gregorio (10)	Philadelphia.
June 6	A. Singer...	L. Roy (1).....	N. Y. City.
June 7	F. LaBarba..	T. Pauk (6)....	Buffalo.
June 7	S. Mandell..	J. Nichols (6)..	Muskegon.
June 10	O. Von Porat	E. Rocco (8)..	Chicago.
June 11	J. Berg.....	S. Loayaza (10)	N. Y. City.
June 17	J. Dundee..	B. Algers (8)..	Braddock, Pa.
June 17	L. Lomski..	M. Adgie (10)..	Philadelphia.
June 17	G. Cook....	J. Risko (5)....	Boston.
June 17	J. Goodwin.	M.Callahan(15)	Buffalo.
June 18	A. Brown...	V. Gregorio (15)	N. Y. City.
June 20	E. Pladner.	G. Haut (15)..	Paris.
June 24	J. Britton...	P. Pollock (10) .	Chicago.
June 24	K. Chocolate	J. Johnson (1)..	Toronto.
June 27	T. Griffith .	J. Risko (7)....	Detroit.
June 27	Schmeling..	Paulino (15)....	N. Y. City.
June 27	O. Von Porat	Christner (9)..	N. Y. City.
July 2	J. Bryne....	G. Cook (1)0..	Philadelphia.
July 9	T. Canzoneri	P. McGraw (10)	N. Y. City.
July 10	K. Chocolate	Fernandez (10).	N. Y. City.
July 17	V. Campolo.	A. DeKuh (3)..	N. Y. City.
July 18	T. Loughran	J. Braddock (15)	N. Y. City.
July 25	A. Singer...	A. Routis (2)...	N. Y. City.
July 25	*J. Fields...	J. Dundee 12 ..	Detroit.
July 29	J. Risko....	E. Rocco (12)..	Cleveland.
Aug. 2	L. Haymann	E. Johnson (1) .	Long Branch
Aug. 2	S. Mandell..	T. Canzoneri (1	0) .Chicago.
Aug. 8	K. Chocolate	T. Lorenzo (6).	N. Y. City.
Aug. 15	V. Campolo.	T. Heeney (9)..	N. Y. City.
Aug. 19	M. Walker..	L. Lomski (10).	Philadelphia.
Aug. 20	J. Maloney.	Bertazolla (10).	Boston.
Aug. 28	J. Dalto....	A. Routis (10) .	Cleveland.
Aug. 28	S. Mandell..	F. Fresco (2)...	Petroskey, M.
Aug. 28	A. Brown...	K. Larsen (12) .	Copenhagen.
Aug. 29	K. Chocolate	A. Singer (12) .	N. Y. City.
Sept. 6	S. Mandell..	L. Vecentini (10)	Chicago.
Sept. 7	P. Charles..	F. Diener (11) .	Berlin.
Sept. 12	T. Griffiths.	L. Haymann (4)	N. Y. City.
Sept. 12	K. Tut.....	B. Petrillo (10)	Detroit.
Sept. 23	* Battalino.	A. Routis (15)	Hartford, Con.
Sept. 26	T. Sharkey .	T. Loughran (3)	N. Y. City.
Sept. 26	T. Heeney..	G. Hoffman (10)	N. Y. City.
Sept. 26	J. Gognon..	J. Maloney (7).	N. Y. City.
Oct. 2	J. Fields....	V. Dundee (10)	Chicago.
Oct. 9	J. McLarnin	S. Baker (1)....	N. Y. City.
Oct. 11	B. Bass.....	A. Santiago (2) .	Philadelphia.
Oct. 11	A. Singer...	L. Lazzarino (6)	N. Y. City.
Oct. 13	J. Dundee..	B. Colima (10) .	Mexico City.
Oct. 18	T. Canzoneri	J. Farr (10)....	N. Y. City.
Oct. 18	Christner...	E. Schaaf (10) .	Boston.
Oct. 22	J. Fields....	G. Jones (10) ..	San Francisco.
Oct. 22	J. Risko....	J. Maloney (2).	Cleveland.
Oct. 29	M. Walker..	A. Hudkins (10)	Los Angeles.
Nov. 4	E. Hant....	T. Schwartz(10)	N. Y. City
Nov. 4	J. McLarnin	S. Mandell (10)	Chicago.
Nov. 4	O.Von Porat	C. Smith (1)...	Chicago.
Nov. 4	J. Fields....	D. Mahan (2)...	Kansas City.
Nov. 11	A. Singer...	J. Shepperd (7).	N. Y. City.
Nov. 11	J. Slattery..	J. Hatstack (1).	Buffalo, N. Y.
Nov. 11	B. Bass.....	E. Reed (10)...	Philadelphia.
Nov. 12	G. Goldberg	J. Dundee (10)	N. Y. City.
Nov. 14	C. Belanger	L. Lomski (10)	Detroit.
Nov. 15	Rosenbloom	J. Braddock(10)	N. Y. City
Nov. 17	A. Snyder..	L. Hymann (7) .	Wichita
Nov. 18	P. Carnera..	Y. Stribling (4).	London, Eng.
Nov. 19	K. Chocolate	J. Martinez (10)	N. Y. City.
Nov. 21	S. Mandell..	J. Ayzerilla (2) .	Milwaukee.
Nov. 22	R. De Vos..	H. Ebbets (10)	N. Y. City.
Nov. 22	J. Maloney.	Christner (10)..	Boston.

† Draw. *Title changed hands.

THE TUNNEY TROPHY.

The Tunney-Muldoon Trophy, emblematic of the world's heavyweight championship, was unveiled with appropriate ceremony in Madison Square Garden on April 17, 1929 before 500 men prominent in all walks of life.

The bronze and marble statue, which is to be given to the heavyweight boxer recognized by the public and press as worthy of the ring's title mantle, was presented from its donors to the trustees for safekeeping.

It was entrusted to the Madison Square Garden Corporation, to stand in the Garden lobby as the symbol of high ideals in boxing. Gene Tunney, codonor of the trophy, which was designed by Mahonri Young, was unable to attend the exercises, being in Italy, but he cabled his congratulations.

Among the hundreds of notables present were three former heavyweight champions, as well as the "regulars" of boxing. They heard speeches by Mayor James J. Walker, William Muldoon of the State Athletic Commission; Jeremiah T. Mahoney, a member of the board of trustees, and Jack Dempsey.

The old menace of avarice and commercialism still jeopardizes professional boxing, Commissioner Muldoon declared in his address. The 83-year-old member of the State Athletic Commission and one of the donors of the trophy, deplored the existence of what he termed "the lust for money."

Commissioner Muldoon asserted that, although he had lived through the socalled good old days of boxing when men fought with bare knuckles and skin-tight gloves, the sport of today far surpassed that of former times. He said that exponents of the ring game were now better physical specimens and more intelligent than any class of men who ever before engaged in boxing.

"Today the greatest menace to boxing is avarice," he continued. "This is true of many things—not only boxing. It is the sport of a good many people to get all you can and give little in return.

"There is another menace to boxing and I would be doing wrong if I did not call it to your attention. That is the commercialism which is so entering the sport that we find it impossible to arrange matches between young men ready and willing to box. These young men have only an average of five years at the height of their ability, and they are ready to box, but their managers will not agree or make matches because of—money.

"Nine out of ten boxers today are willing to box anybody in their class and take any kind of a chance, but the managers will not let them do so.

AMATEUR ATHLETIC UNION BOXING CHAMPIONSHIPS.

Held at Boston, Mass., April 9-10. Results by classes:

112-Pound Class—Semi-Finals: James Kerr, Grand Rapids, defeated Anthony Sciolino, Buffalo, three rounds; Augi Curtiss, Los Angeles, defeated Joseph Wolf, Chicago, three rounds. Final, Kerr defeated Curtis, three rounds.

118-Pound Class—Semi-Finals: Mose Butch, Pittsburgh, defeated Frankie Wallace, Cincinnati, three rounds; Albion Holden, Providence, defeated Vitto Mazzeo, Cincinnati, three rounds. Final Holden defeated Butch, three rounds.

126-Pound Class—Semi-Finals: Martin Zuniga, Los Angeles, defeated Al Santora, New York, three rounds; Robert Merritt, Buffalo, defeated Wesley Ramey, Grand Rapids, three rounds. Final, Zuniga defeated Merritt, three rounds.

135-Pound Class—Semi-Finals: Joe Bernal, San Francisco, defeated Robert Stone, New York, four rounds; Steve Halaiko, Buffalo, defeated Dick Collins, Boston, three rounds. Final, Halaiko defeated Bernal, three rounds.

147-Pound Class—Semi-Finals: Leslie Baker, Boston, defeated Leo Jasinski, Grand Rapids, three rounds; Eric Lauson, New York, defeated Nick Debellis, Boston, three rounds.

160-Pound Class—Semi-Finals: Ray Lopez, Boston, defeated John Dixon, Philadelphia, three rounds. Ray Trambile, Rockford, Ill., stopped Ted McKay, Portland, Ore., in the third. Final, Lopez won from Trambile on a foul in the first round.

175-Pound Class—Semi-Finals: Martin Levandowski, Grand Rapids, defeated Frank Tucker, San Francisco, three rounds; Harry Allen, Brockton stopped Anthony Stropos, Philadelphia, in the first round.

Heavyweight Class—Semi-Finals: Ralph Ficucello, New York, defeated Clarence Doyle, San Francisco, three rounds; Elmer Howard, Philadelphia stopped Charles Hanson, New York, in the second. Final, Howard defeated Ficucello, three rounds.

INTERCOLLEGIATE BOXING CHAMPIONSHIPS.

Held at Penn State College, Pa., March 22-23.

Results: Team championships, Penn State; individual championships:

115 Pounds—Epstein, Penn State; 125 Pounds—Fitzgerald, Navy; 135 Pounds—Crosby, Western Maryland; 145 Pounds—Fish, Georgetown; 160 Pounds—*Wolff, Penn State; 175 Pounds—Klepac, Western Maryland; Unlimited—Hamas, Penn State.
*Retains title.

115-Pound Class—Semi-Finals: Fry, Navy knocked out Davis, Georgetown, in second round' Epstein, Penn State, defeated Peluse, Penn., decision, three rounds. Final: Epstein, defeated Fry; decision, three rounds.

125-Pound Class—Semi-Finals: Fitzgerald, Navy, defeated Schadel, Penn, decision, three rounds; Kolakoski, Penn State, defeated Glassey, Syracuse, decision, three rounds. Final, Fitzgerald defeated Kolakoski, decision, three rounds.

135-Pound Class—Semi-Finals: Saslow, Penn, defeated Williams, Navy, decision, four rounds; Crosby, Western Maryland, defeated Casoni, Penn State, decision, three rounds. Final, Crosby defeated Saslow, decision, three rounds.

140-Pound Class—Semi-Finals: Davis, Penn State, defeated Stucker, Penn, decision, three rounds; Fish, Georgetown, defeated Hall, Navy, decision, three rounds. Final: Fish defeated Davis, decision, three rounds.

150-Pound Class—Semi-Finals: Moret, Navy, defeated Clements, Georgetown, decision, three rounds; Wolff, Penn State, defeated Ekaitis, Western Maryland, decision, three rounds. Final: Wolff defeated Moret, decision, three rounds.

175-Pound Class—Semi-Finals: Tierney, Georgetown, defeated Hopkins, Penn, decision, three rounds; Klepac, Western Maryland, defeated McAndrews, Penn State, decision, three rounds. Final: Klepac defeated Tierney, decision, three rounds.

Unlimited Class—Semi-Finals: Hamas, Penn State, defeated Chapple, Navy, decision, four rounds; Livoti, Syracuse, defeated Downer, Western Maryland, decision, three rounds. Final: Hamas defeated Livoti, decision, three rounds.

WRESTLING IN 1929.

PROFESSIONAL.

Winner.	Loser.	Falls.	Place.	Date.	Winner.	Loser.	Falls.	Place.	Date.
G. Son'berg.	E. Lewis.....	1	Boston..	Jan. 5	E. Lewis....	M. Kirilenko...	2	Kan. C.	May 21
E. Lewis....	R. Gardini....	1	N. Y. C.	Jan. 21	G. Son'berg.	M. Plestina....	2	Boston.	May 29
G. Son'berg.	H. Cantonwine.	1	N. Y. C.	Feb. 4	E. Lewis....	J. Stecher.....	2	Tulsa..	May 29
G. Son'berg.	J. DeVito.....	1	Provi....	Feb. 19	E. Lewis....	J. DeVito.....	1	N. Y. C	June 10
E. Lewis....	R. Gardini.....	1	N. Y. C.	Feb. 23	J. Londos...	R. Dusek.....	1	Phila ..	June 14
E. Lewis....	K. Kwariani...	1	N. Y. C.	Feb. 25	H. Steinke..	J. Mondt.....	1	N. Y. C	June 18
G. Son'berg.	J. Smith.....	2	Sch'ady	Mar., 8	J. Londos...	K. Kwariani...	1	N. Y. C	June 24
G. Son'berg.	C. Hansen.....	1	N. Y. C.	Mar. 14	G. Son'berg.	E. Lewis.....	2–3	Boston.	July 9
G. Son'berg.	J. Malcewitz...	2	Boston..	Mar. 16	J. Stecher...	H. Cantonwine.	2	Chicago	Aug. 1
K. Kwariani	M. Plestina....	1	N. Y. C.	Mar 18	D. Shikat...	J. Londos.....	1	Phila ..	Aug. 23
E. Lewis....	M. Kirilenko...	1	N. Y. C.	April 8	G. Son'berg.	J. McLeod.....	1	Seattle.	Oct. 30
G. Son'berg.	J. Malcewitz...	2	Chicago.	April 20					

3 A. A. U. NATIONAL CHAMPIONSHIPS.

Catch-as-Catch-Can championship helds, at New York City, April 19-20, 1929. Results final bouts only:

112 lbs.—G. R. Shoemaker, Lehigh Univ.; 2, I. Levine, Boys' Club, N. Y.
118 lbs.—T. McCrary, Cornell Univ.; 2, E. Naponen, Hurja A. C.; 3, Geo. Campbell, Sand Springs, Okla.
126 lbs.—Geo. Campbell, Sand Springs, Okla.; 2, L. Marford, Cornell College, Iowa.; 3, M. Rapaport, Boston, Mass.
135 lbs.—J. Eareckson, Baltimore, Md.; 2, R. M. Brick, Lehigh Univ.; 3, S. Hauck, Univ of Idaho.
147 lbs.—A. Tomlinson, Okla., A. & M. College; 2, N. Der Marderosiah, Mass. Tech.; 3, G. Hadzellis, New York City.
160 lbs.—B. Sheman, Portland, Ore.; 2, A. Cornsweet, Brown Univ.; 3, Chas. Humbert, N. Y. A. C.
175 lbs.—K. Knogh, Univ. of Chicago; 2, F. Maracci, Portland, Ore.
Heavyweight—E. George, Univ. of Michigan; 2, O. Marchione, E. A. A. C.; 3, E. Ots, New York City.

Greco-Roman Championships, held at New York City, April 4-5, 1929. Results, final bouts only:

118 lbs.—F. Bauch, Cooper A. C.; 2, G. Rasch, G. A. A. C.; 3, M. Beltmann, W. N. Y.
126 lbs.—A. Gaukler, G. A. A. C.; 2, H. Schulte G. A. A. C.
135 lbs.—R. Keltner, Cooper A. C.; 2, M. Meisenbach, G. A. A. C.; 3, J. Farmikitis, unattached.
147 lbs.—E. Bollman, Cooper A. C.; 2, G. Hadzellis, G. A. A. C.; 3, J. Greubel, G. A. A. C.
160 lbs.—O. Kapp, E. A. C.; 2, E. Knaup, G. A. A. C.; 3, O. Kohlemainen, F. A. A. C.
Heavyweight—J. Manger, G. A. A. C.; 2, K. Bucher, G. A. A. C.

National Collegiate Championships, held at Columbus, O., March 29-30.

Team scores: Oklahoma A. & M., 26; Michigan, 18; Oklahoma Univ., 13; Illinois, 11.

Individual winners by classes: 115 lbs.—Sapora, Illinois; 125 lbs.—Mantooth, Oklahoma Univ.; 135 lbs.—Minot, Illinois; 145 lbs.—Bancroft, Oklahoma A. & M.; 155 lbs.—Van Beeber, Oklahoma A. & M.; 165 lbs.—Caldwell, Oklahoma A. & M.; 175 lbs.—Stafford, Cornell Univ.; *Heavyweight—McCready Oklahoma A. & M.
*Retained title.

Eastern Intercollegiate Championships, held at Bethlehem, Pa., March 15-16.

Team scores: Lehigh, 26; Penn State, 20; Cornell, 20; Yale, 16; Princeton, 8.

Individual winners by classes: 115 lbs.—Josefson, Cornell; 125 lbs.—Wilson, Penn State; 135 lbs.—Dodd, Yale; 145 lbs.—Sargant, Yale; 158 lbs.—Graham, Princeton 75 lbs.—Stafford, Cornell; Unlimited Class—Miller, Lehigh.

BOWLING.

AMERICAN BOWLING CONGRESS TOURNAMENT CHAMPIONS.

Yr.	Individual.	All Events.	Two-Men Teams.	Five-Men Teams.
1901	F. Brill, Chic. 648	F. Brill, Chic 1,736	Voorhies-Starr, N. Y. 1,203	Chicago 2,720
1902	F. Strong, Chic. 649	J. Koster, N. Y. . . . 1,841	McLean-Steers, Chic. 1,237	New York . . 2,792
1903	D. A. Jones, Mil. . . . 683	F. Strong, Chic. . . . 1,896	Collin-Selbach, Columb. . . 1,227	Chicago 2,819
1904	M. Kern, St. L. 647	M. Kern, St. L. 1,804	Krause-Spies, Wash. 1,184	Chicago 2,737
1905	C. Anderson, St. P. . 651	J. G. Reilly, Chic. . 1,791	Rolfe-Stretch, Chic. 1,213	Chicago 2,795
1906	F. J. Favour, Oshk. . 669	T. J. Peacock, Ind . 1,794	Reed-Dresbach, Columbus 1,247	Chicago 2,794
1907	M. T. Levey, Ind. . . . 624	H. Ellis, Gd. Rap. . 1,775	Richter-Begley, Louisv. . . . 1,164	Gr. Rapids . 2,775
1908	A. Wengler, Chic. . . . 690	R. Crable, E. Liv. . 1,924	Chalmers-Klene, Chic. 1,254	Columbus . . 2,927
1909	L. Sutton, Roch. 691	J. Blouin, Chic. 1,885	Schwoegler Bros., Madis. . 1,304	Chicago 2,962
1910	T. Haley, Det. 705	T. Haley, Det. 1,961	Dalker-Wetterman, Cin. . . 1,231	Chicago 2,880
1911	J. Blouin, Chic 681	J. Smith, Buff. 1,913	Hartley-Seller, E. Liv. . . . 1,246	Chicago 2,924
1912	L. Sutton, Roch. 679	P. Sutton, Louisv . . 1,843	Sutton-Owen, Louisv 1,259	New York . . 2,904
1913	F. Peterson, Colum. . 693	E. Hermann, Clev. . 1,972	Schultz-Koster, Newark . . 1,291	St. Paul 3,006
1914	W. Miller, Det. 675	W. Miller, Det. 1,897	Begley-Van Ness, Newark. 1,245	New Haven . 2,944
1915	W. H. Pierce, Pueblo. 711	M. E. Faetz, Chic. . 1,876	Allen Bros., Det. 1,297	Chicago 2,907
1916	S. Schilman, Tor. . . . 685	F. Thoma, Chic. . . . 1,919	Thoma-Marino, Chic. 1,279	Chicago 2,905
1917	O. Kallusch, Roch. . . 698	H. Miller, Det. 1,945	Satorius-Holzschuh, Peor. . 1,346	Chicago 3,061
1918	C. Styles, Det. 702	H. Steers, Chic. . . . 1,959	Steers-Thoma, Chic. 1,335	St. Paul 3,022
1919	H. Cavan, Pittsb. . . . 718	M. Lindsey, N. H. . 1,933	Kallusch-Barnes, Roch . . . 1,305	Oshkosh 2,992
1920	J. Shaw, Chic. 713	J. Smith, Mil 1,915	Erickson-Krems, Chic. . . . 1,301	Chicago 3,096
1921	F. Smith, Det. 702	Schiemann, Roch . . 1,909	Kallusch-Schiemann, Roch 1,314	Toronto 3,066
1922	W. Lundgren, Chic. . 729	A. Spinnella, N.Y. . 1,999	Spinnella Bros., N. Y. 1,336	Ft. Wayne . . 2,998
1923	C. Baumgartner, Cin. 724	W. J. Knox, Phila. . 2,019	Daw-Wilson, Mil. 1,358	Milwaukee . . 3,139
1924	H. E. Smyers, Pitts. . 749	A. F. Weber, Ellz. . 1,975	Thoma Bros., Chic. 1,380	Cleveland . . . 3,044
1925	A. Green, Chic. 706	C. Long, Buff. 1,977	Schupp-Karich, Chic. 1,318	Buffalo 3,022
1926	E. Votel, Brad'k, Pa. . 731	C. Gertoski, Det. . . 1,981	Aston-Young, Akron 1,233	Chicago 3,063
1927	W. Eggars, Chic. . . . 706	B. Spinella, N. Y. . . 2,014	Flick-Snyder, Erie, Pa. . . . 1,317	Milwaukee . . 3,190
1928	H. Summers, St. L. . . 705	P. Wolf, Chicago. . 1,937	Hradek Bros., Cicero, Ill. . 1,363	Ch (Oh Hy's) 3,057
1929	A. Unke, Milwauk. . . 728	O. Stein, Jr., St. L. 1,974	Klecz-Butler, Chicago 1,353	Hub R. Joliet 3,063

A. B. C. highest records—Five Men Team Event (1927) Tea Shops, Milwaukee, 3,190; Two Men Team Event (1924), C. Thoma and E. Thoma, Chicago, 1,380; Individual Event (1924) H. E. Smyers, Pittsburgh, Pa., 749; All Events (1923), W. J. Knox, Philadelphia, Pa., 2,019; High Single Individual Game (1913), W. J. Knox, Philadelphia, Pa., 300.

World's Records—*All Events*—Mortimer Lindsey, New Haven, Conn., 2,031 for 9 games, averaging 225 6-9, in N. B. A. tournament at Paterson, N. J., 1912; James Smith, Buffalo, N. Y., 2,060 for 9 games, averaging 228 8-9, in Canadian Bowling Association tournament at Toronto, Ont., 1912.

Highest Woman's Score—Mrs. Nellie Lester, New York, 277, 1909.

Five Woman Team—3 games, 2,541, Birk Cola, Toledo, Ohio, May 3, 1922.

Two Men, Open — Knox-Satterwaite, Philadelphia, Pa., 537, Feb. 18, 1912.

Three Men, Open—Mortimer Lindsey, Glenn Riddell, Alex Dunbar, New York, 757, 1908.

Five Men, Open—All wooden balls—Algonquins, New York, Columbia Alleys, New York, 1,175; 1906; Vermonts, Chicago, 1,290, 1917.

Tournaments—Howard Majors, Chicago, 1,207, 1907; Koenig and Kaiser team, St. Louis, Mo., 1,207, 1908; Burkes, St. Louis, Mo., 1,207, 1909.

N. Y. State Bowling Tournament 1929 Champions at Schenectady—5-man, Vacarro Shoes, Rochester, 3,062; 2-man, Stein-Shaughnessy, Syracuse, 1,317; individual, W. O. Hearn, Lockport, 739; all events, Joe Falcaro, N. Y. City, 1,956.

At West New York, N. J., Feb. 18, 1929 the Lady Actives No. 1 made a single game score of 1,064, and a 3-game score of 3,001.

Andy Hiltenbrand captured, in 1929, two bowling championships. He took the metropolitan singles (N. Y. City) crown with a score of 739, rolling 248, 223 and 268 with the final squad and then took the all-events title with a score of 1,957.

Lawn Bowling—The third international lawn bowling cup match was played at Pasadena, Calif., in 1929, and was decided in favor of the Pasadena Lawn Bowling Club, which defeated the English club, 182 to 168.

PIGEON SPEED RECORDS.

(By Commander A. H. Douglas, U. S. Naval Air Station, Anacostia, D. C.)

After the World War many of the Naval Pigeons were shipped back from Europe and housed at the Naval Air Station, Anacostia, D.C.; very little being known about the strain and type of these birds. New records were established in place of the old ones that had been lost or destroyed. Stud records were built up and the breeding and flying of the birds underwent the experimental stage in order to obtain data for more efficient selection and breeding.

And at the present time birds are housed at the Anacostia loft which have flown successfully over every course leading into Washington, D. C.

When weather conditions are favorable, pigeons fly at an average speed of about a mile a minute.

The fastest speed ever recorded by a pigeon in a race was 3.317 yards per minute.

Under good weather conditions a pigeon makes a flight of five to six hundred miles from daylight to dark. Most speed and long-distance records of racing pigeons are made in the Middle West, where the country is level and changes in weather are not so frequent as in many other parts of the country.

The best thousand mile record is held in Fort Wayne, Indiana. The bird was bred and flown by C. W. Oetting. The time was 1 day, 10 hours, 22 minutes, 29 seconds.

The longest pigeon flight on record is 2,016½ miles. This bird was bred and flown by E. S. Peterson, formerly an Ensign in the U. S. Navy pigeon service and in charge of pigeons overseas during the World War.

"Aerial Lad," an outstanding bird at the Anacostia loft, flew the five hundred mile race from Nappanee, Indiana, to Washington, D. C., at an average speed of 1,234 yards per minute.

"Admiral" duplicated this performance two years later, making even a better speed, and this year a son of "Admiral" won the same race, making an average speed of 1,500 per minute.

The "Skipper" established a new record for any race flown in Washington when he flew 110 miles from Cumberland, Maryland, to Washington, D. C., in 86 minutes, or at a speed of 2,240 yards per minute.

However, these performances are surpassed by the record of U. S. Navy Pigeon 617 B.C.C. who, as a yearling was flown 300 miles, and as a two year old he flew two 500-mile races and one 600-mile race being the winner of the 500-mile race. He was the Navy bird in each of these races.

In 1929 he had his best year as he won firsts at 500 miles and at 600 miles, flying 500 miles four times and 600 miles twice.

His long-distance record to date is six 500-mile races, finishing three of these races on the same day and three 600-mile races all of which he finished on the second day.

About the middle of July, in any year, all the birds raised before and up to the end of May are old enough to be trained.

First they are taken about a mile from home, then two miles, and later the distance is increased slowly until they are trained to fifty miles.

After the fifty-mile training-fly they can be jumped to the hundred-mile station or to the two-hundred-mile station, depending on the method the fancier has adopted for flying his birds.

In the second year, as they enter their prime, their career usually begins, although some distinguish themselves as "Yearlings."

By the time they pass their second year they are seasoned old birds, and in America they are flown up to one thousand miles.

There are approximately 700 carrier pigeons in the Navy today, lofts being in operation at several points on the east and west coast of the United States, and Panama and Honolulu.

PRODUCTION OF GOLD AND SILVER IN THE WORLD SINCE 1870.

(The annual production of 1860 to 1872 is obtained from five-year period estimates compiled by Dr. Adolph Soetbeer. Since 1872 the estimates are those of the Bureau of the Mint.)

Cal. Yr.	Gold. Fine Ounces.	Gold. Value.	Silver. Fine Ounces.	Silver. Com'rcial Value.	Cal. Yr.	Gold. Fine Ounces.	Gold. Value.	Silver. Fine Ounces.	Silver. Com'rcial Value.
	No.	*Dollars.*	*No.*	*Dollars.*		*No.*	*Dollars.*	*No.*	*Dollars.*
1870	6,270,086	129,614,000	43,051,583	57,173,000	1904	16,804,372	347,377,200	164,195,266	95,233,300
1875	4,716,563	97,500,000	62,261,719	77,578,100	1905	18,396,451	380,288,300	172,317,688	105,113,700
1880	5,148,880	106,436,800	74,795,273	85,640,600	1906	19,471,080	402,503,000	165,054,497	111,721,100
1881	4,983,742	103,023,100	79,020,872	89,925,700	1907	19,977,260	412,966,600	184,206,984	121,577,100
1882	4,934,086	101,996,600	86,472,091	98,232,300	1908	21,422,244	442,837,000	203,131,404	108,655,100
1883	4,614,588	95,392,000	89,175,023	98,984,300	1909	21,965,111	454,059,100	212,149,023	110,364,400
1884	4,921,169	101,729,600	81,567,801	90,785,000	1910	22,022,180	455,239,100	221,715,763	119,727,000
1885	5,245,572	108,435,600	91,609,959	97,518,800	1911	22,397,136	462,989,761	226,192,923	122,143,800
1886	5,135,679	106,163,900	93,297,290	92,793,500	1912	22,605,068	467,288,203	230,904,241	141,972,220
1887	5,116,861	105,774,900	96,123,586	94,031,000	1913	22,254,983	460,051,329	210,013,423	126,848,107
1888	5,330,775	110,196,900	108,827,606	102,185,900	1914	21,301,836	440,348,027	172,263,596	95,261,769
1889	5,973,790	123,489,200	120,213,611	112,414,100	1915	22,737,520	470,026,251	173,000,507	89,911,664
1890	5,749,306	118,848,700	126,095,062	131,937,000	1916	22,031,094	455,423,136	180,801,919	124,011,387
1891	6,320,194	130,650,000	137,170,000	135,500,200	1917	20,345,528	420,579,351	186,125,017	166,240,586
1892	7,094,266	146,651,500	153,151,762	133,404,400	1918	18,614,039	384,786,306	203,159,431	200,002,335
1893	7,618,811	157,494,800	165,472,621	129,119,900	1919	17,698,184	365,853,933	179,849,940	201,588,402
1894	8,764,362	181,175,600	164,610,394	104,493,000	1920	16,130,110	332,823,934	174,423,975	176,658,331
1895	9,615,190	198,763,600	167,500,960	109,545,600	1921	15,974,962	330,231,792	171,285,542	108,110,295
1896	9,783,914	202,251,600	157,061,370	105,859,300	1922	15,451,945	319,420,063	209,815,448	142,536,023
1897	11,420,068	236,073,700	160,421,082	96,252,700	1923	17,790,597	367,764,279	246,009,534	172,275,552
1898	13,877,806	286,879,700	169,055,253	99,742,600	1924	19,031,001	393,405,653	239,484,703	178,310,725
1899	14,837,775	306,724,100	168,337,452	101,002,600	1925	19,025,942	393,301,128	245,213,993	172,498,232
1900	12,315,135	254,576,300	173,591,364	107,626,400	1926	19,349,118	399,981,749	253,795,166	159,568,628
1901	12,625,527	260,992,900	173,011,283	103,806,700	1927	19,431,194	401,678,427	253,981,085	144,947,007
1902	14,354,680	296,737,600	162,763,483	86,264,700	1928	19,674,638	406,710,864	257,273,490	150,831,728
1903	15,852,620	327,702,700	167,689,322	90,552,200					

Gold production, 1493-1928—1,021,655,069 fine oz. ($21,120,298,527).

Silver production, 1493-1928—14,467,232,012 fine oz. ($18,521,220,049).

Gold production (1928), chief countries—Transvaal, Cape Colony and Natal, $214,041,633; United States, $44,335,300; Canada, $39,082,005; Russia, $24,806,201; Mexico, $14,451,721; Rhodesia (southern), $11,909,292; Australia and New Zealand, $13,078,975.

Silver production (1928), chief countries—Mexico, $63,632,167; United States, $34,253,413; Canada, $12,860,557; Peru, $12,667,942; Australia and New Zealand, $6,043,779.

COINAGE OF NATIONS.

(Figures, by Director of U. S. Mint, cover calendar year, 1928.)

Countries.	Monetary Unit.	Gold. Par Value.	Gold. U. S. Value.	Silver. Par Value.	Silver. U. S. Value.	Silver. Ounces Consumed.
			Dollars.		*Dollars.*	
United States	Dollar	177,360,000	177,360,000	8,748,667	3,768,733	6,428,323
Philippine Islands	Peso			20,000	5,655	9,645
Abyssinia	Thalari			100,000	35,350	60,296
Austria	Schilling	10,758,828	1,513,767	28,890,233	3,245,006	5,535,002
Brazil	Milreis			2,500,000	94,245	160,754
British Empire:						
British India	Rupee			2,238,598	451,145	769,518
Canada	Dollar			767,582	270,006	460,549
Ceylon	Rupee			400,000	48,367	82,500
Cyprus Island	Pound			20,000	39,440	67,272
Great Britain	"			4,957,815	5,284,755	9,014,200
Straits Settlements	Dollar			1,264,948	262,032	446,948
Travancore	Rupee			187,500	37,787	64,453
Union of South Africa	Pound	18,222,549	88,680,035	289,659	494,002	842,618
China:						
Canton	Dollar			4,266,329	2,957,244	5,044,167
Hopei	"			16,678,540	7,514,320	12,817,166
Kwantung	"			5,706,000	2,021,940	3,448,820
Mukden	"			10,000,000	4,505,382	7,684,825
Nanking	"			55,288,000	24,909,358	42,487,860
Shanghai	"			73,159,621	33,700,000	57,482,448
Czechoslovakia	Crown	18,292	41,856	18,550,000		
Ecuador	Sucre	500,000	100,000	4,500,000	152,677	260,421
Egypt	Pound	2,000	9,886			
French Colonies:						
Indo-China	Piaster			9,018,744	4,095,082	6,984,977
Tunis	Franc	1,290	249	1,811	142	243
Germany	Reichsmark			153,227,625	7,220,475	12,315,955
Guatemala	Quetzal			200,000	90,475	154,323
Hedjaz	Majidieh			750,000	282,244	481,423
Irish Free State	Pound			607,500	971,343	1,656,818
Mexico	Peso	26,900,000	13,409 650	1,253,000	283,414	483,419
Netherlands	Florin	3,259,323	1,310,248	9,250,000	1,361,898	2,322,987
Netherland East Indies	"			3,000,000	506,490	863,919
Nicaragua	Cordoba			75,000	28,269	48,219
Persia	Kran	308,140	53,024	85,558,500	6,680,735	11,395,322
Peru	Pound	5,124	24,936	151,404	356,720	608,457
Poland	Zloty			320,000	16,285	27,778
Rumania	Leu	18,000,000	3,474,000			
Sweden	Krone			2,126,685	238,659	407,080
Switzerland	Franc			3,500,000	275,425	469,792
Total			285,977,651		112,205,100	191,388,097

Gold consumption in 1926, and average year, in the industrial arts, was estimated at $74,333,684, of which $43,268,236 was new material.

Silver thus used in that year was estimated at 39,408,393 fine ounces, of which 29,407,601 fine ounces was new material.

Par value means value in coin named.

THE MEAT-PACKING INDUSTRY IN THIS COUNTRY.

(Data gathered by U. S. Dept. of Commerce in Census of Manufactures.)

Kind.	1927.	1925.	1923.	1921.
Aggregate value	$3,057,215,718	$3,050,286,291	$2,585,804,140	$2,200,942,072
Fresh meat:				
Total Value	$1,564,232,313	$1,443,938,739	$1,261,140,882	$1,121,873,645
Beef—				
Pounds	5,069,619,297	5,064,507,621	4,834,720,580	4,212,051,450
Value	$762,614,133	$661,103,013	$607,468,593	$547,569,570
Veal—				
Pounds	549,684,678	575,962,620	498,967,810	419,243,674
Value	$98,489,512	$87,188,927	$71,681,481	$63,927,792
Mutton and lamb—				
Pounds	547,473,380	521,993,096	510,903,661	566,312,687
Value	$130,282,541	$128,212,547	$113,741,915	$103,413,732
Pork—				
Pounds	3,110,253,129	2,827,926,362	3,265,684,201	2,321,847,207
Value	$517,862,985	$516,468,750	$429,104,502	$373,657,742
Edible organs, tripe, etc.—				
Pounds	509,307,286	487,205,159		
Value	$47,880,960	$44,165,387		
Other fresh meat—			$517,801,276	392,330,485
Pounds	59,193,916	53,085,896	$39,144,391	$33,304,809
Value	$7,102,182	$6,800,115		
Cured meat (pickled and other cured):				
Total value	$674,752,087	$769,714,607	$624,687,908	$560,257,991
Beef—				
Pounds	102,738,345	84,196,641	75,054,209	68,570,116
Value	$22,905,385	$17,911,103	$15,503,020	$15,372,226
Pork, smoked—				
Pounds	1,221,117,972	1,236,004,732	1,258,003,037	958,104,804
Value	$291,426,090	$336,121,817	$255,194,565	$231,725,855
Pork, not smoked—				
Pounds	1,913,054,049	2,059,932,717	2,642,031,796	2,037,491,340
Value	$311,300,294	$415,681,687	$353,990,323	$313,159,900
Cooked hams				
Pounds	133,525,070			
Value	$49,120,318			
Canned Meat and canned sausage:				
Pounds	144,198,136	118,576,431	95,133 635	74,586,052
Value	$27,823,677	$24,334,065	$19,703,137	$16,335,568
Sausage (not canned), meat puddings, headcheese, scrapple, etc.:				
Pounds	918,935,732	903,752,718	803,722,352	603,996,272
Value	$180,789,924	$178,074,806	$133,054,311	$106,116,267
Sausage casings:				
Pounds	114,949,498	91,525,197	96,274,163	86,079,314
Value	$22,335,917	$18,668,150	$13,747,099	$12,030,471
Lard:				
Pounds	1,794,635,625	1,672,334,129	2,131,993,455	1,575,358,025
Value	$234,863,633	$279,624,570	$263,887,257	$190,372,703
Hides, skins, and pelts	$126,665,027	$114,520,261	$91,226,683	$61,056,920
Cattle hides—				
Number	10,949,890	11,052,863	10,350,338	8,402,758
Pounds	616,714,165	621,380,786	579,544,364	483,859,362
Value	$99,217,539	$80,797,328	$66,006,635	$46,567,300
Calfskins—				
Number	4,204,736	4,304,427	3,753,361	3,307,063
Pounds	53,580,824	56,092,473	47,005,334	40,263,419
Value	$11,159,736	$11,069,114	$7,269,169	$6,011,937
Sheep and lamb pelts—				
Number	8,960,953	10,832,040	10,895,410	12,120,014
Value	$15,963,683	$22,552,770	$17,898,449	$8,307,391
Hair, hog and other:				
Pounds	29,667,663	27,278,442	26,420,386	19,832,365
Value	$2,721,560	$2,111,079	$1,800,044	$701,770
Wool:				
Pounds	30,439,806	32,235,482	30,946,624	32,237,099
Value	$18,478,449	$23,428,648	$19,097,117	$9,889,434

The above data cover production by *slaughtering and meat-packing establishments only.* Cooked hams made in 1927 weighed 133,525,070 lbs., and were valued at $49,120,318.

PRODUCTS OF SLAUGHTERING AND MEAT-PACKING AND OTHER INDUSTRIES, 1927

Product.	Total value.	Products of Establishments.		
		Engaged primar. in mfg. prod. specified.	In slaught. and meat-pack. industry.	In other industries.
Fertilizers	$173,809,773	$165,272,337	$2,330,698	$6,206,738
Glue	23,600,829	19,122,566	2,852,105	1,626,158
Lard substitutes	142,576,674	89,319,769	50,331,378	2,925,527
Oleomargarine	51,751,757	33,024,819	14,501,799	4,225,139
Sausage, meat puddings, headcheese, scrapple, etc.	242,892,718	61,418,725	180,789,924	684,069
Sausage casings	31,566,930	9,130,657	22,335,917	100,356
Grease (including soap stock) and tallow	62,925,675	30,095,271	29,012,698	3,817,706

Does not include value of canned sausage.

REPUBLICAN STATE CHAIRMEN AND VICE CHAIRWOMEN.

Alabama—Joseph C. Swann, Mobile.
Arizona—George W. Mickle, Phoenix; Mrs. Clifford Parsons, Tucson.
Arkansas—Andrew J. Russell, Little Rock.
California—Frank F. Merriam, Long Beach; Mrs. Mabel V. Socha, Los Angeles; Mrs. Mattie Chandler, Richmond; Headquarters, Palace Hotel, San Francisco.
Colorado—John R. Coen, Sterling; Mrs. Minnie H. Velhagen, Alamosa.
Connecticut—J. Henry Roraback, Hartford; Miss Katherine Byrne, Putnam.
Delaware—J. Warren Marshall, Wilmington; Mrs. Julia Hays Ashbrook, Wilmington.
Florida—(Vacancy, Sept. 10, 1929.) Mrs. Lora T. Edwards, Lakeland.
Georgia—Roscoe Pickett, Jasper.
Idaho—John McMurray, Oakley.
Illinois—Perry B. McCullough, Lawrenceville.
Indiana—Elza Rogers, Lebanon; Miss Mary Sleeth, Rushville.
Iowa—Willis L. Stern, Logan; Mrs. Gordon L. Elliott, Des Moines.
Kansas—Alfred M. Landon, Topeka; Mrs. Ida M. Walker, Norton.
Kentucky—R. W. Hunter, Providence; Mrs. Christine Bradley South, Frankfort.
Louisiana—M. E. Norman, Morgan City; Mrs. Lillian T. Martin, Ruston.
Maine—Daniel F. Field, Phillips; Mrs. Eva C. Mason, Dover-Foxcroft.
Maryland—Galen L. Tait, Baltimore; Mrs. Calvin Gabriel, Baltimore.
Massachusetts—Amos Taylor, Belmont; Mrs. Frank R. Batchelder, Worcester; Headquarters, 11 Beacon St., Boston.
Michigan—Howard C. Lawrence, Lansing; Mrs. Jacob Steketee, Grand Rapids.
Minnesota—Ludwig I. Roe, St. Paul; Mrs. Winifred N. Campbell, Slayton.
Mississippi—S. D. Redmond, Jackson.
Missouri—B. G. Voorhees, St. Joseph; Mrs. Dorys Farley, West Plains.
Montana—A. H. Brown, Billings; Mrs. Frank Bartos, Helena.
Nebraska—Edgar Ferneau, Auburn; Mrs. Lulah T. Andrews, Omaha.
Nevada—Noble H. Getchell, Reno; Mrs. F. E. Humphrey, Reno.
New Hampshire—Benjamin F. Worcester, Concord; Mrs. Elwin L. Page, Concord.
New Jersey—E. Bertram Mott, Morristown; Mrs. John D. Berry, Newark; Headquarters, Trenton.
New Mexico—E. L. Safford, Santa Fe; Miss Margaret Chadwick, Albuquerque.
New York—William J. Maier, Seneca Falls; Miss Sarah Schuyler Butler, New York City. Headquarters, 9 E. 41st St., New York City.
North Carolina—Brownlow Jackson, Hendersonville; Mrs. Lillian B. Rodgers, Wilmington.
North Dakota—J. A. Dinnie, Grand Forks.
Ohio—Arthur Nixon, Dayton; Mrs. Louise Ogden de Voe, Ashland.
Oklahoma—(Vacancy, Sept. 10, 1929.) Mrs. T. B. Ferguson, Watonga.
Oregon—Phil Metschan, Portland; Mrs. E. C. Giltner, Portland.
Pennsylvania—Edward Martin, Washington; Mrs. Chas. F. Stauffer, Lancaster; Headquarters, 15th and Chestnut Sts., Philadelphia.
Rhode Island—William C. Pelkey, Providence; Mrs. Louis A. Olney, Saylesville.
South Carolina—Joseph W. Tolbert, Greenwood.
South Dakota—A. A. Chamberlain, Huron; Mrs. E. F. Wilson, Huron.
Tennessee—Howard B. Shofner, Nashville; Mrs. R. M. Short, Oakdale.
Texas—Eugene Nolte, Seguin.
Utah—Carl Marcuson, Price; Mrs. Jesse F. Cannon, Salt Lake City; Mrs. Jeannette M. Morrell, Ogden.
Vermont—Leonard F. Wing, Rutland; Mrs. Margaret M. Tucker, Brattleboro.
Virginia—R. H. Angell, Roanoke; Mrs. Murray Boocock, Keswick.
Washington—Hinton D. Jonez, Tacoma; Mrs. E. C. Young, Spokane.
West Virginia—Chas. E. Carrigan, Moundsville; Mrs. Thomas H. Scott, Bluefield.
Wisconsin—
Wyoming—L. C. Hinkle, Cheyenne; Mrs. R. A. Morton, Cheyenne.
Dist. of Columbia—Samuel J. Prescott, Washington; Mrs. Virginia White Speel, Washington.

SAVINGS BANKS IN THE UNITED STATES.

Year (fiscal).	Banks.	Depositors.	Deposits.	Year (fiscal).	Banks.	Depositors.	Deposits.
	No.	*No.*	*Dollars.*		*No.*	*No.*	*Dollars.*
1900	1,002	6,107,083	2,449,547,885	1915	2,159	11,285,755	4,997,706,013
1901	1,007	6,358,723	2,597,094,580	1916	1,864	11,148,392	5,088,587,294
1902	1,036	6,666,672	2,750,177,290	1917	1,807	11,427,013	5,418,022,274
1903	1,078	7,035,228	2,935,204,845	1918	1,819	11,379,553	5,471,579,948
1904	1,157	7,305,443	3,060,178,611	1919	1,719	11,434,881	5,906,082,000
1905	1,237	7,696,229	3,261,236,119	1920	1,707	11,427,566	6,536,470,000
1906	1,319	8,027,192	3,482,137,198	1921	1,601	10,737,843	6,018,258,000
1907	1,415	8,588,811	3,690,078,945	1922	1,685	12,538,997	7,181,248,000
1908	1,453	8,705,848	3,660,553,945	1923	1,647	13,340,333	7,897,909,000
1909	1,703	8,831,863	3,713,405,710	1924	1,603	13,971,793	8,439,855,000
1910	1,759	9,142,908	4,070,486,246	1925	1,583	14,656,527	9,065,181,000
1911	1,884	9,794,647	4,212,583,598	1926	1,524	15,161,799	9,599,118,000
1912	1,922	10,010,304	4,451,818,522	1927	1,461	14,814,271	9,738,902,000
1913	1,978	10,766,936	4,727,403,950	1928	1,407	15,004,558	10,234,041,000
1914	2,100	11,109,499	4,936,591,849	1929	1,358	14,043,614	10,451,597,000

School savings banks in this country hold $24,000,000, deposited by 4,000,000 pupils.

THE RADIO INDUSTRY IN THE UNITED STATES.

	1927.	1925.	1923.
Tot. val..	$198,436,434	$178,834,697	$54,000,470
Rad. appar. total....	$176,273,332	$155,819,724	$44,176,298
Loud spkers			
Number .	2,458,785	2,844,652	623,146
Value . . .	$18,838,751	$18,955,916	$5,608,330
Head sets			
Number .	267,730	1,352,442	1,781,793
Value . . .	$319,173	$2,164,529	$5,345,380
Rec. sets			
4-tube, less			
Number .	34,392		
Value . . .	$671,690	2,395,790	190,374
5-tube, up		$93,356,546	$13,326,116
Number .	1,943,665		
Value . .	$94,490,703		
Trans'g sets			
Number .	1,093	1,076	1,082
Value . . .	$2,233,483	$1,355,768	$919,930

	1927	1925	1923
Trans'mers			
Number .	4,116,046	5,295,507	1,571,817
Value . . .	$5,447,403	$7,614,774	$3,929,681
Rheostats			
Number .	3,459,240	3,562,543	
Value . . .	$1,420,780	$2,018,592	
Socket-pow.			
Devices			$15,046,961
Number .	1,406,129		
Value . . .	$23,334,048	$30,353,599	
Misc. parts.	$29,517,301		
Radio tubes	$22,163,102	$23,014,973	$9,824,172
Under 5 watts			
Number .	23,650,733	23,444,035	
Value . . .	$17,481,296	$20,528,850	4,687,400
Other			$9,824,172
Number .	2,686,512	622,153	
Value . . .	$4,681,806	$2,486,123	

Not including combination phonographs and radios, which are classified for census purposes in the "Phonographs" industry.

KINGS COUNTY DEMOCRATIC EXECUTIVE COMMITTEE.

(Headquarters, 4 and 5 Court Square, Brooklyn.)

Chairman—John H. McCooey, 908 St. Marks Ave.; *1st Vice-Chairman*, John J. Dorman, 1410 E. 22d St.; *Secretaries*, Frank V. Kelley, 152 Keap St.; Aaron L. Jacoby, 131 Bristol St., and Mrs. Julia Kane, 612 Hemlock St.; *Chairman Finance Committee*, J. W. Weber, 31 Belvidere St.

1—James J. Browne, 97 Johnson St.
Mrs. Martha Gullfoyle, 179 Nassau St.
Club House, 103 Concord St.

1—John F. Quayle, 135 Clinton St.
Mrs. Sadie Garahan, 227 Dean St.
Club House, 350 Atlantic Ave.

2—James A. Blanchfield, 853 E. 14th St.
Miss Lillian Murphy, 1472 E. 14th St.
Club House, 1634 E. 15th St.

3—Thomas H. Cullen, 215 Congress St.
Mrs. Elizabeth Struck, 433 Clinton St.
Club House, 314 Clinton St.

4—Frank V. Kelly, 152 Keap St.
Mary T. Harrington, 135 Penn St.
Club House, 93 Division Ave.

5—James J. Sexton, 257 Stuyvesant Ave.
Mrs. Mary Greehy, 892 Putnam Ave.
Club House, 735 Hancock St.

6—Charles W. Jannicky, 57a Vernon Ave.
Mrs. Rae Rudich, 767 Greene Ave.
Club House, 116 Tompkins Ave.

7—William J. Heffernan, 554 60th St.
Mrs. Agnes Leonard Ward, 421 37th St.
Club House, 521-523 46th St.

8—Michael J. Reilly, 213 Bond St.
Miss Kathryn McGivney, 87 Third St.
Club House, 359 Union St.

9—Thomas F. Wogan, 450 Ovington Ave.
Mrs. Evelyn J. Meagher, 1252 56th St.
Club House, 259 Ovington Ave.

10—Peter A. Carey, 384 St. Johns Place.
Mrs. Minnie J. Harris, 49 Seventh Ave.
Club House, 241 Prospect Place.

11—Thomas A. Dempsey, 178 Sullivan St.
Miss Honour Gelson, 240 Gates Ave.
Club House, 4 Brevoort Place.

12—James J. Heffernan, 65 Prospect Park W.
Mrs. Ellen M. Joyce, 367 16th St.
Club House, 911 Eighth Ave.

13—George W. Lindsay, 40 Bushwick Place.
Mrs. Evelyn Ward Rehm, 256 Ten Eyck St.
Club House, 106 Powers St.

14—Joseph Lentol, 268 Grand St.
Nora Quinn, 117 No. Fourth St.
Club House, 893 Driggs Ave.

15—Peter J. McGuinness, 158 Kent St.
Mrs. Julia V. Conlon, 677½ Leonard St.
Club House, 119 Norman Ave.

16—Kenneth F. Sutherland, Sea Gate.
Mrs. Jennie McMahon, Surf Ave. and 36th St.
Club House, 25 Bay 25th St.

17—Edward F. Cadley, 439 Jefferson Ave.
Mrs. Minnie J. Abel, 408A Hancock St.
Club House, 590 Gates Ave.

18—John H. McCooey, 908 St. Marks Ave.
Mrs. Sallie Minsterer, 2913 Foster Ave.
Club House, 922 St. Marks Ave.

19—Henry Hasenflug, 93 Jefferson St.
Mrs. Mary Eichel, 244 Stockholm St.
Club House, 24 Jefferson St.

20—William F. Delaney, 1110 Bushwick Ave.
Mrs. Helen A. Braun, 105 Woodbine St.
Club House, 1155 Bushwick Ave.

21—Henry Hesterberg, 51 Lenox Road.
Mrs. Mary F. O'Malley, 287 E. 18th St.
Club House, 74 Linden Ave.

22—Francis J. Sinnott, 118 Arlington Ave.
Mrs. Theresa Fogarty, 187 Miller Ave.
Club House, 179 Hendrix St.

23—Hyman Shorenstein, 131 Bristol St.
Mrs. Agnes Riley, 102 Rockaway Ave.
Club House, 1553 Eastern Parkway.

BRONX COUNTY DEMOCRATIC EXECUTIVE COMMITTEE.

(529 Courtlandt Avenue; Edward J. Flynn, *Chairman.*)

1—James F. Geraghty, 475 E. 140th St.
Mrs. Catherine Goodwin, 479 E. 141st St.
James W. Brown, 412 E. 140th St.
Mrs. Mary E. Dunne, 340 E. 142nd St.

2—Earl H. Miller, 303 E. 161st St.
Miss Mary A. Clark, 833 Washington Ave.

3—John A. Biglin, 761 E. 150th St.
Mrs. Clara Gompers, 872 Macy Place.

4—Thomas J. Dolen, 597 E. 167th St.
Mrs. Helen F. McRedmond, 1061 Tinton Ave.

5—John J. Daly, 957 Whitlock Ave.
Mrs. Sarah Gallagher, 1003 So. Boulevard.

6—Thomas H. O'Neil, 2577 Poplar St.
Miss Margaret Behan, 1745 Park View Ave.

7—Charles F. Griffin, 749 Oakland Place.
Miss Mary E. Shea, 704 E. 182nd St.

8—Charles A. Buckley, 2241 Creston Ave.
Mrs. Edna F. Standish, 2715 Gr. Concourse.

9—Albert H. Liebenau, 3492 Park Ave.
Miss May F. Kennedy, 900 Gr. Concourse.

BRONX COUNTY REPUBLICAN EXECUTIVE COMMITTEE.

Headquarters—859 Westchester Ave.; *Chairman*, Harry B. Harris; *Treasurer*, Ralph F. Baxter; *Secretary*, Herman Forster.

Dist.	Leaders.	Headquarters.	Associate Leaders.	Headquarters.
1....	A. D. Bunner.....	2663 Third Ave.....	Mrs. Henrietta K. Hahn	2663 Third Ave.
2....	Peter Wynne.....	1257 Gerard Ave.....	Mrs. Elizabeth Back....	1257 Gerard Ave.
3....	Alfred B. Simonds...	784 East 156th St.....	Mrs. Alice E. Kinehan...	784 East 156th St.
4....	Ernest W. Bradbury.	1324 Franklin Ave.....	Mrs. Carrie Raible.....	1324 Franklin Ave.
5....	Harry B. Harris.....	859 Westchester Ave....	Mrs. Mae B. Harris.....	859 Westchester Ave.
6....	John J. Knewitz.....	3744 White Plains Ave.	Miss H. Roberta Hart...	3744 White Plains Ave.
7....	Charles E. Buchner..	862 E. Tremont Ave....	Mrs. Elizabeth Barnett..	862 E. Tremont Ave.
8....	Thomas W. Whittle..	2464 Grand Ave.....	Mrs. May D. Port.....	2464 Grand Ave.
9....	Samuel J. Joseph....	961 Southern Blvd.....	Mrs. Mary Gifford.....	961 Southern Blvd.
10....	Herman Forster.....	409 East 156th St.....	Mrs. Rose Davis.....	409 East 156th St.

SOCIALIST PARTY NATIONAL COMMITTEE.

The national headquarters of the Socialist National Committee are at No. 2653 Washington Boulevard, Chicago, Ill.

National Chairman—Morris Hillquit, N. Y. City; Meta Berger, Wis.; *Executive Committee*—Joseph W. Sharts, Ohio; James Oneal, New York City; Morris Hillquit, New York City; Alfred Baker Lewis, Massachusetts; Daniel W. Hoan, Wisconsin; Jasper McLevy, Connecticut; Lilith M. Wilson, and James H. Maurer, Pennsylvania. *Secretary*—Clarence Senior, of Cleveland, O.

SOCIALIST LABOR PARTY.

Headquarters, 45 Rose Street, New York City. *National Secretary*, Arnold Petersen. *Editor*, Official Organ, Weekly People, Olive M. Johnson.

National Executive Committee—Peter McDermott, Providence, R. I.; P. E. De Lee, Troy, N. Y.; J. C. Butterworth, Paterson, N. J.; J. D. Goerke, Cleveland Heights, Ohio; W. W. Cox, St. Louis, Mo.; U. A. Upton, Estacada, Ore.; Theodore Gramatieoff, Detroit, Mich.; Joseph Mackay, South Norwalk, Conn.; E. Kellman, New York, N. Y.; F. Rack, New York, N. Y.

DEMOCRATIC LEADERS—MANHATTAN.

Tammany—Headquarters, 100 E. 17th St. *Chairman General Committee*—David H. Knott. *Treasurer*—Philip F. Donohue. *Secretary*—William J. Duffy. *Chairman Executive Committee*—Peter J. Dooling 315 West 42d Street.

The officially recognized *Leader* of the Tammany organization is John F. Curry, Commissioner of Records, Surrogate's Court, N. Y. County, and leader of the 5th A. D. north, who, on March 15, 1929 succeeded former General Sessions Judge George W. Olvany, who succeeded, in 1924, Charles F. Murphy, deceased.

A. D.	Leaders (Men).	Address.	Leaders (Women).	Address.
1	Daniel E. Finn	15 Vandam Street	Mrs. Margaret Fay	19 Vandam Street.
	Peter J. Hamill	59 Madison Street	Mrs. Thomas J. Nolan	9 Madison Street.
2	Harry C. Perry	364 Bowery	Mrs. Elvira Caffre	35 Kenmare Street.
	Chris. D. Sullivan	263 Grand Street	Mrs. Barbara Porges	36 Rivington Street.
3	Charles W. Culkin	253 W. 14th Street	Mrs. Clara E. Keenan	277 W. 11th Street.
	Wm. L. Kavanagh	267 W. 25th Street	Mrs. Mary G. Murphy	360 W. 23d Street.
	Charles H. Hussey	310 W. 34th Street	Mrs. Margaret V. Connor	326 W. 34th Street.
4	Edward J. Ahearn	290 E. Broadway	Mrs. Mary Halpin	296 East Broadway.
5	Peter J. Dooling	315 W. 42d Street	Mrs. Mary E. Connelly	456 W. 44th Street
	Owen W. Bohan	728 Ninth Avenue	Mrs. B. McCarthy	439 W. 51st St.
	John F. Curry	413 W. 57th Street	Miss Martha Byrne	133 W. 61st Street.
6	David Lazarus	247 Seventh Street	Mrs. Benjamin Hoffman	271 Seventh Street.
7	Marshall Ingram	131 W. 64th Street	Mrs. N. Taylor Phillips	23 W. 73rd Street.
8	Solomon Goldenkranz	67 St. Marks Place	Mrs. Frances Bauman	170 2d Ave.
9	Terence F. McKeever	259 W. 97th Street	Mrs. Sadie E. Garland	122 W. 102d Street.
10	Charles L. Kohler	139 W. 14th Street	Mrs. Agnes P. Husch	67 W. 12th Street.
	W. T. Fitzsimmons	61 W. 49th Street	Miss Loretta Bonner	106 W. 52d Street.
11	James J. Hines	292 Manhattan Ave	Mrs. E. F. Stewart	16 Morningside Ave.
12	Wm. P. Kenneally	345 Second Avenue	Miss Elizabeth M. Barry	340 E. 18th Street.
	Michael J. Cruise	226 E. 32d Street	Miss Anna Montgomery	135 E. 30th Street.
	Martin G. McCue	208 E. 46th Street	Mrs. Mary A. Hagerty	683 Third Avenue.
13	Andrew B. Keating	525 W. 125th Street	Mrs. Abby Shay Hughes	502 W. 122d Street.
14	Thomas M. Farley	369 E. 62d Street	Mrs. Elizabeth McDonald	323 E. 69th Street.
15	Frank L. Briarly	1019 Madison Avenue	Mrs. Mary E. O'Connell	130 E. 93d Street.
16	Stephen Ruddy	334 E. 91st Street	Mrs. Mary F. Russell	446 E. 79th Street.
	Michael Cosgrove	326 E. 86th Street	Mrs. Anna Naughton	1329 Lexington Ave.
17	Nathan Burkan	74 W. 114th Street	Miss Rose Rothenberg	1871 Seventh Avenue.
	William Solomon	132 W. 118th Street	Mrs. Sara Paul	132 W. 118th Street.
18	John J. Dietz	1451 Lexington Ave	Miss Elizabeth Donohue	166 E. 102d Street.
	H. Warren Hubbard	208 E. 116th Street	Mrs. Mary A. Quigley	123 E. 116th Street.
19	Martin J. Healy	131 W. 122nd Street	Miss Annie Mathews	130 W. 123d Street.
20	Clarence H. Neal jr.	165 E. 125th Street	Mrs. Sadita E. Wilson	2053 Lexington Ave.
21	Edmund P. Holahan	728 St. Nicholas Ave	Mrs. Joyce Bushel	640 Riverside Drive.
22	Joseph J. McCormick	423 W. 156th Street	Miss Elizabeth V. McCrystal	605 W. 156th St.
23	John Mara	552 W. 181st Street	Mrs. Katherine D. Codding	200 Dyckman St.

TAMMANY HALL AND ITS SACHEMS.

The Society of St. Tammany, or Columbian Order, was founded at New York City, and was organized and functioning in 1783 or earlier. It was incorporated in 1789 as a benevolent, patriotic, and social body.

Grand Sachem—John R. Voorhis, who, in 1929, celebrated his one-hundredth birthday.

Sachems—Thomas C. T. Crain, John F. Curry, Thomas Darlington, Daniel E. Finn, James A. Foley, Francis D. Gallatin, Louis F. Haffen, Robert L. Luce, Thomas F. McAvoy, George W. Olvany, Daniel L. Ryan, Alfred E. Smith, Henry W. Unger.

Secretary, Willis Holly; *Treasurer*, Edwin Sohmer; *Sagamore*, George Kreykenbohm; *Wiskinkie*, Hubert Kelly.

REPUBLICAN LEADERS—MANHATTAN.

Republican County Committee (New York County)—Headquarters, 105 W. 40th St. *Chairman*—Samuel S. Koenig. *Treasurer*—Richard B. Scandrett, Jr. *Secretary*—Clarence Schmeizel. *Chairman of Women's Division*—Miss Helen Varick Boswell.

A. D.	Executive Members.	District Headquarters.	Associate Leaders.	Headquarters.
1	Joseph Levenson	236 East Broadway	Mrs. Anna M. Simon	236 East Broadway
	William G. Rose	32 Macdougal St	Miss Marla Sylvester	32 Macdougal St.
2	George M. Fanelli	32 Macdougal St	Miss Eleanor E. Rose	32 Macdougal St.
	Jacob Rosenberg	256 Grand St	Mrs. Rose Goldman	256 Grand St.
3	John Kane	318 W. 14th St	Mrs. Alma Markey	318 W. 14th St.
	Raymond J. Mulligan	269 Eighth Ave	Mrs. Agnes Scheiffele	265 W. 34th St.
	David Morton	211 W. 34th St	Mrs. Agnes M. Campbell	269 Eighth Ave.
4	Alexander Wolf	126 Clinton St	Mrs. Jessie Rosenberg	126 Clinton St.
5	William S. Reynolds	302 W. 46th St	Mrs. Nellie Wilson	763 Eighth Ave.
	Anthony F. Ludden	115 W. 63d St	Mrs. Mary O'Shea Grout	115 W. 63d St.
6	Samuel S. Koenig	44 Avenue C	Mrs. Sadie Koenig	44 Avenue C.
7	Victor R. Kaufmann	2228 Broadway	Mrs. Nan B. Becker	2228 Broadway
8	Geo. C. Nordinger	108 Second Ave	Mrs. Mildred Samuel	108 Second Ave.
9	Samuel McKee	157 W. 97th St	Mrs. Katherine T. Hammer	157 W. 97th St.
10	Clarence H. Fay	8 W. 28th St	Mrs. Charlotte Farrar	8 W. 28th St.
11	Robert P. Levis	550 W. 113th St	Mrs. Ida L. Slack	550 W. 113th St.
12	William Henkel	201 E. 22d St	Miss Marie Henle	201 E. 22d St.
	John S. Shea	230 E. 36th St	Mrs. Elizabeth Cudmore	230 E. 36th St.
	J. W. Eidt	250 E. 50th St	Miss C. Mat'lde Schaefer	250 E. 50th St.
13	Valentine J. Hahn	537 W. 125th St	Miss Sarah S. Butler	537 W. 125th St.
14	Thomas Mallee	324 E. 72d St	Mrs. Josephine Wanek	324 E. 72d St.
	Charles W. Ferry	173 E. 83d St	Miss Kathryn P. Kolb	173 E. 83d St.
15	Keyes Winter	1042 Madison Ave	Mrs. Mary G. Hoppin	1042 Madison Ave.
16	William C. Hecht jr	173 E. 83d St	Mrs. Helen F. Rothweller	173 E. 83d St.
	Albert E. Schwartz	243 E. 86th St	Mrs. Elizabeth Kogel	243 E. 86th St.
17	Jos. N. Schultz	69 W. 113th St	Miss Belle Spalding	69 W. 113th St.
18	Charles B. Largy	173 E. 116th St	Mrs. Bertha Kelsh	168 E. 105th St.
	Morris Levy	168 E. 105th St	Mrs. Elizabeth Pierce	173 E. 116th St.
19	Chas. W. Filmore	228 Lenox Ave	Mrs. Fanny Meirowitz	228 Lenox Ave.
20	William Duggan	107 E. 125th St	Mrs. Anna Louden	107 E. 125th St.
21	Robert S. Conklin	3410 Broadway	Mrs. Margaret A. Sealy	3410 Broadway
	C. W. B. Mitchell	315 W. 136th St	Mrs. Hester Greene	315 W. 36th St.
22	John A. Bolles	1723 Amsterdam Ave	Mrs. Grace D. Vanamee	1723 Amsterdam Ave.
23	Jacob W. Friedman	90 Bennett Ave	Mrs. Theresa G. Lindheim	90 Bennett Ave.

REPUBLICAN NATIONAL COMMITTEE.

(Headquarters, Barr Building, Washington, D. C.)

Chairman—Claudius H. Huston, Tenn.; *Vice Chairmen*—Ralph E. Williams, Ore.; Mrs. Alvin T. Hert, Ky.; Daniel E. Pomeroy, N. J.; *Secretary*—Franklin Fort, N. J. *Treasurer*—J. R. Nutt.

Executive Committee—Claudius H. Huston, Chairman (ex-officio), Colo.; Ralph E. Williams, Vice Chairman (ex officio), Ore.; Mrs. Alvin T. Hert, Vice Chairman (ex officio), Ky.; Daniel E. Pomeroy, Vice Chairman (ex officio), N. J.; Franklin Fort, Secretary (ex officio), N. J.; J. R. Nutt, Treasurer (ex officio), Ohio; Mrs. Grace Semple Burlingham, Mo.; Mrs. O. P. Clark, Cal.; Miss Dorothy Cunningham, Ind.; Mrs. Manley Fosseen, Minn.; Mrs. Guy P. Gannett, Maine; Clarence C. Hamlin, Colo.; Charles D. Hilles, N. Y.; Earle S. Kinsley, Vt.; Miss Martha McClure, Iowa; Maurice Maschke, Ohio; David W. Mulvane, Kan.; J. Henry Roraback, Conn.; Mrs Worthington Scranton, Penn.; W. G. Skelly, Okla.; Patrick Sullivan, Wyo.; Mrs. Nathaniel Thayer, Mass.; Mrs. Geo. W. Miller, Mich.; Mrs. Ellis A. Yost, W. Va.

MEMBERS OF THE REPUBLICAN NATIONAL COMMITTEE.

Alabama	Oliver D. Street, Birmingham	Mrs. Birdie Hooper Kennamer, Guntersville
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Florida	Glenn B. Skipper, Miami	Mrs. Clara C. Grace, St. Petersburg.
Georgia		Mrs. Geo. S. Williams, Savannah.
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Headquarters, 160 Montague St., Brooklyn. *Chairman*—Jacob A. Livingston; *Treasurer*—James A Stewart; *Secretary*—Frederick H. Stevenson.

A. D.	Leaders.	Residence.
1	D. H. Ralston	121 Henry St.
	Amy Wren	55 Hicks St.
2	Edwin L. Rowlands	13 Conklin Ave.
	Grace Lease	1466 E. 9th St.
3	Anthony DeMartini	73 First Place
	Lulu Simonson	223 45th St.
4	Alfred T. Hobley	75 Keap St.
	Elizabeth Conn	126 Clymer St.
5	Charles C. Lockwood	954 Greene Ave.
	Harriet B. Fisher	284 McDonough St.
6	John R. Crews	256 Hart St.
	Marguerite M. Bergen	523 Greene Ave.
7	John A. Thompson	4519 6th Ave.
	Catherine C. Cannon	558 54th St.
8	Harold L. Turk	281 Carroll St.
	Lorretta Danemeyer	178 11th St.
9	J. F. Fanning	272 83d St.
	Marietta G. Underwood	1024 82d St.
10	Charles F. Murphy	430 Clinton Ave.
	Jean. G. H. Murphy	430 Clinton Ave.
11	Eugene M. Travis	436 Grand Ave.
	May M. Gooderson	164 Putnam Ave.
12	John T. Rafferty	242 Garfield Place
	Emma Egolf	253 13th St.
13	Jesse D. Moore	155 Ainslie St.
	Mabel Applebee	240 Powers St.
14	Benj. Moskowitz	25 Stagg St.
	Florence Berger	287 So. 2d St.
15	Richard Wright	99 Newell St.
	Lucy Hayes	592 Leonard St.
16	Frederick Oppikofer	2751 W. 1st St.
	Isabella Schults	1026 Dahill Road
17	Walter E. Corwin	136 Herkimer St.
	Maude A. Neal	21 Herkimer St.
18	Warren G. Price	884 Lincoln Place
	Maude W. Cory	1117 E. 39th St.
19	Jacob Bartscherer	178 Evergreen Ave.
	Bertha Kreiner	905 Willoughby Ave.
20	Ernest C. Wagner	1041 Bushwick Ave.
	Faith Moore Andrews	285 Weirfield St.
21	F. J. H. Kracke	11 Kenmore Place
	Louise G. Zabriskie	505 Ocean Ave.
22	Jacob A Livingston	448 Ridgewood Ave.
	Dorothy A. McKnight	60 Hale Ave.
23	Walter D. Ludden	15 Russell Place
	Della F. Johnson	1107 Herkimer St.

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Georgia—John S. Cohen, Atlanta; Mrs. Edgar Alexander, Atlanta.
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Missouri—W. T. Kemper, Kansas City; Mrs. Charles B. Faris, St. Louis.
Montana—J. Bruce Kremer, Butte; Mrs. J. S. M. Neill, Helena.
Nebraska—Arthur F. Mullen, Omaha; Mrs. Charles A. Ryan, Grand Island.
Nevada—Samuel M. Pickett, Reno; Mrs. S. T. Spann, Reno.
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New Mexico—R. H. Hanna, Albuquerque; Mrs. A. A. Jones, E. Los Vegas.
New York—Norman E. Mack, Buffalo; Miss Elizabeth Marbury, N. Y. City.
North Carolina—Cameron Morrison, Raleigh; Mrs. Palmer Jerman, Raleigh.
North Dakota—J. Nelson Kelly, Grand Fork; Miss Nellie Doughtery, Minot.
Ohio—W. A. Julian, Cincinnati; Mrs. Bernice Pyke, Lakewood.
Oklahoma—Scott Ferris, Oklahoma City; Mrs. D. A. McDougall, Sapulpa.
Oregon—Oswald West, Portland; Miss C. L. Gavin, The Dalles.
Pennsylvania—Sedgwick Kistler, Lock Haven; Mrs. Anna O'Dea Murphy, Scranton.
Rhode Island—Patrick H. Quinn, Providence; Mrs. Jane A. Newton, Providence.
South Carolina—John G. Richards, Columbia; Mrs. L. H. Jennings, Columbia.
South Dakota—W. W. Howes, Huron; Mrs. Anna Struble, Centerville.
Tennessee—Benton McMillin, Nashville; Mrs. Lyon Childress, Nashville.
Texas—J. C. Adams, Dallas; Mrs. C. D. Sevier Austin.
Texas—J. Adams, Dallas; Mrs. C. D. Sevier, Austin.
Utah—James H. Moyle, Salt Lake City; Mrs. R. E. Allen, Provo.
Vermont—Frank H. Duffy, Rutland; Miss Mary P. Mahoney, Burlington.
Virginia—Harry F. Byrd, Richmond; Mrs. R. C Watts, Lynchburg.
Washington—Scott Bullitt, Seattle; Mrs. E. D. Christian, Hunters.
West Virginia—Herbert Fitzpatrick, Huntington; Mrs. J. C. Burchinal, Fairmont.
Wisconsin—John M. Callanan, Milwaukee; Mrs. James Carrigan, Milwaukee.
Wyoming—Patrick J. Quealy, Kemmerer; Mrs. Nellie T. Ross, Cheyenne.
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California—H. H. McPike, San Francisco; Mrs. Henry F. Grady 3rd. Berkeley.
Colorado—Thomas Annear, Denver; Mrs. Mary H. Isham, Brighton.
Connecticut—James J. Walsh, 24 Lincoln St., Meriden; Mrs. Alice Mooney, Waterbury.
Delaware—James M. Tunnell, Georgetown; Mrs. Marshall C. Derby, Woodside.
Florida—H. H. Wells, Chipley; Geo. Whitfield McRory, Sanford.
Georgia—G. E. Maddox, Rome; Mrs. Bessie Anderson, Atlanta.
Idaho—E. M. Holden. Idaho Falls.
Illinois—Thomas F. Donovan, Joliet; Julia Voorhees Johnson, Chicago.
Indiana—R. Earl Peters, Ft. Wayne; Mrs. A. P. Flynn, Logansport.
Iowa—R. F. Mitchell, Ft. Dodge; Mrs. C. J. Cash, Anamosa.
Kansas—John W. Wells, Olathe; Mrs. Carl V. Rice, Parsons.
Kentucky—Judge Chas. A. Hardin, Harrodsburg
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Maine—Edw. C. Moran, Rockland.
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Michigan—Henry H. Heimann, Niles; Evelyn Mershon, Saginaw.
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Mississippi—Capt. Noel White, Lexington.
Missouri—Chas. M. Howell, Kansas City; Mrs. Ida M. Lewis, Mountain Grove.
Montana—Chas. P. Nevin, Butte.
Nebraska—Thos. S. Allen, Lincoln; Mrs. Chas. G. Ryan, Grand Island.
Nevada—Col. J. G. Scrugham, Reno.
New Hampshire—Geo. E. Farrand, Concord; Mrs. Agnes C. Dunn, Concord.
New Jersey—Harry Heher, Trenton; Mrs. Mary T. Norton, Jersey City.
New Mexico—Clinton P. Anderson, Albuquerque; Mrs. W. F. Kirby, Magdalena.
New York—M. William Bray, Utica; Mrs. Caroline O'Day, N. Y. City.
North Carolina—O. M. Mull, Shelby; Mary Henderson, Salisbury.
North Dakota—E. J. Hughes, Fargo.
Ohio—Henry G. Brunner, Mansfield.
Oklahoma—Geo. D. Key, Oklahoma City; Mrs. G. A. Waters, Granite.
Oregon—Mark Weatherford, Albany; Celia Gavin, The Dalles.
Pennsylvania—John R. Collins, Coudersport; Mrs. Kathryn Flohr, Allentown.
Rhode Island—Theodore F. Green, Providence.
South Carolina—R. S. Stewart, Lancaster.
South Dakota—Dr. F. W. Bilger, Hot Springs; Mary E. Kotrba, Pierre.
Tennessee—Tom Henderson, Franklin; Mrs. Flora N. Gillentine, Murfreesboro.
Texas—D. W. Wilcox, Georgetown.
Utah—Delbert M. Draper, Salt Lake; Mrs. Burton W. Musser, Salt Lake.
Vermont—Park H. Pollard, Proctorsville.
Virginia—J. M. Hooker, Stuart.
Washington—Geo. E. Starr, Seattle; Mrs. Mary Rathfon, Tacoma.
West Virginia—Andrew Edmiston, Jr., Weston; Mrs. Nelson M. Hooker, Buckhannon.
Wisconsin—J. A. LaBudde, Milwaukee; Catharine Corscot, Madison.
Wyoming—H. H. Schwartz, Casper; Mrs. T. S. Taliaferro, Jr., Rock Springs.

Election Returns by States.

ALABAMA.

(Presidential vote, 1928, 1924.)

COUNTIES.	1928.		1924.			COUNTIES.	1928.		1924.		
	Smith, Dem.	Hoover, Rep.	Davis, Dem.	Coolidge, Rep.	La Fol'te, Prog.		Smith, Dem.	Hoover, Rep.	Davis, Dem.	Coolidge, Rep.	La Fol'te, Prog.
Autauga	892	691	781	146	22	Jackson	2,197	2,988	1,923	885	86
Baldwin	1,337	1,417	1,021	547	392	Jefferson	17,606	19,174	15,008	5,678	2,803
Barbour	1,447	841	1,339	78	40	Lamar	1,397	773	1,087	262	18
Bibb	1,189	1,003	875	251	240	Lauderdale	2,755	1,424	2,266	823	80
Blount	1,621	1,698	2,081	1,517	103	Lawrence	1,005	1,021	990	467	12
Bullock	751	258	763	8	1	Lee	1,315	907	1,290	98	111
Butler	1,274	745	1,050	95	115	Limestone	1,892	414	1,415	136	50
Calhoun	2,203	2,622	1,907	766	125	Lowndes	690	156	602	5	20
Chambers	997	1,719	1,922	146	43	Macon	526	352	538	48	2
Cherokee	890	1,475	1,345	842	45	Madison	2,691	2,697	2,166	366	49
Chilton	1,543	3,261	848	1,595	75	Marengo	1,823	618	1,243	17	2
Choctaw	1,207	356	1,021	19	2	Marion	1,713	1,502	1,355		12
Clarke	1,431	844	1,042	78	12	Marshall	2,403	2,481	2,629	1,718	81
Clay	463	896	1,595	1,017	49	Mobile	5,796	4,662	4,124	1,800	380
Cleburne	1,248	1,526	621	696	38	Monroe	1,362	1,094	1,155	22	22
Coffee	1,527	1,010	1,597	323	20	M'tgomery	6,350	3,159	4,422	233	375
Colbert	2,087	1,033	1,503	576	189	Morgan	3,474	4,198	2,247	519	352
Conecuh	881	1,160	955	92	31	Perry	1,200	228	928	25	12
Coosa	724	1,046	789	508	15	Pickens	1,000	581	1,044	131	14
Covington	2,088	1,581	1,776	156	132	Pike	1,778	562	1,830	29	15
Crenshaw	1,399	996	1,107	117	8	Randolph	1,391	1,821	1,307	669	18
Cullman	1,421	1,974	1,807	1,639	180	Russell	645	134	474	14	31
Dale	1,223	981	1,117	297	21	Shelby	1,033	1,271	1,882	1,753	186
Dallas	1,889	707	1,945	50	121	St. Clair	1,223	1,936	1,279	1,431	109
DeKalb	4,203	5,162	3,003	3,434		Sumter	1,011	188	837	28	19
Elmore	1,355	1,980	1,088	219	15	Talladega	1,788	1,680	1,730	628	48
Escambia	1,080	1,763	1,217	152	46	Tallapoosa	1,831	1,268	1,713	1	3
Etowah	2,753	2,387	3,079	1,664	243	Tuscaloosa	2,835	1,214	2,363	247	128
Fayette	1,298	1,746	1,358	977	30	Walker	4,378	3,710	3,351	2,446	332
Franklin	998	1,109	1,985	22	65	Wash'gton	764	511	610	55	12
Geneva	1,523	1,564	1,190	477	39	Wilcox	975	257	938	6	15
Greene	595	40	408	5	1	Winston	1,130	1,880	650	1,096	45
Hale	1,048	404	856	23	4						
Henry	780	730	816	179	37	Total	127,797	120,725	112,966	45,005	8,084
Houston	2,290	1,956	1,730	242	83						

President (1928)—Thomas, Soc., 460.
Governor (1926)—Graves, Dem., 94,331; Bingham, Rep., 21,606.
U. S. Senator (1926)—Black, Dem., 91,801; Dryer, Rep., 21,712.
U. S. Senator (1924)—Heflin, Dem., 154,560; Lathrop, Rep., 39,818.
Governor (1922)—Brandon, Dem., 114,798; Street, Rep., 31,561; Barber, Soc., 14,274.

PAST VOTE OF ALABAMA.

1880 (Pres.), Hancock, Dem., 91,185; Garfield, Rep., 56,221; Weaver, Greenback, 4,642.
1884 (Pres.), Cleveland, Dem., 93,951; Blaine, Rep., 59,591; St. John, Proh., 612; Butler, Greenback, 873.
1888 (Pres.), Cleveland, Dem., 117,320; Harrison, Rep., 56,197; Fisk, Proh., 583.
1892 (Pres.), Cleveland, Dem., 138,138; Harrison, Rep., 9,197; Weaver, People's 85,181.
1896 (Pres.), Bryan, Dem. and People's (Populist), 131,226; Palmer, Nat'l (Gold) Dem., 6,464; McKinley, Rep., 54,737; Levering, Proh., 2,147.
1900 (Pres.), Bryan, Dem., 96,368; McKinley, Rep., 55,634; Woolley, Proh., 2,762.
1904 (Pres.), Parker, Dem., 79,857; Roosevelt, Rep., 22,472; Swallow, Proh., 612; Debs, Soc., 553.
1908 (Pres.), Bryan, Dem., 74,374; Taft, Rep., 25,308; Chaffin, Proh., 665; Debs, Soc., 1,399.
1912 (Pres.), Wilson, Dem., 82,438; Taft, Rep., 9,732; Roosevelt, Prog., 22,680; Debs, Soc., 3,029
1914 (U. S. Sen.), Dem., 63,389; Rep., 12,320, Prog., 4,263; Soc., 1,159.
1916 (Pres.), Wilson, Dem., 99,409; Hughes, Rep., 22,809; Hanly, Proh., 1,034; Benson, Soc., 1,925.
1918 (U. S. Sen.), Dem., 54,880 (unopposed).
1920 (Pres.), Cox, Dem., 163,254; Harding, Rep., 74,690; Watkins, Proh., 757; Debs, Soc., 2,369.
1920 (U. S. Sen), Dem., 154,664; Rep., 77,337; Soc., 1,984.

ARIZONA.

(Presidential vote, 1928, 1924.)

COUNTIES.	1928.		1924.			COUNTIES.	1928.		1924.		
	Smith, Dem.	Hoover, Rep.	Davis, Dem.	Coolidge, Rep.	La Fol'te, Prog.		Smith, Dem.	Hoover, Rep.	Davis, Dem.	Coolidge, Rep.	La Fol'te, Prog.
Apache	791	837	548	620	110	Navajo	1,316	1,608	684	1,060	727
Cochise	4,262	5,776	3,496	3,712	2,491	Pima	4,876	6,635	2,594	3,559	2,286
Coconino	1,172	1,717	711	1,045	561	Pinal	1,419	1,631	988	1,025	568
Gila	3,341	3,436	2,218	2,193	1,937	Santa Cruz	962	919	673	579	198
Graham	1,615	1,238	1,252	813	386	Yavapai	3,285	4,507	1,800	2,827	2,136
Greenlee	933	685	768	404	176	Yuma	1,589	2,328	851	1,280	935
Maricopa	12,146	20,089	9,177	10,611	3,970						
Mohave	728	1,127	475	738	729	Total	38,537	52,533	26,235	30,516	17,210

President (1928)—Foster, Worker-Communist received 184 votes.
U. S. Senator (1928)—Ashurst, Dem., 47,013; Cameron, Rep., 39,651.
Governor (1928)—Hunt, Dem., 44,553; Phillips, Rep., 47,829.
Governor (1926)—Hunt, Dem., 39,979; Clark, Rep., 39,580.
U. S. Senator (1926)—Hayden, Dem., 44,591; Cameron, Rep., 31,845.

PAST VOTE OF ARIZONA.

1912 (Pres.), Wilson, Dem., 10,324; Taft, Rep., 3,021; Roosevelt, Prog., 6,949; Debs, Soc., 3,163.
1914 (Gov.), Dem., 25,226; Rep., 17,602; Prog., 5,206; Soc., 2,973.
1916 (Pres.), Wilson, Dem., 33,170; Hughes, Rep., 20,524; Hanly, Proh., 1,153; Benson, Soc., 3,174.
1916 (Gov.), Dem., 27,946; Rep., 27,976.
1918 (Gov.), Dem., 25,588; Rep., 25,927; Soc., 444.
1920 (Pres.), Cox, Dem., 29,546; Harding, Rep., 37,016; Watkins, Proh., 4; Debs, Soc., 222; Christensen, Farm-Lab., 15.
1920 (U. S. Sen.), Dem., 29,169; Rep., 35,893.
1920 (Gov.), Dem., 31,682; Rep., 37,249.

ARKANSAS.

(Presidential vote, 1928, 1924.)

Counties.	1928.		1924.		
	Smith, Dem.	Hoover, Rep.	Davis, Dem.	Coolidge, Rep.	La Fol'te, Prog.
Arkansas	1,491	1,046	772	488	90
Ashley	1,393	786	1,048	506	95
Baxter	665	504	640	301	162
Benton	2,348	3,248	2,313	1,694	566
Boone	1,708	1,543	1,350	937	212
Bradley	1,487	447	1,002	453	100
Calhoun	765	262	553	150	42
Carroll	1,540	1,757	1,421	969	134
Chicot	1,021	445	708	325	17
Clark	1,817	913	1,223	483	204
Clay	1,435	1,254	1,429	1,084	207
Cleburne	856	574	569	238	93
Cleveland	690	476	613	174	31
Columbia	1,752	617	1,382	350	63
Conway	1,514	665	909	526	125
Craighead	2,132	1,958	1,711	812	271
Crawford	1,743	1,559	1,445	996	470
Crittenden	1,635	304	777	77	20
Cross	1,232	324	625	192	94
Dallas	1,030	503	1,068	400	34
Desha	1,082	331	540	209	221
Drew	1,452	500	1,018	553	22
Faulkner	2,659	992	1,436	526	160
Franklin	1,329	774	1,188	422	221
Fulton	934	686	678	292	37
Garland	2,833	2,720	1,501	1,064	274
Grant	1,045	439	628	133	96
Greene	1,426	1,011	1,148	456	331
Hempst'd	2,038	886	1,458	715	180
Hot Spring	999	1,126	793	392	155
Howard	1,055	763	954	338	170
Indep'nce	1,511	1,150	1,311	534	195
Izard	902	696	728	241	31
Jackson	1,527	698	1,069	392	80
Jefferson	2,611	1,830	1,950	707	515
Johnson	1,292	766	1,028	311	232
Lafayette	991	435	788	298	129
Lawrence	1,204	774	689	261	176
Lee	1,046	149	1,103	596	4
Lincoln	869	151	563	170	5
Little River	916	457	546	276	46
Logan	1,967	1,455	1,457	937	529
Lonoke	1,857	676	962	321	62
Madison	1,717	2,760	1,315	1,263	98
Marion	731	436	825	282	201
Miller	1,752	1,150	1,460	397	440
Mississippi	4,451	1,324	2,039	703	86
Monroe	851	411	838	330	101
Montgom'y	726	976	431	260	91
Nevada	1,242	946	719	386	186
Newton	533	1,316	298	578	68
Ouachita	1,582	1,051	1,318	952	42
Perry	636	470	386	260	144
Phillips	2,061	487	1,785	454	70
Pike	779	697	731	378	72
Poinsett	2,324	1,182	1,182	393	148
Polk	870	1,022	861	501	229
Pope	2,735	1,559	1,581	479	196
Prairie	1,000	613	730	386	65
Pulaski	9,215	4,881	5,744	2,729	1,187
Randolph	1,527	776	772	389	47
Saline	1,261	520	770	144	141
Scott	891	573	607	373	146
Searcy	606	1,425	415	797	109
Sebastian	3,186	3,462	3,148	1,985	859
Sevier	1,259	524	933	270	276
Sharp	808	501	729	210	56
St. Francis	1,376	617	972	433	62
Stone	628	499	386	210	56
Union	3,128	1,612	1,967	452	256
Van Buren	1,539	994	922	435	87
Washingt'n	2,395	3,132	2,271	1,464	330
White	2,299	1,957	1,488	682	282
Woodruff	1,163	452	762	254	31
Yell	2,086	802	1,314	334	96
Totals	119,196	77,751	84,795	40,564	13,173

President (1928)—Thomas, Socialist, 429: Foster, Workers, 317.
Governor (1928)—Parnell, Dem., 152,771; Bowers, Rep., 44,525.
Governor (1926)—Martineau, Dem., 116,735; Bowers, Rep., 35,879.
U. S. Senator (1926)—Caraway, Dem., 28,166; Jones, Rep., 5,048.
U. S. Senator (1924)—Robinson, Dem., 100,408; Cole, Rep., 36,163.

PAST VOTE OF ARKANSAS.

1880 (Pres.), Hancock, Dem., 66,775; Garfield, Rep., 42,436; Weaver, Greenback, 4,079.

1884 (Pres.), Cleveland, Dem., 72,927; Blaine, Rep., 50,895; Butler, Greenback, 1,847.

1888 (Pres.), Cleveland, Dem., 86,717; Harrison, Rep., 60,245; Fisk, Proh., 615; Streeter, United Labor, 10,761.

1892 (Pres.), Cleveland, Dem., 87,834; Harrison, Rep., 46,974; Weaver, People's, 11,831; Bidwell, Proh., 120.

1896 (Pres.), Bryan, Dem. and People's (Populist), 110,103; McKinley, Rep., 37,512; Proh., 893.

1900 (Pres.), Bryan, Dem., 81,091; McKinley, Rep., 44,770; Woolley, Proh., 584; Debs, Soc., 27.

1904 (Pres.), Parker, Dem., 64,434; Roosevelt, Rep., 46,860; Swallow, Proh., 993; Debs, Soc., 1,816.

1908 (Pres.), Bryan, Dem., 87,015; Taft, Rep., 56,760; Chafin, Proh., 1,194; Debs, Soc., 5,842.

1912 (Pres.), Wilson, Dem., 68,838; Taft, Rep., 24,467; Roosevelt, Prog., 21,673; Debs, Soc., 8,153.

1916 (Pres.), Wilson, Dem., 112,148; Hughes, Rep., 47,148; Hanly, Proh., 2,015; Benson, Soc., 6,999.

1920 (Pres.), Cox, Dem., 107,408; Harding, Rep., 71,117; Debs, Soc., 5,111.

ARKANSAS OR ARKANSAW?

(From the Official Manual of that State)

From 1844 to 1848 the State was represented in the United States Senate by Chester Ashley and Ambrose H. Sevier.

Ashley, a New Englander by birth, always pronounced the name of the State phonetically as it is spelled, "Ar-kan-sas."

Sevier, a Tennesseean, the grandnephew of Col. John Sevier, the hero of King's Mountain and the Governor of the "State of Franklin," as Tennessee was then called, always gave to the last syllable of the name of his adopted State the pronunciation of the broad "a," as if it were spelled "Ar-kan-saw."

At that time Mr. Dallas was Vice-President, and in addressing Mr. Ashley, always said, "the Senator from Arkansas," while Mr. Sevier was always "the Senator from Ar-kan-saw."

The opinion of the people differed on this subject, as did the opinions of the Senators. Finally, to settle the disputation, the General Assembly of 1881 appointed a learned and able committee to investigate the whole subject.

This committee made a critical and exhaustive examination, and, based upon the report of this committee, the General Assembly unanimously adopted the following concurrent resolution, in March that year—

"Whereas, Confusion of practice has arisen in the pronunciation of the name of our State, and it is deemed important that the true pronunciation should be determined for use in oral official proceedings; and,

"Whereas, The matter has been thoroughly investigated by the State Historical Society of Little Rock, which have agreed upon the correct pronunciation, as derived from history and the early use of the American immigrants; be it, therefore,

"Resolved, by both houses of the General Assembly, That the only true pronunciation of the name of the State, in the opinion of this body, is that received by the French from the native Indians, and committed to writings in the French word representing the sound, and that it should be pronounced in three syllables, with the final 's' silent, the 'a' in each syllable with the Italian sound, and the accent on the first and last syllables, being the pronunciation formerly universally and now still most commonly used, and that the pronunciation with the accent on the second syllable with the sound of 'a' as in 'man' and the sounding of the terminal 's' is an innovation to be discouraged."

CALIFORNIA.

(Presidential vote, 1928, 1924.)

Counties.	1928.		1924.			Counties.	1928.		1924.		
	Hoover Rep.-Proh.	Smith Dem.	Coolidge, Rep.	La Fol'te, Soc.	Davis, Dem.		Hoover Rep.-Proh.	Smith Dem.	Coolidge, Rep.	La Fol'te, Soc.	Davis, Dem.
Almeda	118,539	60,375	81,454	41,434	8,020	Placer	3,669	3,685	2,192	3,290	390
Alpine	49	3	52	1	5	Plumas	947	1,079	564	956	182
Amador	990	1,246	719	787	316	Riverside	17,600	4,769	9,619	4,204	1,318
Butte	6,306	3,946	4,382	4,582	1,299	Sacramento	20,762	19,684	13,400	16,570	2,285
Calaveras	1,262	1,066	872	975	333	San Benito	1,971	1,366	1,443	857	361
Colusa	1,752	1,338	1,127	889	495	S. Bern'dino	29,229	9,436	15,974	8,720	2,634
Con. Costa	13,495	8,573	9,061	6,231	1,114	San Diego	47,769	22,749	22,726	20,200	2,944
Del Norte	771	599	530	322	122	S. Francisco	95,987	96,632	73,494	68,864	9,811
El Dorado	1,228	1,516	852	1,749	361	San Joaquin	16,695	10,343	11,056	8,885	2,397
Fresno	20,687	16,884	15,635	14,836	4,610	S. L. Obispo	5,425	3,336	3,804	3,061	731
Glenn	2,466	1,297	1,444	1,330	367	San Mateo	14,360	9,755	8,126	5,694	771
Humboldt	9,162	3,726	6,767	4,148	845	S. Barbara	11,666	4,954	8,615	3,292	1,242
Imperial	5,417	2,486	3,455	2,549	759	Santa Clara	31,710	17,589	20,058	11,474	2,560
Inyo	1,206	861	950	779	256	Santa Cruz	8,275	3,688	5,402	2,557	801
Kern	14,692	8,541	8,646	6,754	3,159	Shasta	2,301	2,025	1,951	2,049	598
Kings	2,947	2,701	2,812	1,611	1,109	Sierra	457	420	276	350	73
Lake	1,820	926	795	658	261	Siskiyou	3,758	2,916	2,437	2,844	584
Lassen	2,111	1,597	1,072	1,164	356	Solano	7,061	6,278	4,782	4,123	957
Los Angeles	513,526	209,945	299,675	117,249	23,554	Sonoma	12,891	8,506	9,535	5,469	1,767
Madera	2,354	1,896	1,518	1,514	450	Stanislaus	10,753	5,063	7,569	4,125	1,274
Marin	7,862	5,686	5,780	4,230	656	Sutter	2,239	1,875	1,617	1,219	367
Mariposa	656	517	344	332	168	Tehama	3,393	1,650	1,943	1,667	486
Mendocino	4,810	2,628	3,465	1,850	739	Trinity	447	433	336	414	154
Merced	4,644	2,970	3,573	2,301	710	Tulare	12,057	6,635	9,484	5,504	3,425
Modoc	942	711	731	547	374	Tuolumne	1,731	1,360	1,287	1,327	357
Mono	220	127	166	98	45	Ventura	9,017	3,717	5,705	2,029	911
Monterey	7,228	4,138	4,744	2,035	886	Yolo	3,545	2,641	2,470	2,097	797
Napa	4,699	3,422	3,605	2,237	670	Yuba	2,022	1,990	1,735	1,454	426
Nevada	2,173	1,959	1,513	1,682	307						
Orange	30,572	7,611	19,913	6,480	2,565	Total	1162323	614,365	733,250	424,649	105,514

President (1928)—Thomas, Soc., 19,595; Varney, Proh., 14,394 (included in Rep.-Proh. table) Foster, Workers. 216 (incl. 104 for Gitlow).

U. S. Senator (1928)—Johnson, Rep., 1,148,397; Moore, Dem., 282,411; Randall, Proh., 92,106; Lewis, Soc., 26,624.

President (1924)—Faris, Proh., 18,365.

Governor (1926)—Wardell, Dem., 282,451; Young, Rep., 814,815; Sinclair, Soc., 45,972.

U. S. Senator (1926)—Elliott, Dem., 391,599; Shortridge, Rep., 670,128.

U. S. Senator (1922)—Pearson, Dem., 215,748; Johnson, Rep., 564,422; Needham, Proh., 70,748; Sinclair, Soc., 56,982.

California in 1922 voted to enforce the Prohibition Amendment and the Volstead act; a proposal to repeal the State Prohibition Law was voted down by the people in November, 1926.

PAST VOTE OF CALIFORNIA.

1872 (Pres.), Greeley, Dem. and Lib., 40,718, Grant, Rep., 54,020; O'Conor, Lab.-Ref., 1,050.

1876 (Pres.), Tilden, Dem., 75,845; Hayes, Rep., 78,614; Cooper, Greenback, 44.

1880 (Pres.), Hancock, Dem., 80,426; Garfield, Rep., 80,348; Weaver, Greenback, 3,392.

1884 (Pres.), Cleveland, Dem., 89,288; Blaine, Rep., 102,416; St. John, Proh., 2,920; Butler, Greenback, 2,017.

1888 (Pres.), Cleveland, Dem., 117,729; Harrison, Rep., 124,816; Fisk, Proh., 5,761; Curtis, Amer., 1,591.

1892 (Pres.), Cleveland, Dem., 118,174; Harrison, Rep., 117,962; Weaver, People's, 25,311; Bidwell, Proh., 8,096.

1894 (Gov.), Dem., 111,942; Rep., 110,738; Pop., 51,304; Proh., 10,561.

1896 (Pres.), Bryan, Dem. and People's (Populist); 144,618; Palmer, Nat'l (Gold) Dem., 2,006, McKinley, Rep., 146,688; Levering, Proh., 2,573.

1900 (Pres.), Bryan, Dem., 124,985; McKinley, Rep., 164,755; Woolley, Proh., 5,087; Debs., Soc. 7,572.

1904 (Pres.), Parker, Dem., 89,404; Roosevelt, Rep., 205,226; Swallow, Proh., 7,380; Debs, Soc., 29,535.

1908 (Pres.), Bryan, Dem., 127,492; Taft, Rep., 214,398; Chafin, Proh., 11,770; Debs, Soc., 28,659.

1912 (Pres.), Wilson, Dem., 283,436; Taft, Rep., 3,914; Roosevelt, Prog., 283,610; Debs, Soc., 79,201.

1916 (Pres.), Wilson, Dem., 466,200; Hughes, Rep., 462,394; Hanly, Proh., 27,698; Benson, Soc., 43,250.

1916 (U. S. Sen.), Dem., 277,852; Rep. and Prog., 574,667; Soc., 49,341; Proh., 38,797.

1918 (Gov.), Rep., Prog. and Proh., 387,647; Ind., 251,189; Soc., 29,003.

1920 (Pres.), Cox, Dem., 229,191; Harding, Rep., 624,992; Watkins, Proh., 25,204; Debs, Soc., 64,076.

1920 (U. S. Sen.), Dem., 371,580; Rep., 447,835; Proh., 57,768; Soc., 36,545.

ADAM AND EVE.

To the Scriptural account of the creation and fall of Adam and Eve, the later Jewish writers in the Talmud have made many additions

According to them, the stature of Adam, when first created, reached to the heavens, while the splendor of his countenance surpassed that of the sun. The very angels stood in awe of him, and all creatures hastened to worship him.

Then the Lord, in order to show the angels his power, caused a sleep to fall upon Adam, and removed a portion of every limb. He thus lost his vast stature, but remained perfect and complete.

His first wife was Lilith, the mother of demons, but she fled from him, and afterwards Eve was created for him.

At the marriage of Adam and Eve angels were present, some playing on musical instruments, others serving up delicious viands, while the sun, moon, and stars danced together.

The happiness of the human pair excited envy among the angels, and the seraph Sammael tempted them, and succeeded in leading them to their fall from innocence.

According to the Koran, all the angels paid homage to Adam excepting Eblis, who, on account of his refusal, was expelled from Paradise. To gratify his revenge, Eblis seduced Adam and Eve, and they were separated.

Adam was penitent, and lived in a tent on the site of the Temple of Mecca, where he was instructed in the divine commandments by the Archangel Gabriel.

After two hundred years of separation, he again found Eve on Mount Ararat.

COLORADO.

(Presidential vote, 1928, 1924.)

COUNTIES.	1928.		1924.			COUNTIES.	1928.		1924.		
	Hoover Rep.	Smith Dem.	Coolidge, Rep.	La Fol'te, Ind.	Davis, Dem.		Hoover Rep.	Smith Dem.	Coolidge, Rep.	La Fol'te, Ind.	Davis, Dem.
Adams	4,031	2,265	2,931	893	1,209	La Plata	2,837	1,872	1,469	930	1,516
Alamosa	1,759	1,239	1,009	812	625	Larimer	8,213	3,203	6,538	533	1,970
Arapahoe	6,086	2,463	4,267	997	1,209	Los Animas	5,367	6,459	5,698	2,936	2,758
Archuleta	610	447	451	291	269	Lincoln	2,110	888	1,642	384	634
Baca	2,108	524	1,174	559	653	Logan	4,377	1,620	3,103	1,315	946
Bent	1,957	741	1,511	417	804	Mesa	6,446	3,223	4,053	2,291	2,388
Boulder	9,457	4,363	7,595	1,839	3,273	Mineral	144	187	150	70	101
Chaffee	1,880	1,230	1,336	1,017	612	Moffat	1,346	710	1,009	151	647
Cheyenne	945	500	875	399	236	Montezuma	1,341	772	703	557	721
Clear Creek	790	481	722	80	284	Montrose	2,873	1,297	2,077	1,106	1,239
Conejos	1,463	1,692	1,475	137	995	Morgan	4,197	1,242	3,321	370	757
Costilla	657	1,070	755	92	665	Otero	5,788	1,876	4,694	1,106	1,938
Crowley	1,243	635	1,087	324	667	Ouray	535	479	484	307	256
Custer	600	389	429	221	281	Park	740	419	660	158	316
Delta	3,731	1,672	2,752	781	1,345	Phillips	1,440	705	1,076	635	397
Denver	73,543	41,328	59,077	13,054	15,764	Pitkin	485	454	442	121	204
Dolores	387	278	95	169	157	Prowers	3,228	1,216	2,564	505	1,042
Douglas	1,107	603	870	248	383	Pueblo	15,541	7,881	10,577	3,460	4,917
Eagle	1,014	580	722	414	431	Rio Blanco	860	429	766	64	407
Elbert	1,933	738	1,428	539	506	Rio Grande	2,254	1,226	1,572	391	922
El Paso	16,243	5,069	10,215	3,636	4,140	Routt	2,304	1,645	1,822	229	1,116
Fremont	5,365	2,352	4,433	1,135	1,550	Saguache	1,491	854	1,205	234	591
Garfield	2,435	1,562	1,934	808	917	San Juan	277	436	218	55	206
Gilpin	299	236	361	124	161	San Miguel	721	554	677	251	567
Grand	770	451	681	239	308	Sedgwick	1,247	580	779	297	372
Gunnison	1,456	1,135	1,122	744	598	Summit	362	306	354	124	241
Hinsdale	128	106	138	53	79	Teller	1,184	1,037	1,283	616	592
Huerfano	3,260	3,343	2,784	1,570	1,219	Washington	2,132	851	1,851	681	720
Jackson	401	249	394	72	111	Weld	13,719	5,762	10,185	2,169	3,406
Jefferson	6,754	2,880	4,869	1,312	1,271	Yuma	3,401	1,383	2,789	832	865
Kiowa	1,024	458	805	430	431						
Kit Carson	2,486	1,137	2,108	574	720	Total	253,872	133,131	195,171	57,368	75,238
Lake	990	1,149	1,005	510	613						

President (1928)—Thomas, Soc., 3,472; Foster, Communist, 675; Farm Lab., 1,092.
President (1924)—La Follette, F.-L., 12,577; Faris, Proh., 966; Foster, Workers', 562; Soc.-Lab., 378.
Governor (1926)—Adams, Dem., 183,342, Shoup, Rep., 116,756; Coss, F.-Lab., 3,919; Wright, Soc., 1,508.
U. S. Senator (1926)—Sweet, Dem., 138,113; Waterman, Rep., 149,585; Alexander, Farm Lab., 5,829.
Colorado voters in 1926 defeated a proposal to permit sale and manufacture of liquors.
Governor (1924)—Morley, Rep., 178,078; Sweet, Dem., 151,041.
U. S. Senator (1924)—Rep., 159,698; Dem., 139,660; F.-Lab., 16,039; Soc., 1,575; Workers', 1,197.

PAST VOTE OF COLORADO.

1888 (Pres.), Cleveland, Dem., 37,567; Harrison, Rep., 50,774; Fisk, Proh., 2,192; Streeter, United Labor, 1,266.
1892 (Pres.), Harrison, Rep., 38,620; Weaver, People's, 53,584; Bidwell, Proh., 1,687. The Democrats fused with the People's Party.
1896 (Pres.), Bryan, Dem., and People's (Populist), 161,269; Palmer, Nat'l (Gold) Dem., 1; McKinley, Rep., 26,279; Levering, Proh., 2,110.
1900 (Pres.), Bryan, Dem., 122,733; McKinley, Rep., 93,039; Woolley, Proh., 3,790; Debs, Soc., 714.
1904 (Pres.), Parker, Dem., 100,105; Roosevelt, Rep., 134,687; Swallow, Proh., 3,432; Debs, Soc., 4,304.
1908 (Pres.), Bryan, Dem., 126,644; Taft, Rep., 123,700; Chafin, Proh., 5,559; Debs, Soc., 7,974.
1912 (Pres.), Wilson, Dem., 114,232; Taft, Rep., 58,386; Roosevelt, Prog., 72,306; Debs, Soc., 16,418.
1916 (Pres.), Wilson, Dem., 178,816; Hughes, Rep., 102,308; Hanly, Proh., 2,793; Benson, Soc., 10,049.
1918 (Gov.) Dem., 102,397; Rep., 112,693; Soc., 5,249.
1920 (Pres.), Cox, Dem., 104,936; Harding, Rep., 173,248; Watkins, Proh., 2,807; Debs, Soc., 8,046; Christensen, F.-Lab., 3,016.
1920 (U. S. Sen.), Dem., 112,890; Rep.,156,577; F.-Lab., 9,041; Ind., 8,665.

CONNECTICUT.

(Presidential vote, 1928, 1924.)

COUNTIES.	1928.		1924.			COUNTIES.	1928.		1924.		
	Hoover Rep.	Smith Dem.	Coolidge, Rep.	Davis, Dem.	La Fol'te, Prog.		Hoover Rep.	Smith Dem.	Coolidge, Rep.	Davis, Dem.	La Fol'te, Prog.
Hartford	75,997	65,789	61,381	28,139	9,199	Litchfield	19,154	10,761	15,499	6,645	3,095
New Haven	80,952	82,623	69,164	36,247	14,591	Middlesex	11,204	7,380	9,383	4,009	973
New Lond'n	21,378	16,297	18,205	8,615	2,331	Tolland	6,502	4,255	5,161	2,239	854
Fairfield	71,388	55,488	58,041	18,815	10,440						
Windham	10,039	9,447	9,488	5,475	933	Total	296,614	252,040	246,322	110,184	42,416

President (1928)—Thomas, Soc., 3,019; Foster, Workers, 730; Reynolds, Soc. Lab., 622.
President (1924)—Johns, Soc.-Lab., 1,373.
Governor (1926)—Morris, Dem., 107,045; Trumbull, Rep., 192,245.
U. S. Senator (1926)—Tyler, Dem., 107,753; Bingham, Rep., 191,401.
U. S. Senator (1924)—Bingham, Rep., 112,400; Holt, Dem., 71,871; Plunkett, Soc., 1,961.
U. S. Senator (1928) -Lonergan, Dem., 251,429; Walcott, Rep., 296,958; Soc., 3,014.
Governor (1928)—Morris, Dem., 252,209; Trumbull, Rep., 296,216.

PAST VOTE OF CONNECTICUT.

1884 (Pres.), Cleveland, Dem., 67,182; Blaine, Rep., 65,898; St. John, Proh., 2,493; Butler, Greenback, 1,684.
1888 (Pres.), Cleveland, Dem., 74,922; Harrison, Rep., 74,586; Fisk, Proh., 4,236; Streeter, United Labor, 240.
1892 (Pres.), Cleveland, Dem., 82,395; Harrison, Rep., 77,032; Weaver, People's, 809; Bidwell, Proh., 4,026.
1896 (Pres.), Bryan, Dem. and People's (Populist), 56,740; Palmer, Nat'l (Gold) Dem., 4,336; McKinley, Rep., 110,285; Levering, Proh., 1,806.
1900 (Pres.), Bryan, Dem., 74,014; McKinley, Rep., 102,572; Woolley, Proh., 1,617; Debs, Soc., 1,029.
1904 (Pres.), Parker, Dem., 72,909; Roosevelt, Rep., 111,089; Swallow, Proh., 1,506; Debs, Soc., 4,543.
1908 (Pres.), Bryan, Dem., 68,255; Taft, Rep., 112,915; Chafin, Proh., 2,380; Debs, Soc., 5,113.
1912 (Pres.), Wilson, Dem., 74,561; Taft, Rep., 68,324; Roosevelt, Prog., 34,129; Debs, Soc., 10,056.
1916 (Pres.), Wilson, Dem., 99,786; Hughes, Rep., 106,514; Hanly, Proh., 1,789; Benson, Soc., 5,179.
1920 (Pres.), Cox, Dem., 120,721; Harding, Rep., 229,238; Watkins, Proh., 1,771; Debs, Soc., 10,350; Christensen, F.-Lab., 1,947.
1920 (U. S. Sen.), Dem., 131,824; Rep., 216,792.

DELAWARE.
(Presidential vote, 1916-1928)

COUNTIES	1928		1924			1920		1916	
	Smith Dem.	Hoover Rep.	Davis Dem.	Coolidge Rep.	LaFollette Progr.	Cox Dem.	Harding Rep.	Wilson Dem.	Hughes Rep.
New Castle	22,464	47,641	17,842	35,427	4,562	24,252	36,600	14,894	16,166
Kent	5,727	8,335	6,936	6,894	192	7,211	6,511	4,210	3,813
Sussex	7,168	13,010	8,668	10,120	225	8,548	9,747	5,649	6,032
Total	36,643	68,860	33,445	52,441	4,979	39,311	52,858	24,753	26,011

Governor (1928)—Wharton, Dem., 40,826; Buck, Rep., 63,683.
U. S. Senator (1928)—Bayard, Dem., 40,828; Townsend, Rep., 63,725.
Governor (1924)—Robinson, Rep., 53,046; Bancroft, Dem., 34,830; Houck, Prog., 422.
U. S. Senator (1924)—du Pont, Rep., 52,731; Tunnell, Dem. and Prog., 36,085.
U. S. Senator (1922)—Bayard, Dem., 37,304; du Pont, Rep., 36,979; Stephens, Forward Party, 608

PAST VOTE OF DELAWARE.

1872 (Pres.), Greeley, Dem. and Lib., 10,208; Grant, Rep., 11,115; O'Conor, Lab.-Ref., 460.
1876 (Pres.), Tilden, Dem., 13,381; Hayes, Rep., 10,752; Smith, Proh.-Ref., 236.
1880 (Pres.), Hancock, Dem., 15,181; Garfield, Rep., 14,138; Weaver, Greenback, 121.
1884 (Pres.), Cleveland, Dem., 16,976; Blaine, Rep., 13,053; St. John, Proh., 64; Butler, Greenback, 10.
1888 (Pres.), Cleveland, Dem., 16,414; Harrison, Rep., 12,973; Fisk, Proh., 400.
1892 (Pres.), Cleveland, Dem., 18,581; Harrison, Rep., 18,077; Bidwell, Proh., 564.
1896 (Pres.), Bryan, Dem. and People's (Populist), 13,425; Palmer, Nat'l (Gold) Dem., 877; McKinley, Rep., 16,883; Levering, Proh., 353.
1900 (Pres.), Bryan, Dem., 18,386; McKinley, Rep., 22,535; Woolley, Proh., 546; Debs, Soc., 57.
1904 (Pres.), Parker, Dem., 19,359; Roosevelt, Rep., 23,712; Swallow, Proh., 607; Debs, Soc., 146.
1908 (Pres.), Bryan, Dem., 22,071; Taft, Rep., 25,114; Chafin, Proh., 670; Debs, Soc., 239.
1912 (Pres.), Wilson, Dem., 22,631; Taft, Rep., 15,997; Roosevelt, Prog., 8,886; Debs, Soc., 556.
1912 (Gov.), Dem., 21,460; Rep., 22,745; Soc., 556; Prog., 3,019; Proh., 623.
1916 (Pres.), Wilson, Dem., 24,753; Hughes, Rep., 26,011; Hanly, Proh., 566; Benson, Soc., 480.
1918 (U. S. Sen.), Dem., 20,113; Rep., 21,519.
1920 (Pres.), Cox, Dem., 39,911; Harding, Rep., 52,858; Watkins, Proh., 986; Debs, Soc., 988; Christensen, F.-Lab., 93.

FLORIDA.
(Presidential vote, 1928, 1924.)

COUNTIES.	1928.		1924.			COUNTIES.	1928.		1924.		
	Smith Dem.	Hoover Rep.	Davis, Dem.	Coolidge, Rep.	La Fol'te, Prog.		Smith Dem.	Hoover Rep.	Davis, Dem.	Coolidge, Rep.	La Fol'te, Prog.
Alachua	1,965	132	1,995	528	174	Lake	1,474	3,383	1,381	948	158
Baker	242	676	215	124	25	Lee	1,154	2,058	845	552	80
Bay	1,190	974	838	318	45	Leon	1,888	630	947	92	44
Bradford	679	534	539	94	17	Levy	797	711	524	214	55
Brevard	1,063	1,830	872	515	88	Liberty	226	147	193	18	10
Broward	1,564	2,889	421	407	86	Madison	769	266	538	23	30
Calhoun	727	409	406	56	37	Manatee	1,472	2,705	1,064	629	181
Charlotte	441	593	321	167	30	Marion	1,863	1,927	1,528	359	94
Citrus	816	505	423	30	49	Martin	474	703			
Clay	394	1,088	339	171	71	Monroe	1,899	1,142	835	262	113
Collier	256	151	148	15	5	Nassau	445	863	617	106	32
Columbia	1,276	418	776	85	61	Okaloosa	503	1,385	642	183	83
Dade	10,136	15,860	3,474	2,753	1,014	Okeechobee	287	657	182	57	19
De Soto	748	1,382	641	230	10	Orange	2,616	6,524	1,883	1,653	210
Dixie	342	463	257	14		Osceola	1,127	1,760	884	589	65
Duval	9,316	16,919	5,908	3,291	1,210	Palm Beach	2,652	5,298	1,543	1,726	375
Escambia	3,772	4,443	2,290	1,274	615	Pasco	1,308	1,591	780	472	143
Flagler	219	325	202	75	65	Pinellas	3,439	10,545	2,633	2,872	392
Franklin	417	334	417	109	16	Polk	4,576	7,460	3,070	1,530	461
Gadsden	1,184	346	681	47	65	Putnam	1,156	2,105	889	574	89
Gilchrist	392	125				Santa Rosa	541	1,628	693	229	38
Glades	281	331	212	83	25	Sarasota	1,181	1,603	204	187	47
Gulf	275	156				Seminole	1,187	1,788	945	372	253
Hamilton	741	167	619	143	33	St. John	3,307	1,939	1,023	517	187
Hardee	826	2,087	795	264	67	St. Lucie	741	983	722	524	150
Hendry	266	337	132	21	11	Sumter	909	1,152	481	108	73
Hernando	701	661	300	59	36	Suwanee	1,286	606	977	111	70
Highlands	669	1,393	457	265	58	Taylor	739	465	476	100	7
Hillsboro'gh	9,993	11,703	4,470	1,585	765	Union	503	177	322	16	7
Holmes	735	2,260				Volusia	3,043	6,648	2,042	1,631	204
Indian Riv.	657	847	658	377	117	Wakulla	470	66	332	34	15
Jackson	2,516	1,398	1,771	320	82	Walton	908	1,475	825	220	56
Jefferson	919	235	566	66	43	Washingt'n.	671	1,672	562	206	37
Lafayette	435	135	358	33	11						
						Total	101,764	144,168	62,083	30,633	8,625

President (1928)—Thomas, Soc., 4,036; Foster, Communist, 3,704.
U. S. Senator (1928)—Trammell, Dem., 153,816; Warburton, Rep., 70,633.
Governor (1928)—Carlton, Dem., 148,455; Howey, Rep., 95,018.
President (1924)—Faris, Proh., 5,498; American Party, 2,315.
U. S. Senator (1926)—Fletcher, Dem., 51,054; Lindsay, Rep., 8,381; O'Neal, Rep., 6,133.
U. S. Senator (1922)—Trammel, Dem., 45,707; Lawson, Ind. Rep., 6,074; Jeffries, 165.

PAST VOTE OF FLORIDA.

1872 (Pres.), Greeley, Dem. and Lib., 15,427; Grant, Rep., 17,763.
1876 (Pres.), Tilden, Dem., 22,923; Hayes, Rep., 23,849. The figures are those of the Returning Board. The State Supreme Court gave Tilden 94 majority.
1880 (Pres.), Hancock, Dem., 27,964; Garfield, Rep., 23,654.
1884 (Pres.), Cleveland, Dem., 31,766; Blaine, Rep., 28,031; St. John, Proh., 72.
1888 (Pres.), Cleveland, Dem., 39,656; Harrison, Rep., 26,659; Fisk, Proh., 418.
1892 (Pres.), Cleveland, Dem., 30,143; Weaver, People's, 4,843; Bidwell, Proh., 570. The Republicans fused with the People's Party.
1896 (Pres.), Bryan, Dem. and People's (Populist), 32,736; Palmer, Nat'l (Gold) Dem., 1,778; McKinley, Rep., 11,288; Levering, Proh., 654.
1900 (Pres.), Bryan, Dem., 28,007; McKinley, Rep., 7,314; Woolley, Proh., 2,234; Debs, Soc., 601.
1904 (Pres.), Parker, Dem., 27,046; Roosevelt, Rep., 8,314; Swallow, Proh., 5; Debs, Soc., 2,337.
1908 (Pres.), Bryan, Dem., 31,104; Taft, Rep., 10,654; Chafin, Proh., 553; Debs, Soc., 3,747.
1912 (Pres.), Wilson, Dem., 36,417; Taft, Rep., 4,279; Roosevelt, Prog., 4,535; Debs, Soc., 4,806.
1916 (Pres.), Wilson, Dem., 55,984; Hughes, Rep., 14,611; Hanly, Proh., 4,855; Benson, Soc., 5,353.
1916 (U. S. Sen.), Dem., 58,391; Rep., 8,744; Soc., 3,304.
1920 (Pres.), Cox, Dem., 90,515; Harding, Rep., 44,353; Watkins, Proh., 5,124; Debs, Soc., 5,189.
1920 (U. S. Sen.), Dem., 98,957; Rep., 37,065; Soc., 3,525; White Rep., 2,847.

GEORGIA.

(Presidential vote, 1928, 1924.)

Counties.	1928.			1924.		Counties.	1928.			1924.	
	Smith, Dem.	Hoover Rep.	Hoover Anti-Smith.	Davis, Dem.	Coolidge, Rep.		Smith, Dem.	Hoover Rep.	Hoover Anti-Smith.	Davis, Dem.	Coolidge, Rep.
Appling	415	none	579	212	44	Jenkins	409	207	125	200	16
Atkinson	350	11	110	394	25	Johnson	632	49	235	1,058	194
Bacon	305	203	None	961	79	Jones	414	63	37	414	26
Baker	462	99	None	245	21	Lamar	672	50	76	594	38
Baldwin	712	95	175	826	107	Lanier	303	39	99	357	46
Banks	422	278	85	291	86	Laurens	1,987	470	none	1,127	121
Barrow	479	385	299	501	88	Lee	287	20	25	211	23
Bartow	830	628	210	846	482	Liberty	201	68	135	334	39
Ben Hill	1,006	326	134	507	150	Lincoln	445	80	333	847	121
Berrien	735	47	58	409	13	Long	166	76	325	499	19
Bibb	2,289	625	1,453	3,647	455	Lowndes	1,413	191	405	1,095	57
Bleckley	641	29	42	367	21	Lumpkin	560	381	none	357	111
Brantley	166	58	114	238	9	Macon	819	154	104	649	52
Brooks	770	121	71	1,179	128	Madison	474	256	271	504	121
Bryan	219	82	69	196	9	Marion	365	54	60	272	31
Bulloch	1,258	190	197	989	37	McDuffie	304	159	222	267	37
Burke	687	147	113	449	76	McIntosh	141	154	26	127	44
Butts	846	78	70	493	50	Meriwether	1,515	162	125	886	103
Calhoun	571	50	41	343	66	Miller	322	42	59	126	45
Camden	274	109	158	172	1	Milton	183	310	134	224	53
Campbell	425	192	135	477	18	Mitchell	1,358	73	70	736	51
Candler	411	63	70	241	14	Monroe	801	94	235	672	64
Carroll	1,913	1,608	504	1,784	526	Montg'm'y	337	55	43	353	87
Catoosa	562	605	none	661	242	Morgan	803	133	75	598	126
Charlton	415	74	86	151	20	Murray	982	1,024	82	818	648
Chatham	5,534	4,755	533	6,158	1,800	Muscogee	2,098	728	846	2,067	218
Chat'hochee	141	14	4	208	14	Newton	873	322	376	716	139
Chattooga	920	574	522	1,615	412	Oconee	344	300	none	279	46
Cherokee	581	1,256	423	848	601	Oglethorpe	813	87	118	1,748	129
Clarke	1,407	410	314	1,530	267	Paulding	690	1,209	92	419	378
Clay	405	30	26	246	51	Peach	572	90	118	.....	.....
Clayton	612	281	338	273	46	Pickens	543	1,319	none	754	1,149
Clinch	717	101	42	235	13	Pierce	523	103	182	397	83
Cobb	1,426	1,187	524	1,360	362	Pike	714	238	none	895	41
Coffee	1,176	372	219	510	62	Polk	886	1,289	173	803	481
Colquitt	970	362	434	1,572	205	Pulaski	639	66	39	442	29
Columbia	279	86	148	213	47	Putnam	682	28	29	457	7
Cook	689	51	186	502	44	Quitman	174	8	33	138	8
Coweta	1,656	56	173	1,010	67	Rabun	590	239	67	454	117
Crawford	358	none	48	352	7	Randolph	803	94	83	518	88
Crisp	523	328	74	439	21	Richmond	2,086	4,620	484	2,169	1,296
Dade	453	328	none	563	119	Rockdale	472	85	71	382	24
Dawson	332	284	6	279	264	Schley	328	33	44	266	12
Decatur	734	286	870	637	151	Screven	300	370	336	821	288
De Kalb	2,293	1,453	925	2,277	590	Seminole	371	72	38	201	24
Dodge	677	96	177	1,654	91	Spalding	1,734	125	287	1,257	75
Dooley	744	67	89	590	45	Stephens	438	93	177	523	40
Dougherty	982	160	219	1,065	167	Stewart	732	23	65	408	24
Douglas	452	485	121	355	86	Sumter	1,237	130	164	1,225	124
Early	674	140	91	351	22	Talbot	536	29	45	491	33
Echols	314	28	1	482	11	Taliaferro	446	13	45	228	4
Effingham	163	300	327	337	39	Tatthall	460	397	394	1,100	66
Elbert	1,052	237	694	1,024	72	Taylor	590	242	111	370	96
Emanuel	1,076	212	143	710	39	Telfair	2,057	217	115	1,382	264
Evans	489	63	129	790	21	Terrell	897	65	51	630	45
Fannin	811	1,730	none	1,079	1,650	Thomas	1,240	256	558	1,280	115
Fayette	367	84	106	257	24	Tift	736	193	318	522	33
Floyd	1,494	855	875	1,922	470	Toombs	615	185	366	314	32
Forsyth	287	763	171	715	298	Towns	517	857	none	604	765
Franklin	770	445	356	618	109	Treutlen	392	35	29	222	27
Fulton	8,872	5,961	3,407	7,830	3,229	Troup	1,557	400	567	1,422	165
Gilmer	529	991	21	776	912	Turner	328	191	335	338	166
Glascock	123	100	125	111	26	Twiggs	571	74	none	417	39
Glynn	549	799	none	612	283	Union	623	2,850	23	793	719
Gordon	740	809	230	875	397	Upson	721	98	123	484	37
Grady	1,172	205	234	1,449	100	Walker	1,053	1,301	485	1,740	878
Greene	627	70	175	558	77	Walton	1,135	28	396	873	90
Gwinnett	970	674	388	1,011	207	Ware	1,416	620	719	1,497	216
Habersham	1,105	984	420	808	322	Warren	247	55	200	253	36
Hall	1,523	928	645	1,398	290	Washington	1,142	162	310	758	130
Hancock	552	26	92	272	22	Wayne	488	230	183	409	33
Haralson	690	1,547	none	447	667	Webster	174	14	47	140	10
Harris	551	21	123	457	20	Wheeler	312	41	60	772	.....
Hart	919	406	197	857	65	White	274	280	288	476	158
Heard	493	133	257	327	35	Whitfield	1,154	1,283	367	1,236	668
Henry	763	145	215	594	53	Wilcox	459	144	72	431	21
Houston	323	39	53	1,311	75	Wilkes	747	190	608	836	44
Irwin	917	72	90	268	35	Wilkinson	487	104	123	284	56
Jackson	859	541	277	993	142	Worth	952	27	283	616	40
Jasper	632	35	105	448	68						
Jeff Davis	315	92	88	122	39	Total	129,602	63,498	35,871	123,200	30,300
Jefferson	798	247	810	502	103						

President (1928)—Thomas, Soc., 124; Foster, Communist, 64
Governor (1928)—Hardman, Dem., 202,035; no opposition.
President (1924)—La Follette, Progr., 12,691; Faris, Proh., 231; Amer. Party, 155.
In the Congressional elections in 1928 in Georgia there was no Republican or other opposition to the Democratic candidates in any of the twelve districts.
Governor (1926)—Hardman, Dem., 47,267.
U. S. Senator (1926)—George, Dem., 47,366.
Governor (1924)—Walker, Dem., 152,367.
U. S. Senator (1924)—Harris, Dem., 155,497.
Governor (1922)—Walker, Dem., 75,019.
U. S. Senator (1922)—George, Dem., 75,838.

PAST VOTE OF GEORGIA.

1872 (Pres.), Greeley, Dem. and Lib., 76,356; Grant, Rep., 62,550; O'Conor, Lab.-Ref., 4,004.
1876 (Pres.), Tilden, Dem., 130,088; Hayes, Rep., 50,446.
1880 (Pres.), Hancock, Dem., 102,470; Garfield, Rep., 54,086; Weaver, Greenback, 969.
1884 (Pres.), Cleveland, Dem., 94,667; Blaine, Rep., 48,603; St. John, Proh., 195; Butler, Greenback, 145.
1888 (Pres.), Cleveland, Dem., 100,472; Harrison, Rep., 40,453; Fisk, Proh., 1,808; Streeter, United Labor, 136.
1892 (Pres.), Cleveland, Dem., 129,386; Harrison, Rep., 48,305; Weaver, People's, 42,937; Bidwell, Proh., 988.
1896 (Pres.), Bryan, Dem.; and People's, (Populist), 94,733; Palmer, Nat'l (Gold) Dem., 2,809; McKinley, Rep., 60,107; Levering, Proh., 5,613.
1900 (Pres.), Bryan, Dem., 81,700; McKinley, Rep., 35,056; Woolley, Proh., 1,396.
1904 (Pres.), Parker, Dem., 83,472; Roosevelt, Rep., 24,003; Swallow, Proh., 685; Debs, Soc., 197.
1908 (Pres.), Bryan, Dem., 72,413; Taft, Rep., 41,692; Chafin, Proh., 1,059; Debs, Soc., 584.
1912 (Pres.), Wilson, Dem., 93,076; Taft, Rep., 5,191; Roosevelt, Prog., 21,980; Debs, Soc., 1,026.
1916 (Pres.), Wilson, Dem., 125,845; Hughes, Rep., 11,225; Roosevelt, Prog., 20,653; Benson, Soc., 967.
1918 (U. S. Sen.), Dem., 53,731; Rep., 7,078.
1920 (Pres.), Cox, Dem., 107,162; Harding, Rep., 43,720; Debs, Soc., 465.

IDAHO.

(Presidential vote, 1928, 1924.)

Counties.	1928.		1924.			Counties.	1928.		1924.		
	Hoover Rep.	Smith, Dem.	Coolidge, Rep.	Davis, Dem.	La Follette, Prog.		Hoover Rep.	Smith, Dem.	Coolidge, Rep.	Davis, Dem.	La Follette, Prog.
Ada	10,279	3,921	7,220	2,255	3,780	Gooding	1,852	821	1,097	422	896
Adams	521	374	422	208	369	Idaho	2,099	1,676	1,363	779	1,429
Bannock	5,297	4,602	4,520	1,612	3,914	Jefferson	1,671	1,350	1,393	305	1,084
Bear Lake	1,802	1,146	1,611	881	481	Jerome	2,050	759	1,117	376	896
Benewah	1,343	958	1,158	318	989	Kootenai	4,973	2,020	3,289	790	3,256
Bingham	3,236	1,778	2,693	696	1,649	Latah	4,472	1,681	3,053	838	1,949
Blaine	849	780	732	543	485	Lemhi	1,139	837	1,005	442	401
Boise	521	389	388	198	316	Lewis	1,146	793	650	601	753
Bonner	2,861	1,603	1,714	543	2,008	Lincoln	865	358	692	154	427
Bonneville	3,218	2,110	2,880	431	2,060	Madison	1,670	1,228	1,417	601	615
Boundary	1,015	607	829	244	692	Minidoka	1,832	1,132	1,046	204	1,370
Butte	493	301	409	196	284	Nez Perce	4,054	2,535	2,250	1,212	1,842
Camas	413	230	226	113	302	Oneida	1,184	1,020	956	530	747
Canyon	7,293	2,187	3,820	965	5,163	Owyhee	918	533	564	309	671
Caribou	471	291	508	148	208	Payette	2,203	621	1,160	401	887
Cassia	2,388	994	2,031	538	1,336	Power	852	653	757	314	684
Clark	388	129	496	43	175	Shoshone	3,648	2,430	3,034	835	2,078
Clearwater	1,195	852	946	322	725	Teton	753	348	665	186	343
Custer	647	516	585	394	293	Twin Falls	6,791	2,471	4,630	1,641	2,800
Elmore	1,125	739	789	381	906	Valley	774	407	486	214	498
Franklin	1,718	1,193	1,361	540	723	Washington	1,973	974	1,183	623	1,056
Fremont	1,674	1,933	1,662	530	1,477						
Gem	1,656	646	1,072	380	1,143	Totals	99,848	53,074	69,879	24,256	54,160

President (1928)—Thomas, Socialist, 1,308.
U. S. Senator (1928)—Thomas, Rep., 90,922; Clark, Dem., 53,399; Lundt, Soc., 1,016.
Governor (1928)—Baldridge, Rep., 87,681; Ross, Dem., 63,046; Coonrod, Soc., 908.
Governor (1926)—Wilson, Dem., 24,837; Baldridge, Rep., 59,460; Hall, Progr., 34,208.
U. S. Senator (1926)—Nugent, Dem., 31,285; Gooding, Rep., 56,847; Samuels, Progr., 37,047.
U. S. Senator (1924)—Borah, Rep., 99,846; Martin, Dem., 25,199; Gary, Soc., 554.

PAST VOTE OF IDAHO.

1880 (Cong.), Dem., 3,604; Rep., 2,090.
1884 (Cong.), Dem., 1,547; Rep., 741.
1886 (Cong.), Dem., 7,416; Rep., 7,842.
1888 (Cong.), Dem., 6,404; Rep., 9,609; Ind. Rep., 1,458.
1890 (Gov.), Dem., 7,948; Rep., 10,262.
1892 (Pres.), Cleveland, Dem., 2; Harrison, Rep., 8,799; Weaver, People's, 10,520; Bidwell, Proh., 288.
1892 (Gov.), Dem., 6,769; Rep., 8,178; Proh., 264; Pop., 4,865.
1896 (Pres.), Bryan, Dem and People's (Populist), 23,135; McKinley, Rep, 6,314; Levering, Proh., 172
1900 (Pres.), Bryan, Dem, 29,414; McKinley, Rep, 27,198; Woolley, Proh, 857.
1902 (Gov.), Dem., 26,021; Rep., 31,874; Proh., 489; Soc., 1,320.
1904 (Pres.), Parker, Dem., 18,480; Roosevelt, Rep., 47,783; Swallow, Proh., 1,013; Debs, Soc., 4,949.
1908 (Pres.); Bryan, Dem., 36,162; Taft, Rep 52,621; Chafin, Proh., 1,986; Debs, Soc., 6,400
1910 (Gov.), Dem., 40,856; Rep., 39,961; Pop. 5,342.
1912 (Pres.), Wilson, Dem., 33,921; Taft, Rep., 32,810; Roosevelt, Prog., 25,527; Debs, Soc., 11,960.
1912 (Gov.), Dem., 33,992; Rep., 35,056; Prog., 24,325; Soc., 11,094; Proh., 1,028.
1914 (Gov.), Dem., 47,618; Rep., 40,349; Prog., 10,583; Soc., 7,967; Proh., 1,396.
1914 (U. S. Sen.), Dem., 41,266; Rep., 47,486; Prog., 10,321; Soc., 7,882; Proh., 1,239.
1916 (Pres.), Wilson, Dem., 70,054; Hughes, Rep., 55,368; Hanly, Proh., 1,127; Benson, Soc., 8,066.
1918 (Gov.), Dem., 38,499; Rep., 57,626.
1918 (U. S. Sen.), Dem., 31,018; Rep., 63,587.
1920 (Pres.), Cox, Dem., 46,579; Harding, Rep., 88,975; Watkins, Proh., 9; Debs, Soc., 38; Christensen, F.-Lab., 6.
1920 (U. S. Sen.), Dem., 64,513; Rep., 75,985.

GOVERNORS AND U.S. SENATORS OF IDAHO.

The Government of the State of Idaho was established by the Constitution which went into effect on July 3, 1890.

Governors—George L. Shoup, 1890; N. B. Wiley, 1891-1892; William J. McConnell, 1893-1896; Frank Steunenberg, 1897-1900; Frank W. Hunt, 1901-1902; John T. Morrison, 1903-1904; Frank R. Gooding, 1905-1908; James H. Brady, 1909-1910; James H. Hawley, 1911-1912; John M. Haines, 1913-1914; Moses Alexander, 1915-1918; D. W. Davis, 1919-1922; C. C. Moore, 1923-1926; H. C. Baldridge, 1927—.

U. S. Senators—W. J. McConnell, 1891; George L. Shoup, 1891-1901; Fred T. Dubois, 1891-1897; 1901-1907; Henry Heitfeld, 1897-1903; Weldon B. Hayburn, 1903-1912· William E. Borah, 1907 ——· Kirtland I. Perky, 1912-1913; James H. Brady, 1913-1918; John F. Nugent, 1918-1921; Frank R. Gooding, 1921-1928; John Thomas, 1928—.

BUREAU OF BLUE SKY.

Idaho has in its Department of Finance what is officially known as the *Bureau of Blue Sky;* which analyzes applications to sell stock, shares or bonds in Idaho, and none may be sold by companies or corporations issuing them except on a permit issued by it.

This permit does not end the supervisory power of the bureau, which continues throughout, and the permit may be revoked at any time such companies do not meet with its requirements of supervision or change of unsafe plans.

ILLINOIS.

(Presidential vote, 1928, 1924.)

Co.	1928. Hoover, Rep.	1928. Smith, Dem.	1924. Coolidge, Rep.	1924. Davis, Dem.	1924. La Fol'te, Prog.	Co.	1928. Hoover, Rep.	1928. Smith, Dem.	1924. Coolidge, Rep.	1924. Davis, Dem.	1924. La Fol'te, Prog.
Adams	15,590	13,215	9,985	8,628	5,693	Liv'ston	11,161	5,737	9,695	2,911	2,387
Alex	5,666	3,558	4,465	2,639	573	Logan	7,631	5,019	7,063	3,708	1,537
Bond	4,160	2,298	3,644	2,143	585	Macon	24,492	9,932	16,458	6,670	4,120
Boone	5,965	1,371	4,872	348	1,235	Mac'pin	10,699	11,290	8,571	6,134	6,959
Brown	2,289	1,867	1,637	2,149	139	Madison	28,028	23,658	19,926	12,863	8,965
Bureau	11,557	6,486	9,457	1,995	4,169	Marion	9,110	5,823	5,889	4,768	2,671
Calhoun	1,594	1,551	1,136	1,115	100	Marshall	4,029	2,828	3,776	1,836	823
Carroll	6,197	1,876	4,559	603	2,301	Mason	3,956	3,246	3,522	2,536	604
Cass	4,009	3,461	3,139	2,909	1,547	Massac	3,405	1,241	3,227	920	350
Ch'p'gn.	19,494	8,915	14,244	5,221	3,149	McDon	8,953	4,104	7,505	4,016	746
Christ'n.	9,896	7,345	7,398	5,826	2,741	McH'n'y	10,661	5,596	8,751	1,372	2,864
Clark	5,632	3,621	4,731	4,203	211	McLean	20,780	10,742	16,550	6,826	6,132
Clay	4,522	2,418	3,432	2,987	479	Menard	3,243	1,742	2,931	1,954	319
Clinton	3,031	6,774	2,358	1,693	3,876	Mercer	5,699	2,316	5,618	1,699	890
Coles	11,479	5,071	8,342	5,544	1,275	Monroe	2,721	2,934	2,390	1,369	1,173
Cook	812,063	716,283	688,973	226,141	196,149	Montg'y	8,999	7,392	8,022	5,622	3,225
Crawf'd.	5,989	3,495	4,830	4,223	364	Morgan	10,192	5,805	8,223	5,721	877
Cumber.	3,242	1,873	2,698	2,384	190	Moultrie	3,310	2,168	3,001	2,403	225
De Kalb	11,501	3,940	10,500	1,540	1,654	Ogle	9,808	2,691	8,449	1,591	1,727
De Witt	6,100	2,631	5,173	2,752	846	Peoria	31,024	23,150	25,243	6,343	11,306
Douglas	4,890	2,239	4,046	2,315	874	Perry	4,636	5,029	3,693	3,007	2,536
Du Page	28,016	10,479	16,917	1,893	4,378	Piatt	4,565	1,959	3,799	1,733	354
Edgar	7,509	5,325	6,297	5,222	500	Pike	6,705	4,008	4,989	5,424	481
Edwards	2,861	950	2,750	1,047	140	Pope	2,004	679	2,161	978	106
Eff'ham.	3,882	4,239	3,159	3,814	1,070	Pulaski	3,319	1,726	3,355	1,700	390
Fayette	6,545	3,998	5,010	4,668	627	Putnam	1,387	869	1,364	260	586
Ford	4,668	2,098	4,672	1,093	849	Rand'ph	5,739	6,251	4,527	3,734	2,591
Franklin	9,900	11,369	6,779	5,791	4,304	Richl'nd	4,042	2,550	3,082	2,749	295
Fulton	10,600	6,591	8,664	5,011	4,150	Rock Isl	27,246	14,334	25,563	3,631	11,320
Gallatin.	2,002	2,343	1,972	2,385	368	Saline	7,525	6,337	6,084	4,037	2,743
Greene	4,299	4,076	3,527	4,648	687	Sang'on.	31,957	21,026	23,443	12,640	9,054
Grundy	5,126	3,174	4,337	742	1,681	Sch'yler.	3,011	2,542	2,729	2,860	298
Ham'ton	3,275	3,037	2,659	3,168	200	Scott	2,601	1,730	2,229	1,994	180
Hancock	7,795	5,447	6,678	5,189	963	Shelby	7,214	4,071	5,605	5,265	717
Hardin	1,758	933	1,378	1,358	70	Stark	2,966	1,306	2,698	784	310
Hen'son.	2,695	1,065	2,879	803	257	St. Clair	31,026	36,374	23,380	14,921	12,468
Henry	14,666	5,858	13,159	1,944	3,027	Steph'on	11,992	5,579	8,638	2,452	5,088
Iroquois	8,453	5,421	7,498	2,303	1,873	Tazewell	9,409	6,910	7,488	3,375	3,470
Jackson	9,180	5,836	6,424	4,707	1,845	Union	3,352	4,149	2,579	3,783	216
Jasper	3,201	3,055	3,030	3,144	201	Vermil'n	21,616	12,728	17,822	6,424	8,073
Jefferson	7,326	5,905	5,406	6,258	436	Wabash	2,373	3,955	2,564	2,442	589
Jersey	2,993	2,473	2,460	2,723	335	Warren	7,915	2,681	6,912	2,440	1,225
Jo Davie	6,333	3,856	4,864	1,477	3,279	Wash'on	3,638	2,848	3,444	1,717	719
Johnson	2,892	1,163	2,468	1,408	188	Wayne	5,189	3,108	4,937	4,247	164
Kane	38,236	16,184	32,717	3,517	6,517	White	4,177	3,666	3,780	4,377	278
Kank'ee	11,905	10,247	12,462	2,488	3,438	Whit'side	13,580	4,079	11,532	1,957	2,057
Kendall.	3,589	1,154	3,513	432	455	Will	26,081	20,877	22,780	4,707	7,902
Knox	16,151	5,993	12,968	2,617	4,044	W'mson.	10,913	10,139	9,366	6,117	5,114
Lake	26,814	12,252	18,229	2,008	3,671	Win'bgo	33,258	7,684	21,978	2,228	6,434
La Salle.	24,039	20,807	21,417	6,216	7,686	Woodf'd	5,140	3,311	4,290	1,828	1,326
Law'nce	5,851	3,806	4,607	4,103	167						
Lee	9,238	4,476	8,363	2,367	1,289	Totals.	1,769,141	1,313,817	1,453,321	576,975	432,027

President (1928)—Thomas, Soc., 19,138; Reynolds, Soc. Lab., 1,812; Foster, Communist, 3,581.

U. S. Senator (1928)—Cermak, Dem., 1,315,338; Glenn, Rep., 1,594,031; Kirkpatrick, Soc., 13,002; Jenning, Soc. Lab., 1,463; Badacht, Workers, 3,177.

President (1924)—Johns, Soc. Lab., 2,334; Foster, Workers', 2,622; Wallace, Commonwealth Land, 421; Faris, Proh., 2,367.

U. S. Senator (1926)—Brennan, Dem., 774,943; Smith, Rep., 842,273; Magill, Ind., 156,245; Christensen, Progr., 6,526; O'Keefe, Wet, 4,596; Logan, "High Life", 1,161.

Governor (1924)—Small, Rep., 1,366,436; Jones, Dem., 1,021,408; Laflin, Soc., 15,191; Koch, Soc.-Lab., 2,312; Dunne, Workers', 2,329; Lynchenhein, Com. Land, 414; Logan, Ind. Rep., 1,025.

United States Senator (1924)—Deneen, Rep., 1,449,180; Sprague, Dem., 806,702; Koop, Soc., 18,708; Wirth, Soc.-Lab., 2,966; Engdahl, Workers', 2,518; Spaulding, Com. Land, 391; Longworth, Ind., 382.

Illinois, in 1922, voted (1,065,242 to 512,111) in favor of beer and light wines; voted (1,220,815 to 502,372) for a soldier bonus.

The vote as to beer and light wines was thus divided: Cook County (Chicago), for, 552,003; against, 138,109; State, outside of Cook County, for, 513,239; against, 374,002.

PAST VOTE OF ILLINOIS.

1872 (Pres.), Greeley, Dem. and Lib., 189,938; Grant, Rep., 241,944.

1876 (Pres.), Tilden, Dem., 258,601; Hayes, Rep., 278,232; Cooper, Greenback, 17,233.

1880 (Pres.), Hancock, Dem., 277,321; Garfield, Rep., 318,037; Weaver, Greenback, 26,358; Dow, Proh., 443.

1884 (Pres.), Cleveland, Dem., 312,351; Blaine, Rep., 337,469; St. John, Proh., 12,074; Butler, Greenback, 10,776.

1888 (Pres.), Cleveland, Dem., 348,371; Harrison, Rep., 370,475; Fisk, Proh., 21,703; Streeter, United Labor, 7,134; Cowdrey, United Labor, Independent ticket, 150.

1892 (Pres.), Cleveland, Dem., 426,281; Harrison, Rep., 399,288; Weaver, People's, 22,207; Bidwell, Proh., 25,871.

1896 (Pres.), Bryan, Dem; and People's, (Populist), 464,523; Palmer, Nat'l (Gold) Dem., 6,390; McKinley, Rep., 607,130; Levering, Proh., 9,818.

1900 (Pres.), Bryan, Dem., 503,061; McKinley, Rep., 597,985; Woolley, Proh., 17,626; Debs, Soc., 9,687.

1904 (Pres.), Parker, Dem., 327,606; Roosevelt Rep., 632,645; Swallow, Proh., 34,770; Debs, Soc. 69,225.

1908 (Pres.), Bryan, Dem., 450,810; Taft, Rep., 629,932; Chafin, Proh., 29,364; Debs, Soc., 34,711.

1912 (Pres.), Wilson, Dem., 405,048; Taft, Rep., 253,593; Roosevelt, Prog., 386,478; Debs, Soc., 81,278; Proh., 15,710.

1914 (U. S. Sen.), Dem., 373,403; Rep., 390,661; Prog., 203,027; Soc., 39,889; Proh., 6,750; Soc.-Lab., 2,078.

1916 (Pres.), Wilson, Dem., 950,229; Hughes, Rep., 1,152,549; Hanley, Proh., 26,047; Benson, Soc., 61,304.

1918 (U. S. Sen.) Dem., 426,943; Rep., 479,967; Soc., 37,167; Proh., 3,151; Soc.-Lab., 3,268.

1920 (Pres.), Cox, Dem., 534,395; Harding, Rep., 1,420,480; Watkins, Proh., 11,216; Debs, Soc., 74,747; Christensen, Farm.-Lab., 49,630.

1920 (U. S. Sen.), Dem., 554,372; Rep., 1,381,384; Soc., 66,463; Proh., 10,186; Farm.Lab., 50,749; Single Tax, 784; Soc.-Lab. 3,107.

INDIANA.

(Presidential vote, 1928, 1924.)

Counties.	1928.		1924.		
	Hoover Rep.	Smith, Dem.	Coolidge, Rep.	Davis, Dem.	La Fol'te, Prog.
Adams	4,045	4,066	3,330	4,300	391
Allen	34,234	26,292	25,207	17,244	3,889
Barth'l'mew	6,788	4,881	6,606	4,760	272
Benton	3,360	2,368	3,250	2,104	216
Blackford	3,882	2,576	3,553	3,094	264
Boone	6,556	4,500	6,256	5,466	156
Brown	959	999	756	1,229	47
Carroll	4,780	3,182	4,543	3,660	254
Cass	10,522	6,522	9,939	5,276	2,480
Clark	8,056	6,193	5,944	5,218	315
Clay	7,103	5,358	5,955	5,349	843
Clinton	7,606	5,895	7,469	6,070	261
Crawford	2,672	1,933	1,917	2,384	123
Daviess	7,116	5,324	6,427	5,558	488
Dearborn	6,334	4,459	4,588	4,330	582
Decatur	5,400	3,791	4,907	4,092	246
DeKalb	7,373	4,077	6,093	4,133	872
Delaware	19,102	8,532	14,411	7,830	767
Dubois	3,301	6,044	2,708	5,651	504
Elkhart	20,876	6,900	13,096	4,729	2,343
Fayette	5,874	3,455	5,284	2,940	244
Floyd	10,471	7,327	6,733	6,971	738
Fountain	4,960	3,894	4,796	4,282	249
Franklin	3,426	3,817	3,296	3,915	190
Fulton	4,627	2,881	4,329	3,244	192
Gibson	8,137	5,882	7,100	6,149	993
Grant	14,659	7,273	11,173	7,086	1,884
Greene	8,262	5,761	6,670	5,966	1,832
Hamilton	7,960	3,611	7,463	3,785	192
Hancock	4,788	3,626	4,063	4,364	113
Harrison	4,440	3,664	3,896	4,005	147
Hendricks	5,954	3,181	5,766	3,489	168
Henry	10,502	4,554	8,800	5,376	205
Howard	12,632	5,930	10,438	5,451	1,378
Huntington	8,323	5,678	7,437	5,506	1,446
Jackson	5,151	5,130	4,187	5,332	506
Jasper	3,700	1,915	3,679	1,744	281
Jay	5,998	4,759	5,753	4,812	269
Jefferson	5,295	3,906	5,192	3,914	221
Jennings	3,705	2,369	3,506	2,730	184
Johnson	5,513	4,548	4,954	4,699	90
Knox	10,035	9,837	8,493	8,603	1,986
Kosciusko	7,973	4,537	6,819	4,384	419
LaGrange	3,171	1,720	3,081	1,566	203
Lake	48,768	32,321	30,990	10,918	5,822
Laporte	14,763	9,254	11,597	5,214	2,078
Lawrence	9,844	4,428	7,438	4,414	376
Madison	23,083	12,496	18,447	12,061	1,282
Marion	109,630	73,309	95,135	59,498	5,842
Marshall	6,738	4,377	5,354	4,277	377
Martin	2,450	2,245	2,470	2,669	134
Miami	8,318	5,592	6,796	4,976	1,335
Monroe	8,883	4,317	6,247	4,689	327
Montgom'y	8,863	4,960	8,366	5,708	186
Morgan	5,464	3,933	5,328	4,042	134
Newton	3,053	1,649	2,705	1,523	240
Noble	6,338	4,207	5,793	4,163	398
Ohio	1,230	911	989	1,058	43
Orange	5,086	3,112	4,538	3,374	161
Owen	3,036	2,420	2,627	2,670	225
Parke	4,729	3,165	4,877	2,898	415
Perry	3,772	3,782	3,240	3,895	170
Pike	4,190	3,409	3,885	3,604	442
Porter	7,107	2,921	5,613	1,640	1,009
Posey	4,396	4,052	4,173	4,115	227
Pulaski	2,738	2,040	2,725	1,953	253
Putnam	5,351	4,177	4,930	4,759	326
Randolph	8,368	3,264	7,397	3,768	262
Ripley	5,059	4,387	4,694	4,257	605
Rush	6,640	2,996	5,958	3,415	110
Scott	1,719	1,527	1,532	1,824	64
Shelby	7,516	5,790	6,664	5,976	228
Spencer	4,672	4,152	4,395	4,409	211
Starke	2,759	2,016	2,329	1,555	501
Steuben	4,435	1,730	4,046	1,610	216
St. Joseph	36,844	26,846	23,682	15,056	2,202
Sullivan	6,199	5,642	5,139	5,213	1,610
Switz'rland	2,617	1,805	2,346	2,414	73
Tippecanoe	15,165	8,720	12,161	7,619	976
Tipton	4,774	3,186	4,183	3,660	261
Union	2,101	1,069	1,907	1,284	40
Vand'rburg	29,067	19,646	25,907	17,186	3,640
Vermillion	5,192	4,793	4,489	2,779	1,800
Vigo	22,962	18,509	19,545	12,999	4,320
Wabash	8,537	3,872	7,277	4,054	610
Warren	2,644	1,138	3,035	1,150	159
Warrick	4,603	3,744	4,437	3,797	343
Washingt'n	3,835	3,518	3,479	3,942	64
Wayne	15,936	7,547	11,487	6,211	1,445
Wells	4,142	4,246	3,932	4,537	210
White	4,534	2,980	4,475	3,138	305
Whitley	4,519	3,294	4,420	3,484	128
Total	848,290	562,691	703,042	492,245	71,700

President (1928)—Varney, Proh., 5,496; Thomas, Soc., 3,871; Reynolds, Soc. Lab., 645; Foster, Workers 321.

U. S. Senator (1928)—Robinson, Rep., 782,144; Stump, Dem., 633,996; Soc., 3,346; Proh., 4,033.

Governor (1928)—Leslie, Rep., 728,203; Dailey, Dem., 683,545; Proh., 5,096; Soc., 3,258.

President (1924)—Faris, Proh., 4,416; Foster, Workers' Party, 987.

U. S. Senator (1926)—Stump, Dem., 511,454; Watson, Rep., 522,837; Harris, Proh., 5,420; Wallace, Soc., 5,106.

Governor (1924)—Jackson, Rep., 654,784; McCulloch, Dem., 572,303; Soc., 5,984; Proh., 3,808.

PAST VOTE OF INDIANA.

1872 (Pres.), Greeley, Dem. and Lib., 163,632; Grant, Rep., 186,147; O'Conor, Lab.-Ref., 1,417.

1876 (Pres.), Tilden, Dem., 213,526; Hayes, Rep., 208,011; Cooper, Greenback, 9,533.

1880 (Pres.), Hancock, Dem., 225,552; Garfield, Rep., 232,164; Weaver, Greenback, 12,986.

1884 (Pres.), Cleveland, Dem., 244,900; Blaine, Rep., 238,463; St. John, Proh., 3,028; Butler, Greenback, 8,293.

1888 (Pres.), Cleveland, Dem., 261,013; Harrison, Rep., 263,361; Fisk, Proh., 9,881; U.-Lab., 2,694.

1892 (Pres.), Cleveland, Dem., 262,740; Harrison, Rep., 255,615; People's, 22,208; Proh., 13,050.

1896 (Pres.), Bryan, Dem. and People's (Populist), 305,573; Palmer, Nat'l (Gold) Dem., 2,145; McKinley, Rep., 323,754; Levering, Proh., 5,323.

1900 (Pres.), Bryan, Dem., 309,584; McKinley, Rep., 336,063; Proh., 13,718; Debs, Soc., 2,374.

1904 (Pres.), Parker, Dem., 274,345; Roosevelt, Rep., 368,289; Swallow, Proh., 23,496; Debs, Soc., 11,762.

1908 (Pres.), Bryan, Dem., 338,262; Taft, Rep., 348,993; Chafin, Proh., 18,045; Debs, Soc., 13,476.

1912 (Pres.), Wilson, Dem., 281,890; Taft, Rep., 151,267; Roosevelt, Prog., 162,007; Debs, Soc., 36,931.

1916 (Pres.), Wilson, Dem., 334,063; Hughes, Rep., 341,005; Roosevelt, Prog., 3,898; Hanly, Proh., 16,368; Benson, Soc., 21,855.

1920 (Pres.), Cox, Dem., 511,364; Harding, Rep., 696,370; Watkins, Proh., 13,462; Debs, Soc., 24,703; Christensen, Farm.-Lab., 16,499.

192- (U. S. Sen.) Ralston, Dem., 558,169; Beveridge, Rep., 524,558; Henry, Soc., 14,635.

HOW WAS SOUTH AMERICA PEOPLED?

The South American continent, according to Marshall H. Saville, was peopled from the north by two possible lines of migrations, namely, along the Pacific coast of Central America, and along the Mosquito coast of the Caribbean Sea; but the narrow Isthmus of Panama made it possible for either of these two route migrations to radiate in three streams after entering the southern continent.

The line of least resistance was the Pacific coast, for it is possible for frail crafts to navigate from Central America southward almost to the Equator without entering the ocean except at rare intervals, due to the inland waterways created by the almost continuous stretch of mangrove swamps and small islets.

The other southern route was through the inter-Andean valleys, while another line of migration was eastward along the northern coast of the continent.

The little explored culture areas of the northwestern Pacific coast present types of artifacts quite similar in character to those of Central America.

Many features of the archaeology of the region show decided Mayan and Chorotegan influences. Here the cultural relations are much closer to Central America than to the widely extended Peruvian complex to the south.

IOWA.

(Presidential vote, 1928, 1924.)

Counties.	1928.		1924.			Counties.	1928.		1924.		
	Hoover Rep.	Smith, Dem.	Coolidge, Rep.	Davis, Dem.	La Fol'te, Prog.		Hoover. Rep.	Smith Dem.	Coolidge, Rep.	Davis, Dem.	La Fol'te, Prog.
Adair	4,176	1,844	4,043	688	1,285	Johnson	7,288	7,181	5,741	4,572	2,553
Adams	2,958	1,479	2,547	897	1,247	Jones	5,090	2,976	4,518	2,212	1,182
Alamakee	4,785	3,227	2,755	1,286	3,110	Keokik	5,304	3,772	4,795	2,568	1,966
Appanoose	6,864	3,340	6,421	2,032	2,722	Kossuth	4,878	4,736	3,808	1,369	3,562
Audubon	2,340	2,364	2,475	965	1,152	Lee	11,645	7,785	9,999	4,903	3,448
Benton	5,669	3,307	5,314	1,459	2,329	Linn	25,452	11,716	22,374	5,941	6,335
Black Hawk	19,409	8,467	15,813	2,981	5,397	Louisa	3,275	1,457	2,952	643	945
Boone	7,521	3,049	4,980	702	4,953	Lucas	3,811	1,888	3,288	824	2,130
Bremer	3,879	3,146	3,636	911	2,858	Lyon	3,170	1,652	2,082	481	2,162
Buchanan	5,885	3,099	5,479	1,780	1,409	Madison	4,364	2,178	4,191	1,367	1,330
Buena Vista	5,087	2,609	3,812	683	2,771	Mahaska	7,368	3,200	5,810	1,673	3,010
Butler	4,789	1,876	3,823	667	1,921	Marion	6,225	4,113	5,058	2,383	3,154
Calhoun	4,136	2,681	3,529	714	2,328	Marshall	9,376	3,384	9,010	1,516	2,584
Carroll	4,014	6,134	3,590	1,994	3,159	Mills	3,429	2,179	3,348	1,750	727
Cass	6,120	2,640	5,721	1,099	1,488	Mitchell	3,534	2,308	2,892	400	2,858
Cedar	4,786	2,517	4,625	1,498	1,520	Monona	3,745	2,836	3,195	1,271	1,802
Cerro Gordo	9,582	4,908	8,410	1,343	4,509	Monroe	4,060	2,819	4,100	1,388	2,514
Cherokee	3,909	2,701	3,240	904	2,028	Montgom'y	5,155	2,079	4,617	805	1,732
Chickasaw	3,712	3,665	3,416	1,736	2,190	Muscatine	8,604	4,055	7,731	1,963	2,091
Clarke	2,780	1,642	2,554	743	1,563	O'Brien	4,845	2,397	4,064	734	2,124
Clay	3,986	2,064	3,549	378	1,853	Osceola	2,085	1,567	1,876	386	1,459
Clayton	6,774	4,231	4,168	1,556	4,314	Page	7,181	2,478	6,023	1,633	1,511
Clinton	12,295	8,643	10,371	3,787	5,462	Palo Alto	3,463	2,843	2,943	593	2,393
Crawford	3,436	4,495	2,882	1,255	3,638	Plymouth	4,715	4,909	3,803	1,605	3,628
Dallas	7,294	3,108	6,359	933	2,959	Pocahontas	3,322	2,824	2,537	819	2,934
Davis	3,097	2,559	2,804	1,802	1,142	Polk	42,300	19,725	37,491	6,665	15,567
Decatur	3,942	2,675	3,221	1,693	1,917	Pot'wat'mie	14,354	9,905	13,380	5,305	6,637
Delaware	5,390	3,043	4,938	1,146	1,546	Poweshiek	5,212	2,787	4,514	1,433	2,379
Des Moines	10,547	5,578	7,995	2,616	4,128	Ringgold	3,674	1,594	3,147	872	1,257
Dickinson	3,045	1,251	2,967	435	1,017	Sac	4,461	2,414	3,970	674	1,889
Dubuque	9,744	19,437	8,280	5,718	10,576	Scott	16,974	12,942	18,360	4,347	7,487
Emmet	3,218	1,372	2,739	407	1,987	Shelby	3,456	3,604	3,252	2,297	1,201
Fayette	8,338	4,061	5,974	1,272	4,634	Sioux	6,378	2,839	4,960	900	2,556
Floyd	5,675	2,074	5,011	529	2,048	Story	9,035	2,714	6,916	1,310	2,554
Franklin	.....	.....	3,064	360	1,704	Tama	5,589	4,798	5,177	2,180	2,003
Fremont	3,597	2,822	3,309	2,525	386	Taylor	4,700	2,074	4,254	1,138	1,579
Greene	4,299	2,007	4,599	790	1,497	Union	5,432	2,651	4,250	1,166	2,432
Grundy	3,671	1,620	3,329	615	1,801	Van Buren	3,904	1,944	3,622	1,209	1,132
Guthrie	4,772	2,235	4,315	840	2,027	Wapello	11,586	5,793	9,870	3,039	4,402
Hamilton	4,171	2,975	4,401	490	2,348	Warren	5,294	2,239	4,683	1,269	1,579
Hancock	3,114	1,933	3,183	550	1,605	Washingt'n	5,948	2,754	5,053	1,868	1,450
Hardin	5,731	2,373	4,714	634	2,435	Wayne	3,911	2,579	3,322	1,826	1,486
Harrison	5,605	4,406	5,062	3,179	1,674	Webster	8,525	6,497	6,641	2,076	5,279
Henry	5,160	2,053	4,537	1,339	1,496	Winnebago	3,386	1,268	2,445	2,497	225
Howard	3,375	3,193	2,850	1,604	1,521	Winneshiek	5,084	4,535	4,154	1,510	3,763
Humboldt	2,825	1,679	2,841	370	1,543	Woodbury	20,587	16,831	16,689	5,676	12,719
Ida	2,486	2,172	2,033	685	1,956	Worth	2,921	1,310	2,344	180	2,069
Iowa	4,091	3,075	3,549	1,458	1,806	Wright	5,020	2,547	4,323	501	2,707
Jackson	4,740	3,729	4,218	2,352	1,755						
Jasper	9,541	3,856	6,565	1,214	3,764	Total	623,818	378,936	537,635	162,600	272,243
Jefferson	4,919	2,159	4,062	1,249	1,279						

President (1928)—Thomas, Soc., 2,960; Webb, Farm. Lab., 3,088; Foster, Communist, 328; Reynolds, Soc. Lab., 230.

Governor (1928)—Housel, Dem., 350,736; Hammill, Rep., 592,338.

President (1924)—Foster, Communist, 4,037.

Governor (1926)—Miller, Dem., 150,574; Hammill, Rep., 377,330; Kelley, Com. Land, 1,069.

U. S. Senator (1926)—Porter, Dem., 247,869; Brookhart, Rep., 323,409.

U. S. Senator (1926) unexpired term of the late A. B. Cummins, ending March 3, 1927—Stewart, Rep., 336,410.

Governor (1924)—Hammill, Rep., 604,756; Murtagh, Dem., 227,333.

U. S. Senator (1924)—Brookhart, Rep., 447,706; Steck, Dem., 446,951; Eickelberg, Ind., 535.

Governor (1922)—Files, Dem., 175,252; Kendall, Rep., 419,648.

U. S. Senator (1922)—Herring, Dem., 227,833; Brookhart, Rep., 389,751.

In 1926 Iowa voters indorsed a proposal to amend the State Constitution to permit women to sit in the State Legislature.

PAST VOTE OF IOWA.

1872 (Pres.), Greeley, Dem. and Lib., 71,179; Grant, Rep., 131,566; O'Conor, Lab. Ref., 2,221.

1876 (Pres.), Tilden, Dem., 112,121; Hayes, Rep., 171,326; Cooper, Greenback, 9,431.

1880 (Pres.), Hancock, Dem., 105,845; Garfield, Rep., 183,904; Weaver, Greenback, 32,327; Dow, Proh., 592.

1884 (Pres.), Cleveland, Dem., 177,316; Blaine, Rep., 197,088; St. John, Proh., 1,472.

1888 (Pres.), Cleveland, Dem., 179,877; Harrison, Rep., 211,603; Fisk, Proh., 3,550; Streeter, U. Lab., 9,105.

1889 (Gov.), Dem., 180,106; Rep., 173,450; Lab., 5,773; Proh., 1,362.

1891 (Gov.), Dem., 207,594; Rep., 199,381; F. A. and L., 12,303; Proh., 919.

1892 (Pres.), Cleveland, Dem., 196,367; Harrison, Rep., 219,795; Weaver, People's, 20,595; Bidwell, Proh., 6,402.

1896 (Pres.), Bryan, Dem. and People's (Populist), 223,741; Palmer, Nat'l (Gold) Dem., 4,516; McKinley, Rep., 289,293; Levering, Proh., 3,544.

1900 (Pres.), Bryan, Dem., 209,265; McKinley, Rep., 307,808; Woolley, Proh., 9,502; Debs., Soc., 2,742.

1904 (Pres.), Parker, Dem., 149,141; Roosevelt, Rep., 307,907; Swallow, Proh., 11,601; Debs, Soc., 14,847.

1908 (Pres.), Bryan, Dem., 200,771; Taft, Rep., 275,210; Chafin, Proh., 9,837; Debs., Soc., 8,287.

1912 (Pres.), Wilson, Dem., 185,325; Taft, Rep., 119,805; Roosevelt, Prog., 161,809; Debs, Soc., 16,967; Chafin, Proh., 8,404.

1914 (U. S. Sen.), Dem., 167,251; Rep., 205,832; Prog., 15,058; Proh., 6,009; Soc., 8,462; Ind., 24,490.

1916 (Pres.), Wilson, Dem., 221,699; Hughes, Rep., 280,439; Hanly, Proh., 3,371; Benson, Soc., 10,976.

1920 (Pres.), Cox, Dem., 227,921; Harding, Rep., 634,674; Watkins, Proh., 4,197; Debs, Soc., 16,981; Christensen, F.-Lab., 10,321.

1920 (U. S. Sen.), Dem., 322,015; Rep., 528,499; F.-Lab., 9,020; Soc. Lab., 933.

KANSAS.

(Presidential vote, 1928, 1924.)

COUNTIES.	1928.		1924.			COUNTIES.	1928.		1924.		
	Hoover Rep.	Smith, Dem.	Coolidge, Rep.	Davis, Dem.	La Fol'te, Prog.		Hoover Rep.	Smith, Dem.	Coolidge, Rep.	Davis, Dem.	La Fol'te, Prog.
Allen	6,694	1,803	6,101	2,181	441	Logan	1,066	405	942	286	247
Anderson	3,562	1,874	3,101	1,421	563	Lyon	8,750	2,761	6,290	2,750	1,934
Atchinson	6,644	3,756	6,243	2,199	1,341	Marion	5,445	1,938	4,008	1,520	1,581
Barber	2,981	871	2,218	909	681	Marshall	6,319	3,329	5,809	2,369	1,139
Barton	4,966	2,777	4,109	1,605	1,560	McPherson	6,228	1,457	5,128	1,530	1,113
Bourbon	7,249	2,222	4,209	2,848	1,538	Meade	1,709	618	1,290	471	165
Brown	6,690	2,005	5,645	1,866	678	Miami	5,931	2,148	4,788	1,994	971
Butler	10,167	2,533	7,367	3,642	1,707	Mitchell	3,244	1,855	3,161	1,470	658
Chase	2,079	739	1,822	758	330	Montgo'ery	14,311	4,204	11,158	4,178	1,824
Chautauqua	3,303	944	2,439	1,086	540	Morris	3,830	929	3,089	1,040	645
Cherokee	7,478	3,442	5,437	3,071	1,770	Morton	1,010	259	669	286	261
Cheyenne	1,466	586	1,119	485	617	Nemaha	4,635	2,919	4,091	1,846	857
Clark	1,383	411	969	410	259	Neosho	6,603	2,459	5,106	2,274	1,319
Clay	4,457	1,515	3,767	1,417	802	Ness	2,057	784	1,628	541	350
Cloud	5,285	2,376	4,340	1,238	1,359	Norton	3,365	1,087	2,778	1,261	643
Coffey	4,338	1,514	3,551	1 631	503	Osage	5,898	2,058	4,956	2,049	836
Comanche	1,554	385	1,049	431	260	Osborne	3,678	821	3,333	905	420
Cowley	12,698	2,818	8,527	3,161	2,887	Ottawa	3,158	1,151	2,475	854	779
Crawford	10,990	6,351	9,063	3,433	5,509	Pawnee	2,829	913	2,407	1,111	331
Decatur	2,313	1,129	1,621	1,217	618	Phillips	3,205	1,332	2,647	1,376	792
Dickinson	7,752	2,246	6,177	1,690	1,698	Pottawat'ie	4,451	2,341	4,340	1,470	545
Donlphan	4,001	1,496	3,787	1,072	345	Pratt	4,054	934	2,761	1,203	847
Douglas	8,880	2,297	8,050	1,922	725	Rawlins	1,668	1,164	1,213	742	694
Edwards	2,171	768	1,929	548	403	Reno	12,869	3,843	10,337	3,675	1,837
Elk	3,004	831	2,443	1,104	255	Republic	4,324	1,956	3,671	1,616	835
Ellis	700	3,364	1,763	842	1,197	Rice	4,318	1,462	3,920	1,303	497
Ellsworth	2,450	1,588	2,286	950	654	Riley	6,589	1,787	5,452	1,646	689
Finney	2,433	709	1,753	614	476	Rooks	2,582	1,044	2,442	930	324
Ford	4,890	1,870	3,446	1,551	948	Rush	1,985	1,296	1,780	787	542
Franklin	7,344	1,951	6,005	2,324	628	Russell	2,782	1,366	2,637	687	777
Geary	2,746	1,203	2,678	723	636	Saline	7,871	3,107	6,533	1,966	2,005
Gove	1,469	590	1,211	400	176	Scott	886	450	733	445	264
Graham	1,832	1,087	1,631	629	773	Sedgwick	32,115	10,647	21,141	8,709	7,087
Grant	635	185	459	148	77	Seward	1,873	538	1,184	676	417
Gray	1,294	606	959	463	194	Shawnee	24,683	7,433	20,111	5,096	2,646
Greeley	439	121	357	75	124	Sheridan	1,450	930	1,320	542	371
Greenwood	5,862	1,554	4,179	1,794	556	Sherman	2,028	630	1,122	528	795
Hamilton	839	363	610	307	250	Smith	4,019	1,388	3,226	1,634	777
Harper	3,712	1,005	2,280	1,321	681	Stafford	3,278	1,025	3,100	957	463
Harvey	6,324	1,748	4,496	1,743	1,387	Stanton	497	164	379	158	70
Haskell	646	222	493	167	97	Stevens	1,133	300	913	302	157
Hodgeman	1,122	528	899	367	216	Sumner	8,948	2,108	5,551	2,554	1,997
Jackson	4,809	1,602	4,390	1,419	367	Thomas	1,828	899	1,436	822	477
Jefferson	4,807	1,601	4,418	1,320	340	Trego	1,357	982	1,120	399	407
Jewell	4,582	1,289	4,341	1,861	495	Wabaunsee	3,095	1,189	2,742	633	786
Johnson	8,184	3,373	6,102	2,518	603	Wallace	738	356	603	171	349
Kearny	854	229	635	199	269	Washingt'n	4,779	2,267	4,120	1,528	1,107
Kingman	3,287	1,408	2,416	1,077	954	Wichita	464	370	432	147	140
Kiowa	1,929	406	1,541	498	160	Wilson	5,603	1,465	4,596	1,735	739
Labette	9,044	2,968	6,591	2,969	2,369	Woodson	2,880	855	2,412	1,026	380
Lane	954	363	693	281	199	Wyandotte	32,822	16,881	23,879	8,909	7,353
Leavenw'th	8,465	6,538	9,428	2,982	1,445	Fed. Service	191	15	83	27	10
Lincoln	2,655	953	2,277	615	941						
Linn	4,277	1,328	3,159	1,683	614	Total	513,672	193,003	407,671	156,319	98,461

President (1928)—Thomas, Soc., 6,205; Foster, Workers, 320.

Governor (1928)—Reed, Rep., 433,391; Little, Dem., 219,327; Paterson, Soc., 7,924.

Governor (1926)—Davis, Dem., 179,308; Paulen, Rep., 321,540; Hilfrich, Soc., 7,046.

U. S. Senator (1926)—Stephens, Dem., 168,446; Curtis, Rep., 308,222; Phillips, Soc., 8,208.

Governor (1924)—Paulen, Rep., 323,403; Davis, Dem., 182,861; Phillips, Soc., 3,606; William Allen White, Ind., (anti-Ku Klux Klan), 149,811.

U. S. Senator (1924)—Capper, Rep., 428,494; Malone, Dem., 154,189; Fraley, Ind., 23,266.

PAST VOTE OF KANSAS.

1872 (Pres.), Greeley, Dem. and Lib., 32,970; Grant, Rep., 67,048; O'Conor, Lab. Ref., 156.

1876 (Pres.), Tilden, Dem., 37,902; Hayes, Rep., 78,354; Cooper, Greenback, 7,770.

1880 (Pres.), Hancock, Dem., 59,801; Garfield, Rep., 121,549; Weaver, Greenback, 19,851.

1884 (Pres.), Cleveland, Dem., 90,132; Blaine, Rep., 154,406; St. John, Proh., 4,495; Butler, Greenback, 16,341.

1888 (Pres.), Cleveland, Dem., 102,745; Harrison, Rep., 182,904; Fisk, Proh., 6,779; Streeter, United Labor, 31,788.

1892 (Pres.), Harrison, Rep., 157,241; Weaver, People's, 163,111; Bidwell, Proh., 4,553. The Democrats fused with the People's Party.

1894 (Gov.), Dem., 26,709; Rep., 148,697; Pop., 118,329; Proh., 5,496.

1896 (Pres.), Bryan, Dem., and People's (Populist), 172,915; Palmer, Nat'l (Gold) Dem., 1,209; McKinley, Rep., 159,345; Levering, Proh., 2,318.

1900 (Pres.), Bryan, Dem., 162,601; McKinley, Rep., 185,955; Woolley, Proh., 3,605; Debs, Soc., 1,605.

1904 (Pres.), Parker, Dem., 86,174; Roosevelt, Rep., 212,955; Swallow, Proh., 7,306; Debs, Soc., 15,869.

1908 (Pres.), Bryan, Dem., 161,209; Taft, Rep., 197,216; Chafin, Proh., 5,033; Debs, Soc., 12,420.

1912 (Pres.), Wilson, Dem., 143,663; Taft, Rep., 74,845; Roosevelt, Prog., 120,210; Debs, Soc., 26,779.

1914 (U. S. Sen.), Dem., 176,929; Rep., 180,823; Prog., 116,755; Soc., 24,502; Proh., 9,885.

1916 (Pres.), Wilson, Dem., 314,588; Hughes, Rep., 277,658; Hanly, Proh., 12,882; Benson, Soc., 24,685.

1916 (Gov.), Dem., 192,037; Rep., 354,519.

1918 (U. S. Sen.), Dem., 149,300; Rep., 281,931; Soc., 11,429.

1920 (Pres.), Cox, Dem., 185,464; Harding, Rep., 369,268; Debs, Soc., 15,511.

1920 (U. S. Sen.), Dem., 170,443; Rep., 327,072; Soc., 13,417.

KANSAS CROPS—THEN AND NOW.

Kansas, in 1860, grew 168,527 bushels of wheat; 5,678,834 bushels of corn, and 80,744 bushels of oats.

In 1928, that State grew 177,860,700 bushels of wheat, 179,116,320 bushels of corn, and 37,727,752 bushels of oats.

In the United States, Kansas ranked first in wheat production in 1913, 1914, 1916, 1919, 1920, 1921, 1923, 1924, 1926, and 1928.

KENTUCKY.

(Presidential vote, 1928, 1924.)

Counties.	1928.		1924.		
	Smith, Dem.	Hoover, Rep.	Coolidge, Rep.	Davis, Dem.	La Fol'te, Prog.
Adair	1,732	3,856	2,725	2,368	30
Allen	1,562	4,253	3,092	2,373	27
Anderson	1,718	1,859	1,398	2,089	30
Ballard	2,896	940	751	3,128	81
Barren	3,530	5,101	3,431	4,449	73
Bath	1,830	2,223	1,705	2,093	20
Bell	2,551	6,570	5,371	2,166	333
Boone	1,855	2,604	1,173	2,204	127
Bourbon	3,218	4,512	3,679	4,034	93
Boyd	4,611	9,118	6,042	4,079	660
Boyle	2,992	3,517	2,656	3,197	263
Bracken	1,201	2,820	1,749	1,485	25
Breathitt	3,017	2,309	1,708	2,820	10
Breckinr'ge	2,987	4,783	3,814	3,230	104
Bullitt	1,758	1,793	942	1,789	125
Butler	684	3,272	2,597	1,177	32
Caldwell	1,695	2,855	2,475	2,183	148
Calloway	3,431	1,557	932	3,790	130
Campbell	14,508	17,317	12,242	5,564	6,882
Carlisle	1,994	787	467	2,250	29
Carroll	1,863	1,649	1,298	2,243	18
Carter	2,392	5,342	4,414	2,552	231
Casey	1,519	3,805	3,090	1,797	31
Christian	5,702	7,069	7,150	6,585	101
Clark	3,460	3,495	2,686	3,857	44
Clay	651	4,439	3,551	1,144	108
Clinton	325	2,580	2,047	543	11
Crittenden	1,376	3,000	2,486	1,869	54
Cumberland	538	2,593	2,113	918	18
Daviess	7,332	8,896	7,202	8,116	161
Edmonson	1,076	3,104	2,005	1,183	.....
Elliott	1,317	601	591	1,702	26
Estill	1,886	3,641	2,071	2,052	195
Fayette	9,065	16,988	11,632	10,433	245
Fleming	2,086	3,798	2,543	2,590	30
Floyd	5,721	5,109	3,685	4,220	562
Franklin	3,853	3,485	2,811	4,678	59
Fulton	3,132	1,366	891	3,336	56
Gallatin	823	1,010	749	1,007	22
Garrard	1,729	2,862	2,574	2,126	26
Grant	1,662	2,448	1,424	1,923	208
Graves	6,237	3,223	2,279	7,266	247
Grayson	2,295	3,937	3,149	2,858	56
Green	1,272	2,824	1,909	1,548	8
Greenup	2,435	4,410	2,490	1,932	813
Hancock	1,151	1,614	1,313	1,323	59
Hardin	3,210	4,624	2,712	4,296	152
Harlan	3,958	12,251	9,632	2,133	1,263
Harrison	3,164	2,909	2,129	3,924	87
Hart	2,339	3,480	2,687	2,862	83
Henderson	4,068	5,443	4,828	4,046	186
Henry	2,929	2,334	1,910	3,706	30
Hickman	2,163	767	614	2,270	13
Hopkins	6,640	6,330	5,231	5,864	604
Jackson	123	3,552	2,506	284	75
Jefferson	64,472	97,803	61,475	50,409	5,032
Jessamine	2,295	2,857	2,144	2,470	25
Johnson	1,889	5,339	3,025	2,480	408
Kenton	18,165	21,043	13,444	7,948	8,897
Knott	2,822	1,004	886	2,286	16
Knox	1,497	5,928	3,761	1,537	290
Larue	1,727	1,892	1,368	1,993	25
Laurel	1,141	4,906	3,211	1,451	202
Lawrence	2,217	3,277	2,509	2,445	73
Lee	1,131	2,005	1,319	1,348	29
Leslie	159	2,806	2,035	223	17
Letcher	3,502	5,490	3,112	1,912	650
Lewis	1,120	4,077	3,002	1,447	172
Lincoln	2,314	3,903	2,927	3,100	240
Livingston	1,217	1,767	1,250	1,768	60
Logan	3,843	4,858	3,680	4,772	108
Lyon	1,286	1,215	976	1,696	38
Madison	4,736	6,325	5,253	4,895	90
Magoffin	1,806	2,816	2,182	1,757	21
Marion	3,461	2,395	1,956	3,055	94
Marshall	2,036	1,879	1,175	2,752	59
Martin	404	1,674	1,481	364	186
Mason	3,364	5,012	3,372	3,525	108
McCracken	5,535	7,368	4,956	6,028	1,218
McCreary	435	3,622	2,283	533	234
McLean	1,728	2,408	1,838	2,284	94
Meade	1,700	1,610	1,082	1,802	44
Menifee	725	732	445	873	7
Mercer	2,140	3,462	2,510	2,698	33
Metcalf	1,144	2,314	1,430	1,262	15
Monroe	843	3,127	2,434	970	34
Montgom'y	1,938	2,742	1,942	2,347	27
Morgan	2,575	2,025	1,792	3,311	28
Muhlenb'g	5,130	6,651	5,140	4,379	841
Nelson	4,031	2,926	2,066	3,863	76
Nicholas	1,836	1,867	1,333	2,235	35
Ohio	2,784	5,690	4,209	3,817	294
Oldham	1,359	1,804	899	1,954	35
Owen	2,552	1,573	914	3,155	36
Owsley	241	2,107	1,409	323	23
Pendleton	1,567	3,196	2,117	2,028	141
Perry	3,814	6,099	4,307	2,658	342
Pike	7,930	9,386	6,990	5,835	574
Powell	732	1,160	724	939	25
Pulaski	2,494	9,348	6,464	3,158	655
Robertson	640	742	485	680	9
Rockcastle	908	3,858	2,679	1,277	105
Rowan	1,170	1,857	1,305	1,092	53
Russell	823	3,028	2,258	1,224	24
Scott	2,843	3,192	2,315	3,805	38
Shelby	3,232	3,933	2,936	4,092	46
Simpson	2,490	1,635	1,285	2,688	48
Spencer	947	1,565	943	1,320	10
Taylor	1,684	3,149	2,227	2,052	19
Todd	2,416	2,496	1,935	2,679	57
Trigg	2,031	2,346	2,108	2,625	32
Trimble	1,317	573	332	1,676	2
Union	3,884	2,350	1,768	3,493	242
Warren	5,092	7,931	5,568	7,005	106
Washingt'n	2,266	2,933	2,268	2,328	10
Wayne	1,630	2,897	2,397	2,020	25
Webster	3,591	3,527	3,160	3,449	.....
Whitley	1,610	3,060	4,676	1,413	730
Wolfe	1,356	1,270	821	1,597	17
Woodford	2,056	2,490	2,077	2,472	7
Total	381,070	558,064	398,966	374,855	38,465

President (1928)—Thomas, Soc., 837; Reynolds, Soc. Lab., 340; Foster, Workers', 293.
President (1924)—Johns, Soc. Labor, 1,499; American Party, 1,299; Wallace, Commonw. Land, 248.
Governor (1927)—Beckham, Dem., 367,567; Sampson, Rep., 419,700.
Lieut. Gov. (1927)—Breathitt, Dem., 352,858; Nelson, Rep., 352,699.
U. S. Senator (1926)—Barkley, Dem., 286,997; Ernst, Rep., 266,657.
Kentucky voters in 1926 defeated two proposed bond issues, one for $5,000,000 for improvement of penal and charitable institutions; the other for $4,000,000 toward refunding State debt.
U. S. Senator (1924)—Sackett, Rep., 406,121; Stanley, Dem., 381,605.
Governor (1923)—Fields, Dem., 348,029; Dawson, Rep., 295,082.

PAST VOTE OF KENTUCKY.

1872 (Pres.), Greeley, Dem. and Lib., 99,995; Grant, Rep., 88,766; O'Conor, Lab. Ref., 2,373
1876 (Pres.), Tilden, Dem., 159,690; Hayes, Rep., 97,156; Cooper, Greenback, 1,944.
1880 (Pres.), Hancock, Dem., 149,068; Garfield, Rep., 106,306; Weaver, Greenback, 11,499.
1884 (Pres.), Cleveland, Dem., 152,961; Blaine, Rep., 118,122; Proh., 3,139; Greenback, 1,691.
1888 (Pres.), Cleveland, Dem., 183,800; Harrison, Rep., 155,134; Fisk, Proh., 5,225.
1892 (Pres.), Cleveland, Dem., 175,461; Harrison, Rep., 135,441; Weaver, People's, 23,500.
1895 (Gov.), Dem., 163,524; Rep., 172,436; (Pop., 16,911; Proh., 4,186.
1896 (Pres.), Bryan, Dem. and People's (Populist), 217,890; Palmer, Nat'l (Gold) Dem., 5,114; McKinley, Rep., 218,171; Levering, Proh., 4,781.
1899 (Gov.), Dem., 191,331; Rep., 193,741. (On a contest and recount, Goebel, Dem., was declared elected. He was assassinated.)
1900 (Pres.), Bryan, Dem., 234,899; McKinley, Rep., 226,801; Woolley, Proh., 2,814; Debs, Soc., 770.
1904 (Pres.), Parker, Dem., 217,170; Roosevelt, Rep., 205,277; Swallow, Proh., 6,609; Debs, Soc., 3,602.
1907 (Gov.), Dem., 196,428; Rep., 214,481.
1908 (Pres.), Bryan, Dem., 244,092; Taft, Rep., 235,711; Chafin, Proh., 5 887; Debs, Soc., 4,060.
1912 (Pres.), Wilson, Dem., 219,584; Taft, Rep., 115,512; Roosevelt, Prog., 102,766.
1914 (U. S. Sen.), Dem., 176,605; Rep., 144,758; Soc., 4,890; Prog., 14,108.
1916 (Pres.), Wilson, Dem., 269,990; Hughes, Rep., 241,854; Hanly, Proh., 3,036; Benson, Soc., 4,734.
1918 (U. S. Sen.), Dem., 184,385; Rep., 178,797.
1919 (Gov.), Dem., 214,114; Rep., 254,290.
1920 (Pres.), Cox, Dem., 456,497; Harding, Rep., 452,480; Watkins, Proh., 3,325; Debs, Soc., 6,409.
1920 (U. S. Sen.), Dem., 449,244; Rep., 454,226.

LOUISIANA.

(Presidential vote, 1928, 1924.)

Parishes	1928.		1924.			Parishes	1928.		1924.		
	Smith, Dem.	Hoover, Rep.	Davis, Dem.	Coolidge Rep.	Scattering, Ind.		Smith, Dem.	Hoover, Rep.	Davis, Dem.	Coolidge, Rep.	Scattering Ind.
Acadia	3,633	1,071	1,481	691	116	Morehouse	840	340	582	141	.....
Allen	1,308	725	1,012	410	.....	Natchitoches	2,099	526	1,132	200	14
Ascension	1,402	436	679	277	.....	Orleans	55,919	14,424	37,785	7,865	2,141
Assumption	948	307	305	601	.....	Ouachita	2,739	1,380	1,542	480	86
Avoyelles	2,896	419	1,010	314	.....	Plaquemines	1,056	98	432	119	20
Beauregard	1,513	468	1,191	235	1	Pointe Coupe	1,330	102	369	146	13
Bienville	1,301	367	774	67	3	Rapides	4,470	2,494	2,159	1,022	109
Bossier	1,187	225	751	48	23	Red River	891	317	579	34	34
Caddo	6,934	3,665	4,517	1,062	411	Richland	1,083	242	678	116	.....
Calcasieu	3,532	1,997	2,494	1,129	33	Sabine	1,414	735	1,176	217	10
Caldwell	802	288	442	77	4	St Bernard	2,359	77	526	13	.....
Cameron	390	41	353	20	.....	St. Charles	1,116	108	488	132	.....
Catahoula	710	341	218	78	.....	St. Helena	609	145	185	18	.....
Claiborne	1,560	249	1,252	54	.....	St. James	1,486	128	615	278	3
Concordia	591	133	319	46	.....	St. John Baptist	971	118	336	194	.....
De Soto	1,445	517	1,146	118	11	St. Landry	3,394	718	1,334	357	.....
E. Baton Rouge	4,575	2,995	2,764	611	19	St. Martin	1,892	242	461	172	23
East Carroll	436	130	277	71	.....	St. Mary	1,754	605	639	633	28
East Feliciana	622	160	504	25	.....	St. Tammany	1,811	945	969	269	73
Evangeline	1,873	300	603	153	1	Tangipahoa	2,834	1,415	1,626	479	.....
Franklin	1,141	492	687	143	.....	Tensas	350	96	338	21	.....
Grant	1,023	505	595	167	.....	Terrebone	1,642	268	482	415	.....
Iberia	2,561	413	740	679	.....	Union	1,085	422	875	7	1
Iberville	1,630	278	556	391	7	Vermillion	2,580	451	598	416	.....
Jackson	907	.....	682	88	.....	Vernon	2,191	500	1,372	142	33
Jefferson	5,326	742	1,663	296	216	Washington	2,020	1,528	1,278	179	189
Jefferson Davis	1,703	1,120	973	883	.....	Webster	1,430	356	929	52	52
Lafayette	3,197	592	978	531	324	W. Baton Rouge	608	78	191	92	41
Lafourche	1,994	243	678	611	.....	West Carroll	673	214	342	68	9
La Salle	881	450	453	102	11	West Feliciana	421	90	347	15	.....
Lincoln	1,041	670	1,005	157	4	Winn	1,161	533	797	120	.....
Livingston	1,047	975	657	110	.....						
Madison	318	151	274	13	.....	Total	164,655	51,160	93,218	24,670	4,063

Governor (1924)—Dem., 66,203; Rep., 1,420. U. S. Senator (1924)—Ransdell, Dem., 94,934.
U. S. Senator (1926)—Broussard, Dem., 54,180, unopposed.

PAST VOTE OF LOUISIANA

1876 (Pres.), Tilden, Dem., 70,508; Hayes, Rep., 75,135. The figures are those of the Returning Board. The figures on the face of the returns are said to have been: Tilden, 82,326; Hayes, 77,023.
1880 (Pres.), Hancock, Dem., 65,067; Garfield, Rep., 38,637; Weaver, Greenback, 439.
1884 (Pres.), Cleveland, Dem., 62,540; Blaine, Rep., 46,347.
1888 (Pres.), Cleveland, Dem., 85,032; Harrison, Rep., 30,701; Fisk, Proh., 127.
1892 (Pres.), Cleveland, Dem., 87,662; Harrison, Rep., 27,903.
1896 (Pres.), Bryan, Dem. and People's (Populist), 77,175; Palmer, Nat'l (Gold) Dem., 1,834; McKinley, Rep., 22,037.
1900 (Pres.), Bryan, Dem., 53,671; McKinley, Rep., 14,233.
1904 (Pres.), Parker, Dem., 47,708; Roosevelt, Rep., 5,205; Debs, Soc., 995.
1908 (Pres.) Bryan, Dem., 63,568; Taft, Rep., 8,958; Debs, Soc., 2,538.
1912 (Pres.), Wilson, Dem., 60,971; Taft, Rep., 3,834; Roosevelt, Prog., 9,323; Debs, Soc., 5,249.
1916 (Pres.), Wilson, Dem., 79,875; Hughes, Rep., 6,466; Roosevelt, Prog., 6,349; Benson, Soc., 292.
1920 (Pres.), Cox, Dem., 87,519; Harding, Rep., 38,538.

MAINE.

(Presidential vote, 1928, 1924.)

Counties.	1928.		1924.			Counties.	1928.		1924.		
	Hoover, Rep.	Smith, Dem.	Coolidge, Rep.	Davis, Dem.	La Follette, Prog.		Hoover, Rep.	Smith, Dem.	Coolidge, Rep.	Davis, Dem.	La Follette, Prog.
Androscog'n	11,790	10,940	9,680	4,733	1,743	Penobscot	21,750	9,114	15,081	3,618	1,386
Aroostook	14,545	5,771	9,554	1,510	626	Piscataquis	4,792	1,353	4,031	974	300
Cumberland	33,190	15,648	26,187	7,078	2,398	Sagadahoc	4,605	1,583	3,518	1,084	193
Franklin	4,923	1,487	3,389	1,123	156	Somerset	8,055	3,251	6,855	1,822	579
Hancock	8,140	1,773	5,474	1,392	195	Waldo	4,851	1,402	4,003	1,125	149
Kennebec	15,541	8,226	13,122	4,184	827	Washingt'n	8,531	3,073	6,010	2,106	483
Knox	6,660	2,332	4,919	1,770	272	York	18,671	10,030	16,244	6,004	1,527
Lincoln	4,470	1,181	3,311	878	82						
Oxford	9,409	4,015	7,062	2,563	466	Total	179,923	81,179	138,440	41,964	11,382

President (1928)—Thomas, Soc., 1,068; Scattering, 1.
U. S. Senator (1928)—Hale, Rep., 145,501; Holmes, Dem., 63,429.
Governor (1928)—Gardner, Rep., 148,513; Moran, Dem., 65,573.
President (1924)—Johns, Soc.-Lab., 406. Governor (1924)—Brewster, Rep., 145,281; Pattangall, Dem., 108,626. U. S. Senator (1924)—Fernald, Rep., 148,783; Redman, Dem., 97,428.
Governor (1926)—McLean, Dem., 80,748; Brewster, Rep., 100,776.]

PAST VOTE OF MAINE.

1876 (Pres.), Tilden, Dem., 49,823; Hayes, Rep., 66,300; Smith, Proh., Rep., 663.
1880 (Pres.), Hancock, Dem., 65,171; Garfield, Rep., 74,039; Weaver, Greenback, 4,408.
1884 (Pres.), Cleveland, Dem., 52,140; Blaine, Rep., 72,209; St. John, Proh., 2,160.
1888 (Pres.), Cleveland, Dem., 50,437; Harrison, Rep., 73,656; Fisk, Proh., 2,691.
1892 (Pres.), Cleveland, Dem., 48,024; Harrison, Rep., 62,878; Weaver, People's, 2,045.
1896 (Pres.), Bryan, Dem. and People's (Populist), 34,587; Palmer, Nat'l (Gold) Dem., 1,867; McKinley, Rep., 80,461; Levering, Proh., 1,589.
1900 (Pres.), Bryan, Dem., 36,823; McKinley, Rep., 65,435; Woolley, Proh., 2,585; Debs, Soc., 878.
1904 (Pres.), Parke , Dem., 27,648; Roosevelt, Rep., 64,435; Swallow, Proh., 1,510; Debs, Soc., 2,103.
1908 (Pres.), Bryan, Dem., 35,403; Taft, Rep., 66,987; Chafin, Proh., 1,487; Debs, Soc., 1,758.
1910 (Gov.), Dem., 73,425; Rep., 64,672; Soc., 1,582; Proh., 1,352.
1912 (Pres.), Wilson, Dem., 51,113; Taft, Rep., 26,545; Roosevelt, Prog., 48,495; Debs, Soc., 2,541.
1914 (Gov.), Dem., 62,039; Rep., 58,862; Prog., 18,225; Soc., 1,872; Proh., 594.
1916 (Pres.), Wilson, Dem., 64,127; Hughes, Rep., 69,506; Hanly, Proh., 597; Benson, Soc., 2,177
1916 (U. S. Sen.), Dem., 69,478; Rep., 79,572.
1918 (U. S. Sen.), Dem., 54,289; Rep., 67,431.
1920 (Pres.), Cox, Dem., 58,961; Harding, Rep., 136,355; Watkins, Proh., 1; Debs, Soc., 2,214.

MARYLAND.

(Presidential vote, 1928, 1924.)

Counties.	1928.		1924.		
	Hoover Rep.	Smith Dem.	Coolidge, Rep.	Davis, Dem.	La Fol'te, Prog.
Allegany	19,443	9,026	9,042	4,442	2,822
A. Arundel	10,145	6,259	3,670	3,766	758
Baltimore	23,889	15,632	9,383	9,424	2,824
Balto. City	135,182	126,106	69,588	60,222	32,958
Calvert	2,085	1,144	1,564	1,242	84
Caroline	3,270	2,030	2,210	2,493	165
Carroll	8,644	3,731	5,301	4,616	320
Cecil	5,706	2,201	3,156	2,863	213
Charles	2,522	1,860	2,215	1,491	177
Dorchester	6,333	2,180	3,356	3,047	203
Frederick	12,569	7,406	8,441	7,740	903
Garrett	4,371	1,168	2,594	1,226	373
Harford	6,479	3,506	3,545	3,841	355
Howard	3,296	3,088	1,989	2,786	382
Kent	2,777	2,450	2,019	2,628	94
Montgom'y	9,318	6,739	5,675	6,639	557
Pr. George's	9,782	6,658	5,868	5,088	1,477
Qu'n Anne's	2,666	2,700	1,656	3,155	82
St. Mary's	1,609	3,006	1,653	1,949	93
Somerset	5,071	2,277	3,230	2,903	152
Talbot	3,990	2,432	2,451	2,859	176
Washingt'n	12,404	5,816	7,460	5,964	1,654
Wicomico	5,923	4,095	3,744	4,620	269
Worcester	4,005	2,116	2,604	3,068	66
Totals	301,479	223,626	162,414	148,072	47,157

President (1928)—Thomas, Soc., 1,701; Reynolds, Lab., 906; Foster, Workers, 636.
U. S. Senator (1928)—Goldsborough, Rep., 256,224; Bruce, Dem., 214,447; Toole, Soc., 2,026.
President (1924)—Johns, Soc. Labor, 987.
Governor (1926)—Ritchie, Dem., 207,435; Mullikin, Rep., 148,145; Dill, Soc., 2,495.
U. S. Senator (1926)—Tydings, Dem., 195,410; Weller, Rep., 140,695; Toole, Soc., 3,659.
Governor (1923)—Ritchie, Dem., 177,871; Armstrong, Rep., 137,471; Soc., 1,465; Lab., 968.
U. S. Senator (1922)—Bruce, Dem., 160,947; France, Rep., 139,581; Smiley, Soc., 2,479; Lab., 2,909

PAST VOTE OF MARYLAND.

1872 (Pres.), Greeley, Dem. and Lib., 67,687; Grant, Rep., 66,760.
1876 (Pres.), Tilden, Dem., 91,780; Hayes, Rep., 71,981.
1880 (Pres.), Hancock, Dem., 93,706; Garfield, Rep., 78,515; Weaver, Greenback, 818.
1884 (Pres.), Cleveland, Dem., 96,932; Blaine, Rep., 85,699; St. John, Proh., 2,794; Butler, Greenback, 531.
1888 (Pres.), Cleveland, Dem., 106,168; Harrison, Rep., 99,986; Fisk, Proh., 4,767.
1892 (Pres.), Cleveland, Dem., 113,866; Harrison, Rep., 92,736; Weaver, Peoples', 796; Bidwell, Proh., 5,877.
1896 (Pres.), Bryan, Dem. and Peoples' (Populist), 104,746; Palmer, Nat'l (Gold) Dem., 2,507; McKinley, Rep., 136,978; Levering, Proh., 6,058.
1900 (Pres.), Bryan, Dem., 122,237; McKinley, Rep., 136,185; Woolley, Proh., 4,574; Debs, Soc., 904.
1904 (Pres.), Parker, Dem., 109,446; Roosevelt, Rep., 109,497; Swallow, Proh., 3,034; Debs, Soc., 2,247.
1908 (Pres.), Bryan, Dem., 115,908; Taft, Rep., 116,513; Chafin, Proh., 3,302; Debs, Soc., 2,323.
1911 (Gov.), Dem., 103,395; Rep., 106,392.
1912 (Pres.), Wilson, Dem., 112,674; Taft, Rep., 54,956; Roosevelt, Prog., 57,789; Debs, Soc., 3,996.
1914 (U. S. Sen.), Dem., 110,204; Rep., 94,864; Prog., 3,697; Soc., 3,255; Proh., 3,144; Lab., 969.
1916 (Pres.), Wilson, Dem., 138,359; Hughes, Rep., 117,347; Hanly, Proh., 2 903; Benson, Soc., 2,674.
1916 (U. S. Sen.), Dem., 109,740; Rep., 13,662; Proh., 3,325; Soc., 2,590; Lab., 1,143.
1920 (Pres.), Cox, Dem., 180,626; Harding, Rep., 236,117; Debs, Soc., 8,876; Christensen, F.-Lab., 1,645.
1920 (U. S. Sen.), Dem., 169,200; Rep., 184,999.

MASSACHUSETTS.

(Presidential vote, 1928, 1924.)

Counties.	1928.		1924.		
	Hoover Rep.	Smith Dem.	Coolidge, Rep.	Davis, Dem.	La Fol'te, Prog.
Barnstable	9,886	2,899	7,333	881	339
Berkshire	23,855	24,075	21,106	9,712	3,637
Bristol	55,205	59,257	58,929	19,802	9,624
Dukes	1,487	470	1,182	108	69
Essex	102,008	89,508	92,918	25,135	20,390
Franklin	14,333	5,842	11,350	2,089	1,253
Hampden	56,063	62,056	46,489	19,079	11,683
Hampshire	14,101	12,695	13,918	5,037	2,014
Middlesex	189,189	173,339	162,530	64,544	27,510
Nantucket	865	395	708	167	12
Norfolk	73,530	47,057	57,948	15,041	8,269
Plymouth	41,362	24,887	34,728	8,863	6,549
Suffolk	99,392	204,603	104,658	78,702	37,574
Worcester	94,290	85,675	89,679	31,171	12,302
Total	775,566	792,758	703,489	280,884	141.225

President (1928)—Thomas, Soc., 6,262; Foster, Workers, 2,464; Reynolds, Soc. Lab., 773.
U. S. Senator (1928)—Walsh, Dem., 818,055; Young, Rep., 693,563; Lewis, Soc., 7,675; Ballam, Workers, 5,621.
Governor (1928)—Allen, Rep., 769,372; Cole, Dem., 750,137; Mary Hapgood, Soc., 7,486; Bixby, Workers, 4,495; Cook, Proh., 3,098; Surridge, Soc. Lab., 1,374; Edith MacFadden, Ind., 928.
In 1928, sentiment in favor of repeal of the prohibition amendment was expressed by a majority of the voters in 33 of the 36 State Senate Districts of Massachusetts, while three districts returned a majority against repeal. The subject went before the voters in the form of a "question of public policy," which appeared on the ballots in all but four of the forty Senate Districts.
In 1928, also, Massachusetts voters legalized Sunday sports, leaving it to local Councils or other qualified officials to pass enabling ordinances.
President (1924)—Foster, Workers' Party, 2,637; Johns, Soc.-Lab., 1,668.
Governor (1926)—Gaston, Dem., 407,389; Fuller, Rep., 595,006.
Governor (1924)—Fuller, Rep., 650,817; Curley, Dem., 490,010; Ballam, Workers' Party, 9,506; Hayes, Soc. Lab., 4,854; Hutchins, Soc., 6,292.
U. S. Senator (1924)—Gillett, Rep., 566,188; Walsh, Dem., 547,600; Konkiow, Workers' Party, 12,716.

PAST VOTE OF MASSACHUSETTS.

1872 (Pres.), Greeley, Dem. and Lib., 59,260; Grant, Rep., 133,472.
1876 (Pres.), Tilden, Dem., 108,777; Hayes, Rep., 150,063.
1880 (Pres.), Hancock, Dem., 111,960; Garfield, Rep., 165,205; Weaver, Greenback, 4,548.
1884 (Pres.), Cleveland, Dem., 122,481; Blaine, Rep., 146,724; St. John, Proh., 10,026; Butler, Greenback, 24,433.
1888 (Pres.), Cleveland, Dem., 151,905; Harrison, Rep., 183,892; Fisk, Proh., 8,701.
1892 (Pres.), Cleveland, Dem., 176,858; Harrison, Rep., 202,927; Weaver, People's, 3,348; Bidwell, Proh., 7,539.
1896 (Pres.), Bryan, Dem. and People's (Populist), 121,385; Palmer, Nat'l (Gold) Dem., 11,809; McKinley, Rep., 278,976; Levering, Proh., 3,060.
1900 (Pres.), Bryan, Dem., 157,016; McKinley, Rep., 239,147; Woolley, Proh., 6,208; Debs, Soc., 9,716.
1904 (Pres.), Parker, Dem., 165,772; Roosevelt, Rep., 257,822; Swallow, Proh., 4,286; Debs, Soc., 13,602.
1908 (Pres.), Bryan, Dem., 155,543; Taft, Rep., 265,966; Chafin, Proh., 4,379; Debs, Soc., 10,781.
1912 (Pres.), Wilson, Dem., 173,408; Taft, Rep., 155,948; Roosevelt, Prog., 142,228; Debs, Soc., 12,616.
1916 (Pres.), Wilson, Dem., 247,885; Hughes, Rep., 268,784; Hanly, Proh., 2,993; Benson, Soc., 11,058.
1916 (U. S. Sen.), Dem., 234,238; Rep., 267,177; Soc., 15,558.
1918 (U. S. Sen.), Dem., 207,478; Rep., 188,287; Ind., 21,985.
1920 (Pres.), Cox, Dem., 276,691; Harding, Rep., 681,153; Debs, Soc., 32,267.

MICHIGAN.

(Presidential vote, 1928, 1924.)

Counties.	1928		1924.			Counties.	1928.		1924.		
	Hoover Rep.	Smith Dem.	Coolidge, Rep.	Davis, Dem.	La Fol'te, Prog.		Hoover Rep.	Smith Dem.	Coolidge, Rep.	Davis, Dem.	La Fol'te, Prog.
Alcona	1,147	302	1,027	180	179	Lapeer	6,514	1,312	6,297	938	248
Alger	1,716	1,053	1,623	230	505	Leelanau	14,794	4,321	1,792	305	249
Allegan	10,792	2,358	9,417	1,558	795	Lenawee			13,358	3,952	958
Alpena	3,467	1,984	4,628	964	488	Livingston	5,642	2,075	4,886	2,031	274
Antrim	2,756	484	2,246	368	270	Luce	1,466	350	850	114	83
Arenac	1,612	749	1,767	572	254	Mackinac	1,879	1,355	1,606	997	481
Baraga	2,203	1,046	1,714	207	391	Macomb	12,845	7 363	11,147	3,190	1,506
Barry	6,044	1,459	5,656	2,040	242	Manistee	4,129	2,624	3,701	1,312	1,294
Bay	12,467	9,395	14,861	5,881	1,991	Marquette	10,879	4,716	9,771	854	2,984
Benzie	1,849	321	1,922	198	419	Mason	4,318	1,567	3,567	817	791
Berrien	19,064	8,555	15,612	4,427	4,183	Mecosta	4,422	1,004	3,884	794	304
Branch	6,818	2,266	6,016	2,253	943	Menominee	4,255	4,198	4,142	1,043	2,459
Calhoun	24,379	5,769	18,165	4,016	2,782	Midland	4,555	964	4,004	632	358
Cass	5,720	2,346	4,545	2,329	645	Missaukee	1,756	247	1,723	206	79
Charlevoix	3,489	842	3,346	405	387	Monroe	10,202	7,242	8,940	6,984	1,343
Cheboygan	2,743	1,784	2,683	994	441	Montcalm	7,691	1,572	6,942	1,395	349
Chippewa	5,326	2,355	5,443	521	997	M'ntm'ncy	787	270	748	141	264
Clare	1,920	381	1,920	359	157	Muskegon	16,997	5,158	14,422	1,466	2,188
Clinton	6,161	2,013	6,637	1,349	596	Newaygo	4,552	888	4,243	724	333
Crawford	776	237	840	164	137	Oakland	45,343	10,011	28,603	4,083	2,201
Delta	5,420	5,419	4,761	468	4,204	Oceana	3,555	781	3,335	649	380
Dickinson	5,840	4,626	4,528	404	1,495	Ogemaw	1,630	579	1,718	258	156
Eaton	8,493	2,285	8,232	2,464	394	Ontonagon	2,394	1,353	2,249	417	399
Emmet	3,679	1,166	3,020	782	501	Osceola	3,923	582	3,050	571	256
Genesee	42,743	10,910	34,264	4,251	2,124	Oscoda	476	73	389	51	30
Gladwin	1,795	341	1,908	249	242	Ostego	1,049	476	1,144	248	143
Gogebic	6,061	3,134	5,128	496	1,781	Ottawa	15,417	2,524	11,688	1,863	1,220
Gd. Tr'v'rse	4,429	1,489	4,011	556	709	Presque Isle	1,992	1,029	2,315	431	645
Gratiot	8,823	1,854	6,720	1,827	200	Roscommon	780	236	484	98	101
Hillsdale	8,282	1,893	6,556	1,982	947	Saginaw	22,467	11,555	23,618	6,207	4,649
Houghton	11,240	6,573	13,833	1,047	1,579	Sanilac	7,888	1,736	7,767	983	366
Huron	7,046	3,797	8,843	983	983	Schoolcraft	1,826	877	1,515	190	720
Ingham	29,383	7,654	28,005	4,811	1,488	Shiawassee	9,851	2,496	8,987	1,740	1,366
Ionia	9,471	3,089	9,502	2,281	559	St. Clair	18,177	7,151	17,435	3,608	1,635
Iosco	1,873	552	1,713	308	329	St. Joseph	8,781	2,698	6,633	2,644	747
Iron	4,103	2,262	2,802	255	1,143	Tuscola	8,188	1,464	7,490	1,070	653
Isabella	4,926	1,762	5,245	1,202	285	Van Buren	9,325	2,643	7,384	1,659	1,170
Jackson	25,080	7,462	19,640	5,667	2,880	Washtenaw	19,676	5,308	14,326	3,603	1,728
Kalamazoo	23,626	5,946	18,451	3,574	2,283	Wayne	265,852	157,047	268,053	23,475	39,773
Kalkaska	988	160	966	204	177	Wexford	4,825	853	3,926	598	443
Kent	56,573	18,229	45,207	7,968	5,356						
Keweenaw	1,305	409	1,421	50	67						
Lake			1,069	313	160	Totals	965,396	396,762	874,631	152.238	122,014

President (1928)—Thomas, Soc., 3,516; Foster, Workers, 2,881; Varney, Proh., 2,728; Reynolds, Soc.-Lab., 799.

U. S. Senator (1928)—(Short term)—Vandenberg, Rep., 974,203; Bailey, Dem., 375,673.

U. S. Senator (1928) (Full term)—Vandenberg, Rep., 977,893; Bailey, Dem., 376,592; Krieghoff, Soc., 2,796; Faulkner, Workers, 2,249; Boyd, Soc. Lab., 689.

Governor (1928)—Green, Rep., 961,179; Comstock, Dem., 404,546; Lockwood, Soc., 2,850; Brooks, Proh., 2,575; Reynolds, Workers, 2,537; Dinger, Soc. Lab., 654.

President (1924)—Faris, Proh., 6,085; Johns, Soc. Lab., 5,330.

Governor (1926)—Comstock, Dem., 227,155; Green, Rep., 399,564; Titus, Proh., 2,507; Reynolds, Work., 1,512.

U. S. Senator (1924)—Couzens, Rep., 858,934; Cooley, Dem., 284,609; Titus, Proh., 8,330; Cunningham, Soc.-Lab., 3,080; Day, Soc., 1,619.

Governor (1924)—Groesbeck, Rep., 799,225; Frendsdorf, Dem., 343,577; Krieghoff, Soc., 2,725; Dinger, Soc. Lab., 4,079; Johnston, Proh., 11,118.

Governor (1922)—Cummins, Dem., 218,252; Groesbeck, Rep., 356,933; Blumenberg, Soc., 4,452; Hoyt, Proh., 2,744; Markley, Soc. Lab., 1,279.

PAST VOTE OF MICHIGAN.

1872 (Pres.), Greeley, Dem. and Lib., 77,020; Grant, Rep., 136,199; O'Conor, Lab. Ref., 2,873; Black, Proh., 1,271.

1876 (Pres.), Tilden, Dem., 141,095; Hayes, Rep., 166,534; Cooper, Greenback, 9,060; Smith, Proh., Ref., 767.

1880 (Pres.), Hancock, Dem., 131,301; Garfield, Rep., 185,190; Weaver, Greenback, 34,895; Dow, Proh., 942.

1882 (Gov.), Dem.-Greenback, 154,269; Rep., 149,697; Straight Greenback, 2,006; Proh., 5,854.

1884 (Pres.), Cleveland, Dem., 149,835; Blaine, Rep., 192,669; St. John, Proh., 18,403; Butler, Greenback, 42,243.

1888 (Pres.), Cleveland, Dem., 213,469; Harrison, Rep., 236,387; Fisk, Proh., 20,945; Streeter, United Labor, 4,555.

1890 (Gov.), Dem., 183,725; Rep., 172,205; Indus., 13,918; Proh., 28,681.

1892 (Pres.), Cleveland, Dem., 202,296; Harrison Rep., 222,708; Weaver, People's, 19,931; Bidwell, Proh., 20,857.

1896 (Pres.), Bryan, Dem. and People's (Populist), 237,268; Palmer, Nat'l (Gold) Dem., 6,968, McKinley, Rep., 293,582; Levering, Proh., 6,846.

1900 (Pres.), Bryan, Dem., 211,685; McKinley, Rep., 316,269; Woolley, Proh., 11,859; Debs, Soc., 2,826.

1904 (Pres.), Parker, Dem., 135,392; Roosevelt, Rep., 364,957; Swallow, Proh., 13,441; Debs, Soc., 9,042.

1908 (Pres.), Bryan, Dem., 175,771; Taft, Rep., 335,580; Chafin, Proh., 16,974; Debs, Soc., 11,586.

1912 (Pres.), Wilson, Dem., 150,751; Taft, Rep., 152,244; Roosevelt, Prog., 214,584; Debs, Soc., 23,211.

1912 (Gov.), Dem., 194,017; Rep., 169,963; Prog., 152,909; Soc., 21,398; Proh., 7,811.

1914 (Gov.), Dem., 212,063; Rep., 176,254; Prog., 36,747; Soc., 11,056; Proh., 3,830; Soc. Lab., 497.

1916 (Pres.), Wilson, Dem., 285,151; Hughes, Rep., 339,097; Hanly, Proh., 8,139; Benson, Soc., 16,120.

1918 (U. S. Sen.), Dem., 212,487; Rep., 220,054; Soc., 4,763; Proh., 1,133.

1920 (Pres.), Cox, Dem., 233,450; Harding, Rep., 762,865; Watkins, Proh., 9,646; Debs, Soc., 28,947; Christensen, Farm. Lab., 10,372.

MINNESOTA.

(Presidential vote, 1928, 1924.)

Counties.	1928.		1924.			Counties.	1928.		1924.		
	Hoover, Rep.	Smith, Dem.	Coolidge, Rep.	Davis, Dem.	La Fol'te, Prog.		Hoover, Rep.	Smith, Dem.	Coolidge, Rep.	Davis, Dem.	La Fol'te, Prog.
Aitkin	3,951	1,428	2,720	212	1,959	Martin	5,110	2,822	4,258	751	2,529
Anoka	3,816	2,571	3,146	458	1,883	Meeker	4,175	2,761	2,757	365	2,910
Becker	4,273	3,253	2,936	429	2,963	Mille Lacs	3,998	1,436	2,413	167	2,348
Beltrami	4,062	2,221	2,960	323	3,053	Morrison	3,846	5,222	3,128	769	3,546
Benton	2,373	2,732	1,629	572	1,644	Mower	6,209	3,587	5,061	564	3,436
Big Stone	1,641	2,133	1,524	260	1,508	Murray	2,602	2,078	2,034	334	2,048
Blue Earth	8,120	5,177	6,773	1,123	4,360	Nicollet	3,628	2,466	2,518	287	2,208
Brown	3,611	5,341	2,255	270	4,515	Nobles	3,676	2,862	2,835	421	2,875
Carlton	4,582	2,138	3,142	303	2,552	Norman	3,308	1,401	1,997	171	2,174
Carver	3,983	2,885	2,214	358	2,907	Olmsted	8,334	4,720	5,722	857	3,508
Cass	3,781	1,747	2,800	270	2,052	Otter Trail	11,624	4,990	7,557	568	5,346
Chippewa	3,547	2,032	2,140	140	2,761	Pennington	2,506	1,198	1,126	146	2,320
Chisago	4,215	1,297	2,678	135	2,236	Pine	4,278	3,185	2,706	469	3,196
Clay	5,057	3,128	3,081	439	3,357	Pipestone	2,578	1,591	2,066	219	1,984
Clearwater	1,898	1,189	1,020	86	1,592	Polk	7,215	5,357	5,027	663	5,695
Cook	609	219	471	29	189	Pope	3,382	1,667	2,079	151	2,284
Cottonwood	3,405	1,604	2,722	217	3,818	Ramsey	53,054	56,807	39,566	8,407	34,684
Crow Wing	6,436	2,851	4,230	417	3,725	Red Lake	712	1,507	643	213	956
Dakota	6,019	7,215	3,931	929	4,378	Redwood	5,111	2,899	3,342	443	2,778
Dodge	3,569	1,196	2,856	215	1,239	Renville	5,107	3,731	3,405	641	3,898
Douglas	4,262	2,829	2,424	315	3,430	Rice	6,576	5,014	5,883	1,199	2,454
Faribault	5,885	2,545	4,682	578	2,776	Rock	2,433	1,607	2,065	261	1,637
Fillmore	7,719	2,143	5,550	460	2,797	Roseau	2,618	1,342	1,300	148	1,862
Freeborn	7,815	2,859	6,139	480	2,991	St. Louis	44,331	25,401	37,033	2,577	23,166
Goodhue	9,752	3,520	6,849	615	4,113	Scott	1,732	4,419	1,324	329	2,327
Grant	2,037	1,687	1,674	118	1,681	Sherburne	2,437	1,064	1,961	180	925
Hennepin	125,472	80,851	101,120	10,806	58,846	Sibley	3,301	2,553	1,749	341	2,935
Houston	3,615	1,937	2,782	402	1,992	Stearns	6,459	16,104	6,469	1,354	9,385
Hubbard	2,291	1,120	1,884	191	1,166	Steele	4,744	2,826	3,598	796	1,632
Isanti	3,137	1,191	1,588	79	2,332	Stevens	2,275	1,457	1,553	238	1,362
Itasca	5,103	3,122	4,961	496	2,532	Swift	2,791	2,733	1,654	334	2,918
Jackson	3,099	2,503	2,760	407	2,446	Todd	5,682	3,733	4,441	557	3,339
Kanabec	2,380	1,040	1,507	128	1,521	Traverse	1,214	1,899	1,002	202	1,330
Kandiyohi	5,780	2,481	3,222	222	4,552	Wabasha	3,944	3,087	2,834	644	2,811
Kittson	1,957	1,383	1,333	253	1,503	Wadena	2,592	1,343	1,900	182	1,265
Koochich'g	2,599	2,110	1,536	222	2,304	Waseca	3,251	2,418	2,081	442	3,057
Lac Q'i Parl	3,406	2,245	2,860	106	2,481	Washingt'n	6,113	4,158	4,482	699	3,351
Lake	2,014	618	1,251	60	1,319	Watonwan	3,306	1,412	2,297	279	1,703
L'ke o' W'ds	718	671	730	92	832	Wilkin	1,874	1,578	1,342	245	1,250
Le Sueur	3,401	4,615	2,475	1,199	2,756	Winona	7,459	6,484	5,670	1,111	6,183
Lincoln	1,952	2,064	1,657	252	1,511	Wright	6,011	4,483	4,349	567	4,172
Lyon	4,058	3,274	3,519	334	2,674	Yellow Med	3,302	2,861	2,278	151	3,440
McLeod	4,252	3,445	2,841	563	2,893						
Mahnomen	606	1,378	629	122	1,094	Totals	560,977	396,451	420,759	55,913	339,192
Marshall	3,738	2,200	2,100	290	2,812						

President (1928)—Thomas, Soc., 6,774; Foster, Communist, 4,853; Reynolds, Industrial, 1,921.

U. S. Senator (1928)—Shipstead, Farm. Lab., 665,169; Nelson, Rep., 342,992; Dunne, Communist, 9,380.

Governor (1928)—Nelson, Dem., 213,734; Christianson, Rep., 549,857; Lundeen, Farm.-Lab., 227,193; Bentall, Communist, 5,760; Brandborg, Industrial, 3,279.

President (1924)—Johns, Soc.-Industrial, 1,855; Foster, Workers' Party, 4,427.

Governor (1926)—Jaques, Dem., 3?,008; Christianson, Rep., 395,779; Johnson, Farm.-Lab., 266,845.

Governor (1924)—Christianson, Rep., 406,692; Olson, Farm.-Lab., 366,029; Nery, Dem., 49,353; Anderson, Soc.-Industrial, 3,876; Ferch, Ind.-Prog., 9,052.

U. S. Senator (1924)—Schall, Rep., 388,594; Johnson, Farm.-Lab., 380,646; Farrell, Dem., 53,709; Birmingham, Ind., 8,620; Keefe, Ind., 4,994.

U. S. Senator (1923)—(Special election, July 16, for successor to Knute Nelson, deceased.)—Magnus Johnson, Farm.-Lab., 290,165; Jas. Carley, Dem., 19,311; J. A. O. Preus, Rep., 195,319.

Governor (1922)—Indrehus, Dem., 79,903; Preus, Rep., 309,756; Johnson, Farm.-Lab., 295,479.

U. S. Senator (1922)—Anna Oleson, Dem., 123,624; Kellogg, Rep., 241,833; Shipstead, Farm.-Lab., 325,372.

PAST VOTE OF MINNESOTA.

1872 (Pres.), Greeley, Dem. and Lib., 35,211; Grant, Rep., 55,708.

1876 (Pres.), Tilden, Dem., 48,587; Hayes, Rep., 72,955; Cooper, Greenback, 2,389; Smith, Proh. Rep., 144.

1880 (Pres.), Hancock, Dem., 53,315; Garfield, Rep., 93,902; Weaver, Greenback, 3,267; Dow, Proh., 286.

1884 (Pres.), Cleveland, Dem., 70,065; Blaine, Rep., 111,685; St. John, Proh., 4,684; Butler, Greenback, 3,583.

1888 (Pres.), Cleveland, Dem., 104,385; Harrison, Rep., 142,492; Fisk, Proh., 15,311; Streeter, U. Lab., 1,097.

1892 (Pres.), Cleveland, Dem., 100,920; Harrison, Rep., 122,823; Weaver, 107,077; Bidwell, Proh., 14,182.

1896 (Pres.), Bryan, Dem. and Peoples' (Populist), 130,735; McKinley, Rep., 193,503; Levering, Proh., 4,339; Palmer, Gold Dem., 3,222.

1898 (Gov.), Fusion, 131,980; Rep., 111,796; Pop., 1,802; Proh., 5,299.

1900 (Pres.), Bryan, Dem., 112,901; McKinley, Rep., 190,461; Woolley, Proh., 8,555; Debs, Soc., 3,065.

1904 (Pres.), Parker, Dem., 55,187; Roosevelt, Rep. 216,651; Swallow, Proh., 6,352; Debs, Soc., 11,692.

1904 (Gov.), Dem., 147,992; Rep., 140,130.

1906 (Gov.), Dem., 168,480; Rep., 96,162; Proh., 7,223; Pub. own, 4,646.

1908 (Pres.), Bryan, Dem., 109,401; Taft, Rep., 195,843; Chafin, Proh., 11,107; Debs, Soc., 14,527.

1908 (Gov.), Dem., 175,136; Rep., 147,997; Proh., 7,024; Soc., 6,516; Ind., 593.

1912 (Pres.), Wilson, Dem., 106,426; Taft, Rep., 64,334; Roosevelt, Prog., 125,856; Debs, Soc., 27,505.

1914 (Gov.), Dem., 156,304; Rep., 143,730; Prog., 3,553; Soc., 17,225; Indus., 3,861; Proh., 18,582.

1916 (Pres.), Wilson, Dem., 179,152; Hughes, Rep., 179,544; Roosevelt, Prog., 290; Hanly, Proh., 7,793; Benson, Soc., 20,117.

1916 (U. S. Sen.), Dem., 117,541; Rep., 185,159; Proh., 78,425.

1918 (U. S. Sen.), Nat., 137,274; Rep., 206,555.

1920 (Pres.), Cox, Dem., 142,994; Harding, Rep., 519,421; Watkins, Proh., 11,489; Debs, Soc., 56,106.

MISSISSIPPI.
(Presidential vote, 1928, 1924.)

Counties.	1928.		1924.		
	Smith, Dem.	Hoover, Rep.	Davis, Dem.	Coolidge, Rep.	La Fol'te, Prog.
Adams	1,337	841	841	301	16
Alcorn	1,532	336	1,831	223	2
Amite	1,189	322	927	86	.....
Attala	2,258	113	1,600	119	47
Benton	794	48	541	35	3
Bolivar	1,939	266	1,212	266	96
Calhoun	1,277	281	1,132	69	197
Carroll	1,102	45	901	70	.....
Chickasaw	1,503	174	1,300	86	29
Choctaw	1,008	116	1,219	98	.....
Claiborne	708	43	606	14	.....
Clarke	1,131	557	1,306	87	2
Clay	1,456	118	1,145	80	.....
Coahoma	1,778	223	1,362	121	.....
Copiah	2,735	165	2,092	43	.....
Covington	1,131	187	820	48	91
De Soto	1,360	65	1,066	17	.....
Forrest	1,793	1,447	1,832	156	152
Franklin	905	181	591	37	.....
George	337	371	502	69	.....
Greene	593	341	458	30	.....
Grenada	1,157	39	933	17	.....
Hancock	1,284	456	469	192	51
Harrison	3,712	1,480	3,063	523	165
Hinds	5,726	986	4,086	252	170
Holmes	2,004	134	1,173	92	.....
Humphreys	1,020	...	628	33	.....
Issaquena	134	5	126	17	.....
Itawamba	854	331	889	62	.....
Jackson	1,259	563	1,013	159	2
Jasper	979	922	1,258	60	1
Jefferson	840	62	496	50	.....
Jeff. Davis	856	160	732	88	.....
Jones	2,284	1,740	2,382	326	466
Kemper	1,421	138	911	56	.....
Lafayette	1,656	134	1,848	89	37
Lamar	718	406	801	80	36
Lauderdale	3,558	1,790	3,212	320	589
Lawrence	759	210	677	57	.....
Leake	1,695	193	1,251	49	.....
Lee	2,758	368	2,621	152	.....
Leflore	2,219	105	1,144	135	.....
Lincoln	2,191	421	1,282	154	70
Lowndes	2,139	183	1,658	62	.....
Madison	1,519	117	1,600	105	.....
Marion	922	528	1,044	102	.....
Marshall	1,422	100	1,143	40	.....
Monroe	3,033	374	2,328	121	32
Montgom'y	1,607	99	1,015	63	94
Neshoba	1,906	515	1,611	228	.....
Newton	2,074	366	1,660	71	97
Noxubee	1,153	100	966	44	.....
Oktibbeha	1,577	111	1,370	30	43
Panola	1,571	143	1,266	53	33
Pearl River	880	900	855	164	99
Perry	284	278	383	56	17
Pike	2,434	916	1,640	200	452
Pontotoc	1,537	263	1,206	86	.....
Prentiss	1,367	270	1,230	178	2
Quitman	793	86	574	36	.....
Rankin	1,325	175	1,415	34	.....
Scott	2,050	163	1,179	53	90
Sharkey	475	36	353	34	6
Simpson	1,893	281	1,519	100	7
Smith	1,450	419	1,081	49	31
Stone	258	434	413	57	.....
Sunflower	2,676	83	1,701	77	.....
Tal'hatchie	2,284	33	1,386	15	.....
Tate	1,274	42	1,019	7	.....
Tippah	1,453	299	1,413	100	6
Tishomingo	965	585	1,099	279	49
Tunica	654	26	497	13	.....
Union	1,860	317	1,750	135	.....
Walthall	864	218	650	64	86
Warren	2,769	529	1,794	328	.....
Washingt'n	1,496	246	1,278	143	.....
Wayne	917	289	906	55	2
Webster	1,102	338	920	117	.....
Wilkinson	767	74	352	40	98
Winston	1,620	95	1,345	53	.....
Yalobusha	1,249	204	1,290	53	11
Yazoo	2,029	112	1,352	57	.....
Totals	124,539	27,153	100,475	8,546	3,494

U. S. Senator (1928)—Stephens, Dem., 111,180; no opposition.

Governor (1927)—T. G. Bilbo, Dem., won. In the second primary the vote was: Bilbo, 147,669; Murphree, 137,130.

U. S. Senator (1924)—Harrison, Dem., 97,243, unopposed.

Governor (1923)—Whitfield, Dem., was elected without opposition. In the Democratic primary election, Aug. 28, 1923, Whitfield got 111,565 votes, and former Gov. Bilbo received 95,023.

U. S. Senator (1922)—Stephens, Dem., 63,639; Cook, Rep., 3,632; Rose, Soc., 1,251.

PAST VOTE OF MISSISSIPPI.

1872 (Pres.), Greeley, Dem. and Lib., 47,288; Grant, Rep., 82,175.
1876 (Pres.), Tilden, Dem., 112,173; Hayes, Rep., 52,605.
1880 (Pres.), Hancock, Dem., 75,750; Garfield, Rep., 34,854; Weaver, Greenback, 5,797.
1884 (Pres.), Cleveland, Dem., 76,510; Blaine, Rep., 43,509.
1888 (Pres), Cleveland, Dem., 85,467; Harrison, Rep., 31,120; Fisk, Proh., 258.
1892 (Pres.), Cleveland, Dem., 40,288; Harrison, Rep., 1,342; Weaver, People's, 10,102; Bidwell, Proh., 995. The Republican vote was cast mostly for Weaver.
1896 (Pres.), Bryan, Dem. and People's (Populist), 63,793; Palmer, Nat'l (Gold) Dem., 1,071; McKinley, Rep., 5,123; Levering, Proh., 485.
1900 (Pres.), Bryan, Dem., 51,706; McKinley, Rep., 5,753.
1904 (Pres.), Parker, Dem., 53,374; Roosevelt, Rep., 3,187; Debs, Soc., 392.
1908 (Pres.), Bryan, Dem., 60,287; Taft, Rep., 4,363; Debs, Soc., 978.
1912 (Pres.), Wilson, Dem., 57,227; Taft, Rep., 1,595; Roosevelt, Prog., 3,645; Debs, Soc., 2,061.
1916 (Pres.), Wilson, Dem., 80,422; Hughes, Rep., 4,253; Benson, Soc., 1,481.
1916 (U. S. Sen.), Dem., 74,290 (unopposed).
1920 (Pres.), Cox, Dem., 69,277; Harding, Rep., 11,576; Debs, Soc., 1,639.

SPEED OF A FALLING BODY.

The popular belief that a person falling from a great altitude will be killed or rendered unconscious before reaching the ground has been exploded by Army fliers, says the War Department.

"The experimental department of Wright Field of the Army Air Corps," it declared, "can definitely state that a man falling from any altitude with a parachute pack attached never attains a velocity of greater than 118 miles per hour and does not lose consciousness."

A dummy of the size and weight of a 180 pound man, with a service parachute attached and unopened, attained, it was found, a velocity of 118 miles an hour within a period of eleven seconds and after falling 1,200 feet in quiet air, but from that time on no increase in speed was attained.

In the first second of its descent a body falls 16 feet; second second, 16+32=48 feet; third second, 16+64=80 feet; fourth second, 16+96=112 feet; fifth second, 16+128=144 feet; nth second, 16+32 (n-1) feet. The total distance fallen by a body at the end of the nth second is given in feet by multiplying the square of the time in seconds by 16.

Thus at the end of the first second it has fallen 16 feet, at the end of the second second $2 \times 2 \times 16 = 64$ feet, at the end of the third second $3 \times 3 \times 16 = 144$ feet; at the end of the fifth, $5 \times 5 \times 16 = 400$ feet. Conversely, to find the time in seconds to fall any distance, divide the distance in feet by 16 and extract the square root; thus to fall a mile divide 5,280 by 16 which gives 330 and the square root of 330 is a little over 18, the number of seconds which is the vacuum time to fall a mile. Owing to the resistance of the air it takes about 19 seconds for a bomb to reach the earth when dropped from an airplane a mile high.

As the air resistance encountered by a falling body depends on the shape and size of the body no general rule can be given for taking account of it, except to say that the air resistance increases with the velocity. The force of gravity on a body one mile above the surface of the earth is less than if the body were at the surface of the earth by about one-twentieth of one percent.

MISSOURI.

(Presidential vote, 1928, 1924.)

Counties.	1928. Hoover, Rep.	1928. Smith, Dem.	1924. Coolidge, Rep.	1924. Davis, Dem.	1924. La Fol'te. Soc.	1924. La Fol'te. Lib.
Adair	5,538	2,841	4,383	2,800	406	564
And'w	4,243	2,118	3,535	2,648	89	99
At'son	3,239	2,535	2,710	2,617	107	63
Aud'n.	4,141	5,067	3,125	5,866	69	73
Barry	5,901	3,431	4,065	3,606	310	487
Barton	3,662	2,275	2,952	2,682	232	187
Bates	6,133	3,594	4,552	4,722	279	78
Bent	3,411	1,296	2,693	1,588	70	......
Bol'ger	3,014	1,824	2,204	2,075	110	......
Boone	4,876	8,422	3,547	8,657	96	61
Buch'n	20,459	12,110	17,509	14,759	1,433	1,166
Butler	5,591	3,320	4,489	2,953	395	170
Cald'l	4,167	2,164	3,545	2,383	52	48
Cal'ay	3,269	5,153	2,799	5,904	72	54
Camd	2,085	606	1,732	1,196	83	17
C. G.	7,344	5,464	6,076	4,967	280	329
Carroll	5,875	3,735	4,907	4,502	117	65
Carter	989	963	772	1,051	59	9
Cass	5,299	3,647	3,610	4,709	188	37
Cedar	3,340	1,728	2,802	2,007	173	30
Char'n	3,929	4,559	3,173	4,795	153	60
Chris	3,576	1,124	2,692	1,281	247	56
Clark	3,259	2,170	2,948	2,770	62	......
Clay	5,584	5,574	2,998	6,076	240	132
Clint'n	3,736	2,485	2,848	3,177	79	49
Cole	6,637	6,481	6,205	5,033	227	351
Cooper	4,794	4,413	4,755	4,070	102	81
Cra'fd.	2,926	1,476	2,336	1,697	125	24
Dade	3,497	1,453	2,651	2,007	146	32
Dallas	2,835	931	2,188	1,304	68	24
Davies	4,254	2,789	3,869	3,520	84	42
D'K'lb	3,338	1,898	2,730	2,368	52	33
Dent	2,367	1,871	1,779	2,263	45	64
Dougls	3,758	681	2,617	909	176	71
Dunkn	3,602	4,879	3,436	4,357	220	33
Frank.	7,831	5,429	6,253	3,384	309	587
Gas'de	4,171	1,058	3,306	577	148	322
Gentry	3,506	2,735	3,318	3,555	175	165
Greene	22,166	10,901	13,618	13,084	1,085	1,932
Grun'y	5,226	2,332	3,782	2,367	264	1,044
Harsn.	4,818	2,319	4,247	2,792	141	93
Henry	6,263	4,319	4,616	4,706	201	141
Hick'y	2,233	399	1,895	722	34	22
Holt	3,845	1,919	3,316	2,255	77	53
How'd	2,254	4,452	1,873	4,759	88	131
Howell	4,869	2,543	3,130	2,681	380	283
Iron	1,910	1,342	1,328	1,675	42	21
Jack'n	126,589	96,703	10,953	11,320	642	472
Jasper	20,587	8,292	13,701	9,176	1,510	383
Jeffson	6,285	5,231	4,870	4,356	280	449
Johnsn	7,032	4,316	5,248	5,526	123	90
K. C.			80,188	64,682	3,726	3,764
Knox	2,628	2,213	2,288	2,722	94	100
L'clde.	3,971	2,031	2,960	2,500	184	81
Laf'tte	7,687	5,939	6,517	5,877	252	267
Law'ce	6,328	3,646	4,499	3,768	322	496
Lewis	2,741	2,882	2,416	3,481	116	95
Linc'n.	2,722	3,356	2,563	3,419	81	87
Linn	6,996	4,395	5,155	5,386	499	175
Liv'stn	5,742	3,221	4,517	4,316	106	......
M'Dld	3,684	1,986	2,374	2,301	153	......
Macon	5,618	4,838	4,909	5,538	333	151
Mad'n	2,165	1,826	1,569	1,665	10	19
Maries	1,415	1,808	1,004	1,913	55	67
Mar'n.	7,664	5,679	5,408	5,739	742	393
Mercer	2,869	925	2,508	1,209	138	147
Miller	3,379	1,979	3,011	1,962	126	257
Miss	1,999	2,602	1,797	2,360	59	80
Monit.	3,496	2,310	3,138	2,601	61	92
Monro	1,378	4,957	1,141	5,597	99	67
Montg	3,910	2,285	3,563	2,938	76	58
Morgn	3,017	1,432	2,489	1,842	31	31
N Mad	4,750	4,153	4,018	4,167	104	21
Newt	7,054	3,269	4,592	3,970	264	153
Nod'y.	7,160	5,297	6,242	5,803	259	192
Oregn.	1,662	1,884	896	2,231	74	280
Osage	2,474	3,092	2,496	1,986	104	209
Ozark	2,616	529	1,758	688	61	32
Pem't.	6,256	5,259	4,811	3,616	85	40
Perry	2,648	2,591	7,280	6,568	592	777
Pettis	10,346	5,554	2,656	1,826	69	213
Ph'lps.	2,967	2,896	2,085	2,918	351	124
Pike	4,569	3,749	3,715	4,040	126	107
Platte	2,423	3,344	1,999	3,674	54	17
Polk	5,307	2,303	4,097	3,033	79	69
P'laski	2,229	1,934	1,578	2,127	70	92
Putnm	3,498	1,247	3,340	1,495	127	133
Ralls	1,794	2,273	1,365	2,617	70	13
Rand	4,825	6,008	2,991	7,372	470	716
Ray	3,280	4,570	2,753	4,989	177	116
Rey'ds	1,247	1,582	873	1,822	28	......
Ripley	2,226	1,395	1,428	1,863	78	51
St. Ch.	5,404	5,081	4,668	2,364	247	603
St. Cla	3,846	1,701	2,907	2,640	165	113
St. Fra	9,040	4,171	6,117	5,542	163	124
St. Ge.	1,099	2,547	1,330	1,257	55	58
St. Lo.	42,572	33,802	26,669	16,075	2,092	2,905
Saline	6,780	6,261	4,990	6,564	192	361
Schuy.	1,822	1,797	1,522	1,982	46	29
Scotl'd	2,350	2,194	2,282	2,595	138	72
Scott	3,779	5,159	3,335	3,633	423	792
Shan'n	1,542	1,884	1,174	2,107	123	10
Shelby	2,303	3,158	1,737	3,957	38	55
Stod'd	4,906	4,016	3,844	4,348	266	211
Stone	2,972	559	1,871	626	122	230
Sul'vn.	4,183	3,292	3,885	3,703	75	210
Taney	2,319	971	1,710	981	81	2
Texas	4,050	3,067	2,787	3,421	160	21
Vern'n	5,783	3,676	3,593	4,839	334	435
War'n.	2,610	999	2,667	644	168	28
Wash	3,019	2,091	2,397	1,955	28	22
Wayne	2,662	2,011	1,958	2,283	143	44
Web'r.	4,002	2,343	3,168	2,730	154	137
Worth	1,839	1,407	1,666	1,650	22	8
Wright	4,504	1,973	3,105	2,303	95	136
S. L. C.	161,701	176,428	139,433	95,888	28,758	98
Tot.	834,080	662,562	648,486	572,753	56,733	27,427

President (1928)—Thomas, Soc., 3,739; Reynolds, Soc. Lab., 340.

U. S. Senator (1928)—Patterson, Rep., 787,499; Hay, Dem., 726,322; Harrison, Soc., 2,845; Cox, Soc. Lab., 257.

Governor (1928)—Caulfield, Rep., 784,293; Wilson, Dem., 731,783; Hodges, Soc., 2,412; Scattering, 648.

Missouri voters in 1928 approved a $75,000,000 bond issue for good roads.

The 1920 Presidential vote for Jackson County includes Kansas City; the 1924 vote for Jackson County, excludes Kansas City.

President (1924)—La Follette total on his two tickets, 84,160; Faris, Proh., 1,418; Johns, Soc. Lab., 909; Wallace, Commonwealth Land, 259.

U. S. Senator (1926) Full term: Hawes, Dem., 506,015; Williams, Rep., 470,654; Faris, Proh. 7,540 Morrison, Soc., 1,807; Cox, Soc. Lab., 464.

Governor (1924)—Baker, Rep., 640,135; Nelson, Dem., 634,263; Brandt, Soc., 21,043; Cox, Soc. Lab., 678.

PAST VOTE OF MISSOURI.

1872 (Pres.), Greeley, Dem. and Lib., 151,434; Grant, Rep., 119,116; O'Conor, Lab. Rep., 2,429.

1876 (Pres.), Tilden, Dem., 203,077; Hayes, Rep., 145,029; Cooper, Greenback, 3,498.

1880 (Pres.), Hancock, Dem., 208,609; Garfield, Rep., 153,567; Weaver, Greenback, 35,135.

1884 (Pres.), Cleveland, Dem., 235,988; Blaine, Rep., 202,929; St. John, Proh., 2,153.

1888 (Pres.), Cleveland, Dem., 261,943; Harrison, Rep., 236,252; Fisk, Proh., 4,539; Streeter, U. Lab., 18,619.

1892 (Pres.), Cleveland, Dem., 268,188; Harrison, Rep., 226,918; Weaver, Peoples', 41,213; Bidwell, Proh., 4,331.

1896 (Pres.), Bryan, Dem. and Peoples' (Populist), 313,576; Palmer, Nat'l (Gold) Dem., 2,363; McKinley, Rep., 239,333; Levering, Proh., 2,462.

1900 (Pres.), Bryan, Dem., 351,922; McKinley, Rep., 314,092; Woolley, Proh., 5,965; Debs, Soc., 6,139.

1904 (Pres.), Parker, Dem., 296,312; Roosevelt, Rep., 321,449; Swallow, Proh., 7,191; Debs, Soc., 13,009.

1908 (Pres.), Bryan, Dem., 346,574; Taft, Rep., 347,203; Chafin, Proh., 4,231; Debs, Soc., 15,431.

1912 (Pres.), Wilson, Dem., 330,746; Taft, Rep., 207,821; Roosevelt, Prog., 124,371; Debs, Soc., 28,466.

1916 (Pres.), Wilson, Dem., 398,025; Hughes, Rep., 369,339; Hanly, Proh., 3,884; Benson, Soc., 14,612.

1916 (U. S. Sen.), Dem., 396,166; Rep., 371,710; Soc., 14,659; Soc. Lab., 962.

1918 (U. S. Sen.), Dem., 267,397; Rep., 302,680.

1920 (Pres.), Cox, Dem., 574,799; Harding, Rep., 727,162; Watkins, Proh., 5,142; Debs, Soc., 20,242; Christensen, F.-Lab., 3,291.

1920 (U. S. Sen.), Dem., 589,498; Rep., 711,161; Soc., 20,002; Soc. Lab., 1,675; F.-Lab., 3,158.

MONTANA.

(Presidential vote, 1928, 1924.)

COUNTIES.	1928.		1924.			COUNTIES.	1928.		1924.		
	Hoover Rep.	Smith, Dem.	Coolidge, Rep.	La Fol'te, Ind.	Davis, Dem.		Hoover Rep.	Smith, Dem.	Coolidge, Rep.	La Fol'te, Ind.	Davis, Dem.
Beaverhead.	1,906	1,144	1,386	565	766	Meagher...	714	335	624	153	257
Big Horn...	1,274	1,017	1,082	448	327	Mineral....	443	370	223	662	123
Blaine.....	1,573	1,160	827	598	337	Missoula...	5,056	3,291	2,386	4,662	1,012
Broadwater.	743	663	531	364	486	Musselsnell.	1,608	1,444	1,488	1,490	247
Carbon....	2,514	1,674	1,891	1,522	698	Park.....	3,045	1,338	2,199	1,395	688
Carter.....	763	420	669	208	283	Petroleum...	586	372	.....	.....	.....
Cascade....	8,183	6,540	5,081	4,047	2,220	Phillips....	1,671	1,135	1,236	848	473
Chouteau..	1,837	1,232	1,347	763	706	Pondera...	1,324	944	764	831	414
Custer.....	2,503	1,386	1,654	1,692	412	Powder Riv.	780	410	480	361	123
Daniels....	936	780	505	523	185	Powell.....	1,568	1,031	982	877	559
Dawson....	2,207	1,065	1,326	896	346	Prairie.....	968	405	683	339	162
Deer Lodge.	2,695	3,184	1,937	1,864	1,611	Ravalli.....	2,551	1,112	1,311	1,569	562
Fallon.....	1,036	454	731	340	220	Richland...	1,648	917	926	525	238
Fergus.....	4,109	2,667	2,942	3,008	1,580	Rosebud...	1,519	1,025	1,115	852	259
Flathead...	4,098	1,972	2,541	2,484	788	Roosevelt..	1,630	1,296	965	927	389
Gallatin....	3,861	2,423	2,494	1,499	1,564	Sanders....	1,142	873	588	1,259	188
Garfield....	1,176	499	876	490	355	Sheridan...	1,624	1,190	905	293	176
Glacier.....	847	976	586	279	511	Silver Bow.	9,456	11,228	6,520	6,076	5,393
Gold'n Val'y	625	346	422	514	118	Stillwater..	1,687	711	1,412	505	375
Granite....	849	509	582	368	353	Sweet Grass	1,165	435	853	286	248
Hill.....	2,336	2,022	1,110	1,878	602	Teton.....	1,263	804	775	691	396
Jefferson...	1,013	751	648	648	434	Toole	1,325	1,076	697	659	439
Judith Basin	1,342	978	888	721	480	Treasure...	354	186	289	140	84
Lake.....	1,876	1,256	884	1,912	340	Valley	2,330	1,294	1,555	863	497
Lewis, Clark	4,441	3,278	3,433	1,504	1,869	Wheatland.	1,207	542	723	686	221
Liberty....	332	332	239	298	141	Wibaux....	583	448	505	151	189
Lincoln....	1,217	1,067	976	993	374	Yellowstone	6,904	3,205	4,715	2,479	1,172
Madison....	1,785	812	1,137	593	672						
McCone...	946	554	494	507	143	Total....	113,300	78,578	74,138	61,105	33,805

President (1928)—Thomas, Soc., 1,667; Foster, Workers, 563.
U. S. Senator (1928)—Wheeler, Dem., 103,655; Dixon, Rep., 91,185.
Governor (1928)—Erickson, Dem., 113,635; Rankin, Rep., 79,777; Duncan, Soc., 781.
President (1924)—The Socialists polled 247 votes; Farm-Laborites, 4,771; Workers' Party, 857.
Montana voters in 1926 cast a majority in favor of the repeal of the State Prohibition Act. In 1928 State enforcement of Prohibition again lost—for, 68,431, against, 80,619.
Governor (1924)—Dixon, Rep., 74,126; Erickson, Dem., 88,801; Edwards, Farm.-Lab., 10,666.
U. S. Senator (1924)—Linderman, Rep., 72,000; Walsh, Dem., 89,681; Anderson, Farm.-Lab., 7,370.
U. S. Senator (1922)—Wheeler, Dem., 88,205; Riddick, Rep., 69,464; Ambrose, Soc., 1,068.

PAST VOTE OF MONTANA.

1889 (Gov.), Dem., 19,564; Rep., 18,988.
1892 (Pres.), Cleveland, Dem., 17,581; Harrison, Rep., 18,851; Weaver, People's, 7,334; Bidwell, Proh., 549.
1896 (Pres.), Bryan, Dem. and People's (Populist), 42,537; McKinley, Rep., 10,494; Levering, Proh., 186.
1900 (Pres.), Bryan, Dem., 37,145; McKinley, Rep., 25,373; Woolley, Proh., 298; Debs, Soc., 708.
1904 (Pres.), Parker, Dem., 21,773; Roosevelt, Rep., 34,932; Swallow, Proh., 335; Debs, Soc., 5,676.
1908 (Pres.), Bryan, Dem., 29,326; Taft, Rep., 32,333; Chafin, Proh., 827; Debs, Soc., 5,855.
1912 (Pres.), Wilson, Dem., 27,941; Taft, Rep., 18,512; Roosevelt, Prog., 22,456; Debs, Soc., 10,885.
1916 (Pres.), Wilson, Dem., 101,063; Hughes, Rep., 66,750; Roosevelt, Prog., 298; Benson, Soc., 9,564.
1916 (U. S. Sen.), Dem., 85,380; Rep., 72,758; Soc., 9,292.
1920 (Pres.), Cox, Dem., 57,372; Harding, Rep., 109,430; Christensen, F.-Lab., 12,204.

GOVERNORS OF MONTANA

TERRITORIAL GOVERNORS

Sidney Edgerton—June 22, 1864 to July 12, 1866.
Green Clay Smith—July 13, 1866 to April 9, 1869.
James M. Ashley—April 9, 1869 to July 12, 1870
Benjamin F. Potts—July 13, 1870 to Jan. 14, 1883.
J. Schuyler Crosby—Jan. 15, 1883 to Dec. 15, 1884.
B. Platt Carpenter—Dec. 16, 1884 to July 13, 1885.
Samuel T. Hauser—July 14, 1885 to Feb. 7, 1887
Preston H. Leslie—Feb. 8, 1887 to April 8, 1889
Benjamin F. White—April 9, 1889 to Nov. 8, 1889.

STATE GOVERNORS

Joseph K. Toole—Nov. 8, 1889 to Jan 2, 1893—Jan. 7, 1901 to April 1, 1908 (2 terms)
John E. Rickards—Jan. 2, 1893 to Jan 4, 1897.
Robert E. Smith—Jan. 4, 1897 to Jan. 7, 1901.
Edwin L. Norris—April 1, 1908 to Jan. 1, 1913.
S. V. Stewart—Jan. 1, 1913 to Jan. 1, 1921.
Jos. M. Dixon—Jan. 1, 1921 to Jan. 1, 1925.
J. E. Erickson—Jan. 1, 1925 to—.

WHAT SHOE SIZES MEAN.

By Seward M. Paterson, a Manufacturer, of Nashua, N. H.

All shoe measurements start with the last on which the shoe is made. Lasts are measured for length with what is known as a size stick.

This is a measuring device that has been in existence for a long time and we find by its use that the difference between sizes on lasts for length *is one-third of an inch.*

When we speak of the width of a shoe there are two things to consider. First, the girth of the last, second the width of the tread surface of the last.

The difference between widths on the girth of the last *is one-quarter of an inch.*

The difference between widths on the tread surface of the last at the widest point, which is the ball, is *generally one-twelfth of an inch,* although this tread surface is subject to the different ideas of the shoe manufacturer.

For example, if a manufacturer was working out a brogue-type last the tendency would be to have the differnce one-twelfth of an inch, whereas on a fine dress-shoe last the difference would not be over one-sixteenth of an inch.

What is known as blind or French sizes are marked on shoes so that the customer cannot readily tell what the sizes and widths are. It is done with the idea of making the customer happy.

To summarize—the difference between sizes on a shoe for length is one-third of an inch.

The difference in measurements between widths is one-quarter of an inch.

On half sizes the difference, of course, would be exactly one-half of the whole sizes

FOOT SIZES IN HOSIERY.

Size 8 in women's hosiery, for example, measures eight inches from the top of the toe to the end of the heel when measured according to the standard method adopted by the National Association of Hosiery and Underwear Manufacturers.

Each larger size is half an inch longer.

The sizes of men's hosiery are the same as those of women's.

In women's hosiery no distinction is made in the leg length for the different foot sizes.

NEBRASKA.

(Presidential vote, 1928, 1924.)

COUNTIES.	1928.		1924.		
	Hoover Rep.	Smith Dem.	Davis, Dem.	Coolidge, Rep.	La Fol'te, Prog.
Adams	7,194	2,926	2,353	4,824	1,331
Antelope	4,277	2,016	1,150	2,598	1,745
Arthur	402	169	101	143	164
Banner	548	81	88	245	153
Blaine	484	175	132	253	197
Boone	3,816	2,260	1,782	2,013	1,719
Box Butte	3,028	1,238	814	1,506	1,216
Boyd	1,653	1,143	522	991	1,114
Brown	1,907	636	714	1,104	616
Buffalo	7,460	2,801	2,337	4,746	1,641
Burt	3,551	1,783	1,870	2,513	484
Butler	2,930	3,465	2,444	2,435	544
Cass	4,970	2,739	2,352	3,639	1,327
Cedar	3,206	3,241	1,747	2,441	1,917
Chase	1,540	579	570	919	411
Cherry	2,905	1,285	1,169	1,663	967
Cheyenne	2,618	1,563	555	1,719	1,034
Clay	4,105	1,767	1,716	2,758	986
Colfax	1,432	2,746	1,293	1,450	965
Cuming	2,418	2,597	981	1,642	1,840
Custer	8,379	2,506	2,575	3,833	3,144
Dakota	1,709	1,754	964	1,235	931
Dawes	3,276	1,173	595	1,575	1,632
Dawson	5,125	1,718	1,526	3,016	1,386
Deuel	1,197	403	316	775	236
Dixon	2,982	1,607	1,090	2,153	964
Dodge	6,250	4,030	2,183	3,798	2,316
Douglas	47,551	42,267	18,672	29,390	17,184
Dundy	1,575	472	459	1,036	324
Fillmore	3,479	2,235	2,156	2,758	429
Franklin	2,533	1,443	1,331	1,920	476
Frontier	2,335	879	599	1,497	745
Furnas	3,760	1,339	1,534	2,378	801
Gage	8,378	3,526	3,330	5,831	1,825
Garden	1,470	404	459	925	361
Garfield	1,180	235	251	757	268
Gosper	975	480	394	540	550
Grant	398	160	191	260	82
Greeley	1,457	2,098	1,220	773	908
Hall	6,862	3,391	1,863	4,040	2,564
Hamilton	3,634	1,606	1,545	2,935	722
Harlan	2,702	1,055	1,216	1,845	604
Hayes	917	440	288	475	347
Hitchcock	2,022	698	633	987	528
Holt	3,746	3,126	1,529	2,207	2,176
Hooker	355	110	111	176	151
Howard	1,937	2,197	1,434	1,091	914
Jefferson	4,359	2,193	1,824	2,752	1,134
Johnson	2,632	1,485	1,285	2,075	465
Kearney	2,426	1,093	1,243	1,453	508
Keith	1,715	832	602	1,069	462
Keya Paha	989	232	251	504	451
Kimball	1,296	438	253	750	461
Knox	3,668	2,914	1,532	2,405	2,265
Lancaster	30,523	9,840	11,563	18,061	3,485
Lincoln	5,946	2,381	1,372	2,857	2,723
Logan	595	195	165	277	234
Loup	594	106	106	285	200
McPherson	419	69	96	213	207
Madison	6,229	3,407	1,959	3,537	3,125
Merrick	3,269	1,403	1,137	2,324	796
Morrill	2,318	765	734	1,153	623
Nance	2,299	1,318	1,130	1,574	603
Nemaha	3,777	1,767	1,871	2,378	604
Nuckolls	3,299	1,684	1,576	2,595	600
Otoe	5,063	2,959	2,208	3,245	1,003
Pawnee	2,825	1,547	1,365	2,147	328
Perkins	1,461	631	493	836	318
Phelps	3,297	927	993	1,928	105
Pierce	2,542	1,586	760	1,570	1,363
Platte	3,435	4,748	2,173	2,108	2,576
Polk	3,096	1,494	1,229	2,354	567
Red Willow	3,559	1,770	1,122	1,931	1,264
Richardson	5,833	3,072	3,089	3,625	789
Rock	1,034	305	293	585	353
Saline	3,347	3,955	3,123	2,834	610
Sarpy	2,011	1,900	1,247	1,411	964
Saunders	5,356	3,793	2,823	3,499	1,414
Scottsbluff	6,677	1,403	1,132	3,410	902
Seward	3,539	2,367	1,848	2,797	1,023
Sheridan	3,030	1,226	661	1,509	1,453
Sherman	1,675	1,733	1,048	1,182	715
Sioux	1,178	435	149	480	697
Stanton	1,211	1,296	596	962	874
Thayer	3,552	2,173	1,719	2,847	818
Thomas	406	152	216	206	158
Thurston	1,538	1,837	1,191	1,210	829
Valley	2,768	1,205	802	2,014	834
Washington	2,750	1,912	1,231	1,876	961
Wayne	2,354	1,235	775	1,840	879
Webster	2,924	1,342	1,207	2,194	616
Wheeler	534	293	145	205	404
York	5,769	1,979	1,778	4,110	1,091
Totals	345,745	197,959	137,289	218,585	106,701

1928 (President)—Thomas, Socialist, received 3,434 votes.
1928 (U. S. Senator)—Howell, Rep., 324,014; Metcalfe, Dem.; 204,737.
1928 (Governor)—Weaver, Rep., 308,262; Bryan, Dem., 230,640; Haffner, Soc., 2,095.

1924 (President)—Faris, Proh., 1,594.
Governor (1926)—Bryan, Dem., 202,688; McMullen, Rep.; 206,120; Harrop, Prog., 4,937.
Governor (1924)—Norton, Dem., 183,709; McMullen, Rep., 229,067; Butler, Prog. 35,594.
U. S. Senator (1924)—Thomas, Dem. and Prog., 164,370; Norris, Rep., 274,647.
Governor (1922)—Bryan, Dem., 214,070; Randall, Rep., 163,736; Parmenter, Prog., 13,435.
U. S. Senator (1922)—Hitchcock, Dem., 148,265; Howell, Rep., 220,350; Beebe, Prog., 19,076.

PAST VOTE OF NEBRASKA.

1872 (Pres.), Greeley, Dem. and Lib., 7,812; Gran. Rep., 18,329.
1876 (Pres.), Tilden, Dem., 17,554; Hayes, Rep., 31,916; Cooper, Greenback, 2,320; Smith, Proh. Ref., 1,599.
1880 (Pres.), Hancock, Dem., 28,523; Garfield, Rep., 54,979; Weaver, Greenback, 3,950. Dow, Proh., 1,599.
1884 (Pres.), Cleveland, Dem., 54,391; Blaine, Rep., 76,912; St. John, Proh., 2,899.
1888 (Pres.), Cleveland, Dem., 80,542; Harrison, Rep., 108,425; Fisk, Proh., 9,429; Streeter, U. Lab., 4,226.
1892 (Pres.), Cleveland, Dem., 24,943; Harrison, Rep., 87,227; Weaver, People's, 83,134; Bidwell, Proh., 4,902.
1896 (Pres.), Bryan, Dem. and People's (Populist), 115,999; Palmer, Nat'l (Gold) Dem., 2,885; McKinley, Rep., 103,064; Levering, Proh., 2,040.
1900 (Pres.), Bryan, Dem.; 114,013; McKinley, Rep., 121,835; Woolley, Proh., 3,655; Debs, Soc., 823.
1904 (Pres.), Parker, Dem., 52,921; Roosevelt, Rep., 138,558; Swallow, Proh., 6,323; Debs, Soc., 7,412.
1908 (Pres.), Bryan, Dem., 131,099; Taft, Rep., 126,997; Chafin, Proh., 5,179; Debs, Soc., 3,524.
1912 (Pres.), Wilson, Dem., 109,008; Taft, Rep., 54,029; Roosevelt, Prog., 72,614; Debs, Soc., 10,174.
1914 (Gov.), Dem., 120,206; Rep., 101,228; Prog., 8,655; Soc., 5,734; Proh., 2,873.
1916 (Pres.), Wilson, Dem., 158,827; Hughes, Rep., 117,257; Hanly, Proh., 2,952; Benson, Soc., 7,141.
1918 (U. S. Sen.), Dem., 99,690; Rep., 120,086.
1918 (Gov.), Dem, 97,886; Rep., 120,888; Proh., 3,469.
1920 (Pres.), Cox, Dem., 119,608; Harding, Rep., 247,498; Watkins, Proh., 5,947; Debs, Soc., 9,600.

GOVERNORS OF NEBRASKA

David Butler, Feb. 21, 1867 to June 2, 1871; Robert W. Furnas, 1873-1875; Silas Garber, 1875-1879; Albinus Nance, 1879-1883; James W. Dawes, 1883-1887; John M. Thayer, 1887 Jan. 15, 1891; May 5, 1891-Feb. 8, 1892; James E. Boyd, Jan. 15, 1891-May 5, 1891; Feb. 8, 1892-1893; Lorenzo Crounse, 1893-1895; Silas A. Holcomb, 1895-1899; William A. Poynter, 1899-1901; Charles H. Dietrich, Jan. 3, 1901-May 1, 1901; Ezra P. Savage, May 1, 1901-1903; John H. Mickey, 1903-1907; George L. Sheldon, 1907-1909; Ashton C. Shallenberger, 1909-1911; Chester H. Aldrich, 1911-1913.

John H. Morehead, 1913-1917; Keith Neville, 1917-1919; Samuel R. McKelvie, 1919-1923; Charles W. Bryan, 1923-1925; Adam McMullen, 1925-1929; Arthur J. Weaver, 1929—.

NEVADA.

(Presidential vote, 1928, 1924.)

COUNTIES.	1928.		1924.		
	Hoover, Rep.	Smith, Dem.	Davis, Dem.	La Fol'te, Prog.	Coolidge, Rep.
Churchill..	1,126	751	320	625	654
Clark.....	1,284	984	286	815	493
Douglas....	456	186	95	141	343
Elko.....	1,876	1,442	605	1,150	1,104
Esmeralda..	305	341	145	316	240
Eureka.....	251	261	93	115	207
Humboldt..	783	602	246	485	388
Lander.....	456	314	138	152	252
Lincoln....	553	542	254	280	200
Lyon.....	927	704	153	330	461
Mineral....	275	326	84	227	187
Nye.....	958	1,123	448	880	892
Ormsby....	590	426	413	104	412
Pershing...	543	452	163	365	287
Storey.....	185	271	209	267	283
Washoe....	5,767	3,952	1,666	2,340	3,544
White Pine.	1,992	1,413	495	802	1,045
Total....	18,327	14,090	5,909	9,769	11,243

U. S. Senator (1928)—Pittman, Dem., 19,515; Platt, Rep., 13,414.
Governor (1926)—Scrugham, Dem., 14,521; Balzar, Rep., 16,374.
U. S. Senator (1926)—Oddie, Rep., 17,430; Baker, Dem. 13,273; Bice, Ind., 543.
Governor (1922)—Scrugham, Dem., 15,437; Miller, Rep., 13,215.
U. S. Senator (1922)—Pittman, Dem., 18,200; Chandler, Rep., 10,671.

PAST VOTE OF NEVADA.

1876 (Pres.), Tilden, Dem., 9,308; Hayes, Rep., 10,383.

1880 (Pres.), Hancock, Dem., 8,619; Garfield, Rep., 7,878.

1884 (Pres.), Cleveland, Dem., 5,578; Blaine, Rep., 7,193; Butler, Greenback, 26.

1888 (Pres.), Cleveland, Dem., 5,149; Harrison, Rep., 7,088; Fisk, Proh., 41.

1892 (Pres.), Cleveland, Dem., 714; Harrison, Rep., 2,711; Weaver, People's, 7,264; Bidwell, Proh., 89.

1896 (Pres.), Bryan, Dem; and People's (Populist), 8,376; McKinley, Rep., 1,938.

1900 (Pres.), Bryan, Dem., 6,347; McKinley, Rep., 3,849.

1904 (Pres.), Parker, Dem. 3,982; Roosevelt, Rep., 6,864; Debs, Soc., 925.

1906 (Gov.), Dem., 8,686; Rep., 5,338; Soc., 815.

1908 (Pres.), Bryan, Dem., 11,212; Taft, Rep., 10,775; Debs, Soc., 2,103.

1910 (Gov.), Dem., 8,798; Rep., 10,435; Soc., 1,393.

1912 (Pres.), Wilson, Dem., 7,986; Taft, Rep., 3,196; Roosevelt, Prog., 5,620; Debs, Soc., 3,313.

1914 (U. S. Sen.), Dem., 8,078; Rep., 8,038; Soc., 5,451.

1916 (Pres.), Wilson, Dem., 17,776; Hughes, Rep. 12,127; Hanly, Proh., 348; Benson, Soc., 3,065.

1916 (U. S. Sen.), Dem., 12,868; Rep., 10,450; Soc., 9,572.

1918 (U. S. Sen.), Dem., 12,197; Rep., 8,053; Ind. (Anne Martin), 4,603; Soc., 710.

1920 (Pres.), Cox. Dem., 9,851; Harding, Rep., 15,479; Debs, Soc., 1,864.

1920 (U. S. Sen.), Dem., 10,402; Rep., 11,550; Ind. 4,981; Soc., 494.

NEW HAMPSHIRE.

(Presidential vote, 1928, 1924.)

COUNTIES.	1928.		1924.		
	Smith, Dem.	Hoover, Rep.	Coolidge, Rep.	Davis, Dem.	La Fol'te, Prog.
Belknap....	3,689	6,762	5,996	3,217	186
Carroll.....	1,592	5,509	4,372	2,213	100
Cheshire...	5,025	8,673	7,008	2,720	428
Coos.....	6,006	7,891	6,137	4,620	894
Grafton....	6,035	12,556	10,493	5,360	511
Hillsboro'gh	29,457	24,465	22,098	16,002	4,673
Merrimack.	10,139	15,724	13,587	8,283	822
Rockingh'm	7,782	17,590	14,530	6,073	634
Strafford...	7,441	10,470	9,167	6,445	575
Sullivan....	3,549	5,754	5,187	2,268	170
Total....	80,715	115,404	98,575	57,201	8,903

President (1928)—Thomas, Soc., 455; Foster, Communist, 173.
Governor (1928)—E. D. Sargent, Dem., 79,798; C. W. Tobey, Rep., 108,431; Workers, 127; Soc., 206.
Governor (1926)—Sargent, Dem., 52,236; Spaulding, Rep., 77,394.
U. S. Senator (1926)—Murchie, Dem., 47,935; Moses, Rep., 79,279.
Governor (1924)—Winant, Rep., 88,650; Brown, Dem., 75,691.
U. S. Senator (1924)—Keyes, Rep., 94,432; Farrand, Dem., 63,596.
Governor (1922)—Brown, Dem., 70,160; Goodnow, Rep., 61,526.
In 1924 a proposal to hold a convention to revise the Constitution was defeated, 42,616 to 22,520.

PAST VOTE OF NEW HAMPSHIRE.

1872 (Pres.), Greeley, Dem. and Lib., 31,425; Grant, Rep., 37,168 O'Conor, Lab. Ref., 100; Black, Proh., 200.

1876 (Pres.), Tilden, Dem., 38,510; Hayes, Rep., 41,540.

1880 (Pres.), Hancock, Dem., 40,797; Garfield, Rep., 44,856; Weaver, Greenback, 528; Dow, Proh., 180.

1884 (Pres.), Cleveland, Dem., 39,198; Blaine, Rep., 43,254; St. John, Proh., 1,571; Butler, Greenback, 552.

1888 (Pres.), Cleveland, Dem., 43,456; Harrison, Rep., 45,728; Fisk, Proh., 1,593; Streeter, United Labor, 42.

1892 (Pres.), Cleveland, Dem., 42,081; Harrison, Rep., 45,658; Weaver, People's, 293; Bidwell, Proh., 1,297.

1896 (Pres.), Bryan, Dem. and People's (Populist), 21,650; Palmer, Nat'l (Gold) Dem., 3,420; McKinley, Rep., 57,444; Levering, Proh., 825.

1900 (Pres.), Bryan, Dem., 35,489; McKinley, Rep., 54,798; Woolley, Proh., 1,271; Debs, Soc., 790.

1904 (Pres.), Parker, Dem., 33,905; Roosevelt, Rep., 54,180; Swallow, Proh., 749; Debs, Soc., 1,090.

1908 (Pres.), Bryan, Dem., 33,655; Taft, Rep., 53,149; Chafin, Proh., 905; Debs, Soc., 1,299.

1912 (Pres.), Wilson, Dem., 34,724; Taft, Rep., 32,927; Roosevelt, Prog., 17,794; Debs, Soc., 1,980.

1912 (Gov.), Dem., 34,203; Rep., 32,504; Prog., 14,401; Proh., 496; Soc., 1,674.

1914 (U. S. Sen.), Dem., 36,382; Rep., 42,113; Prog., 1,938; Soc., 1,089.

1916 (Pres.), Wilson, Dem., 43,781; Hughes, Rep. 43,725; Hanly, Proh., 303; Benson, Soc., 1,318.

1916 (Gov.), Dem., 38,853; Rep., 45,899; Soc., 1,199, Prog., 48; Proh., 288.

1918 (U. S. Sen.), Dem., 32,763; Rep., 37,783.

1920 (Pres.), Cox, Dem., 62,662; Harding, Rep., 95,196; Debs, Soc., 1,234.

1920 (U. S. Sen.), Dem., 65,038; Rep., 90,173; Soc., 1,004.

NEW JERSEY.

(Presidential vote, 1928, 1924, 1920.)

Counties.	1928.		1924.			1920.		
	Smith, Dem.	Hoover, Rep.	Davis, Dem.	Coolidge, Rep.	La Follette, Prog.	Harding, Rep.	Cox, Dem.	Debs, Soc.
Atlantic	19,452	37,238	6,937	27,963	2,885	21,260	5,755	389
Bergen	50,373	89,105	16,844	60,803	9,646	47,475	12,400	1,840
Burlington	10,972	30,224	7,794	21,617	1,288	17,898	7,532	228
Camden	32,151	75,517	17,577	48,154	6,555	40,771	17,892	2,467
Cape May	3,731	12,207	2,611	8,139	458	5,785	2,198	107
Cumberland	6,694	23,921	4,780	15,691	1,371	11,925	4,487	475
Essex	118,268	168,856	41,708	123,614	20,877	116,200	40,975	5,950
Gloucester	6,594	25,627	4,167	15,513	1,314	11,700	4,865	226
Hudson	153,009	99,972	91,094	80,892	21,560	101,872	64,000	5,495
Hunterdon	4,225	11,820	5,103	8,940	647	7,444	6,066	76
Mercer	27,908	41,056	14,639	30,689	6,067	29,625	15,700	1,119
Middlesex	34,908	38,714	16,373	34,556	4,371	29,320	11,600	849
Monmouth	24,286	47,046	14,931	34,451	2,902	28,838	12,975	291
Morris	15,188	33,189	8,042	24,812	2,685	20,675	7,250	575
Ocean	4,452	12,301	2,594	8,677	918	6,833	2,137	96
Passaic	47,167	57,708	11,644	43,384	14,082	42,700	11,900	4,150
Salem	3,001	12,323	3,206	8,027	357	7,625	3,475	98
Somerset	8,120	16,386	4,143	12,986	1,069	10,960	4,195	104
Sussex	3,043	8,964	3,632	6,319	302	5,225	3,512	42
Union	37,476	68,119	14,738	50,356	8,576	39,499	12,103	2,353
Warren	5,444	14,992	5,186	9,606	970	8,040	7,212	227
Total	616,517	926,050	298,043	676,277	109,028	611,679	258,229	27,217

President (1928)—Thomas, Soc., 4,897; Foster, Workers, 1,257; Reynolds, Soc.-Lab., 500; Varney Proh., 160.

U. S. Senator (1928)—Kean, Rep., 841,752; Edwards, Dem., 608,623; Soc., 2,267; Workers, 1,333; Proh., 372; Soc.-Lab., 280.

Governor (1928)—Larson, Rep., 824,005; Dill, Dem., 671,728; Soc., 2,041; Proh., 2,151; Workers, 1,255; Soc.-Labor, 220.

President (1924)—Commonwealth Land, 219; Workers' Party, 1,560; Proh., 1,660; American Party, 358.

U. S. Senator (1924)—Edge, Rep., 608,020; Donnelly, Dem., 331,034; Record, Prog., 37,795.

U. S. Senator (1922)—Edwards, Dem., 451,832; Frelinghuysen, Rep., 362,699.

PAST VOTE OF NEW JERSEY.

1872 (Pres.), Greeley, Dem. and Lib., 76,456; Grant, Rep., 91,656.

1876 (Pres.), Tilden, Dem., 115,962; Hayes, Rep., 103,517; Cooper, Greenback, 714.

1880 (Pres.), Hancock, Dem., 122,565; Garfield, Rep., 120,555; Weaver, Greenback, 2,617.

1884 (Pres.), Cleveland, Dem., 127,784; Blaine, Rep., 123,433; St. John, Proh., 6,153; Butler, Greenback, 3,456.

1888 (Pres.), Cleveland, Dem., 151,508; Harrison, Rep., 144,360; Fisk, Proh., 7,933.

1892 (Pres.), Cleveland, Dem., 171,066; Harrison, Rep., 156,101; Bidwell, Proh., 8,133.

1896 (Pres.), Bryan, Dem. and People's (Populist), 133,695; Palmer, Nat'l (Gold) Dem., 6,378; McKinley, Rep., 221,371; Levering, Proh., 5,617.

1900 (Pres.), Bryan, Dem., 164,879; McKinley, Rep., 221,754; Woolley, Proh., 7,190; Debs, Soc., 4,611.

1904 (Pres.), Parker, Dem., 164,367; Roosevelt, Rep., 245,164; Swallow, Proh., 6,845; Debs, Soc., 9,587.

1908 (Pres.), Bryan, Dem., 182,567; Taft, Rep., 265,326; Chafin, Proh., 4,934; Debs, Soc., 10,253.

1912 (Pres.), Wilson, Dem., 170,282; Taft, Rep., 88,834; Roosevelt, Prog., 145,409; Debs, Soc., 15,900.

1916 (Pres.), Wilson, Dem., 211,645; Hughes, Rep., 269,352; Hanly, Proh., 3,187; Benson, Soc., 10,462.

1920 (Pres.), Cox, Dem., 258,229; Harding, Rep., 611,670; Watkins, Proh., 4,711; Debs, Soc., 27,217; Christensen, F.-Lab., 2,173.

NEW MEXICO.

(Presidential vote, 1928, 1924.)

Counties.	1928.		1924.			Counties.	1928.		1924.		
	Hoover, Rep.	Smith, Dem.	Coolidge, Rep.	Davis, Dem.	La Fol'te, Prog.		Hoover Rep.	Smith, Dem.	Coolidge, Rep.	Davis, Dem.	La Fol'te, Prog.
Bernalillo	8,928	6,744	7,019	6,053	1,144	Otero	1,249	1,146	828	882	304
Catron	727	428	493	426	137	Quay	1,712	1,595	844	1,540	660
Chaves	3,123	1,352	1,505	2,153	167	Rio Arriba	4,028	2,505	3,686	2,741	144
Colfax	3,898	3,018	3,499	3,062	718	Roosevelt	1,149	1,095	394	1,333	299
Curry	1,950	1,512	659	1,732	819	Sandoval	1,702	1,157	1,584	1,099	29
De Baca	472	507	269	568	83	San Juan	1,425	723	888	812	272
Dona Ana	3,136	2,170	2,816	1,773	217	San Miguel	5,210	3,512	3,884	3,550	268
Eddy	1,618	1,212	656	1,498	135	Santa Fe	4,631	3,043	4,004	2,605	176
Grant	2,037	1,984	1,752	2,063	598	Sierra	764	619	620	556	119
Guadalupe	1,718	1,089	1,327	1,054	176	Socorro	1,940	1,560	2,340	1,212	156
Harding	915	723	720	714	270	Taos	2,444	1,837	2,465	1,658	82
Hidalgo	559	509	260	470	188	Torrance	1,955	1,067	1,663	1,263	317
Lea	527	473	134	542	45	Union	2,024	1,332	1,410	1,731	596
Lincoln	1,422	820	1,088	823	293	Valencia	3,501	882	3,181	713	151
Luna	857	647	709	595	332						
McKinley	2,075	1,247	1,647	1,152	411	Total	69,645	48,211	54,745	48,542	9,543
Mora	2,002	1,798	2,197	2,088	31						

President (1928)—Foster, Workers, 158.

U. S. Senator (1928)—full term, Vaught, Dem., 49,913; Cutting, Rep., 68,070.

Governor (1928)—Dow, Dem., 52,550; Dillon, Rep., 65,967.

President (1920)—F. Lab., 1,104.

PAST VOTE OF NEW MEXICO.

1912 (Pres.), Wilson, Dem., 22,139; Taft, Rep., 17,900; Roosevelt, Prog., 8,347; Debs, Soc., 2,859.

1916 (Pres.), Wilson, Dem., 33,693; Hughes, Rep., 31,163; Hanly, Proh., 112; Benson, Soc., 1,999.

1916 (U. S. Sen.), Dem., 33,982; Rep., 30,609.

1920 (Pres.), Cox, Dem., 46,668; Harding, Rep., 57,634; Christensen, F.-Lab., 1,097.

1921 (U. S. Sen.), Dem., 31,363; Rep., 36,868.

POLITICAL COMPLEXION OF THE COUNTIES IN N. Y. STATE,

The following table shows which of the counties in the State of New York went Democratic in the Presidential elections, 1840-1928.

The figures at the bottom of the table show how many counties went Democratic in the respective Presidential elections.

County.	1840	1844	1848	1852	1856	1860	1864	1868	1872	1876	1880	1884	1888	1892	1896	1900	1904	1908	1912	1916	1920	1924	1928
Albany	...	...	...	D	...	D	D	D	...	D	D	D	D	D	...	...	...	...	...	...	...	...	D
Allegany	...	...	D	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bronx																				D	...	...	D
Broome	...	...	D	D	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cattaraugus	...	...	D	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	D	...	...	...	...
Cayuga	...	D	D	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chautauqua	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chemung	D	D	D	D	...	...	...	...	...	D	D	...	D	...	...	...	...	...	D	D	...	...	...
Chenango	...	D	D	D	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Clinton	...	...	D	D	...	...	D	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	D
Columbia	D	D	D	D	...	...	D	D	D	D	...	...	...	D	...	...	...	...	D	...	...	...	...
Cortland	...	...	D	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Delaware	D	D	D	D	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dutchess	D	...	...	D	...	...	...	...	D	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erie	...	...	...	...	...	...	D	...	...	...	...	...	...	D	...	...	...	...	D	...	...	...	...
Essex	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Franklin	...	...	D	D	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	D
Fulton & Hamilton	...	D	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Genesee	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Greene	D	D	D	D	...	D	D	D	D	D	D	...	D	...	...	...	...	...	D	D	...	...	...
Herkimer	D	D	D	D	...	...	...	...	...	...	...	...	...	...	...	...	...	...	D	...	...	...	...
Jefferson	...	D	D	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kings	...	...	...	D	...	D	D	D	D	D	D	D	D	D	...	...	...	...	D	D	...	...	D
Lewis	D	D	D	D	...	...	...	...	...	D	...	...	...	...	...	...	...	...	D	...	...	...	...
Livingston	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Madison	...	...	D	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Monroe	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	D	...	...	...	...
Montgomery	D	D	...	D	...	...	D	...	...	D	...	...	...	...	...	...	...	...	...	...	...	...	...
Nassau	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	D	...	...	...	...
New York	D	D	...	D	D	D	D	D	D	D	D	D	D	D	...	D	D	D	D	D	...	...	D
Niagara	...	...	D	...	...	...	...	...	...	D	...	D	...	D	...	...	...	...	D	...	...	...	...
Oneida	D	...	D	...	...	...	...	...	...	...	...	D	...	...	...	...	...	...	D	...	...	...	...
Onondaga	...	...	D	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ontario	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Orange	D	D	D	D	...	D	...	D	...	D	...	...	...	...	...	...	...	...	...	...	...	...	...
Orleans	...	...	D	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Oswego	...	...	D	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Otsego	D	D	D	D	...	...	...	D	D	D	D	...	...	...	...	...	...	...	D	D	...	...	...
Putnam	D	D	D	D	...	D	D	D	...	...	...	...	...	...	...	...	...	...	D	...	...	...	...
Queens	D	D	...	D	...	D	D	D	...	D	D	D	D	D	...	D	D	D	D	...	...	...	D
Rensselaer	...	...	...	D	...	...	D	...	...	D	...	...	D	D	...	...	...	...	D	...	...	...	D
Richmond	...	D	...	D	...	D	D	D	...	D	D	D	D	D	...	D	D	D	D	D	...	...	D
Rockland	D	D	D	D	...	D	D	D	D	D	D	D	D	D	...	...	...	...	D	...	...	...	...
St. Lawrence	...	D	D	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Saratoga	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Schenectady	...	...	...	D	...	...	D	...	...	D	...	...	...	D	...	...	...	...	D	...	...	...	...
Schoharie	D	D	D	D	...	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	...	...	...
Schuyler	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Seneca	D	D	D	D	...	...	D	D	...	D	D	D	D	D	...	...	...	...	...	...	...	...	...
Steuben	D	D	D	D	...	...	...	...	...	...	...	...	...	...	...	...	...	...	D	...	...	...	...
Suffolk	D	D	D	D	...	...	...	...	...	...	...	...	...	...	...	...	...	...	D	...	...	...	...
Sullivan	D	D	D	D	...	D	D	D	...	D	...	D	...	...	...	...	...	...	D	...	...	...	...
Tioga	D	D	D	D	...	...	...	...	...	D	D	D	...	...	...	...	...	...	D	...	...	...	...
Tompkins	...	...	D	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ulster	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	D	...	...	...	...
Warren	D	D	D	D	...	...	D	D	...	D	...	...	...	D	...	...	...	...	D	...	...	...	...
Washington	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Wayne	...	...	D	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Westchester	D	D	...	D	...	D	D	D	D	D	D	D	D	D	...	...	...	...	...	...	...	...	...
Wyoming	...	...	D	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	D	...	...	...	...
Yates	D	...	D	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
State	...	D	...	D	...	...	...	D	...	D	...	D	...	D	...	...	...	...	D	...	...	...	...
	24	27	37	31	1	12	19	15	9	22	13	14	12	15	1	4	4	4	28	8	0	0	9

PAST VOTE OF NEW YORK:

1872 (Pres.), Greely, Dem. and Lib., 387,281; Grant, Rep., 440,736; O'Conor, Lab. Ref., 1,454.

1876 (Pres.), Tilden, Dem., 521,949; Hayes, Rep., 489, 207; Cooper, Greenback, 1,987.

1880 (Pres.), Hancock, Dem., 534,511; Garfield, Rep., 555,544; Weaver, Greenback, 12,373.

1884 (Pres.), Cleveland, Dem., 563,154; Blaine, Rep., 562,005; St. John, Proh., 25,006; Butler, Greenback, 17,004.

1888 (Pres.), Cleveland, Dem., 635,965; Harrison, Rep., 650,338; Fisk, Proh., 30,231; Streeter, U. Lab., 626; Cowdrey, U. Lab., Ind. ticket, 2,268.

1892 (Pres.), Cleveland, Dem., 654,900; Harrison, Rep., 609, 459; Weaver, People's, 16,436; Bidwell, Proh., 38, 193.

1896 (Pres.), Bryan, Dem. and People's (Populist) 551,513; Palmer, Nat'l (Gold) Dem., 18,972; McKinley, Rep., 819,838; Levering, Proh., 16,086.

1900 (Pres.), Bryan, Dem., 678,425; McKinley Rep., 822,013; Woolley, Proh., 22,077; Debs, Soc., 12,869.

1904 (Pres.), Parker, Dem., 683,981; Roosevelt, Rep., 859,533; Swallow, Proh., 20,787; Debs, Soc., 36,883.

1908 (Pres.), Bryan, Dem., 667,468; Taft, Rep., 870,070; Chafin, Proh., 22,667; Debs. Soc., 38,451.

1912 (Pres.), Wilson, Dem., 655,475; Taft, Rep., 455,428; Roosevelt, Prog., 390,021; Soc., 63,381.

1916 (Pres.), Wilson, Dem., 759,426; Hughes, Rep., 869,115; Roosevelt, Prog., 10,172; Hanly, Proh., 19031; Benson, Soc., 45,944.

1920 (Pres.), Cox, Dem., 731,238; Harding, Rep., 1,871,167; Watkins, Proh., 19,653; Debs, Soc., 203,201; Christensen, F.-Lab., 18,413.

1922 (Gov.), Dem., 1,397,663; Rep., 1,011,725; Soc., 99,944; F.-Lab., 6,888; Proh., 9,498.

1922 (U. S. Sen.), Dem., 1,276,667; Rep., 995,421; Soc.-F. Lab., 117,928; Soc. Lab., 4,993; Proh., 32,124.

1924 (Pres.), Davis, Dem., 950,796; Coolidge, Rep, 1,820,058; La Follette, Prog., 268,510; La Follette, Soc., 198,783; Johnson, Soc. Lab., 9,928; Foster Workers, 8,228.

1924 (Gov.), Smith, Dem., 1,627,111; Roosevelt, Rep., 1,518 552; Thomas, Soc., 99,854.

NEW YORK STATE—PRESIDENT AND GOVERNOR, 1928.

Counties.	President, 1928.					Governor, 1928.		
	Smith, Dem.	Hoover, Rep.	Thomas, Soc.	Reynolds, Soc.-Lab.	Foster, Wkrs.	Roosevelt, Dem.	Ottinger, Rep.	Waldman, Soc.
Albany	62,380	48,762	2,223	46	26	63,096	47,988	2,166
Allegany	3,491	15,306	588	12	2	4,050	14,412	561
Bronx	232,709	98,590	8,875	339	3,297	210,057	115,164	8,258
Broome	19,563	39,860	1,552	21	96	21,295	36,724	1,497
Cattaraugus	10,229	22,135	602	14	21	11,268	20,433	570
Cayuga	11,787	20,202	512	13	11	12,563	19,068	468
Chautauqua	13,223	38,220	1,002	70	69	15,128	35,183	951
Chemung	12,189	25,029	109	9	18	13,609	23,139	100
Chenango	3,986	13,955	122	4	6	4,892	12,453	115
Clinton	10,888	7,824	57	1	1	9,977	7,994	63
Columbia	6,403	14,000	186	15	8	7,563	12,195	177
Cortland	3,662	11,960	234	6	7	4,350	10,874	215
Delaware	4,362	16,225	46	8	4	6,053	13,589	30
Dutchess	16,748	28,687	1,300	32	34	18,997	26,054	1,198
Erie	126,449	144,726	10,118	265	231	129,853	138,099	9,849
Essex	5,291	10,462	17	....	....	5,328	9,617	21
Franklin	9,501	9,495	47	1	1	9,032	9,107	40
Fulton	5,728	15,043	334	11	23	6,518	14,032	343
Genesee	5,181	13,251	739	11	13	5,755	12,535	719
Greene	4,440	9,529	308	2	6	5,310	8,633	297
Hamilton	952	1,399	....	....	....	1,099	1,115	....
Herkimer	10,654	18,624	412	7	12	11,607	17,135	401
Jefferson	12,908	26,361	402	10	14	14,445	23,200	358
Kings	404,394	245,623	24,888	1,572	3,371	375,373	270,011	24,641
Lewis	4,161	7,175	4	2	2	4,351	6,402	8
Livingston	5,545	11,632	968	5	10	6,049	11,020	922
Madison	5,217	14,333	280	15	6	5,958	13,119	258
Monroe	73,759	99,803	5,180	143	193	79,410	93,725	4,911
Montgomery	9,845	15,257	178	18	11	11,173	13,639	177
Nassau	40,079	71,015	1,901	46	99	45,036	64,924	1,709
New York	317,227	186,396	15,076	714	2,145	316,385	185,490	13,851
Niagara	16,881	33,229	2,302	13	28	18,277	31,295	2,149
Oneida	38,231	44,782	1,684	48	41	40,682	42,409	1,702
Onondaga	54,706	76,278	2,559	85	88	56,706	73,833	2,502
Ontario	8,491	17,769	955	5	5	9,303	16,911	894
Orange	19,047	37,334	1,817	23	19	21,218	34,891	1,743
Orleans	3,792	9,828	652	8	12	4,109	9,318	633
Oswego	11,039	21,849	418	11	13	12,006	20,660	401
Otsego	6,006	18,286	298	9	7	7,495	15,992	262
Putnam	2,278	4,534	161	4	4	2,684	4,076	135
Queens	184,640	158,505	1,886	129	396	201,768	136,999	1,593
Rensselaer	33,094	32,370	638	56	33	33,226	32,057	617
Richmond	28,937	24,998	248	10	31	31,628	21,048	203
Rockland	9,769	15,732	513	23	35	10,853	14,500	436
St. Lawrence	12,567	25,804	562	7	20	12,782	24,357	507
Saratoga	12,247	19,183	722	15	20	12,539	18,367	706
Schenectady	21,277	29,428	1,183	67	54	22,734	27,641	1,174
Schoharie	2,926	6,906	357	11	9	3,731	6,030	305
Schuyler	1,731	4,749	103	2	2	2,159	4,674	85
Seneca	3,873	7,911	147	2	5	4,336	7,332	130
Steuben	10,699	28,028	1,694	33	12	12,022	26,298	1,591
Suffolk	19,497	41,199	2,544	40	35	22,434	38,079	2,298
Sullivan	6,207	10,331	284	13	26	6,869	9,174	275
Tioga	2,779	9,963	198	3	15	3,471	8,826	172
Tompkins	5,114	14,471	244	9	28	6,070	13,128	226
Ulster	14,200	25,418	1,024	19	34	15,891	22,996	899
Warren	6,793	11,697	29	..	..	7,046	10,545	57
Washington	7,221	15,499	428	8	7	7,463	14,707	400
Wayne	5,338	18,187	603	14	13	6,224	16,849	557
Westchester	80,926	109,939	4,408	122	149	91,975	98,031	3,997
Wyoming	3,992	10,830	326	2	2	4,489	9,927	303
Yates	1,950	7,386	52	3	4	2,418	6,607	33
Total	2,089,863	2,193,344	107,332	4,206	10,884	2,130,194	2,104,630	101,859

NEW YORK STATE—U. S. SENATOR, 1928.

Counties.	Cope'd, Dem.	Hough'n Rep.	Counties.	Cope'd, Dem.	Hough'n, Rep.	Counties.	Cope'd, Dem.	Hough'n Rep.
Albany	62,641	47,715	Jefferson	12,647	22,924	Rockland	10,479	14,383
Allegany	3,669	14,285	Kings	403,671	224,571	St. Lawrence	11,507	24,028
Bronx	231,262	77,668	Lewis	3,961	6,201	Saratoga	11,813	18,115
Broome	19,711	36,393	Livingston	5,632	11,152	Schenectady	20,722	28,505
Cattaraugus	10,435	20,453	Madison	5,477	12,938	Schoharie	3,638	5,841
Cayuga	11,819	18,892	Monroe	70,256	99,895	Schuyler	1,986	4,706
Chautauqua	12,925	35,253	Montgomery	10,094	13,846	Seneca	4,209	7,256
Chemung	12,833	23,517	Nassau	39,419	68,630	Steuben	10,722	27,376
Chenango	4,488	11,958	New York	314,455	176,320	Suffolk	19,951	39,268
Clinton	9,152	7,932	Niagara	16,625	31,780	Sullivan	7,039	8,341
Columbia	7,047	12,058	Oneida	37,227	44,148	Tioga	3,073	8,787
Cortland	3,927	10,780	Onondaga	53,058	75,600	Tompkins	5,246	13,520
Delaware	5,441	12,936	Ontario	8,705	17,243	Ulster	14,655	22,988
Dutchess	17,006	27,369	Orange	19,915	35,206	Warren	6,508	10,331
Erie	115,905	140,155	Orleans	3,694	9,322	Washington	6,879	14,554
Essex	4,585	9,319	Oswego	11,190	20,389	Wayne	5,684	16,931
Franklin	8,229	9,054	Otsego	7,085	15,601	Westchester	78,654	107,913
Fulton	5,602	14,464	Putnam	2,316	4,242	Wyoming	3,952	9,994
Genesee	5,333	12,579	Queens	197,950	132,590	Yates	2,076	6,580
Greene	5,149	8,408	Rensselaer	32,302	32,295			
Hamilton	930	1,093	Richmond	31,312	20,100	Totals	2,084,273	2,034,014
Herkimer	10,401	17,324						

Governor (1928)—Dunne, Workers, 10,741; Corregan, Soc. Lab., 4,213.
Lieut.-Gov. (1928)—Lehman, Dem., 2,078,921; Lockwood, Rep., 2,064,882; Hahn, Soc., 105,806.

NEW YORK CITY—PRESIDENT AND GOVERNOR, 1928

Manhattan—New York County.

A.D.	President, 1928. Smith, Dem.	Hoover, Rep.	T'm's, Soc.	Governor, 1928. Roosevelt, Dem.	Ottinger, Rep.	Waldman, Soc.
1st..	15,203	3,343	363	14,648	3,850	377
2d..	12,193	3,119	310	11,388	3,834	326
3d..	17,927	3,763	443	18,650	5,195	413
4th..	10,486	2,112	353	8,637	3,934	390
5th..	17,424	4,792	364	17,705	4,462	331
6th..	8,981	5,083	818	6,954	7,087	832
7th..	16,456	15,177	894	17,148	14,177	751
8th..	9,724	3,564	677	8,367	4,768	717
9th..	17,522	15,194	880	17,672	15,028	789
10th..	12,602	12,357	597	14,593	10,388	504
11th..	15,938	11,669	776	16,288	11,444	681
12th..	18,981	6,528	592	19,550	5,903	416
13th..	11,619	9,194	643	12,544	8,262	538
14th..	16,062	6,102	444	16,702	5,409	406
15th..	13,264	17,197	717	15,745	14,747	585
16th..	16,338	5,667	549	16,540	5,408	507
17th..	8,594	3,117	472	7,429	4,110	496
18th..	13,604	4,419	446	12,756	4,833	444
19th..	6,691	8,640	770	6,710	8,482	704
20th..	9,218	3,005	357	9,159	2,949	282
21st..	7,905	11,006	919	8,206	10,564	819
22d..	11,959	10,065	916	11,825	10,200	845
23d..	28,536	19,283	1,776	27,368	20,356	1,698
Totals	317,227	186,396	15,076	316,385	185,490	13,851

Bronx.

1st..	20,514	7,649	407	20,324	7,458	391
2d..	43,400	19,146	1,369	38,410	23,445	1,198
3d..	15,856	5,318	938	12,286	8,119	880
4th..	14,971	4,185	1,025	11,973	6,733	1,017
5th..	17,364	5,063	1,211	12,241	9,373	1,182
6th..	44,593	21,143	1,147	43,815	19,835	1,059
7th..	18,622	5,686	1,284	15,714	8,184	1,226
8th..	57,389	30,400	1,494	55,294	31,517	1,304
Total	232,709	98,590	8,875	210,057	115,164	8,258

Brooklyn—Kings County.

A.D.	President, 1928. Smith, Dem.	Hoover, Rep.	T'm's, Soc.	Governor, 1928. Roosevelt, Dem.	Ottinger, Rep.	Waldman, Soc.
1st..	11,938	6,978	366	11,646	6,130	311
2d..	44,940	26,867	3,166	39,267	31,938	3,198
3d..	9,626	2,759	229	9,798	2,534	196
4th..	11,908	4,185	510	10,120	6,207	518
5th..	12,276	11,199	587	12,796	10,953	593
6th..	10,505	5,619	999	7,799	8,156	985
7th..	12,631	5,939	512	13,065	5,448	450
8th..	12,030	3,238	170	12,128	2,901	164
9th..	34,514	23,407	2,051	34,631	24,327	1,945
10th..	14,245	11,075	650	15,093	10,103	567
11th..	18,354	14,709	890	18,649	14,323	801
12th..	18,864	10,627	734	18,756	10,554	694
13th..	8,924	2,775	364	7,516	3,134	367
14th..	9,541	2,808	491	7,949	4,277	573
15th..	11,491	4,028	243	11,627	3,717	220
16th..	38,426	15,513	2,760	30,962	22,398	2,825
17th..	11,648	11,996	850	11,597	11,926	818
18th..	35,273	20,677	2,950	27,759	26,774	3,097
19th..	7,653	3,055	370	7,191	3,441	400
20th..	15,152	13,855	999	16,420	12,657	889
21st..	25,430	25,876	1,921	25,976	25,783	1,813
22d..	21,104	14,874	1,968	17,808	16,926	1,991
23d..	8,921	3,564	1,108	6,826	5,404	1,226
Totals	404,394	245,623	24,888	375,379	270,011	24,641

Queens.

1st..	27,382	12,007	264	28,758	10,141	239
2d..	24,662	14,445	301	26,763	11,950	259
3d..	33,786	21,284	376	36,708	17,694	258
4th..	44,896	54,975	403	50,716	47,840	319
5th..	34,776	32,346	488	36,287	29,922	347
6th..	19,138	23,448	204	22,536	19,452	171
Total	184,640	158,505	1,886	201,768	136,999	1,593

Richmond.

1st..	15,379	12,358	150	16,742	10,447	122
2d..	13,558	12,630	98	14,886	10,601	81
Total	28,937	24,988	248	31,628	21,048	203

Summary—Whole City.

Counties.	President, 1928. Smith, Dem.	Hoover, Rep.	Thomas, Soc.	Governor, 1928. Roosevelt, Dem.	Ottinger, Rep.	Waldman, Soc.
Manhattan	317,227	186,396	15,076	316,385	185,490	13,851
Bronx	232,709	98,590	8,875	210,057	115,164	8,258
Brooklyn	404,394	245,623	24,888	375,379	270,011	24,641
Queens	184,640	158,505	1,886	201,768	136,999	1,593
Richmond	28,937	24,988	248	31,628	21,048	203
Whole City	1,167,907	714,102	50,973	1,135,217	728,712	48,546

OTHER CITY TOTALS IN 1928 ELECTION.

President—Reynolds, Soc. Lab., 2,764; Foster, Workers, 9,240.
Governor—Corregon, Soc. Lab., 2,725; Dunne, Workers, 9,058.
Borough Pres. (Queens)—Patten, Dem., 164,405; Harvey, Rep., and Indep., 168,842.

NEW YORK CITY—PRESIDENT AND GOVERNOR, 1924.

Borough.	President. Coolidge, Rep.	Davis, Dem.	La Follette. Soc.	Progr.	Total	Governor. Roosevelt, Rep.	Smith, Dem.	Thomas Soc.	Enrollment. Dem.	Rep.
Manhattan	190,871	183,238	40,230	46,434	86,664	124,813	326,753	12,652	265,432	162,931
Brooklyn	236,877	158,913	48,840	51,906	100,746	163,135	314,540	17,869	259,052	215,608
Bronx	79,562	72,834	31,608	30,594	62,202	45,288	159,005	11,635	134,695	59,388
Queens	100,793	58,402	10,899	17,311	28,210	70,880	113,599	2,436	109,286	73,539
Richmond	18,008	15,785	1,447	2,258	3,705	13,859	23,044	260	26,187	11,061
Total	626,111	489,172	133,024	148,503	281,527	417,975	936,941	44,852	794,652	522,547

President (1924)—Johns, Soc. Lab., 2,223; Foster, Communist, 5,371.

150,194 VOTERS QUALIFIED IN 1928 IN NEW YORK STATE BY LITERACY TEST.

Total certificates issued, by years—(1924) 64,024; (1925) 33,956; (1926) 37,000; (1927) 48,605; (1928) 150,194.

Women receiving certificates—(1924) 15,540; (1925) 8,496; (1926) 8,976; (1927) 12,768; (1928) 53,349.

Men receiving certificates—(1924) 48,574; (1925) 25,460; (1926) 28,024; (1927) 37,837; (1928) 93,845.

The above figures concern only the literacy tests around election time

An act approved by Governor F. D. Roosevelt in 1929 provides that the domicile of a married woman shall be established by the same facts and rules of law as that of any other person, for the purpose of voting and office holding.

Another 1929 Act amends the Election Law, by providing for central registration of a voter, between June 1 and September 10, whose duties, business or occupation require him to be elsewhere, instead of "elsewhere in the United States," as now provided.

NEW YORK--PRESIDENT AND GOVERNOR, 1924.

Counties.	President, 1924.						Governor, 1924.		
	Davis, Dem.	Coolidge, Rep.	La Follette, Prog.	La Follette, Soc.	Johns, Soc.-Labor.	Foster, Workers.	Alfred E. Smith, Dem.	Theodore Roosevelt, Rep.	Norman Thomas, Soc.
Albany	38,671	48,253	2,692	3,044	71	41	49,483	42,276	586
Allegany	2,755	12,203	821	381	24	12	3,201	12,503	547
Bronx	72,834	79,562	31,608	30,594	598	1,391	159,005	45,288	11,635
Broome	9,289	28,262	2,809	1,185	133	71	12,827	27,379	1,447
Cattaraugus	5,369	17,307	2,226	1,974	138	52	8,514	17,680	775
Cayuga	7,369	17,252	1,643	653	107	76	9,476	16,700	708
Chautauqua	5,560	29,757	3,547	2,448	313	139	10,096	28,722	1,982
Chemung	7,162	18,599	1,167	1,805	18	14	10,139	18,206	235
Chenango	3,392	11,323	506	335	31	9	3,803	11,536	154
Clinton	5,138	7,918	335	290	15	2	6,552	6,893	92
Columbia	5,466	10,774	408	215	39	12	6,512	9,985	139
Cortland	2,170	10,032	559	238	34	8	2,876	9,621	246
Delaware	4,158	13,020	317	405	12	7	4,246	13,003	80
Dutchess	8,864	22,173	2,225	867	130	44	12,360	20,545	971
Erie	40,780	112,070	26,769	9,273	1,969	619	78,200	102,017	11,572
Essex	2,639	8,553	155	210	3	5	3,751	7,564	31
Franklin	4,364	9,352	466	322	5	6	6,111	8,193	53
Fulton	3,143	11,858	933	341	47	36	5,283	10,814	428
Genesee	3,384	11,101	837	176	38	6	4,112	10,862	641
Greene	3,951	7,503	484	219	25	6	4,377	7,462	248
Hamilton	631	1,063	8	31	2	1	790	896	.....
Herkimer	6,464	15,025	1,030	356	66	22	8,877	14,588	524
Jefferson	7,665	21,159	1,054	990	52	22	10,333	19,698	389
Kings	158,913	236,877	48,840	51,906	652	1,530	314,549	163,135	17,869
Lewis	2,801	6,066	92	90	3	5	3,270	5,651	16
Livingston	3,676	10,472	607	259	28	13	4,506	10,169	320
Madison	3,430	11,589	875	851	55	21	4,104	11,423	647
Monroe	28,956	80,577	22,518	7,743	957	377	55,751	70,024	7,104
Montgomery	5,939	12,869	901	571	55	27	8,426	11,739	306
Nassau	14,322	45,825	3,708	991	103	82	23,856	39,427	655
New York	183,238	190,871	40,230	46,434	724	1,859	326,753	124,813	12,652
Niagara	7,993	25,874	3,102	875	168	50	12,433	24,050	1,585
Oneida	18,124	37,545	3,554	1,204	194	113	27,688	33,475	1,413
Onondaga	24,773	65,395	7,060	3,107	338	96	40,624	58,486	2,613
Ontario	5,933	15,013	1,225	292	47	13	7,094	14,929	656
Orange	9,765	29,184	2,908	1,048	138	40	14,262	27,244	1,288
Orleans	2,320	8,543	767	200	18	32	3,009	8,333	610
Oswego	7,864	18,576	1,290	716	68	28	10,275	17,742	381
Otsego	5,841	13,573	773	420	52	11	5,811	14,975	321
Putnam	1,472	3,796	170	150	8	9	1,956	3,488	63
Queens	58,402	100,793	10,899	17,311	217	547	113,599	70,880	2,436
Rensselaer	19,783	30,549	2,749	1,191	263	138	26,238	28,154	1,010
Richmond	15,785	18,008	1,447	2,258	32	44	23,044	13,859	260
Rockland	5,640	11,915	1,253	658	66	27	8,035	10,836	547
St. Lawrence	7,103	22,583	979	847	44	28	9,564	21,349	512
Saratoga	7,026	17,682	1,207	862	65	14	10,420	15,886	299
Schenectady	9,167	24,514	4,416	1,330	218	54	16,395	21,386	1,772
Schoharie	3,413	6,142	214	92	12	6	3,213	6,213	136
Schuyler	1,555	4,301	134	77	4	3	2,668	4,359	89
Seneca	2,727	6,598	442	177	19	11	3,459	6,563	266
Steuben	7,194	21,481	2,203	1,020	216	46	9,378	22,088	915
Suffolk	10,024	31,456	2,562	1,183	177	53	15,380	28,587	1,206
Sullivan	4,057	7,734	1,103	652	39	19	5,565	7,394	425
Tioga	2,234	7,834	439	276	18	9	2,519	7,886	179
Tompkins	3,701	11,766	430	189	15	22	4,327	11,616	186
Ulster	9,361	20,048	1,043	1,132	36	40	11,796	19,085	378
Warren	3,663	9,627	556	275	45	2	5,269	8,571	74
Washington	4,321	13,774	742	390	31	6	6,014	12,692	227
Wayne	3,991	14,358	682	427	14	13	4,769	14,060	350
Westchester	30,964	85,029	13,001	2,942	871	228	56,237	70,343	5,843
Wyoming	2,512	10,148	628	386	25	6	3,283	9,867	325
Yates	1,568	6,334	126	112	10	3	1,602	6,242	61
Total	950,796	1,820,058	268,510	198,783	9,928	8,228	1,627,111	1,518,552	99,854

Governor (1924)—Cannon, Workers' Party, 7,813; Passonno, Soc.-Lab., 4,923.
Governor (1922)—Smith, Dem., 1,397,663; Miller, Rep., 1,011,725; Cassidy, Soc., 99,944; Cassidy, Farm.-Lab., 6,888; Hinds, Proh., 9,498.

REGISTRATION IN NEW YORK STATE, 1924, 1928.

Counties.	1924.	1928.	Counties.	1924.	1928.	Counties.	1924.	1928.
Albany	101,763	121,013	Herkimer	31,769	35,574	Richmond	39,653	55,988
Allegany	23,606	24,995	Jefferson	43,900	47,499	Rockland	28,735	32,503
Bronx	232,684	358,207	Kings	528,573	710,775	St. Lawrence	46,602	48,829
Broome	51,012	67,400	Lewis	14,468	14,743	Saratoga	34,544	37,487
Cattaraugus	37,883	40,663	Livingston	21,886	23,316	Schenectady	44,794	56,289
Cayuga	37,789	37,431	Madison	22,852	23,727	Schoharie	14,918	14,089
Chautauqua	55,637	62,528	Monroe	155,048	195,967	Schuyler	8,780	8,990
Chemung	35,029	41,847	Montgomery	26,521	29,482	Seneca	13,863	14,408
Chenango	21,997	22,760	Nassau	92,919	139,145	Steuben	45,271	48,857
Clinton	21,997	24,661	New York	499,604	548,448	Suffolk	67,674	81,936
Columbia	23,647	25,630	Niagara	44,481	57,927	Sullivan	22,944	23,390
Cortland	17,131	18,760	Oneida	78,070	96,109	Tioga	15,416	16,153
Delaware	26,997	27,259	Onondaga	119,856	150,181	Tompkins	20,902	23,141
Dutchess	44,860	54,465	Ontario	30,678	32,717	Ulster	43,883	50,503
Erie	226,684	307,882	Orange	54,231	66,787	Warren	18,642	21,777
Essex	18,338	21,500	Orleans	16,238	17,151	Washington	26,834	27,811
Franklin	23,393	23,685	Oswego	37,776	39,912	Wayne	29,685	31,512
Fulton	20,715	24,536	Otsego	28,781	30,407	Westchester	153,317	214,090
Genesee	21,516	23,776	Putnam	8,400	9,540	Wyoming	18,838	19,233
Greene	17,243	18,872	Queens	199,031	356,183	Yates	12,043	11,334
Hamilton	3,000	3,445	Rensselaer	62,223	70,138	Total	3,887,554	4,885,363

NEW YORK STATE—PRESIDENT AND GOVERNOR, 1920.

Counties.	President, 1920.					Governor, 1920.				
	Cox, Dem.	Harding, Rep.	Debs, Soc.	Watkins, Proh.	Christensen, F.-L.	Alfred E. Smith, Dem.	Nathan L. Miller, Rep.	J. D. Cannon, Soc.	G. F. Thompson, Proh.	D. F. Malone, F.-L.
Albany	28,376	48,750	1,438	244	118	37,572	39,057	967	751	121
Allegany	2,799	10,898	513	441	22	2,886	10,428	495	588	30
Bronx	45,741	106,080	32,923	214	1,949	105,301	43,390	25,585	540	10,100
Broome	9,251	24,759	1,120	623	90	9,950	22,481	1,031	779	107
Cattaraugus	6,693	16,083	658	481	75	7,043	14,957	568	740	98
Cayuga	6,343	15,234	639	191	33	6,990	14,538	566	343	46
Chautauqua	6,781	27,618	3,143	869	62	8,380	25,254	2,705	1,176	108
Chemung	7,080	17,864	431	633	46	9,062	15,143	325	839	70
Chenango	3,735	10,116	68	282	14	3,197	9,866	53	293	36
Clinton	4,110	9,062	29	166	11	4,800	7,536	36	223	11
Columbia	5,203	9,284	211	95	15	5,613	8,763	188	268	48
Cortland	2,541	9,606	136	218	6	2,929	8,883	99	256	6
Delaware	4,528	11,719	150	269	27	4,171	10,895	112	392	104
Dutchess	9,938	21,152	882	167	71	12,022	18,212	758	310	129
Erie	40,436	99,762	15,111	1,430	521	62,315	82,730	12,222	1,947	544
Essex	2,218	8,042	47	61	9	2,822	7,660	33	139	37
Franklin	3,825	9,786	62	178	12	4,543	8,413	102	166	26
Fulton	3,192	10,946	888	436	35	4,036	9,863	800	588	36
Genesee	2,570	9,628	539	152	13	2,831	9,081	499	298	25
Greene	3,498	6,323	264	160	20	3,546	6,062	236	246	42
Hamilton	516	881	3	4	2	614	674	2	6	5
Herkimer	6,507	14,310	793	264	25	7,786	12,629	683	344	39
Jefferson	7,925	22,072	252	406	510	8,753	20,223	153	463	530
Kings	119,612	292,692	45,100	733	3,473	244,697	154,078	34,535	3,030	21,452
Lewis	2,673	5,906	24	76	10	2,731	5,444	22	93	11
Livingston	3,571	9,488	497	192	17	3,913	9,094	446	290	19
Madison	3,797	11,094	230	182	22	3,963	10,374	186	299	21
Monroe	28,523	73,809	11,089	1,324	678	38,280	64,871	9,883	2,383	824
Montgomery	5,911	12,835	476	134	26	7,252	11,390	394	225	146
Nassau	8,595	33,099	1,254	155	182	15,282	24,804	925	493	1,044
New York	135,249	275,013	46,049	463	7,079	268,316	136,580	34,223	1,117	19,852
Niagara	7,416	21,193	1,872	380	104	9,866	18,202	1,629	1,678	94
Oneida	15,560	36,311	2,297	412	78	19,744	32,181	2,038	638	89
Onondaga	23,308	57,008	4,707	640	163	29,493	51,406	4,043	1,173	132
Ontario	5,678	13,361	914	186	24	5,849	13,164	902	357	49
Orange	10,567	24,558	1,573	292	93	12,598	21,618	1,457	616	285
Orleans	2,266	8,305	620	176	30	2,487	7,793	598	319	41
Oswego	8,045	17,905	491	474	36	8,955	16,360	443	665	47
Otsego	6,275	12,112	134	391	36	5,751	11,646	83	537	82
Putnam	1,406	3,447	23	20	8	1,669	2,858	17	71	51
Queens	35,296	94,360	6,143	142	1,204	75,938	45,140	4,361	741	8,651
Rensselaer	20,224	28,810	1,849	278	116	23,774	25,451	1,526	434	89
Richmond	9,373	17,844	712	111	170	15,352	10,541	426	282	908
Rockland	5,057	11,169	498	180	67	6,817	8,874	388	219	281
St. Lawrence	7,213	24,651	372	282	56	8,023	22,644	325	325	58
Saratoga	6,905	16,222	351	290	73	9,038	13,239	210	575	129
Schenectady	8,741	19,208	4,941	509	66	12,177	16,255	4,068	877	120
Schoharie	3,697	5,572	30	215	12	3,107	5,699	26	312	48
Schuyler	1,231	3,827	151	138	9	1,157	3,727	134	118	17
Seneca	3,023	6,260	250	135	12	3,268	6,094	233	265	12
Steuben	7,401	18,335	1,297	784	52	8,015	17,020	1,113	1,167	59
Suffolk	8,852	26,737	596	233	118	13,667	20,383	435	790	601
Sullivan	3,623	8,029	671	98	26	4,419	6,777	499	236	143
Tioga	2,406	6,772	83	223	16	2,152	6,551	64	295	39
Tompkins	3,487	9,508	288	250	21	4,056	8,812	249	300	19
Ulster	8,759	19,001	301	455	76	10,174	16,129	189	774	198
Warren	3,227	9,009	189	101	20	4,704	6,815	117	232	40
Washington	4,124	13,647	162	123	24	5,486	11,522	81	227	58
Wayne	4,289	13,333	304	241	18	3,982	13,026	295	406	32
Westchester	28,060	76,020	6,097	435	485	44,367	58,795	4,691	702	1,938
Wyoming	2,442	9,134	294	194	21	2,635	8,554	292	247	19
Yates	1,571	5,638	52	122	6	1,496	5,229	34	304	2
Total	781,238	1,871,167	203,201	19,653	18,413	1,261,812	1,335,878	159,804	35,509	69,908

UNITED STATES SENATOR, 1920.

Panken, Soc., 208,155; Boole, Proh., 159,652; Schneiderman, Farm.Lab., 27,934.

Counties.	Walker, Dem.	Wadsworth, Rep.	Counties.	Walker, Dem.	Wadsworth, Rep.	Counties.	Walker, Dem.	Wadsworth, Rep.
Albany	31,015	41,187	Herkimer	6,530	10,958	Richmond	11,742	11,907
Allegany	2,392	8,286	Jefferson	7,264	17,749	Rockland	5,380	9,010
Bronx	63,604	70,263	Kings	153,263	217,294	St. Lawrence	6,187	19,942
Broome	11,814	17,710	Lewis	2,329	4,466	Saratoga	6,585	11,450
Cattaraugus	6,473	12,978	Livingston	3,266	8,326	Schenectady	9,592	14,075
Cayuga	6,479	12,486	Madison	3,583	7,838	Schoharie	3,070	4,064
Chautauqua	6,527	20,568	Monroe	29,078	63,869	Schuyler	1,145	2,842
Chemung	8,121	10,907	Montgomery	5,873	11,755	Seneca	3,158	5,023
Chenango	3,703	6,667	Nassau	9,821	28,015	Steuben	7,086	14,152
Clinton	3,560	6,735	New York	171,351	197,974	Suffolk	9,057	20,561
Columbia	5,048	7,874	Niagara	7,471	17,641	Sullivan	3,860	6,285
Cortland	2,684	6,573	Oneida	16,740	30,368	Tioga	2,384	4,818
Delaware	4,591	8,272	Onondaga	26,488	46,024	Tompkins	3,526	6,418
Dutchess	9,646	17,785	Ontario	5,625	10,800	Ulster	8,384	14,775
Erie	43,603	86,916	Orange	10,637	19,316	Warren	3,345	6,135
Essex	1,917	6,096	Orleans	2,102	6,696	Washington	3,964	10,047
Franklin	3,239	7,185	Oswego	7,779	14,403	Wayne	3,957	10,276
Fulton	3,206	8,716	Otsego	5,910	9,151	Westchester	31,522	65,030
Genesee	2,479	7,745	Putnam	1,203	2,473	Wyoming	2,155	7,543
Greene	3,415	5,265	Queens	52,125	64,923	Yates	1,392	4,023
Hamilton	429	639	Rensselaer	21,396	25,125	Total	901,310	1,434,393

NEW YORK CITY—MAYOR, COMPTROLLER, PRES. ALD. 1929.

MANHATTAN.

A. D.	Mayor. Walker. Dem.	Mayor. La Guardia. Rep.	Mayor. Thomas. Soc.	Mayor. Enright. Sq. D.	Comptroller. Berry. Dem.	Comptroller. Aron. Rep.	Comptroller. Salmon. Soc.	Comptroller. Polhemus. Sq. D.	Pres. Board of Aldermen. McKee. Dem.	Pres. Board of Aldermen. Coler. Rep.
1.....	11,401	3,011	842	20	11,753	2,614	504	16	11,774	2,568
2.....	8,654	4,327	695	37	9,375	3,487	449	29	9,066	3,716
3.....	12,936	2,928	1,066	41	13,148	2,925	548	20	13,238	2,912
4.....	9,845	1,168	739	20	9,959	1,248	379	16	9,989	1,207
5.....	13,221	2,349	602	57	13,360	2,240	324	36	13,282	2,309
6.....	7,193	4,385	2,018	101	6,856	4,916	1,244	125	6,875	4,867
7.....	12,684	4,595	2,732	77	12,835	5,623	924	70	12,888	5,365
8.....	6,527	3,154	1,622	43	6,721	3,017	1,055	31	6,762	2,940
9.....	13,259	4,210	3,125	60	13,183	5,508	1,159	33	13,477	5,143
10.....	7,916	4,497	4,227	63	8,522	5,231	707	34	8,472	5,046
11.....	12,111	3,684	2,135	60	12,218	4,415	878	31	12,347	4,236
12.....	13,380	3,471	1,207	27	13,801	3,497	592	13	13,902	3,521
13.....	8,735	3,824	1,797	52	8,912	4,148	769	28	9,054	4,152
14.....	12,075	2,755	1,247	27	12,380	2,784	701	18	12,420	2,740
15.....	8,656	5,187	2,796	54	8,720	6,750	812	20	9,451	6,206
16.....	12,090	2,684	1,296	29	12,343	2,702	770	25	12,388	2,687
17.....	6,185	2,314	761	21	6,180	2,190	52	14	6,228	2,109
18.....	7,734	7,234	987	52	8,156	6,437	688	49	8,173	6,382
19.....	5,720	5,193	893	52	5,238	5,358	601	49	5,323	5,385
20.....	5,331	4,080	573	33	5,607	3,627	401	31	5,629	3,636
21.....	7,022	5,693	1,281	50	6,370	6,233	675	32	6,356	6,177
22.....	9,087	4,464	1,717	60	8,934	4,995	891	24	9,028	4,910
23.....	20,355	6,393	4,633	80	21,188	7,480	1,973	32	21,622	7,363
Totals...	232,167	91,600	38,991	1,121	235,759	97,385	17,572	776	237,744	95,557

THE BRONX.

1.....	14,037	3,918	2,009	85	14,283	8,394	1,180	47	14,437	3,693
2.....	30,126	8,582	7,492	157	31,043	9,159	4,320	93	31,433	8,756
3.....	10,247	2,711	3,149	33	10,552	2,592	2,069	96	10,676	2,420
4.....	9,663	2,111	2,880	51	9,919	2,062	1,944	32	10,045	1,990
5.....	10,547	2,642	4,154	33	10,748	2,548	2,909	53	10,969	2,375
6.....	34,777	15,545	6,958	209	36,732	13,702	4,373	119	37,645	13,994
7.....	10,253	5,219	3,676	53	10,731	4,738	2,642	44	11,025	4,352
8.....	40,471	12,306	9,283	223	42,566	13,030	4,609	110	43,146	12,534
Totals...	160,111	53,034	39,601	884	166,574	56,225	24,046	594	169,387	50,294

BROOKLYN.

1.....	6,814	3,386	1,249	37	7,075	3,654	408	13	7,212	3,546
2.....	32,715	11,136	10,592	250	34,011	12,217	6,280	131	34,157	12,111
3.....	6,648	2,063	455	42	6,665	1,697	249	23	6,939	1,778
4.....	8,058	3,471	1,695	36	8,245	3,445	991	28	8,336	3,350
5.....	10,149	5,475	1,557	142	13,072	6,246	634	62	10,108	6,350
6.....	6,997	3,407	2,767	66	6,733	3,953	1,440	34	6,850	3,915
7.....	9,480	3,317	799	46	9,843	3,076	591	26	9,378	3,187
8.....	8,232	3,074	488	33	8,493	2,579	257	11	8,529	2,643
9.....	24,248	12,958	5,032	204	26,297	13,943	2,541	128	25,958	13,282
10.....	9,725	5,155	1,666	108	10,026	5,778	618	42	10,114	5,924
11.....	12,688	5,952	2,755	134	13,198	6,876	1,154	38	13,248	6,841
12.....	14,022	4,802	1,954	115	14,245	5,521	762	41	14,183	5,675
13.....	4,824	3,696	730	37	5,226	3,108	511	23	5,267	3,095
14.....	5,867	3,557	1,946	57	6,251	3,165	1,407	32	6,274	3,133
15.....	8,558	2,229	506	42	8,674	2,279	220	10	8,690	2,199
16.....	23,709	13,557	8,470	141	25,516	12,968	5,549	88	25,870	12,033
17.....	9,094	5,747	1,672	76	9,375	6,694	483	15	9,201	6,741
18.....	24,433	8,099	8,000	186	25,197	9,277	5,669	167	25,452	9,450
19.....	4,697	3,844	1,003	32	5,057	3,334	686	21	4,968	3,345
20.....	12,423	6,766	1,900	167	12,545	7,288	875	43	12,408	7,643
21.....	18,489	9,355	5,573	224	18,747	11,766	1,974	88	20,000	11,836
22.....	15,170	8,659	5,099	102	1,564	9,044	3,251	39	15,750	9,234
23.....	5,032	3,362	2,450	24	5,432	2,983	1,952	29	5,397	2,851
Totals...	282,072	133,067	68,358	2,301	292,616	140,891	38,302	1,134	293,717	139,463

QUEENS.

1.....	20,784	7,204	2,145	143	21,406	6,986	1,061	36	21,235	7,261
2.....	23,171	6,978	2,572	145	23,104	7,643	1,112	42	22,851	7,658
3.....	28,208	12,217	3,801	164	28,811	12,169	1,292	99	28,467	12,531
4.....	42,867	25,421	8,212	479	42,399	28,734	2,355	187	41,916	29,607
5.....	31,866	14,651	5,061	267	30,443	16,107	2,139	87	30,612	16,623
6.....	18,727	9,205	2,970	209	18,072	10,312	1,099	45	17,795	10,921
Totals...	165,623	75,676	24,761	1,407	164,235	81,951	9,058	496	163,056	84,601

RICHMOND.

1.....	13,816	7,176	1,699	114	14,751	7,041	517	45	14,239	7,283
2.....	11,750	7,831	1,521	169	12,705	7,445	573	49	12,261	7,764
Totals...	25,566	15,007	3,220	283	27,456	14,486	1,090	94	26,700	15,029

RECAPITULATION.

Man'tan	232,167	91,600	38,991	1,121	235,759	97,385	17,572	776	237,744	95,577
Bronx..	160,121	53,034	39,501	844	166,574	56,225	24,046	594	169,378	50,784
B'klyn..	282,072	133,067	68,358	2,301	292,616	140,891	38,302	1,132	293,777	140 033
Queens.	165,623	75,676	24,761	1,407	164,235	81,951	9,058	496	163,056	84,601
Richm'd.	25,563	15,007	3,220	283	27,456	14,486	1,090	94	26,700	15,029
City tot'l	865,546	368,384	174,931	5,956	886,640	390,938	90,068	3,094	890,655	385,514

Walker's plurality, 497,165; Berry's plurality, 495,702; McKee's plurality, 505,141.

NEW YORK CITY—VOTE FOR MAYOR, 1897-1925.

BOROUGH.	1897. Van Wyck, Dem.	George, Jeff. Dem.	Tracy, Rep.	Low, Citizens' Union.	Sanial, Soc. Lab.	1901. Shepard, Dem.	Low, Fusion.	Hanford, Soc. Dem.	Keinard, Soc. Lab.	Manierre, Proh.
Manhattan & Bronx	143,666	13,076	55,834	77,210	9,796	56,631	162,298	6,409	4,323	617
Brooklyn	76,185	6,938	37,611	65,656	3,593	88,858	114,625	2,692	1,638	501
Queens	9,275	1,096	5,639	5,876	921	13,679	13,118	613	181	74
Richmond	4,871	583	2,779	2,798	157	6,009	6,772	120	71	72
Total, City	233,997	21,693	101,863	151,540	14,467	265,177	296,813	9,834	6,213	1,264

BOROUGH.	1903. McClellan, Dem.	Low, Fusion.	Furman, Soc. Dem.	Hunter, Soc. Lab.	McKee, Proh.	1905. McClellan, Dem.	Ivins, Rep.	Hearst, M.O.L.	Lee, Soc.	Kinnealy, Soc. Lab.
Manhattan & Bronx	188,681	132,178	11,318	3,540	376	140,264	64,280	123,292	7,466	1,485
Brooklyn	102,569	101,251	4,529	1,411	396	68,788	61,192	84,835	3,387	657
Queens	17,074	11,960	976	178	47	13,228	7,213	13,706	847	95
Richmond	6,458	6,697	133	76	50	6,127	4,499	3,096	117	39
Total, City	314,782	252,086	16,956	5,195	869	228,407	137,184	224,929	11,817	2,276

BOROUGH.	1909. Gaynor, Dem.	Bannard, Rep. Fusion.	Hearst, Civ. All.	Cassidy, Soc.	Hunter, Soc. Lab.	1913. McCall, Dem.	Mitchel, Fusion.	Russell, Soc.	Walters, Soc. Lab.	Raymond, Proh.
Manhattan & Bronx	134,075	86,497	87,155	6,811	813	129,113	178,224	17,383	952	412
Brooklyn	91,666	73,860	49,040	3,874	369	77,826	137,074	11,560	538	587
Queens	17,570	11,907	15,186	1,004	56	20,097	34,279	2,865	129	118
Richmond	7,067	5,040	2,806	79	18	6,883	8,604	249	28	96
Total, City	250,378	177,304	154,187	11,168	1,256	233,919	358,181	32,057	1,647	1,213

BOROUGH.	1917. Hylan, Dem.	Bennett, Rep.	Mitchel, Fusion.	Hillquit, Soc.	1921. Hylan, Dem.	Curran, Rep.	Panken, Soc.	De Hunt, F.-Lab.	Quinn, Soc. Lab.	Hinds, Proh.
Manhattan	113,728	13,230	66,748	51,176	261,452	124,253	28,756	321	316	375
Bronx	41,546	5,576	19,247	30,374	118,235	34,919	21,255	133	244	120
Brooklyn	114,487	29,743	52,921	48,880	280,143	128,259	29,580	395	346	390
Queens	35,399	5,916	13,641	13,477	87,676	36,415	2,741	88	123	111
Richmond	8,850	1,968	2,940	1,425	22,741	9,000	275	71	20	14
Total, City	313,956	56,438	155,497	145,332	750,247	332,846	82,607	1,005	1,049	1,013

VOTE FOR MAYOR AND CITY COMPTROLLER, 1925.

BOROUGH.	Mayor. (Gen. Election). Walker, Dem.	Waterman, R.	Thomas Soc.	Mayor (Primary). Walker, Dem.	Hylan, Dem.	Lyons, Rep.	Bennett, R.	Waterman, R.	Comptroller (Gen. Election) Berry, Dem.	Finegan Rep.
Manhattan	247,079	98,617	9,842	102,835	27,802	5,018	1,040	38,397	237,206	100,151
Bronx	131,226	39,615	11,133	45,308	21,228	2,638	447	11,926	127,113	37,963
Brooklyn	244,029	139,060	16,809	65,671	60,814	6,298	2,098	49,450	232,745	138,753
Queens	103,629	58,478	1,943	28,203	32,163	2,298	694	13,304	101,879	57,225
Richmond	22,724	10,794	207	6,321	12,197	252	98	2,269	23,102	9,838
Total, City	748,687	346,564	39,574	248,338	154,204	16,504	4,377	115,346	722,045	343,930

In the general election for Mayor in 1925, Brandon, Soc. Lab., got 1,643 votes; Tracy, Commonwealth Land, 252; Fisher, Progressive, 1,498; Scattering, 986; blank ballots, 11,363; void ballots, 10,530.

REGISTRATION IN NEW YORK CITY.

Borough.	1920.	1922.	1923.	1924.	1925.	1926.	1927.	1928.	1929.
Manhattan: Males	320,943	280,553	254,870	317,184	255,635	260,736	237,300	329,675	255,392
Females	182,877	140,671	123,163	183,040	132,051	138,752	121,941	218,437	143,287
Total	503,820	421,224	378,033	300,224	387,686	399,488	359,241	548,112	398,679
Bronx: Males	126,814	117,394	114,571	150,221	134,411	147,509	143,175	223,088	185,110
Females	72,544	57,577	54,688	82,463	65,304	73,058	66,929	135,140	95,341
Total	199,358	174,971	169,259	232,684	199,715	220,567	210,104	358,228	280,451
Brooklyn: Males	312,863	282,826	268,083	339,639	291,875	314,006	299,899	435,757	280,513
Females	182,063	139,579	125,682	188,886	142,602	156,287	145,372	274,341	182,784
Total	409,926	422,405	393,765	528,525	434,477	470,293	445,271	710,098	537,297
Queens: Males	91,902	86,903	89,618	125,789	115,407	133,852	133,444	204,289	177,146
Females	53,204	41,951	43,117	73,131	60,424	74,540	72,783	151,784	112,154
Total	145,106	128,854	132,735	198,920	175,831	207,902	206,227	365,073	289,300
Richmond: Males	19,969	21,311	20,810	25,085	23,606	24,850	25,422	32,560	29,313
Females	10,367	11,077	10,414	14,568	12,804	13,625	13,980	23,434	17,995
Total	30,336	32,388	21,224	39,653	36,410	38,475	39,402	55,994	47,308
Whole City: Males	872,491	788,987	747,952	957,918	820,934	880,953	839,240	1,255,369	1,001,474
Females	501,055	390,885	357,064	542,088	413,185	455,772	241,005	803,136	551,661
Total	1,373,546	1,179,842	1,105,016	1,500,016	1,234,119	1,336,725	1,260,245	2,028,505	1,553,035

PARTY ENROLMENT IN NEW YORK CITY.

NEW YORK CITY—MAYOR AND COMPTROLLER, 1925, BY ASSEMBLY DISTRICTS.

MANHATTAN.

Ass. Dist.	Mayor. Walker Dem.	Mayor. Waterman, Rep.	Mayor. Thomas, Soc.	Comptroller. Berry, Dem.	Comptroller. Finegan, Rep.	Comptroller. Solomon, Soc.
1	13,644	1,567	306	13,203	1,721	350
2	9,975	1,770	214	9,751	1,869	233
3	15,081	3,126	171	14,911	3,295	145
4	10,348	1,207	220	10,145	1,196	234
5	14,379	2,553	106	14,020	2,603	101
6	7,507	4,142	882	6,684	4,516	1,013
7	10,356	7,562	234	9,683	7,596	328
8	7,785	2,052	837	7,138	2,178	941
9	11,397	7,248	330	10,976	7,452	287
10	7,647	6,656	251	7,501	6,706	175
11	11,373	6,358	311	11,074	6,223	311
12	16,741	3,014	293	16,380	3,056	296
13	9,010	5,150	303	8,668	5,136	292
14	13,349	3,214	450	13,097	3,186	462
15	8,719	8,948	712	8,325	8,877	657
16	14,191	3,364	670	13,953	3,393	662
17	8,488	1,801	897	7,958	1,895	1,072
18	10,590	3,471	697	9,901	3,565	769
19	6,518	4,976	292	5,829	4,997	314
20	7,396	2,031	289	7,050	2,146	343
21	6,370	4,952	156	6,222	5,102	167
22	9,513	4,817	158	9,078	4,880	313
23	16,502	8,628	610	15,777	8,689	694
Tot.	247,079	98,617	9,482	237,206	100,151	10,014

BRONX.

1	15,496	3,806	913	15,467	3,502	985
2	23,651	7,498	1,632	22,801	6,958	2,083
3	11,002	2,360	1,411	10,387	2,270	1,640
4	10,051	2,012	1,853	8,989	1,799	2,307
5	11,317	2,491	1,864	10,491	2,404	2,223
6	19,373	6,327	650	17,498	5,703	696
7	11,840	2,827	1,687	10,636	2,597	1,741
8	28,465	12,265	1,039	28,050	1,750	1,244
Tot.	131,226	39,615	11,133	127,113	37,963	12,858

Blank ballots on Mayor, 11,363; void ballots, 10,530.

BROOKLYN.

Ass. Dist.	Mayor. Walker Dem.	Mayor. Waterman, Rep.	Mayor. Thomas, Soc.	Comptroller. Berry, Dem.	Comptroller. Finegan, Rep.	Comptroller. Solomon, Soc.
1	8,190	4,431	155	7,790	4,166	120
2	19,562	9,842	2,190	18,687	9,619	2,686
3	7,082	1,707	81	7,027	1,720	84
4	9,100	2,945	471	8,298	3,264	783
5	9,345	8,104	284	9,084	8,011	310
6	7,458	4,059	1,369	6,278	4,516	1,521
7	8,474	3,300	131	8,530	2,975	146
8	7,757	2,647	66	7,326	2,884	78
9	17,199	10,228	677	17,109	9,841	753
10	10,059	7,621	162	9,837	7,503	145
11	12,025	9,048	151	11,787	8,893	307
12	12,219	7,341	319	12,070	1,258	352
13	5,887	2,343	471	4,707	3,205	591
14	6,981	1,977	896	5,991	2,337	1,147
15	8,747	2,632	93	8,134	2,978	82
16	17,620	6,151	1,788	16,648	6,154	2,122
17	8,545	8,041	525	8,333	7,586	537
18	17,140	8,839	1,732	16,195	8,245	2,792
19	5,702	2,870	508	5,119	3,048	634
20	12,131	9,790	330	11,772	9,519	336
21	13,347	13,934	534	13,506	13,489	640
22	13,119	9,103	1,539	12,690	8,818	1,820
23	6,255	2,115	1,918	5,471	2,129	2,326
Tot.	244,029	139,060	16,809	232,745	138,753	20,293

QUEENS.

1	15,597	4,266	303	15,811	4,583	284
2	14,432	5,566	281	14,216	5,573	256
3	17,822	7,204	291	17,491	7,176	296
4	20,168	18,578	380	20,583	17,629	319
5	21,563	13,204	434	21,323	13,745	505
6	12,642	9,667	298	12,142	9,560	269
Tot.	103,629	58,478	1,943	101,879	57,225	1,987

RICHMOND.

1	12,346	5,394	111	12,483	4,870	114
2	10,378	5,400	96	11,619	4,968	84
Tot.	22,724	10,794	207	23,102	9,838	198

Borough.	1928-1929. Democrats. Males.	Democrats. Females.	Democrats. Total.	Republicans. Males.	Republicans. Females.	Republicans. Total.	Socialists. Males.	Socialists. Females.	Socialists. Total.
Manhattan	211,682	120,694	332,646	84,933	77,626	162,559	1,920	1,74	3,094
Bronx	159,475	87,768	247,243	40,555	33,294	73,849	2,391	1,866	4,257
Brooklyn	279,636	153,712	433,348	123,754	102,512	226,266	3,627	2,465	6,092
Queens	130,864	84,114	214,978	61,181	60,657	122,838	641	277	918
Richmond	23,242	13,966	37,208	7,814	8,393	16,207	57	39	96
Whole City	804,899	460,524	1,265,423	319,237	282,482	601,719	8,636	5,821	14,457
	1927-1928.								
Manhattan	161,273	73,340	234,613	55,159	38,755	93,914	2,041	1,058	3,099
Bronx	107,948	46,254	154,202	22,731	14,173	36,904	2,086	1,502	3,588
Brooklyn	197,653	83,294	280,957	83,288	53,272	136,560	3,427	2,165	5,592
Queens	93,814	45,291	139,105	33,767	24,723	58,490	453	214	667
Richmond	19,798	9,490	29,288	4,701	4,047	8,748	59	28	87
Whole City	580,486	257,669	838,155	199,646	134,970	334,616	8,066	4,967	13,033
	1926-1927.								
Manhattan	172,849	81,411	254,260	62,739	44,658	107,397	2,065	1,213	3,278
Bronx	108,644	49,237	157,881	24,483	16,157	40,640	2,271	1,665	3,936
Brooklyn	200,586	86,494	287,080	92,079	59,574	151,653	3,298	2,231	5,529
Queens	92,474	45,320	137,794	34,468	25,394	59,862	501	243	744
Richmond	19,570	9,189	28,759	4,372	3,936	8,308	45	25	70
Whole City	594,123	271,651	865,774	218,141	149,719	367,860	8,180	5,377	13,557
	1925-1926.								
Manhattan	169,657	77,351	247,008	63,789	44,303	108,092	2,094	1,227	3,321
Bronx	98,045	43,432	141,477	24,545	15,775	40,320	1,896	1,463	3,359
Brooklyn	179,761	74,972	254,733	94,758	59,504	154,262	2,657	1,873	4,530
Queens	78,145	35,981	114,126	31,799	22,099	53,898	464	204	668
Richmond	18,481	8,774	27,255	4,359	3,636	7,995	44	21	65
Whole City	544,089	240,510	784,599	219,250	145,317	364,567	7,155	4,788	11,943

NORTH CAROLINA.

(Presidential vote, 1928, 1924.)

COUNTIES.	1928.		1924.		
	Hoover, Rep.	Smith, Dem.	Davis, Dem.	Coolidge, Rep.	La Follette, Prog.
Alamance	6,810	4,260	4,859	3,217	93
Alexander	2,605	1,722	2,291	2,437	20
Alleghany	1,368	1,414	1,643	1,234	6
Anson	726	2,947	2,372	225	25
Ashe	4,337	3,458	4,333	3,952	3
Avery	3,273	390	357	2,189	14
Beaufort	2,521	3,533	3,048	1,502	93
Bertie	374	2,000	1,785	159	5
Bladen	1,911	1,552	1,551	786	23
Brunswick	1,931	1,018	1,118	1,296	41
Buncombe	16,590	12,405	10,098	6,285	467
Burke	5,108	2,881	4,137	3,190	
Cabarrus	6,548	4,869	4,449	3,510	189
Caldwell	4,207	2,291	3,348	2,503	26
Camden	245	624	436	132	9
Carteret	3,133	2,045	2,261	1,854	15
Caswell	749	936	1,075	467	4
Catawba	7,556	4,916	5,754	5,998	167
Chatham	3,318	2,680	3,446	2,755	15
Cherokee	3,239	1,911	1,742	2,314	23
Chowan	352	936	714	98	5
Clay	1,106	903	953	1,090	18
Cleveland	4,766	4,914	3,749	1,743	37
Columbus	3,533	2,854	2,757	1,629	26
Craven	2,237	2,494	2,942	325	44
Cumberland	3,534	3,297	2,923	1,372	37
Currituck	166	1,253	670	52	13
Dare	814	883	826	629	2
Davidson	8,960	5,220	6,507	6,227	56
Davie	2,959	1,085	1,795	2,672	13
Duplin	2,911	2,647	2,924	1,542	37
Durham	8,723	4,482	4,837	3,093	221
Edgecombe	977	4,184	2,274	171	109
Forsyth	13,258	6,639	7,404	5,315	459
Franklin	729	2,831	1,991	302	13
Gaston	9,702	6,702	6,554	3,566	82
Gates	558	572	679	215	1
Graham	1,260	963	841	907	11
Granville	858	2,962	2,220	461	14
Greene	542	1,181	1,119	182	7
Guilford	16,541	9,872	8,304	6,822	317
Halifax	890	4,882	3,232	268	83
Harnett	4,740	3,554	3,296	2,895	11
Haywood	4,472	4,173	4,582	2,440	8
Henderson	5,210	3,149	3,007	3,548	48
Hertford	393	1,030	932	164	3
Hoke	311	1,154	1,146	141	4
Hyde	682	590	653	305	16
Iredell	6,712	4,836	6,449	3,565	136
Jackson	3,512	3,171	3,100	2,788	17
Johnston	7,696	5,041	4,656	4,910	23
Jones	658	486	692	179	2
Lee	1,416	1,715	1,843	710	10
Lenoir	1,311	2,363	2,191	514	25
Lincoln	3,930	2,913	2,909	2,658	42
Macon	2,903	2,191	2,178	2,015	18
Madison	4,776	1,093	1,471	3,252	74
Martin	411	2,818	1,999	216	9
McDowell	3,423	3,430	3,023	2,590	25
Mecklenb'g.	12,041	9,690	8,443	2,572	437
Mitchell	3,436	827	689	1,540	8
Montg'y	2,653	2,016	2,483	2,077	5
Moore	3,290	2,639	2,771	1,974	38
Nash	2,066	4,249	3,129	823	131
New Han'er	4,248	2,760	4,735	1,190	405
Nor'pton	456	1,723	1,662	144	17
Onslow	1,253	1,072	1,122	423	31
Orange	2,564	1,799	1,879	1,065	66
Pamlico	1,099	878	798	459	
Pasquotank	814	1,943	1,236	305	12
Pender	1,300	998	1,175	253	17
Perquimans	600	609	550	295	8
Person	1,123	1,235	1,576	1,025	3
Pitt	1,395	4,646	3,197	512	56
Polk	1,873	1,616	1,613	1,445	13
Randolph	7,414	4,188	5,397	3,336	24
Richmond	2,045	2,975	2,475	599	163
Robeson	2,767	4,730	4,064	314	14
Rock'ham	5,585	3,411	4,467	2,566	89
Rowan	7,957	4,783	4,816	3,560	738
Rutherford	5,762	4,146	5,101	3,897	29
Sampson	5,579	2,285	2,021	3,188	35
Scotland	588	1,761	1,469	205	11
Stanly	4,597	3,000	3,832	3,594	50
Stokes	3,759	1,970	2,309	2,482	44
Surry	7,015	3,647	4,418	4,990	66
Swain	2,484	1,723	1,769	2,178	24
Transyl'a.	2,165	1,722	1,776	1,814	22
Tyrrell	505	475	638	442	1
Union	2,448	2,840	2,721	672	32
Vance	1,449	2,395	2,013	470	21
Wake	6,720	9,341	8,376	2,975	485
Warren	379	2,037	1,742	166	62
Washington	1,183	898	883	834	6
Watauga	3,159	2,591	2,365	2,665	8
Wayne	4,340	3,720	3,366	1,379	42
Wilkes	7,808	2,802	3,586	6,131	11
Wilson	1,933	3,535	2,619	574	81
Yadkin	3,878	761	1,381	2,889	11
Yancey	2,712	2,476	2,592	2,156	21
Totals	348,992	287,078	284,270	191,753	6,651

Governor (1928)—Gardner, Dem., 362,009; Seawell, Rep., 289,415.

North Carolina voters in 1928 fixed regular session salary of members of the Legislature at $600, with extra pay per day for extra sessions.

Pres. (1924) Faris, Proh., 13.

U. S. Senator (1926)—Overman, Dem., 218,934; Hayes, Rep., 142,891.

Governor (1924)—McLean, Dem., 294,441; Meekins, Rep., 185,627.

U. S. Senator (1924)—Simmons, Dem., 295,404; Whitener, Rep., 184,393.

PAST VOTE OF NORTH CAROLINA.

1872 (Pres.), Greeley, Dem. and Lib., 70,094; Grant, Rep., 94,769.

1876 (Pres.), Tilden, Dem., 125,427; Hayes, Rep., 108,417.

1880 (Pres.), Hancock, Dem., 124,208; Garfield, Rep., 115,874; Weaver, Greenback, 1,126.

1884 (Pres.), Cleveland, Dem., 142,592; Blaine, Rep., 125,068; St. John., Proh., 454.

1888 (Pres.), Cleveland, Dem., 148,336; Harrison, Rep., 134,784; Fisk, Proh., 2,789; Streeter, United Labr, 47.

1892 (Pres.), Cleveland, Dem., 133,098; Harrison, Rep., 100,565; Weaver, People's, 44,732; Bidwell, Proh., 2,630.

1896 (Pres.), Bryan, Dem; and People's, (Populist), 174,488; Palmer, Nat'l (Gold) Dem., 578; McKinley, Rep., 155,243; Levering, Proh., 681.

1900 (Pres.), Bryan, Dem., 157,752; McKinley, Rep., 133,081; Woolley, Proh., 1,009.

1904 (Pres.), Parker, Dem., 124,121; Roosevelt, Rep., 82,625; Swallow, Proh., 361; Debs, Soc., 124.

1908 (Pres.), Bryan, Dem., 136,995; Taft, Rep., 114,937; Debs, Soc., 378.

1912 (Pres.), Wilson, Dem., 144,507; Taft, Rep., 29,139; Roosevelt, Prog.,69,130; Debs., Soc., 1,025.

1912 (Gov.), Craig, Dem., 149,975; Settle, ReZ. 43,625; Meares, Ind., 49,930.

1914 (U. S. Sen.), Dem., 121,342; Rep., 87,101.

1916 (Pres.), Wilson, Dem., 168,383; Hughes, Rep 120,890; Hanly, Proh., 53; Berger, Soc., 509.

1916 (Gov.) Bickett, Dem., 167,761; Linney, Rep. 120,157.

1918 (U. S. Sen.), Dem., 143,524; Rep., 93,697.

1920 (Pres.), Cox, Dem. 305,447; Harding, Rep., 232,848; Watkins, Proh., 17; Debs, Soc., 446.

1920 (U. S. Sen.), Dem., 310,504; Rep., 229,343.

1920 (Gov.), Morrison, Dem., 308,151; Parker, Rep. 230,175.

GOVERNORS OF NORTH CAROLINA SINCE 1836.

E. B. Dudley, 1836; J. M. Morehead, 1841; W.A. Graham, 1845; Charles Manly, 1849; D. S. Reid, 1851; Warren Winslow, 1854; Thomas Bragg, 1855; John W. Ellis, 1859.

Henry T. Clark, 1861; Zebulon B. Vance, 1862; W. W. Holden, 1865; Jonathan Work, 1866; W. W. Holden, 1868.

T. R. Caldwell, 1870; C. H. Brogden, 1874; Z. B. Vance, 1877; T. J. Jarvis, 1879; A. M. Scales, 1885; D. G. Fowle, 1889; Thomas M. Holt, 1891; Elias Carr, 1893; D. L. Russell, 1897.

C. B. Aycock, 1901; R. B. Glenn, 1905; W. W. Kitchin, 1909; Locke Craig, 1913; Thomas W. Bickett, 1917; Cameron Morrison, 1921; Angus W. McLean, 1925; O. Max Gardner, 1929.

North Carolina, 1585-1587, was under the Governors of Virginia who were appointed by Sir Walter Raleigh.

Then the colony was under the Proprietors, 1663-1728; under the Crown, 1728-1775; ruled by presidents on the Provincial Council, 1775-1776; the Governors were elected by the Legislature, 1776-1835.

NORTH DAKOTA.

(Presidential vote, 1928, 1924.)

Counties.	1928.		1924.		
	Hoover Rep.	Smith Dem.	Coolidge, Rep.	Davis, Dem.	La Fol'te, Prog.
Adams	1,590	644	776	106	1,045
Barnes	3,755	3,293	3,205	346	2,675
Benson	2,621	2,194	1,870	246	2,038
Billings	458	412	421	32	418
Bottineau	2,680	2,648	1,338	221	2,621
Bowman	1,031	821	776	67	875
Burke	2,002	1,336	996	135	1,376
Burleigh	3,995	3,072	3,152	379	2,338
Cass	12,480	6,315	9,906	352	3,769
Cavalier	3,068	2,510	2,428	539	1,471
Dickey	2,250	1,977	1,716	352	1,856
Divide	1,963	1,250	743	91	1,605
Dunn	1,360	1,561	980	190	1,112
Eddy	1,071	1,240	881	101	1,258
Emmons	1,792	2,066	1,198	123	1,695
Foster	1,137	1,178	922	287	833
Golden Val.	937	552	718	140	628
Grand Forks	8,024	4,300	6,690	943	3,011
Grant	1,759	1,434	1,120	125	1,618
Griggs	1,329	1,182	738	116	1,360
Hettinger	1,553	1,323	936	128	1,291
Kidder	1,200	1,190	844	110	1,187
La Moure	2,245	1,800	1,647	221	1,940
Logan	1,013	1,293	787	29	994
McHenry	2,914	2,535	1,692	264	2,630
McIntosh	1,196	1,474	637	39	1,172
McKenzie	2,100	1,289	1,113	137	1,661
McLean	2,730	2,855	1,651	194	2,718
Mercer	971	1,619	522	70	1,489
Morton	2,881	3,946	2,377	265	2,716
Mountrail	2,354	2,003	1,354	130	2,209
Nelson	2,364	1,542	1,697	175	1,571
Oliver	680	631	367	31	739
Pembina	3,324	2,141	2,783	588	1,341
Pierce	1,469	1,606	1,160	157	1,156
Ramsey	3,246	2,672	3,110	359	1,505
Ransom	2,613	1,505	1,862	303	1,919
Renville	1,473	1,174	649	120	1,247
Richland	4,251	3,604	3,235	769	2,617
Rolette	1,327	2,181	869	137	1,410
Sargent	1,772	1,989	1,468	232	1,656
Sheridan	1,242	944	594	49	1,069
Sioux	687	988	777	58	407
Slope	873	542	616	47	913
Stark	1,924	3,231	2,130	266	1,808
Steele	1,574	1,152	1,247	85	1,029
Stutsman	4,782	3,873	3,952	463	2,552
Towner	1,588	1,324	1,173	223	1,053
Traill	3,638	1,447	2,596	234	1,752
Walsh	3,657	3,792	2,837	917	2,009
Ward	6,561	4,362	4,166	721	3,784
Wells	2,364	2,123	1,644	138	1,917
Williams	3,591	2,503	1,865	308	2,859
Totals	131,441	106,648	94,931	13,858	89,922

President (1928)—Thomas, Soc., 842; Foster, Workers, 936.

U. S. Senator (1928)—Frazier, Rep., 159,940; Burchard, Dem., 38,856; Knutsen, F.-Lab., 2,047.

Governor (1928)—Shafer, Rep., 131,193; Maddock, Dem., 100,205; Loesch, F.-Lab., 824.

State prohibition enforcement was upheld in 1928 when the people, 103,696 to 96,837, voted to keep the clause in the State Constitution.

Pres. (1924)—Foster, Workers, 370.

U. S. Senator (1926)—Burchard, Dem., 13,519; Nye, Rep., 107,921; Stone, Ind., 9,738; Nelson, Ind., 18,951; Lemke, Ind., 4,977.

PAST VOTE OF NORTH DAKOTA.

1892 (Gov.), Fusion, 18,995; Rep., 17,236.

1892 (Pres.), Harrison, Rep., 17,506; Weaver, People's, 17,700; Bidwell, Proh., 899. The Democrats fused with the People's Party.

1896 (Pres.), Bryan, Dem; and People's, (Populist), 20,686; McKinley, Rep., 26,335.

1900 (Pres.), Bryan, Dem., 20,531; McKinley, Rep., 35,898; Woolley, Proh., 735; Debs. Soc., 520.

1904 (Pres.), Parker, Dem., 14,273; Roosevelt, Rep., 52,595; Swallow, Proh., 1,140; Debs, Soc., 2,117.

1908 (Pres.), Bryan, Dem.' 32,885; Taft, Rep., 57,680; Chafin, Proh., 1,553; Debs, Soc., 2,421.

1912 (Pres.), Wilson, Dem., 29,555; Taft, Rep., 23,090; Roosevelt, Prog., 25,726; Debs, Soc., 6,966.

1914 (U. S. Sen.), Dem., 29,918; Rep., 48,583; Prog. 2,597; Soc., 5,468.

1916 (Pres.), Wilson, Dem., 55,206; Hughes, Rep., 53,471.

1916 (Gov.), Dem., 20,351; Rep., 87,665; Soc., 2,615.

1916 (U. S. Sen.), Dem. 40,988; Rep. 57,714; Soc., 8,472.

1920 (Pres.), Cox, Dem., 37,422; Harding, Rep., 160,072; Debs, Soc., 8,282.

1920 (Gov.), Dem.-Ind., 112,488; Rep.-Non-Partisan, 117,118.

1920 (U. S. Sen.), Dem., 88,495; Rep., 130,614.

BOY SCOUTS OF AMERICA.

(Incorporated Feb. 8, 1910; Chartered by Congress June 15, 1916.)

Headquarters, 2 Park Avenue, New York City.

National Council Officers—*Honorary President*—Herbert Hoover; *Honorary Vice Presidents*—Calvin Coolidge, William H. Taft, Colin H. Livingstone, Daniel C. Beard, and W. G. McAdoo.

President—Walter W. Head, Chicago; *Vice President*—Mortimer L. Schiff, Oyster Bay, N. Y.; *Vice President*—Milton A. McRae, Detroit; Mich. *Vice President*—Charles C. Moore, San Francisco, Cal.; *Vice President*—Bolton Smith, Memphis, Tenn.; *Vice President*—John Sherman Hoyt, N. Y. *National Scout Commissioner*—Daniel Carter Beard, Flushing, N. Y.; *International Commissioner*—Mortimer L. Schiff; *Treasurer*—George D. Pratt. *Chief Scout Executive*—James E. West.

BOY SCOUT MEMBERSHIP AS OF JAN. 1, 1929.

States.	No. Scouts	States.	No. Scouts	States.	No. Scouts	States.	No. Scouts	States.	No. Scouts	States.	No. Scouts
Ala.	6,336	Idaho	3,622	Mich.	26,374	N. Y.	69,447	Tenn	7,157	Outside	
Ariz.	1,833	Ill.	37,506	Minn.	13,395	N. C.	6,326	Texas	22,111	U.S.	7,801
Ark.	4,407	Ind.	15,280	Miss.	3,212	N. D.	3,654	Utah	7,775		
Calif.	37,699	Iowa	12,434	Mo.	16,944	Ohio	31,213	Vermont	2,362	Tot.tr'p	
Colo.	5,884	Kansas	7,688	Mont.	1,625	Okla.	11,367	Virginia	6,362	Scouts	574,781
Conn.	10,906	Ky.	4,739	Neb.	6,563	Oregon	6,272	Wash.	11,619	Lone Sc.	14,361
Dela.	1,432	La.	6,564	Nevada	744	Penn.	52,835	W. Va.	6,825	Officers	
D. of C.	2,807	Maine	4,314	N. H.	1,455	R. I.	4,367	Wis.	11,375	(men)	219,475
Florida.	8,156	Mary'd.	5,169	N. J.	24,674	S. C.	3,306	Wyo.	1,104		
Georgia.	5,927	Mass.	26,866	N. M.	1,848	S. D.	2,701			Gr'd tot.	816,418

The outstanding events of the last year included (1) the extension of organization under Local Councils; (2) revision of Scout Requirements, so as to make them applicable to both boys in the country and in the city; (3) publication of a Handbook for Patrol Leaders; (4) development of the outdoor program; (5) care in safety activities; (6) attendance at the National Training School for professional Scout Leaders; (7) courses conducted for Volunteer leaders throughout the country; (8) publication of Service Library for Scout Leaders; (9) development of a National Committee on Health and Safety and the organization of local committees on this subject; (10) extension of Scouting to include direction for a vacation program for all Scouts.

The Harmon Foundation awards 52 Eagle Scouts scholarships annually. There was a "jamboree" of Scouts in England in 1929. A program is in effect for younger boys from 8 to 11 years of age.

There has been growth of Sea Scouting, that branch of the Scout Program that deals with water activities.

OHIO.

(Presidential vote, 1928, 1924.)

Co.	1928.		1924.			Co.	1928.		1924.		
	Smith, Dem.	Hoover, Rep.	Davis, Dem.	Coolidge, Rep.	La Fol'te, Prog.		Smith, Dem.	Hoover, Rep.	Davis, Dem.	Coolidge, Rep.	La Fol'te, Prog.
Adams	3,000	5,665	3,762	4,315	149	Logan	2,858	9,602	3,176	7,186	1,393
Allen	9,462	20,693	7,378	15,711	2,283	Lorain	13,607	24,386	3,965	17,062	6,680
Ashland	3,256	8,745	4,377	5,777	802	Lucas	44,977	78,435	11,948	53,670	31,039
Ashtab'a	5,951	18,370	2,135	14,767	4,370	Madison	2,527	5,222	2,685	4,829	278
Athens	4,546	11,101	2,669	8,695	3,501	Mahon'g	26,928	48,341	9,335	37,647	8,102
Auglaize	4,954	7,794	3,952	5,507	1,143	Marion	5,468	13,398	5,234	9,161	2,475
Belm'nt	12,807	20,969	8,074	16,378	5,386	Medina	2,357	9,510	1,844	6,756	1,351
Brown	3,422	5,681	4,120	3,616	660	Melgs	2,661	6,580	1,944	4,864	1,648
Butler	15,663	29,124	11,612	19,349	3,339	Mercer	6,155	5,129	5,135	4,215	1,071
Carroll	1,321	5,572	1,430	4,369	364	Miami	5,867	16,063	5,296	11,851	1,726
Ch'mp'n	3,296	7,651	3,575	6,181	478	Monroe	2,729	4,287	3,742	2,674	165
Clark	10,316	26,666	8,415	20,340	1,816	Montg'y	38,517	71,279	21,860	50,845	8,312
Clerm'nt	4,194	9,732	4,544	6,867	1,019	Morgan	1,397	4,359	2,072	3,553	192
Clinton	2,603	7,150	2,496	5,954	421	Morrow	1,818	4,801	2,379	3,790	435
Col'b'a	7,461	26,405	4,685	20,483	4,036	Muskgm	6,507	22,120	6,709	15,571	1,377
Cosh'tn	3,745	9,154	4,415	5,837	1,456	Noble	2,190	4,462	2,485	4,284	272
Crawf'd	5,472	11,235	4,384	5,896	4,140	Ottawa	3,435	5,772	2,571	4,137	1,274
Cuy'hg a	166,188	194,508	24,000	130,169	109,287	Pauld'ng	2,473	4,093	2,242	3,648	414
Darke	5,822	11,765	7,316	9,166	811	Perry	4,653	8,551	3,702	7,592	1,718
Defiance	3,487	6,289	3,227	4,841	1,134	Pick'wy	3,894	5,871	4,539	4,166	293
Del'ware	3,720	8,049	3,537	6,731	866	Pike	2,709	3,246	3,185	2,569	100
Erie	7,570	10,380	2,968	7,689	3,462	Portage	4,756	12,806	2,994	8,583	2,131
Fairf'ld	5,619	12,072	5,890	8,281	1,200	Preble	3,513	6,693	4,033	5,676	282
Fayette	2,752	5,251	2,696	4,542	293	Putnam	5,567	5,537	4,795	4,377	1,283
Franklin	47,084	92,019	26,505	61,891	18,743	Richl'nd	7,295	18,468	6,703	12,013	2,905
Fulton	1,788	6,416	1,333	4,951	832	Ross	6,062	11,179	6,028	8,431	1,178
Gallia	1,916	5,513	2,284	4,325	453	Sand'sky	5,834	12,200	4,388	9,381	1,626
Geauga	1,180	4,161	635	3,375	642	Scioto	7,425	20,997	5,532	12,189	1,643
Greene	3,385	10,030	2,471	8,410	628	Seneca	8,136	13,369	6,290	9,641	2,119
Guerns'y	3,709	11,174	3,604	8,997	2,455	Shelby	5,448	5,975	4,840	4,359	606
Ham'ton	110,151	147,534	34,916	115,950	39,768	Stark	23,840	59,564	12,544	40,858	9,960
Hancock	4,158	13,151	5,111	9,167	1,764	Summit	31,506	78,504	17,533	54,774	10,855
Hardin	5,306	8,137	5,523	7,112	613	Trumb'll	9,110	29,710	4,007	22,341	3,628
Harrison	1,516	6,095	1,999	4,904	520	Tusca's	6,805	20,494	5,566	13,573	4,602
Henry	3,647	5,370	2,922	3,855	1,693	Union	2,386	5,876	2,571	5,256	540
Highl'nd	3,836	8,325	4,583	6,845	535	VanW't	5,089	7,540	4,318	6,206	1,138
Hocking	2,502	5,497	2,854	4,068	1,136	Vinton	1,559	2,810	1,838	2,244	232
Holmes	1,631	3,457	2,539	1,824	400	Warren	2,455	8,708	2,406	6,729	609
Huron	5,157	10,702	2,871	8,340	2,186	Wash'tn	4,582	12,767	5,727	8,704	780
Jackson	2,775	7,129	2,848	5,977	869	Wayne	4,825	14,192	6,023	8,928	1,624
Jefferson	8,711	19,175	3,840	14,929	3,097	Williams	5,136	8,138	2,795	5,802	1,671
Knox	3,601	10,028	4,721	7,519	892	Wood	4,612	15,409	3,291	10,665	2,347
Lake	4,024	11,823	974	7,727	2,208	Wyand't	3,024	5,790	3,271	3,973	561
L'wr'nce	3,470	10,346	2,729	6,798	1,078						
Licking	7,244	19,130	7,428	13,914	2,418	Total	864,210	1,627,546	477,388	1,176,130	357,948

President (1928)—Thomas, Soc., 8,683; Foster, Communist, 2,836; Reynolds, Soc. Lab., 1,515; Varney, Proh., 3,556.

U. S. Senator (1928)— (Short term)—Burton, Rep., 1,429,554; Hunt, Dem., 856,807.

U. S. Senator (1928) (Full term)—Fess, Rep., 1,412,805; Truax, Dem., 908,952.

Governor (1928)—Cooper, Rep., 1,355,526; Davy, Dem., 1,106,739.

President (1924)—Wallace, Com.-Land, 1,246; Johns, Soc.-Labor, 3,025; Faris, Proh., 1,246.

Governor (1926)—Donahey, Dem., 702,733; Cooper, Rep., 685,957; Sharts, Soc., 5,985; Storck, Soc. Lab., 1,597.

U. S. Senator (1926)—Pomerene, Dem., 623,221; Willis, Rep., 711,359; Goerke, Soc. Lab., 2,846.

Governor (1924)—Donahey, Dem., 1,064,981; Davis, Rep., 888,139; Allen, Com.-Land, 11,776; Catlin, Soc.-Labor, 8,468.

Governor (1922)—Donahey, Dem., 821,948; Thompson, Rep., 803,300.

U. S. Senator (1922)—Pomerene, Dem., 744,558; Fess, Rep., 794,159; Virginia D. Green, Ind., 21,514.

Ohio voters in 1926 rejected (743,313 to 405,152) a proposed constitutional amendment to abolish the State primary election system.

Ohio voters, in 1922, rejected, 908,522 to 719,050, a proposed constitutional amendment legalizing wine and beer.

PAST VOTE OF OHIO.

1872 (Pres.), Greeley, Dem. and Lib., 244,321; Grant, Rep., 281,852; O'Conor, Lab. Ref., 1,163; Black, Proh., 2,100.

1876 (Pres.), Tilden, Dem., 323,182; Hayes, Rep., 330,698; Cooper, Greenback, 3,057; Smith, Proh. Ref., 1,636.

1880 (Pres.), Hancock, Dem., 340,821; Garfield, Rep., 375,048; Weaver, Greenback, 6,456; Dow, Proh., 2,616.

1884 (Pres.), Cleveland, Dem., 363,280; Blaine, Rep., 400,082; St. John, Proh., 11,069; Butler, Greenback, 5,179.

1888 (Pres.), Cleveland, Dem., 396,455; Harrison, Rep., 416,054; Fisk, Proh., 24,356; Streeter, United Labor, 3,496.

1892 (Pres.), Cleveland, Dem., 404,115; Harrison, Rep., 405,187; Weaver, People's, 14,852; Bidwell, Proh., 26,012.

1896 (Pres.), Bryan Dem., and People's, (Populist), 477,497; Palmer, Nat'l (Gold) Dem., 1,858; McKinley, Rep., 525,991; Levering, Proh., 7,784;

1900 (Pres.), Bryan, Dem., 474,882; McKinley, Rep., 543,918; Woolley, Proh., 10,203; Debs, Soc., 4,847.

1904 (Pres.), Parker, Dem., 344,940; Roosevelt, Rep., 600,095; Swallow, Proh., 19,339; Debs, Soc., 36,200.

1905 (Gov.), Dem., 473,264; Rep., 430,617; Soc., 17,795; Soc. Lab., 1,808; Proh., 13,061.

1908 (Pres.), Bryan, Dem., 502,721; Taft, Rep., 572,312; Chafin, Proh., 11,402; Debs, Soc., 33,795.

1908 (Gov.), Dem., 552,569; Rep., 533,197; Soc., 28,573; Soc. Lab., 797; Proh., 7,665; Ind., 397.

1910 (Gov.), Dem., 477,077; Rep., 376,700; Soc., 60,637; Proh., 7,129; Soc. Lab., 2,920.

1912 (Pres.), Wilson, Dem., 424,834; Taft, Rep., 278,168; Roosevelt, Prog., 229,807; Debs, Soc., 90,144.

1914 (U. S. Sen.), Dem., 423,742; Rep., 526,115; Prog., 67,509; Soc., 58,803.

1916 (Pres.), Wilson, Dem., 604,161; Hughes, Rep., 514,753; Hanly, Proh., 8,080; Benson, Soc., 38,092.

1916 (U. S. Sen.), Dem., 570,686; Rep., 535,346; Soc., 38,187; Proh., 12,060; Ind., 2,965.

1918 (Gov.), Dem., 486,403; Rep., 470,459.

1920 (Pres.), Cox, Dem., 780,037; Harding, Rep., 1,182,022; Watkins, Proh., 294; Debs, Soc., 57,147.

1920 (U. S. Sen.), Dem., 782,650; Rep., 1,134,953. Single Tax, 2,647.

1920 (Gov.), Donahey, Dem., 918,962; Davis, Rep., 1,039,835.

OKLAHOMA.
(Presidential vote, 1928, 1924.)

Counties.	1928.		1924.			Counties.	1928.		1924.		
	Smith, Dem.	Hoover Rep.	Davis, Dem.	Coolidge, Rep.	La Fol'te, Prog.		Smith, Dem.	Hoover Rep.	Davis, Dem.	Coolidge, Rep.	La Fol'te, Prog.
Adair	1,944	2,867	1,942	2,317	181	Lincoln	2,405	6,118	3,283	4,220	666
Alfalfa	1,086	4,224	1,558	2,967	612	Logan	2,251	6,280	2,366	4,445	664
Atoka	2,056	1,572	2,204	1,137	689	Love	1,268	843	1,713	497	492
Beaver	887	2,596	1,194	1,566	350	McClain	1,913	2,399	2,519	1,233	234
Beckham	2,201	3,810	2,496	1,357	508	McCurtain	2,877	1,915	3,279	1,669	201
Blaine	1,543	3,415	1,488	2,255	843	McIntosh	2,044	2,742	2,723	1,675	71
Bryan	3,885	3,014	4,593	1,780	637	Major	674	2,891	649	1,781	548
Caddo	3,885	7,314	4,211	4,388	835	Marshall	1,358	1,063	1,935	866	484
Canadian	2,786	5,011	3,065	3,060	1,186	Mayes	2,161	3,002	2,246	2,217	286
Carter	5,086	6,538	7,154	3,164	492	Murray	1,498	1,632	2,083	784	129
Cherokee	2,450	2,963	2,454	2,622	153	Muskogee	6,343	9,972	6,895	6,147	528
Choctaw	2,581	2,541	2,528	2,013	683	Noble	1,777	3,607	1,927	2,680	562
Cimarron	566	1,139	672	586	150	Nowata	1,763	2,930	2,049	2,296	117
Cleveland	2,291	3,738	2,841	1,672	435	Okfuskee	2,516	3,612	2,654	1,441	229
Coal	1,681	1,283	1,772	800	576	Oklahoma	16,073	36,608	21,708	17,504	3,618
Comanche	2,956	5,069	3,523	3,084	753	Okmulgee	5,834	9,149	5,927	6,015	740
Cotton	1,605	2,419	1,825	1,581	266	Osage	5,005	10,555	7,092	6,371	513
Craig	2,897	3,511	3,096	2,519	123	Ottawa	4,488	8,144	4,522	5,197	489
Creek	5,693	12,254	7,969	8,894	695	Pawnee	1,949	4,489	2,377	3,093	475
Custer	1,995	4,576	2,473	2,419	670	Payne	2,904	7,864	4,342	4,817	688
Delaware	1,706	2,603	1,729	1,563	200	Pittsburg	5,960	5,875	6,062	3,554	1,029
Dewey	1,175	2,486	1,126	1,539	756	Pontotoc	3,203	3,356	4,268	1,859	455
Ellis	1,122	1,953	879	1,499	658	Pottawot'ie	3,797	8,478	5,071	4,042	1,133
Garfield	3,503	12,748	3,785	7,519	1,966	Pushmat'a	1,384	1,616	1,640	1,081	200
Garvin	3,589	3,321	4,759	1,863	268	Roger Mills	986	1,948	1,318	946	481
Grady	3,667	6,332	5,091	2,638	786	Rogers	2,147	3,477	2,901	2,207	184
Grant	1,449	4,371	1,990	2,800	558	Seminole	4,423	8,072	3,007	2,326	425
Greer	1,645	2,262	1,982	561	281	Sequoyah	2,692	3,296	3,429	2,976	53
Harmon	1,060	1,481	1,049	339	61	Stephens	2,982	5,192	4,745	2,377	366
Harper	872	1,844	824	1,226	350	Texas	1,260	2,891	1,813	1,792	371
Haskell	2,172	2,580	2,480	1,935	366	Tillman	2,141	3,331	2,653	1,325	171
Hughes	3,169	3,937	3,996	2,508	170	Tulsa	16,072	38,769	14,377	19,537	1,011
Jackson	2,493	3,440	2,352	941	502	Wagoner	1,745	2,726	1,985	1,644	237
Jefferson	1,916	2,251	2,439	1,108	176	Washington	2,563	7,258	3,487	4,579	177
Johnston	1,766	1,294	2,122	923	521	Washita	2,024	3,572	2,335	1,357	337
Kay	4,196	13,829	6,049	7,390	840	Woods	1,550	3,941	1,535	2,610	744
Kingfisher	1,780	4,063	1,644	2,834	544	Woodward	1,347	3,188	1,418	1,831	724
Kiowa	2,270	4,116	2,615	1,718	491						
Latimer	1,583	1,368	1,457	971	244	Total	219,174	394,046	255,798	226,242	41,141
Le Flore	4,622	5,168	4,069	3,326	771						

President (1928)—Thomas, Soc., 3,924; Farm.-Lab., 1,283.
Governor (1926)—Johnston, Dem., 212,167; Benedict, Rep., 170,714; Franing, Farm-Lab., 1,646.
U. S. Senator (1926)—Thomas, Dem., 195,312; Harreld, Rep., 159,287; Hart, Soc., 1,012.
Governor (1922)—Walton, Dem., 280,206; Fields, Rep., 230,469; Enfield, Soc., 3,941.

PAST VOTE OF OKLAHOMA.

1908 (Pres.)—Bryan, Dem., 122,363; Taft, Rep., 110,474; Debs, Soc., 21,734.
1912 (Pres.), Wilson, Dem., 119,156; Taft, Rep., 90,786; Debs, Soc., 41,674.
1916 (Pres.), Wilson, Dem., 148,113; Hughes, Rep., 97,233; Roosevelt, Prog., 234; Soc., 45,190.
1920 (Pres.), Cox, Dem., 215,808; Harding, Rep., 243,464; Debs, Soc., 25,679.

OREGON.
(Presidential vote, 1928, 1924.)

Counties.	1928.		1924.			Counties.	1928.		1924.		
	Hoover, Rep.	Smith, Dem.	Coolidge, Rep.	Davis, Dem.	La Fol'te, Prog.		Hoover, Rep.	Smith, Dem.	Coolidge, Rep.	Davis, Dem.	La Fol'te, Prog.
Baker	3,721	1,861	2,803	2,004	1,356	Lane	13,647	4,213	8,551	3,255	2,416
Benton	4,605	1,412	3,417	1,579	623	Lincoln	2,100	1,464	1,328	641	552
Clackamas	9,216	5,918	5,864	3,099	4,508	Linn	5,877	2,645	4,141	2,618	1,575
Clatsop	4,087	2,208	3,313	1,373	1,158	Malheur	2,164	1,036	1,671	828	710
Columbia	3,519	1,775	2,483	1,015	896	Marion	11,754	6,998	8,351	3,996	3,631
Coos	4,929	3,040	3,905	1,757	2,359	Morrow	1,093	543	991	397	462
Crook	877	487	725	434	266	Multnom'h	75,731	45,177	48,865	21,733	26,932
Curry	694	453	669	224	317	Polk	3,244	1,724	2,755	1,621	831
Deschutes	2,815	1,702	2,321	1,015	1,013	Sherman	759	375	756	367	229
Douglas	5,609	2,911	4,219	1,666	1,943	Tillamook	2,570	1,204	2,201	795	700
Gilliam	880	515	738	521	207	Umatilla	5,277	2,390	3,854	3,052	1,693
Grant	1,411	469	1,126	459	380	Union	3,219	2,154	2,428	1,816	1,398
Harney	952	600	851	436	285	Wallowa	1,326	935	1,253	973	471
Hood River	1,806	905	1,214	683	600	Wasco	2,746	1,699	2,409	1,185	1,069
Jackson	8,053	2,463	4,868	1,840	2,408	Washingt'n	6,162	3,544	4,203	2,103	2,809
Jefferson	481	308	374	242	334	Wheeler	677	224	685	213	103
Josephine	2,625	959	1,756	650	835	Yamhill	5,248	2,382	3,803	2,015	1,324
Klamath	4,453	2,721	2,775	680	1,715						
Lake	1,014	549	917	301	295	Total	205,341	109,223	142,579	67,589	68,403

President (1928)—Thomas, Soc., 2,720; Reynolds, Soc. Lab, 1,564; Foster, Ind., 1,094.
Governor (1926)—Pierce, Dem., 93,470; Patterson, Rep., 120,073; Stallard, Ind., 12,402.
U. S. Senator (1926)—Haney, Dem., 81,301; Stelwer, Rep., 89,007; Stanfield, Ind., 60,246; Adams, Ind., 3,145.
U. S. Senator (1924)—McNary, Rep., 174,672; Miller, Dem., 65,340; Coulter, Prog., 20,379.

PAST VOTE OF OREGON.

1888 (Pres.), Cleveland, Dem., 26,522; Harrison, Rep., 33,291; Fisk, Proh., 1,677.
1892 (Pres.), Cleveland, Dem., 14,243; Harrison, Rep., 35,002; Weaver, People's, 26,965.
1896 (Pres.), Bryan, Dem., 46,739; Palmer, Dem., 977; McKinley, Rep., 48,779.
1900 (Pres.), Bryan, Dem., 33,385; McKinley, Rep., 46,526; Woolley, Proh., 2,536; Debs, Soc., 1,494.
1904 (Pres.), Parker, Dem., 17,521; Roosevelt, Rep., 60,455; Swallow, Proh., 3,806; Debs, Soc., 7,619.
1908 (Pres.), Bryan, Dem., 38,049; Taft, Rep., 62,530; Chafin, Proh., 2,682; Debs, Soc., 7,339.
1912 (Pres.), Wilson, Dem., 47,064; Taft, Rep., 34,673; Roosevelt, Prog., 37,600; Soc., 13,343.
1916 (Pres.), Wilson, Dem., 120,087; Hughes, Rep., 126,813; Hanly, Proh., 4,729; Benson, Soc., 9,711.
1920 (Pres.), Cox, Dem., 80,019; Harding, Rep., 143,592; Watkins, Proh., 3,595; Debs, Soc., 9,801.
1920 (U. S. Sen.), Dem., 100,133; Rep., 116,696.

PENNSYLVANIA.

(Presidential vote, 1928, 1924.)

Counties.	1928.		1924.		
	Hoover, Republican.	Smith, Democrat.	Coolidge, Republican.	Davis Democrat.	LaFollette, Progressive.
Adams	9,656	4,635	5,778	4,840	273
Allegheny	215,626	160,733	149,296	21,984	89,095
Armstrong	17,625	4,824	11,192	2,931	2,228
Beaver	27,949	11,868	16,768	3,220	5,599
Bedford	9,602	1,966	6,154	2,315	931
Berks	47,073	18,960	28,186	17,220	9,273
Blair	34,356	12,104	20,313	4,244	6,027
Bradford	17,251	4,281	11,620	2,307	1,718
Bucks	28,421	8,446	17,460	6,582	1,941
Butler	19,880	6,283	13,113	3,462	1,932
Cambria	29,494	27,024	24,728	13,563	9,167
Cameron	1,564	501	1,366	260	133
Carbon	15,047	8,010	10,236	5,150	2,975
Centre	12,005	3,431	7,723	4,443	673
Chester	36,659	7,689	22,333	5,946	1,013
Clarion	9,183	3,746	5,913	3,642	897
Clearfield	16,719	7,870	13,745	5,027	3,383
Clinton	8,120	2,849	5,129	1,939	1,624
Columbia	14,362	5,304	7,336	7,370	526
Crawford	17,072	6,718	10,918	2,969	2,987
Cumberland	19,170	5,189	10,196	7,643	1,132
Dauphin	49,108	9,115	27,838	9,004	3,756
Delaware	83,092	29,378	41,998	6,368	2,750
Elk	5,234	7,705	6,626	1,370	1,175
Erie	30,542	19,278	19,480	3,502	8,267
Fayette	27,693	19,063	19,064	8,855	6,103
Forest	1,707	289	1,130	280	95
Franklin	16,345	3,027	9,791	5,770	1,010
Fulton	2,179	1,054	1,160	1,207	42
Greene	6,910	5,293	4,950	5,874	378
Huntingdon	9,920	1,470	6,567	1,488	750
Indiana	16,706	4,810	12,748	2,067	2,648
Jefferson	13,233	4,325	10,673	2,664	2,618
Juniata	4,396	919	2,177	1,420	177
Lackawanna	46,510	52,665	37,708	16,859	7,533
Lancaster	55,530	12,146	42,787	12,091	2,871
Lawrence	20,012	6,417	12,533	1,880	4,211
Lebanon	16,841	3,278	9,494	2,464	756
Lehigh	40,291	13,463	20,826	10,415	3,879
Luzerne	67,872	73,319	46,475	20,472	20,093
Lycoming	28,720	7,132	14,039	6,537	2,432
McKean	14,012	4,964	9,072	3,376	1,373
Mercer	22,599	8,204	14,639	3,688	3,580
Mifflin	8,932	1,270	4,781	1,999	322
Monroe	7,469	3,266	3,462	3,901	426
Montgomery	76,680	23,026	45,407	11,094	3,450
Montour	3,692	1,445	2,499	1,799	148
Northampton	37,403	14,768	20,459	11,459	2,882
Northumberland	30,949	19,249	17,516	7,571	5,902
Perry	6,469	1,807	4,185	2,710	333
Philadelphia	420,320	276,573	347,457	54,213	44,230
Pike	2,354	1,024	1,581	993	329
Potter	5,653	1,416	4,087	1,161	925
Schuylkill	46,033	40,424	34,578	10,111	8,533
Snyder	5,693	805	3,055	970	210
Somerset	16,404	4,489	12,389	2,315	1,974
Sullivan	2,044	1,101	1,668	913	155
Susquehanna	9,445	4,353	7,266	2,208	1,223
Tioga	11,774	1,688	8,452	1,271	541
Union	5,708	765	3,707	1,209	236
Venango	17,450	4,531	10,841	1,886	1,496
Warren	12,077	2,835	8,502	2,161	841
Washington	31,099	17,149	22,315	6,706	7,089
Wayne	8,576	3,148	5,578	1,477	513
Westmoreland	51,760	30,587	34,522	10,223	13,403
Wyoming	5,221	906	3,213	1,194	236
York	45,791	11,216	23,044	15,600	2,146
Total	2,055,382	1,067,586	1,401,481	409,192	307,567

President (1928)—Thomas, Soc., 18,647; Varney, Proh., 3,880; Foster, Lab., 2,687; Foster, Communist, 2,039; Reynolds, Industr., 380.

U. S. Senator (1928)—Reed, Rep., 1,948,646; McNair, Dem., 1,029,055; Van Essen, Soc., 23,100; Kane, Proh., 14,866; Kutz, Lab., 7,524; White, Communist, 2,420; Thomas, Industr., 1,234.

President (1924)—Faris, Proh., 9,779; Nations, Amer., 15,035; Wallace, Commonwealth Land, 296.

Governor (1926)—Bonniwell, Dem., 365,280; Fisher, Rep., 1,102,823.

U. S. Senator (1926)—Wilson, Dem., and Lab., 648,680; Vare, Rep., 822,187; Kane, Proh., 19,523.

U. S. Senator (1922)—Shull, Dem., 434,583; Reed, Rep., 802,146; Sehl, Soc., 33,004.

PAST VOTE OF PENNSYLVANIA.

1876 (Pres.), Tilden, Dem., 366,158; Hayes, Rep., 384,142; Cooper, Greenback, 7,187.

1880 (Pres.), Hancock, Dem., 407,502; Garfield, Rep., 444,713; Weaver, Greenback, 20,648; Dow, Proh., 1,940.

1884 (Pres.), Cleveland, Dem., 392,785; Blaine, Rep., 473,804; St. John, Proh., 15,283; Butler, Greenback, 16,992.

1888 (Pres.), Cleveland, Dem., 446,633; Harrison, Rep., 526,091; Fisk, Proh., 20,966; Streeter, United Labor, 3,876.

1892 (Pres.), Cleveland, Dem., 452,264; Harrison, Rep., 516,011; Weaver, Peoples', 8,714; Proh., 25,123.

1896 (Pres.), Bryan, Dem. and Peoples' (Populist), 433,228; Palmer, Nat'l (Gold) Dem., 11,009; McKinley, Rep., 728,300; Levering, Proh., 19,274.

1900 (Pres.), Bryan, Dem., 424,232; McKinley, Rep., 712,665; Woolley, Proh., 27,908; Debs, Soc., 4,831.

1904 (Pres.), Parker, Dem., 335,430; Roosevelt, Rep., 840,949; Swallow, Proh., 33,717; Soc., 21,863.

1908 (Pres.), Bryan, Dem., 448,782; Taft, Rep., 745,779; Chafin, Proh., 36,694; Debs, Soc., 33,913.

1912 (Pres.), Wilson, Dem., 395,637; Taft, Rep., 273,360; Roosevelt, Prog., 444,894; Soc., 80,915.

1916 (Pres.), Wilson, Dem., 521,784; Hughes, Rep., 703,823; Hanly, Proh., 28,525; Soc., 42,638.

1920 (Pres.), Cox, Dem., 503,202; Harding, Rep., 1,218,215; Watkins, Proh., 42,612; Debs, Soc., 70,021; Christensen, F.-Lab., 15,642.

1920 (U. S. Sen.), Dem., 484,362; Rep., 1,067,989.

RHODE ISLAND.

(Presidential vote, 1928, 1924.)

Counties.	1928.		1924.			Counties.	1928.		1924.		
	Smith, Dem.	Hoover, Rep.	Coolidge, Rep.	Davis, Dem.	La Fol'te, Prog.		Smith, Dem.	Hoover, Rep.	Coolidge, Rep.	Davis, Dem.	La Fol'te, Prog.
Bristol	4,430	3,745	4,082	2,514	75	Washingt'n.	3,526	7,844	8,018	2,371	254
Kent	7,497	11,460	12,000	5,426	275						
Newport	6,880	8,707	9,662	3,885	664	Total	118,973	117,522	125,286	76,606	7,628
Providence	96,640	85,766	91,573	62,586	6,368						

President (1928)—Reynolds, Soc. Lab., 416; Foster, Workers, 283.
U. S. Senator (1928)—Gerry, Dem., 116,234; Herbert, Rep., 119,228; Reid, Workers, 313.
Governor (1928)—Archambault, Dem., 113,594; Case, Rep., 121,748; Bishop, Soc. Lab., 388; Theinert, Workers, 275.
President (1924)—Soc.-Lab., 268; Workers, 289; Commonwealth Land, 38.
Governor (1926)—Gainer, Dem., 75,882; Pothier, Rep., 89,574; Soc. Lab., 743.
Governor (1924)—Pothier, Rep., 122,749; Toupin, Dem, 85,942.
U. S. Senator (1924)—Metcalf, Rep., 120,815; Flynn, Dem., 87,620; McDermott, Soc.-Lab., 297; Reid, Workers, 475; Sullivan, Lib.-ind., 419.
Governor (1922)—Flynn, Dem., 81,935; Gross, Rep., 74,724; Soc. Lab., 949; Lab. 802.
U. S. Senator (1922)—Gerry, Dem., 82,889; Beeckman, Rep., 68,930; Bartholomew, Law and Order, 6,102; Matthews, Soc. Lab., 968.

PAST VOTE OF RHODE ISLAND.

1876 (Pres.), Tilden, Dem., 10,712; Hayes, Rep., 15,787; Cooper, Greenback, 60; Smith, Proh. Ref., 68.
1880 (Pres.), Hancock, Dem., 10,779; Garfield, Rep., 18,195; Weaver, Greenback, 236; Dow, Proh., 20.
1884 (Pres.), Cleveland, Dem., 12,391; Blaine, Rep., 19,030; St. John, Proh., 928; Butler, Greenback, 422.
1888 (Pres.), Cleveland, Dem., 17,530; Harrison, Rep., 21,969; Fisk, Proh., 1,251.
1892 (Pres.), Cleveland, Dem., 24,336; Harrison, Rep., 26,975; Weaver, People's, 228; Bidwell, Proh., 1,654.
1896 (Pres.), Bryan, Dem; and People's (Populist) 14,459; Palmer, Nat'l (Gold) Dem., 1,166; McKinley, Rep., 37,437; Levering, Proh., 1,161.
1900 (Pres.), Bryan, Dem., 19,812; McKinley, Rep., 33,784; Woolley, Proh., 1,529.
1902 (Gov.), Dem., 32,279; Rep., 24,541; Soc. 1,283; Proh., 1,689.
1903 (Gov.), Dem., 30,578; Rep., 29,275; Soc. Lab., 943; Proh., 930.
1904 (Pres.), Parker, Dem., 24,839; Roosevelt, Rep., 41,605; Swallow, Proh., 768; Debs, Soc., 956.
1906 (Gov.), Dem., 33,195; Rep., 31,877; Soc., 395; Proh., 714; Soc. Lab. 320.
1907 (Gov.), Dem., 33,300 Rep., 31,005; Proh., 831; Soc., 681; Soc. Lab., 289.
1908 (Pres.), Bryan, Dem., 24,706; Taft, Rep., 43,942; Chafin, Proh., 1,016; Debs, Soc., 1,365.
1912 (Pres.), Wilson, Dem., 30,412; Taft, Rep., 27,703; Roosevelt, Prog., 16,878; Debs, Soc., 2,049.
1916 (Pres.), Wilson, Dem., 40,394; Hughes, Rep., 44,858; Hanly, Proh., 470; Benson, Soc., 1,914.
1916 (U. S. Sen.), Dem., 47,048; Rep., 39,211; Soc., 1,996; Proh., 454; Soc. Lab., 168.
1918 (U. S. Sen.), Dem., 37,573; Rep., 42,055; Soc., 1,628.
1920 (Pres.), Cox, Dem., 55,062; Harding, Rep., 107,463; Watkins, Proh., 510; Deb, Soc., 4,351.

SOUTH CAROLINA.

(Presidential vote, 1928, 1924.)

Counties.	1928.			1924.			Counties.	1928.			1924.		
	Smith, Dem.	Anti-Smith	Hoover, Rep.	Davis, Dem.	La Follette, Prog.	Coolidge, Rep.		Smith, Dem.	Anti-Smith,	Hoover, Rep.	Davis, Dem.	La Follette, Prog.	Coolidge, Rep.
Abbeville	1,020	41	24	681	37	19	Hampton	1,098	...	12	730	4	3
Aiken	1,308	217	25	1,488	5	16	Horry	1,224	14	13	1,346	3	1
Allendale	816	2	22	450	3	14	Jasper	102	...	5	89	39	...
Anderson	1,512	7	36	1,455	3	9	Kershaw	1,274	...	14	733	...	1
Bamberg	779	...	4	708	14	7	Lancaster	1,436	4	4	1,355	4	8
Barnwell	1,028	14	20	847	2	23	Laurens	1,989	21	23	2,105	...	6
Beaufort	414	...	124	365	9	64	Lee	593	2	4	...	...	...
Berkeley	276	...	42	501	...	26	Lexington	1,228	...	61	1,395	2	7
Calhoun	577	2	5	593	1	5	Marion	682	...	51	616	...	2
Charleston	4,298	794	965	2,554	108	361	Marlboro	729	2	25	716	...	...
Cherokee	1,338	53	36	1,186	6	24	McCormick	615	...	20	520	16	15
Chester	1,285	2	34	850	5	12	Newberry	2,077	12	...	1,802	2	13
Chesterfield	1,362	22	1	1,539	1	11	Oconee	1,263	16	54	989	33	5
Clarendon	762	...	10	615	1	20	Orangeburg	1,545	41	51	1,727	13	67
Colleton	1,122	...	22	800	2	11	Pickens	1,110	68	124	1,044	3	35
Darlington	1,135	39	9	956	7	3	Richland	3,158	224	219	2,369	74	88
Dillon	551	19	...	598	...	3	Saluda	796	...	5	1,094	2	3
Dorchester	1,105	...	44	697	...	20	Spartanburg	3,859	436	324	...	...	...
Edgefield	1,201	2	2	915	...	...	Sumter	1,202	72	102	1,136	62	18
Fairfield	781	12	82	631	2	11	Union	2,460	14	60	1,862	7	27
Florence	1,672	20	64	1,217	52	32	Williamsburg	825	3	19	6,2	...	4
Georgetown	586	4	70	134	2	24	York	1,145	176	1	1,385	56	31
Greenville	4,116	273	273	3,728	42	59							
Greenwood	2,921	16	22	1,815	4	15	Total	62,700	2,670	3,188	49,008	620	1,123

President (1928)—Thomas, Socialist, got 44 votes, of which 16 were in Charleston.

PAST VOTE OF SOUTH CAROLINA.

1876 (Pres.), Tilden, Dem., 90,906; Hayes, Rep., 91,870.
1880 (Pres.), Hancock, Dem., 112,31; Garfield, Rep., 58,071; Weaver, Greenback, 566.
1884 (Pres.), Cleveland, Dem., 69,890; Blaine, Rep., 21,733.
1888 (Pres.), Cleveland, Dem., 65,825; Harrison, Rep., 13,740.
1892 (Pres.), Cleveland, Dem., 54,698; Harrison, Rep., 13,384; Weaver, People's, 2,410.
1896 (Pres.), Bryan, Dem. and People's (Populist), 58,801; Palmer, Nat'l (Gold) Dem., 824; McKinley, Rep., 9,313.
1900 (Pres.), Bryan, Dem., 47,283; McKinley, Rep. 3,579.
1904 (Pres.), Parker, Dem., 52,563; Roosevelt, Rep., 2,554; Debs, Soc., 22.
1908 (Pres.), Bryan, Dem., 62,290; Taft, Rep., 3,965; Debs, Soc., 100.
1912 (Pres.), Wilson, Dem., 48,357; Taft, Rep., 536; Roosevelt, Prog., 1,293; Debs, Soc., 164.
1914 (U. S. Sen.), Dem., 32,950; Soc., 89.
1916 (Pres.), Wilson, Dem., 61,846; Hughes, Rep., 1,550; Benson, Soc., 135.
1920 (Pres.), Cox, Dem., 64,170; Harding, Rep., 2,244; Debs, Soc., 26.
1920 (U. S. Sen.), Dem., 64,388 (unopposed).

SOUTH DAKOTA.

(Presidential vote, 1928, 1924.)

COUNTIES.	1928.		1924.			COUNTIES.	1928.		1924.		
	Smith, Dem.	Hoover, Rep.	Coolidge, Rep.	Davis, Dem.	La Fol'te, Prog.		Smith, Dem.	Hoover, Rep.	Coolidge, Rep.	Davis, Dem.	La Fol'te, Prog.
Aurora	1,426	1,552	967	665	1,031	Jones	422	857	732	141	447
Beadle	3,168	5,094	3,466	851	2,177	Kingsbury	1,352	3,499	2,242	333	840
Bennett	544	766	444	102	232	Lake	1,744	3,048	1,888	297	1,978
BonHomme	2,166	2,262	1,420	860	1,118	Lawrence	1,785	4,141	3,255	649	676
Brookings	1,915	4,586	2,740	361	1,415	Lincoln	1,364	3,463	1,825	265	2,076
Brown	5,065	7,266	4,708	1,010	3,987	Lyman	1,232	1,488	1,061	387	947
Brule	1,599	1,431	1,060	650	1,146	Marshall	1,315	1,858	1,271	190	1,005
Buffalo	387	405	309	225	210	McCook	1,758	2,234	1,368	457	1,265
Butte	840	1,988	1,199	277	681	McPherson	1,468	1,234	833	94	1,962
Campbell	588	1,346	641	46	488	Meade	1,441	2,845	2,006	786	701
Chas. Mix	3,037	3,087	1,680	1,306	2,396	Mellette	927	943	642	604	362
Clark	1,370	2,665	1,684	325	953	Miner	1,341	1,990	995	308	1,488
Clay	1,474	2,573	1,415	492	1,438	Minnehaha	6,805	13,741	8,822	1,524	5,427
Codington	3,299	3,762	1,862	627	2,011	Moody	1,416	2,108	1,181	234	1,418
Corson	1,374	1,847	1,364	140	910	Pennington	2,266	4,645	3,201	854	980
Custer	715	1,464	833	236	492	Perkins	1,010	2,262	1,421	277	702
Davison	2,729	3,821	2,801	578	2,038	Potter	1,100	1,242	1,075	283	439
Day	2,642	3,180	2,193	308	1,474	Roberts	2,619	2,866	1,744	215	2,296
Deuel	999	1,869	1,362	168	728	Sanborn	1,321	1,567	1,184	327	990
Dewey	996	1,293	956	222	624	Spink	2,451	3,868	2,613	595	1,312
Douglas	879	1,949	1,125	317	797	Stanley	437	739	531	249	432
Edmunds	1,597	1,743	1,043	277	1,141	Sully	415	999	555	138	247
Fall River	1,258	2,216	1,392	342	936	Tripp	2,099	2,396	1,647	932	1,301
Faulk	1,135	1,907	1,112	277	594	Turner	1,380	3,362	1,708	285	1,726
Grant	1,656	2,508	1,227	202	1,491	Union	2,106	2,415	1,665	877	1,155
Gregory	2,001	2,274	1,643	818	1,222	Walworth	1,216	1,854	1,033	114	1,193
Haakon	663	1,255	797	319	482	Yankton	2,841	2,971	1,504	693	1,584
Hamlin	1,088	1,959	1,144	207	833	Ziebach	615	759	659	153	386
Hand	1,397	2,430	1,727	690	781	Armstrong	7	0	.....	.....	.....
Hanson	1,129	1,576	811	299	894	Shannon	601	469	.....	.....	.....
Harding	368	1,032	702	107	322	Todd	831	789	.....	.....	.....
Hughes	1,171	1,918	1,260	325	783	Washabaugh	282	294	.....	.....	.....
Hutchinson	1,898	2,145	893	180	2,550	Washington	228	205	.....	.....	.....
Hyde	608	961	669	257	398						
Jackson	417	704	583	194	247	Total	102,660	157,603	101,299	27,214	75,355
Jerauld	875	1,517	1,054	228	711						

President (1928), Thomas, Soc., 443; Foster, Workers, 232; Farm-Labor, 927.

Governor (1928)—Bulow, Dem., 136,016; Jones, Rep., 121,643; Sumption, F.-L., 1,509.

Governor (1926)—Bulow, Dem., 87,136; Carl Gunderson, Rep., 74,101; Ayres, Farm.-Lab., 11,958; Hipple, Ind., 10,637.

U. S. Senator (1926)—C. J. Gunderson, Dem., 59,128; Norbeck, Rep., 105.756.

Governor (1924)—Gunderson, Rep., 109,894; Bulow, Dem., 46,663; Putnam, Farm.-Lab., 27,027; Richards, Ind. (La Follette), 20,359.

U. S. Senator (1924)—McMaster, Rep., 90,310; Cherry, Dem., 63,818; Ayres, Farm.-Lab., 23,962; Egan, Ind., 14,390; Dillon, Ind., 3,930; Loucks, Ind., 1,380; Livingston, Ind., 1,122.

PAST VOTE OF SOUTH DAKOTA.

1892 (Pres.), Cleveland, Dem., 9,081; Harrison, Rep., 34,888; Weaver, People's, 26,544.

1896 (Pres.), Bryan, Dem. and People's (Populist), 41,225; McKinley, Rep., 41,042

1900 (Pres.), Bryan, Dem., 39,544; McKinley, Rep., 54,530; Woolley, Proh., 1,542; Debs, Soc., 169.

1904 (Pres.), Parker, Dem., 21,969; Roosevelt, Rep., 72,083; Swallow, Proh., 2,965; Debs, Soc., 3,138.

1908 (Pres.), Bryan, Dem., 40,226; Taft, Rep., 67,536; Chafin, Proh., 4,039; Debs, Soc., 2,846.

1912 (Pres.), Wilson, Dem.; 48,942; Roosevelt Prog., 58,811; Debs, Soc., 4,662.

1914 (U. S. Sen.), Dem., 48,076; Rep., 44,244; Proh., 2,406; Soc., 2,674; Ind., 2,104.

1916 (Pres.), Wilson, Dem., 59,191; Hughes, Rep., 64,217; Hanly, Proh., 1,774; Benson, Soc., 3,760.

1918 (U. S. Sen.), Dem., 36,210; Rep., 51,198.

1920 (Pres.), Cox, Dem., 35,938; Harding, Rep., 110,692; Watkins, Proh., 900; F.-Lab., 34,707.

1920 (U. S. Sen.), Dem., 36,833; Rep., 92,267; Non-Partisan, 44,309; Ind., 10,032; Ind., 738.

GEORGE WASHINGTON'S PRAYER.

Following are the words of George Washington's Prayer, which is framed and hangs in his pew in St. Paul's P. E. Chapel, Broadway and Vesey Sts. in New York City.

Almighty God, we make our earnest prayer that Thou wilt keep the United States in Thy holy protection; that Thou wilt incline the hearts of the citizens to cultivate a spirit of subordination and obedience to government; to entertain a brotherly affection and love for one another and for their fellow citizens of the United States at large.

And finally that Thou wilt most graciously be pleased to dispose us all to do justice, to love mercy, and to demean ourselves with that charity, humility and pacific temper of mind, which were the characteristics of the Divine Author of our blessed religion, and without an humble imitation of whose example in these things we can never hope to be a happy nation.

Grant our supplication, we beseech Thee, through Jesus Christ, our Lord. Amen.

The prayer, it is said, was made by Washington at St. Paul's Chapel, following his inauguration in the old Federal Building on the north side of Wall Street, facing Broad Street.

NATIONAL ACADEMY OF SCIENCES, WASHINGTON, D. C.

There are 246 living members, comprising investigators in many departments of science. The geographical distribution of members covers the United States, but this is not a factor in consideration of election, which is the result of outstanding work in science.

Carrying out the object for which the Academy was incorporated by Congress, to report upon matters in science or art whenever called upon, the Academy has often been of service to the Government.

From time to time trust funds have been established, the incomes of which are devoted to the award of medals or to grants for research.

The will of Alexander Dallas Bache, first President of the Academy, directed that the residue of his estate, after the death of his wife, should be paid over to the National Academy of Sciences for the "prosecution of researches in physical and natural science by assisting experimentalists and observers."

A recent gift was that of the Carnegie Corporation, $5,000,000, for a suitable building for the Academy and its agent the National Research Council, and an endowment for the purposes of the Academy and Research Council. The new building at B and 21st Streets was dedicated and opened to the public April 30, 1924.

TENNESSEE.

(Presidential vote, 1928, 1924.)

Counties.	1928.		1924.		
	Smith, Dem.	Hoover, Rep.	Davis, Dem.	Coolidge, Rep.	La Follette, Prog.
Anderson	537	2,306	550	1,487	108
Bedford	1,532	1,405	1,799	925	59
Benton	1,241	949	1,109	708	30
Bledsoe	600	899	483	686	10
Blount	715	4,135	999	2,754	40
Bradley	913	2,854	1,011	1,780	34
Campbell	585	3,007	648	2,620	283
Cannon	622	588	581	285	12
Carroll	1,743	2,987	1,925	2,178	99
Carter	512	4,034	557	3,665	28
Cheatham	913	488	868	181	18
Chester	735	588	768	485	14
Claiborne	1,225	2,565	1,091	1,775	94
Clay	576	556	673	483	6
Cocke	722	2,909	936	2,564	18
Coffee	1,175	1,126	1,692	485	59
Crockett	749	710	1,168	587	20
Cumberland	507	1,188	540	886	91
Davidson	13,442	15,322	11,386	4,511	1,325
Decatur	812	748	877	799	20
DeKalb	1,690	2,261	1,829	1,406	22
Dickson	1,428	891	1,648	516	99
Dyer	2,661	842	2,348	477	5
Fayette	1,100	122	1,181	65	25
Fentress	375	1,399	420	1,197	89
Franklin	1,698	928	2,075	707	58
Gibson	2,911	1,372	3,277	1,046	45
Giles	2,661	1,032	2,509	677	75
Grainher	466	1,464	664	1,463	21
Greene	2,297	3,599	2,605	3,295	29
Grundy	608	380	394	173	194
Hamblen	1,220	1,902	1,316	1,342	57
Hamilton	7,190	13,244	7,511	8,421	848
Hancock	216	1,039	305	1,028	7
Hardeman	1,459	491	1,595	253	54
Hardin	709	1,585	625	1,175	5
Hawkins	1,190	2,969	1,705	2,632	52
Haywood	2,224	178	1,872	60	15
Henderson	714	2,005	1,009	1,616	51
Henry	2,667	1,041	2,478	562	143
Hickman	1,039	511	922	315	21
Houston	258	374	449	95	39
Humphreys	771	441	1,005	216	37
Jackson	832	617	1,089	363	17
Jefferson	437	2,582	716	2,701	34
Johnson	196	3,057	255	2,798	11
Knox	15,767	14,627	6,952	10,713	1,337
Lake	960	166	817	87	8
Lauderdale	2,798	430	1,596	242	30
Lawrence	2,780	3,581	2,237	2,379	73
Lewis	414	269	307	191	27
Lincoln	2,377	743	2,360	357	30
Loudon	590	2,128	706	1,537	59
McMinn	2,025	4,440	1,615	2,652	235
McNairy	1,209	2,326	1,125	1,625	26
Macon	419	1,987	709	1,808	20
Madison	3,577	1,894	3,422	1,110	399
Marion	1,161	1,659	1,055	1,076	110
Marshall	1,584	735	1,696	349	40
Muary	3,652	1,363	3,000	844	100
Meigs	589	722	572	656	15
Monroe	2,031	3,316	2,238	2,487	16
M'ntgomery	1,868	1,748	1,967	943	56
Moore	431	133	492	41	4
Morgan	446	1,487	416	1,105	248
Obion	2,492	789	3,233	484	61
Overton	1,105	1,195	1,536	904	49
Perry	622	360	498	268	6
Pickett	383	745	649	672	10
Polk	1,012	1,760	1,160	1,246	50
Putnam	2,145	1,612	2,474	1,489	48
Rhea	846	1,588	1,176	1,165	69
Roane	761	2,971	812	1,680	144
Robertson	1,543	848	1,668	229	43
Rutherford	2,115	1,428	2,137	680	32
Scott	244	2,700	274	1,611	188
Sequatchie	383	298	374	247	5
Sevier	308	3,875	462	3,534	20
Shelby	18,040	11,969	13,695	7,369	2,002
Smith	1,446	1,150	1,723	695	25
Stewart	1,257	403	1,369	264	25
Sullivan	3,216	4,151	3,388	2,247	67
Summer	2,541	1,045	2,655	432	62
Tipton	1,889	425	1,914	217	44
Trousdale	607	179	694	139	4
Unicof	370	2,044	384	1,379	135
Union	360	1,826	368	1,540	57
Van Buren	260	257	357	123	3
Warren	1,111	923	1,356	490	23
Washington	1,545	4,889	1,842	3,258	79
Wayne	382	1,756	452	1,395	12
Weakley	2,495	1,358	3,150	1,153	24
White	1,022	776	1,175	453	51
Williamson	1,595	693	1,626	243	48
Wilson	1,629	1,049	2,043	580	26
Totals	167,343	195,388	158,404	130,882	10,656

President (1928)—Thomas, Soc., 631; Foster, Workers, 111; U. S. Senator (1928)—McKellar, Dem., 175,329; Fowler, Rep., 120,259; Governor (1928)—Horton, Dem., 195,516; Hopkins, Rep., 124,633.
President (1924)—Faris, Proh., 100; Amer. Party, 100.

PAST VOTE OF TENNESSEE.

1872 (Pres.), Greeley, Dem. and Lib., 94,218; Grant, Rep., 84,930.
1876 (Pres.), Tilden, Dem., 133,166; Hayes, Rep., 89,596.
1880 (Pres.), Hancock, Dem., 130,381; Garfield, Rep., 98,760; Weaver, Greenback, 5,465; Dow, Proh., 43.
1884 (Pres.), Cleveland, Dem., 133,324; Blaine, Rep., 124,093; St. John, Proh., 1,176; Butler, Greenback, 956.
1888 (Pres.), Cleveland, Dem., 158,779; Harrison, Rep., 138,988; Fisk, Proh., 5,977.
1892 (Pres.), Cleveland, Dem., 136,594; Harrison, Rep., 99,851; Weaver, People's, 23,730; Bidwell, Proh., 4,799.
1894 (Gov.), Dem., 104,356; Rep., 105,104; Pop., 23,092.
1896 (Pres.), Bryan, Dem., and People's, (Populist), 168,847; Palmer, Nat'l (Gold) Dem., 2,106; McKinley, Rep., 149,703; Levering, Proh., 3,140.
1900 (Pres.), Bryan, Dem., 145,356; McKinley, Rep., 123,180; Wooley, Proh., 3,882; Debs, Soc., 413.
1904 (Pres.), Parker, Dem., 131,653; Roosevelt, Rep., 105,369; Swallow, Proh., 1,906; Debs, Soc., 1,354.
1908 (Pres.), Bryan, Dem., 135,608; Taft, Rep., 118,324; Chafin, Proh., 300; Debs, Soc., 1,870.
1910 (Gov.), Dem., 121,674; Rep., 133,999; Soc., 1,704.
1912 (Pres.), Wilson, Dem., 130,335; Taft, Rep., 59,444; Roosevelt, Prog., 53,725; Debs, Soc., 3,492.
1912 (Gov.), Dem., 114,369; Rep., 123,828; Soc., 4,464; Proh., 2,702.
1916 (Pres.), Wilson, Dem., 153,282; Hughes, Rep., 116,223; Hanly, Proh., 147; Benson, Soc., 2,542.
1916 (U. S. Sen.), Dem., 143,718; Rep., 118,138.
1920 (Pres.), Cox, Dem., 206,558; Harding, Rep., 219,829; Debs, Soc., 2,239.

GOVERNORS OF TENNESSEE.

John Sevier, 1796; Archibald Roane, 1801; John Sevier, 1803; William Blount, 1809; Joseph McMinn, 1815; William Carroll, 1821; Sam Houston, 1827; William Hall, 1829; William Carroll, 1829; Newton Cannon, 1835; James K. Polk, 1839; James C. Jones, 1841; Aaron V. Brown, 1845; Neill S. Brown, 1847; William Trousdale, 1849; William B. Campbell, 1851; Andrew Johnson, 1853.
Isham G. Harris, 1857; no Civil Governor, Mch. 12, 1862-April 5, 1865; W. G. Brownlow, 1865; De Witt C. Senter, 1869; John C. Brown, 1871; James D. Porter, 1875; Albert S. Marks, 1879; Alvin Hawkins, 1881; William B. Bate, 1883; Robert L. Taylor, 1887; John P. Buchanan, 1891; Peter Turney, 1893; Robert L. Taylor, 1897; Benton McMillin, 1899.
James B. Frazier, 1903; Malcolm R. Patterson, 1907; Ben W. Hooper, 1911; Tom C. Rye, 1915; Albert H. Roberts, 1919; A. A. Taylor, 1921; Austin Peay, 1921; Henry H. Horton, 1929.

TEXAS.

(Presidential vote, 1928; figures compiled from the offices of the County Clerks.)

Counties.	Hoover Rep.	Smith Dem.	Counties.	Hoover Rep.	Smith Dem.	Counties.	Hoover Rep.	Smith Dem.
Anderson	1817	1751	Glascock	124	34	Motley	450	349
Andrews	66	25	Goliad	554	490	Nacogdoches	824	1,879
Angelina	1,219	2,341	Gonzales	1,112	1,319	Navarro	3,341	3,648
Aransas	161	152	Gray	1,871	986	Newton	397	564
Archer	786	855	Grayson	6,279	4,600	Nolan	1,475	1,035
Armstrong	316	373	Gregg	646	996	Nueces	2,484	2,988
Atascosa	898	792	Grimes	705	1,175	Ochiltree	557	270
Austin	468	2,149	Guadalupe	1,445	1,878	Oldham	172	157
Bailey	410	142	Hale	2,143	1,098	Orange	919	1,247
Bandera	939	318	Hall	1,409	493	Palo Pinto	2,004	1,161
Bastrop	850	1,534	Hamilton	927	988	Panola	420	1,312
Baylor	491	802	Hansford	418	319	Parker	2,178	1,110
Bee	1,189	1,041	Hardeman	1,333	910	Parmer	592	315
Bell	3,366	3,080	Hardin	951	10,321	Pecos	524	562
Bexar	16,477	18,047	Harris	27,188	21,536	Polk	508	994
Blanco	615	539	Harrison	1,776	2,023	Potter	3,627	2,637
Borden	98	73	Hartley	179	163	Presidio	257	316
Bosque	1,526	1,235	Haskell	1,430	1,532	Rains	208	544
Bowie	2,225	3,002	Hays	1,088	620	Randall	734	659
Brazoria	1,588	1,086	Hemphill	489	317	Real	479	98
Brazos	738	1,480	Henderson	1,128	1,726	Reagan	386	229
Brewster	406	273	Hidalgo	4,285	4,043	Red River	1,172	1,666
Briscoe	301	336	Hill	2,446	2,416	Reeves	350	404
Brooks	160	332	Hockley	766	235	Refugio	383	666
Brown	2,033	1,992	Hood	640	479	Roberts	243	104
Burleson	339	1,560	Hopkins	1,767	1,845	Robertson	751	1,487
Burnet	936	467	Houston	772	1,527	Rockwall	289	850
Caldwell	1,289	1,211	Howard	812	665	Runnells	1,645	1,494
Calhoun	333	375	Hudspeth	123	117	Rusk	1,033	1,732
Callahan	979	940	Hunt	3,009	3,510	Sabine	419	807
Cameron	3,548	3,204	Hutchinson	1,115	730	San Augustine	467	821
Camp	494	640	Irion	119	259	San Jacinto	296	503
Carson	891	592	Jack	1,074	451	San Patricio	1,388	580
Cass	1,323	1,698	Jackson	572	473	San Saba	682	752
Castro	319	384	Jasper	611	898	Schleicher	227	137
Chambers	256	242	Jeff Davis	161	108	Scurry	1,597	462
Cherokee	1,938	1,939	Jefferson	9,216	7,006	Shackelford	557	533
Childress	1,438	726	Jim Hogg	109	263	Shelby	676	1,961
Clay	1,327	1,160	Jim Wells	423	748	Sherman	248	137
Cochran	197	109	Johnson	3,181	1,978	Smith	3,493	2,344
Coke	538	242	Jones	1,995	1,563	Somervell	241	136
Coleman	1,645	1,459	Karnes	855	1,052	Starr	78	736
Collin	3,476	3,372	Kaufman	1,718	2,658	Stephens	1,790	1,157
Collingsworth	1,179	608	Kendall	665	378	Stonewall	442	500
Colorado	892	1,787	Kenedy	3	127	Sterling	122	167
Comal	508	1,893	Kent	363	163	Sutton	290	92
Comanche	1,483	1,311	Kerr	1,579	573	Swisher	888	375
Concho	446	426	Kimble	662	157	Tarrant	20,487	9,198
Cooke	2,262	1,924	King	85	45	Taylor	4,062	1,891
Coryell	1,123	1,306	Kinney	184	201	Terrell	366	85
Cottle	473	451	Kleberg	751	695	Terry	622	407
Crane	127	159	Knox	992	788	Throckmorton	701	304
Crockett	289	54	Lamar	2,887	2,163	Titus	502	1,149
Crosby	1,004	728	Lamb	1,266	443	Tom Green	2,618	1,528
Culberson	70	85	Lamapsas	899	568	Travis	4,873	4,488
Dallam	618	539	La Salle	327	479	Trinity	502	736
Dallas	27,279	17,439	Lavaca	913	2,848	Tyler	298	666
Dawson	1,448	427	Lee	451	1,168	Upshur	649	1,553
Deaf Smith	570	411	Leon	543	888	Upton	270	189
Delta	752	958	Liberty	1,070	918	Uvalde	1,224	747
Denton	2,587	2,384	Limestone	1,655	2,608	Val Verde	857	620
DeWitt	1,142	1,598	Lipscomb	776	331	Van Zandt	1,502	1,780
Dickens	741	415	Live Oak	485	383	Victoria	663	1,710
Dimmitt	626	258	Llano	439	514	Walker	488	747
Donley	1,090	486	Loving	6	10	Waller	365	494
Duval	447	1,245	Lubbock	3,079	1,979	Ward	216	265
Eastland	3,233	2,488	Lynn	1,268	754	Washington	275	2,491
Ector	168	152	Madison	398	452	Webb	767	1,615
Edwards	547	59	Marion	443	640	Wharton	1,151	1,545
Ellis	3,569	4,399	Martin	330	213	Wheeler	1,038	750
El Paso	6,050	6,114	Mason	808	244	Wichita	7,226	4,854
Erath	1,923	1,400	Matagorda	1,194	829	Wilbarger	1,594	1,447
Falls	877	2,484	Maverick	311	180	Willacy	387	395
Fannin	2,122	2,525	McCulloch	1,294	741	Williamson	1,837	3,689
Fayette	690	3,649	McLennan	5,746	5,332	Wilson	622	1,499
Fisher	1,259	837	McMullen	106	93	Winkler	162	311
Floyd	1,176	666	Medina	1,243	1,400	Wise	2,141	1,093
Foard	430	466	Menard	592	234	Wood	1,161	1,645
Fort Bend	631	1,752	Midland	347	350	Yoakum	258	198
Franklin	386	713	Milam	1,275	2,844	Young	1,826	1,275
Freestone	1,178	1,318	Mills	773	441	Zapata	19	296
Frio	672	257	Mitchell	1,099	746	Zavalla	571	229
Gaines	312	140	Montague	1,519	1,452			
Galveston	4,401	5,950	Montgomery	613	905	Total	373,822	355,795
Garza	794	285	Moore	87	124			
Gillespie	1,447	1,174	Morris	287	780			

The figures of the Secretary of State of Texas are—Hoover, 367,036; Smith, 341,032.

President (1928)—Communist, 209; Soc.,722.

United States Senator (1928), Connally, Dem., 566,139; Kennerly, Rep., 129,910.

Governor (1926), Moody, Dem., 233,068; Haines, Rep., 31,531.

Governor (1924) (two counties missin), gMrs. M. A. Ferguson, Dem., 422,059; Butte, Rep., 298,046.

United States Senator (1924), Sheppard, Dem., 591,913; Kennerly, Rep., 101,218.

Governor (1922) Neff, Dem., 334,199; Atwell, Rep., 73,329.

United States Senator (1922), Mayfield, Dem., 264-260; Peddy, Rep. and Ind. Dem., 130,744.

President (1920), Black and Tan, Rep.; 27,247; American Party, 47,968; Socialist, 8,121.

Governor (1920), Neff, Dem., 289,188; Culbertson, Rep., 90,217; Capers, Black and Tan, 26,091; McGregg, Amer., 69,380; Rhodes, Soc., 6,796.

PAST VOTE OF TEXAS.

1872 (Pres.), Greeley, Dem. and Lib., 66,500; Grant, Rep., 47,406.
1876 (Pres.), Tilden, Dem., 104,755; Hayes, Rep., 44,800.
1880 (Pres.), Hancock, Dem., 156,428; Garfield, Rep., 57,893; Weaver, Greenback, 27,405.
1884 (Pres.), Cleveland, Dem., 225,309; Blaine, Rep., 93,141; St. John, Proh., 3,534.
1888 (Pres.), Cleveland, Dem., 234,883; Harrison, Rep., 88,280; Streeter, U. Lab., 29,459.
1892 (Pres.), Cleveland, Dem., 136,594; Harrison, Rep., 99,851; Weaver, People's, 23,730.
1896 (Pres.), Bryan, Dem. and People's (Populist), 361,224; Palmer, Nat'l (Gold) Dem., 4,853.
McKinley, Rep., 158,894; Levering, Proh., 1,722;
1900 (Pres.), Bryan, Dem., 267,432; McKinley, Rep., 130,641; Woolley, Proh., 2,644.
1904 (Pres.), Parker, Dem., 167,200; Roosevelt, Rep., 51,242; Debs, Soc., 2,791.
1908 (Pres.), Bryan, Dem., 217,302; Taft, Rep., 65,666; Chafin, Proh., 1,634; Debs, Soc., 7,870.
1912 (Pres.), Wilson, Dem., 219,489; Taft, Rep., 26,745; Roosevelt, Prog., 28,530; Debs, Soc., 24,896.
1916 (Pres.), Wilson, Dem., 286,514; Hughes, Rep., 64,919; Hanly, Proh., 1,985; Benson, Soc., 18,963.
1920 (Pres.), Cox, Dem., 288,767; Harding, Rep., 114,269; Debs, Soc., 8,121.

UTAH.

(Presidential vote, 1928, 1924.)

Counties.	1928.		1924.			Counties.	1928.		1924.		
	Hoover Rep.	Smith Dem.	Coolidge, Rep.	Davis, Dem.	La Fol'te, Prog.		Hoover Rep.	Smith, Dem.	Coolidge, Rep.	Davis, Dem.	La Fol'te, Prog.
Beaver	1,149	936	989	578	287	Rich	470	224	403	211	31
Box Elder	3,317	2,488	3,086	1,841	566	San Juan	449	231	27,215	14,853	16,534
Cache	5,297	4,748	4,973	3,915	674	Salt Lake	34,393	34,127	380	232	56
Carbon	2,184	2,954	1,878	1,528	1,590	Sanpete	3,694	2,482	3,374	3,228	381
Daggett	107	31	97	26	8	Sevier	2,424	1,399	2,111	1,201	428
Davis	2,508	2,296	2,265	1,507	308	Summit	1,748	1,260	1,597	825	372
Duchesne	1,585	899	1,277	731	209	Tooele	1,707	1,421	1,295	674	499
Emery	1,317	965	979	916	383	Uintah	1,589	880	1,296	716	116
Garfield	1,024	325	823	308	52	Utah	8,771	7,955	6,946	5,226	2,338
Grand	347	310	278	243	59	Wasatch	1,340	973	1,105	727	277
Iron	1,823	682	1,429	485	236	Washington	1,686	857	1,181	868	100
Juab	1,557	1,714	1,325	1,241	475	Wayne	422	195	331	241	6
Kane	566	141	515	117	10	Weber	9,934	8,361	7,382	3,970	5,579
Millard	2,263	1,440	1,917	1,015	497						
Morgan	513	454	482	360	49	Total	94,618	80,985	77,327	47,001	33,662
Piute	434	237	398	208	42						

President (1928)—Thomas, Soc., 954; Foster, Workers, 47.
U. S. Senator (1928)—King, Dem., 97,436; Bamberger, Rep., 77,073; Stoney, Soc., 998.
Governor (1928)—Dern, Dem., 102,953; Wattis, Rep., 72,306; Dora, Soc., 740.
U. S. Senator (1926)—Snow, Dem., 53,809; Smoot, Rep., 88,101; Stoney, Soc., 1.310.
Governor (1924)—Mabey, Rep., 72,127; Dern, Dem., 81,308.

PAST VOTE OF UTAH.

1896 (Pres.), Bryan, Dem. and People's 64,607; Palmer, Dem., 21; McKinley, Rep., 13,491.
1900 (Pres.), Bryan, Dem., 45,006; McKinley, Rep., 47,089; Woolley, Proh., 209; Debs, Soc., 720.
1904 (Pres.), Parker, Dem., 33,413; Roosevelt, Rep., 62,446; Debs, Soc., 5,767.
1904 (Gov.), Dem., 38,047; Rep., 50,837.
1908 (Pres.), Bryan, Dem., 42,601; Taft, Rep., 61,028; Debs, Soc., 4,895.
1912 (Pres.), Wilson, Dem., 36,579; Taft, Rep., 42,100; Roosevelt, Prog., 28,174; Soc., 9,023.
1914 (U. S. Sen.), Fusion, 53,128; Rep., 56,281; Soc., 5,257.
1916 (Pres.), Wilson, Dem., 84,025; Hughes, Rep., 54,137; Hanly, Proh., 149; Benson, Soc., 4,460.
1916 (U. S. Sen.), Dem., 80,895; Rep., 56,862; Soc., 4,497; Prog., 162.
1920 (Pres.), Cox, Dem., 56,639; Harding, Rep., 81,555; Debs, Soc., 3,159; F.-Lab., 4,475.
1920 (U. S. Sen.), Dem., 56,280; Rep., 82,566; Soc., 3,995; F.-Lab., 3,017.

VERMONT.

(Presidential vote, 1928, 1924.)

Counties.	1928.		1924.			Counties.	1928.		1924.		
	Hoover, Rep.	Smith Dem.	Coolidge, Rep.	Davis, Dem.	La Fol'te, Prog.		Hoover, Rep.	Smith, Dem.	Coolidge, Rep.	Davis, Dem.	La Fol'te Prog.
Addison	5,247	2,003	4,927	557	106	Orange	5,223	914	4,657	724	230
Bennington	6,114	3,498	5,341	1,466	495	Orleans	5,561	1,320	5,006	519	217
Caledonia	6,616	1,832	6,205	929	268	Rutland	12,621	8,609	10,642	2,477	1,143
Chittenden	8,156	9,052	8,008	2,658	580	Washingt'n	9,891	4,408	8,525	1,715	1,195
Essex	1,703	805	1,391	576	212	Windham	8,410	2,398	7,638	1,091	441
Franklin	6,031	5,477	4,594	1,649	580	Windsor	10,739	2,747	10,223	1,015	297
Grand Isle	830	801	861	343	106						
Lamoille	3,262	576	2,480	305	73	Total	90,404	44,440	80,498	16,124	5,964

President (1928)—Varney, Prohibition, received 338 votes.
President (1924)—Faris, Proh., 326.
Governor (1926)—Comings, Dem.-Proh., 28,649; Weeks, Rep., 44,564.
U. S. Senator (1926)—Kennedy, Dem.-Rep., 18,890; Dale, Rep.-Proh., 52,286.
Governor (1924)—Billings, Rep., 75,510; Martin, Dem., 18,263; Woods, Proh., 1,496.
U. S. Senator (1923)—Pollard, Dem., 15,621; Dale, Rep., 30,582.
U. S. Senator (1922)—Mayo, Dem., 21,375; Greene, Rep.-Proh., 47,669.

PAST VOTE OF VERMONT.

1872 (Pres.), Greeley, Dem. and Lib., 10,927; Grant, Rep., 41,481; O'Connor, Lab. Ref., 593,
1876 (Pres.), Tilden, Dem., 20,350; Hayes, Rep., 44,428.
1880 (Pres.), Hancock, Dem., 19,316; Garfield, Rep., 45,567; Weaver, Greenback, 1,215.
1884 (Pres.), Cleveland, Dem., 17,331; Blaine, Rep., 39,514; St. John, Proh., 1,752.
1888 (Pres.), Cleveland, Dem., 16,785; Harrison, Rep., 45,192; Fisk, Proh., 1,460.
1892 (Pres.), Cleveland, Dem., 16,325; Harrison, Rep., 37,992; Weaver, People's, 44.
1896 (Pres.), Bryan, Dem., 10,607; Palmer, Dem., 1,329, McKinley, Rep., 50,991.
1900 (Pres.), Bryan, Dem., 12,849; McKinley, Rep., 42,569; Woolley, Proh., 388.
1904 (Pres.), Parker, Dem., 9,777; Roosevelt, Rep., 40,459; Swallow, Proh., 792; Debs, Soc., 859.
1908 (Pres.), Bryan, Dem., 11,496; Taft, Rep., 39,552; Chafin, Proh., 802.
1912 (Pres.), Wilson, Dem., 15,354; Taft, Rep., 23,332; Roosevelt, Prog., 22,132; Debs, Soc., 928.
1914 (U. S. Sen.), Dem.-Prog.-Proh., 26,776; Rep., 35,137; Soc., 702.
1916 (Pres.), Wilson, Dem., 22,739; Hughes, Rep., 40,295; Hanly, Proh., 715; Debs, Soc., 801.
1916 (U. S. Sen.), Dem., 14,956; Rep., 47,362.
1920 (Pres.), Cox, Dem., 20,919; Harding, Rep., 68,212; Watkins, Proh., 774.
1920 (U. S. Sen.), Dem., 19,580; Rep., 69,650.

VIRGINIA.
(Presidential vote, 1928, 1924.)

Counties.	1928.		1924.		
	Smith, Dem.	Hoover, Rep.	Davis, Dem.	Coolidge, Rep.	La Fol'te, Prog.
Accomac	1,826	1,367	2,087	307	32
Albemarle	1,571	846	1,383	366	52
Alleghany	622	1,642	589	856	183
Amelia	498	277	372	153	15
Amherst	1,442	447	1,092	129	105
App'matt'x	885	446	952	101	18
Arlington	1,444	4,274	1,209	1,307	405
Augusta	1,507	2,679	1,920	1,265	78
Bath	409	731	404	407	24
Bedford	1,436	1,118	1,811	432	31
Bland	575	826	604	609	4
Botetourt	1,200	1,575	1,427	1,264	61
Brunswick	922	245	887	65	30
Buchanan	1,365	1,333	870	1,080	14
Bucki'g'm	599	579	623	213	15
Campbell	967	801	1,468	372	142
Caroline	639	638	840	223	20
Carroll	1,117	2,459	1,257	1,743	14
Charles C'y	105	207	141	82	8
Charlotte	1,112	403	1,006	154	84
Chesterf'ld	1,082	1,325	967	282	75
Clarke	740	248	687	76	15
Craig	489	451	512	300	19
Culpeper	836	753	876	190	42
Cumberl'd	442	213	398	61	28
Dickenson	1,879	1,868	1,618	1,294	119
Dinwiddie	945	332	685	122	23
Eliz'th C'y	807	1,122	698	312	88
Essex	321	195	315	60	9
Fairfax	1,229	2,507	1,586	765	195
Fauquier	1,531	972	1,277	345	89
Floyd	433	1,481	515	984	13
Fluvanna	447	327	452	136	27
Franklin	1,861	1,529	1,902	1,077	13
Frederick	1,140	1,006	1,314	484	29
Giles	1,293	1,313	1,319	852	58
Gloucester	587	614	616	109	5
Goochland	431	318	394	164	40
Grayson	1,713	2,728	1,611	1,442	20
Greene	259	423	285	240	8
Green'sville	519	318	417	132	23
Halifax	2,742	1,091	2,245	374	45
Hanover	831	592	732	135	38
Henrico	1,349	1,887	1,052	416	132
Henry	1,267	1,139	1,097	565	35
Highland	371	623	508	454	10
Isle of W'ht	531	555	631	190	6
James City	201	204	173	54	13
K'g George	309	413	280	206	16
K'g and Q'n	280	319	314	134	4
K'g Wil'm	431	329	372	143	13
Lancaster	315	520	564	90	14
Lee	2,383	3,337	2,376	2,456	112
Loudoun	1,915	1,325	1,794	152	82
Louisa	734	772	707	282	57
Lunenburg	1,199	314	686	130	219
Madison	580	772	589	347	35
Mathews	431	855	678	195	10
Mecklenb'g	1,752	784	1,649	286	20
Middlesex	397	318	438	78	7
Montgomy	967	1,861	1,142	964	63
Nansem'nd	737	649	539	99	13
Nelson	1,216	618	1,042	350	36
New Kent	178	217	178	86	15
Norfolk	1,418	1,922	1,000	289	77
N'th'm'ton	935	688	941	180	38
No'th'berl'd	286	744	589	130	10
Nottoway	986	667	840	181	140
Orange	846	732	834	181	53
Page	1,025	1,580	1,015	885	155
Patrick	883	1,191	1,138	783	11
Pitts'lvania	1,688	2,598	2,563	880	113
Powhatan	287	189	247	110	11
Prince Ed	699	494	714	140	9
Prince Geo	428	235	279	90	12
Pr'ess Anne	841	1,040	690	137	31
Pr. Wil'm	826	817	847	269	52
Pulaski	1,821	1,998	1,767	1,422	90
Rapp'ha'ck	513	329	395	89	21
Richmond	292	467	340	125	6
Roanoke	1,284	2,675	1,078	695	115
Rockbridge	1,311	1,206	1,394	680	58
Rock'gham	1,402	3,822	2,040	1,982	100
Russell	2,511	2,006	2,554	1,848	73
Scott	2,355	2,916	2,177	2,666	67
Shenandoah	1,589	3,420	2,186	2,214	134
Smyth	1,937	2,751	1,907	2,232	31
So'th'mton	844	648	1,119	203	82
Spots'lv'nia	439	654	448	255	32
Stafford	441	797	450	433	43
Surry	541	157	388	72	42
Sussex	844	385	607	132	8
Tazewell	1,979	3,072	2,568	2,631	272
Warren	710	564	699	150	38
Warwick	298	465	248	58	16
Washingt'n	2,666	3,449	3,083	2,848	83
Westm'l'nd	393	554	484	157	14
Wise	4,559	4,504	4,157	3,322	736
Wythe	1,516	2,540	1,899	1,996	49
York	194	642	305	75	15
Total	101,631	115,348			
Cities.					
Alexandria	1,307	1,617	1,136	556	266
Bristol	922	630	1,036	440	29
Buena Vista	172	267	235	149	8
Ch'l'tt'sville	992	708	831	218	108
Clift'n F'rge	591	781	447	225	289
Danville	1,196	2,360	1,577	473	187
Fred'cks'b'g	594	697	558	223	27
Hampton	615	544	471	129	15
Harris'nb'g	616	1,037	624	631	15
Hopewell	492	505	277	206	8
Lynchburg	1,987	2,730	2,086	604	128
N'p'rt News	1,951	3,118	1,574	917	289
Norfolk	5,888	8,392	5,061	2,447	411
Petersburg	1,379	909	1,331	228	32
Portsmo'th	2,587	3,474	2,206	624	595
Radford	373	524	394	314	99
Richmond	10,213	10,767	9,904	2,600	907
Roanoke	4,018	6,471	3,930	1,747	755
So. Norfolk	158	865	281	134	24
Staunton	733	1,026	1,022	549	38
Suffolk	637	573	557	179	24
Wil'msburg	310	98	196	31	
Winchester	794	1,168	820	420	18
Total Cities	38,515	49,261	139,797	73,359	10,379
State & C't's	140,146	164,609			

President (1928) Foster, Worker, 173; Thomas, Soc., 250, Reynolds, Soc. Lab., 180.
U. S. Senator (1928) Swanson, Dem., 275,425; Scattering 436.
Governor (1925)—Harry F. Byrd of Winchester, Dem., won by over 60,000.
President (1924)—Johns, Soc., 191.
U. S. Senator (1924)—Glass, Dem.; 151,498; Doak, Rep., 50,092; Riker, Soc., 5,594.
U. S. Senator (1922)—Swanson, Dem., 116,393; McCavock, Rep., 42,903; Lewis, Ind., 2,627.
The voters (1923) defeated a proposal to issue $50,000,000 of bonds for completion of a State highway system.
Virginia voters (1922) defeated the proposal for a Constitutional convention.

PAST VOTE OF VIRGINIA.

1872 (Pres.), Greeley, Dem. and Lib., 91,654; Grant, Rep., 93,468; O'Conor, Lab. Ref., 42.
1876 (Pres.), Tilden, Dem., 139,670; Hayes, Rep., 95,558.
1880 (Pres.), Hancock, Dem., 128,586; Garfield, Rep., 84,020. Of the Hancock votes, 96,912 were cast by the Regulars, and 31,674 by the Readjusters.
1884 (Pres.), Cleveland, Dem., 145,497; Blaine, Rep., 139,356; St. John, Proh., 138.
1888 (Pres.), Cleveland, Dem., 151,979; Harrison, Rep., 150,449; Fisk, Proh., 1,682.
1892 (Pres.), Cleveland, Dem., 163,977; Harrison, Rep., 113,256; Weaver, People's, 12,275; Bidwell, Proh., 2,798.
1896 (Pres.), Bryan, Dem. and People's, (Populist), 154,985; Palmer, Nat'l (Gold) Dem., 2,127; McKinley, Rep., 135,388; Levering, Proh., 2,744.
1900 (Pres.), Bryan, Dem., 146,080; McKinley, Rep., 115,865; Woolley, Proh., 2,150; Debs, Soc., 145.
1904 (Pres.), Parker, Dem., 86,548; Roosevelt, Rep., 47,880; Swallow, Proh., 1,383; Debs, Soc., 56.
1908 (Pres.), Bryan, Dem., 82,946; Taft, Rep., 52,573; Chafin, Proh., 1,111; Debs, Soc., 255.
1912 (Pres.), Wilson, Dem., 90,332; Taft, Rep., 23,288; Roosevelt, Prog., 21,777; Debs, Soc., 820.
1916 (Pres.), Wilson, Dem., 102,824; Hughes, Rep., 49,356; Hanly, Proh., 783; Benson, Soc., 1,060.
1916 (U. S. Sen.), Dem., 133,056 (unopposed).
1918 (U. S. Sen.), Dem., 40,403 (unopposed).
1920 (Pres.), Cox, Dem., 141,670; Harding, Rep., 87,456; Watkins, Proh., 826; Debs, Soc., 807; Christensen, Farm.-Lab., 240.
1920 (U. S. Sen.), Dem., 184,646; Rep., 17,576.

WASHINGTON.

(Presidential Vote, 1928 and 1924.)

COUNTIES.	1928.		1924.			COUNTIES.	1928.		1924.		
	Hoover Rep.	Smith Dem.	Coolidge, Rep.	Davis, Dem.	La Fol'te, Prog.		Hoover. Rep.	Smith, Dem.	Coolidge, Rep.	Davis, Dem.	La Fol'te, Prog.
Adams	1,474	807	760	228	1,936	Lincoln	2,718	1,807	2,042	743	1,629
Asotin	1,812	777	1,094	508	728	Mason	1,749	995	902	179	741
Benton	2,650	1,081	1,812	437	1,711	Okanogan	3,267	1,722	2,531	721	1,735
Chelan	7,682	2,239	4,543	995	2,584	Pacific	3,254	1,524	2,672	501	930
Clallam	3,337	1,705	2,129	283	1,639	Pend Oreille	1,206	793	1,025	231	749
Clarke	7,799	4,467	5,215	2,004	3,573	Pierce	35,274	17,426	21,376	4,232	18,467
Columbia	1,328	689	1,122	522	492	San Juan	816	401	744	86	284
Cowlitz	5,886	2,581	3,274	927	1,609	Skagit	8,336	2,848	5,071	699	4,714
Douglas	1,761	863	1,070	398	1,053	Skamania	631	474	533	207	275
Ferry	640	734	507	349	605	Snohomish	16,516	7,419	10,484	1,548	8,929
Franklin	1,339	802	700	237	1,301	Spokane	35,858	18,527	23,403	6,036	17,824
Garfield	1,004	412	875	324	140	Stevens	3,813	2,147	2,909	685	2,273
Grant	1,407	643	813	332	823	Thurston	7,222	3,013	5,125	943	2,710
Grays H'bor	10,970	5,263	8,273	1,239	4,079	Wahkiakum	578	383	496	89	228
Island	1,518	556	832	114	830	Walla Walla	6,778	2,860	5,465	1,662	2,125
Jefferson	1,475	812	913	143	692	Whatcom	14,676	4,100	9,214	927	5,812
King	96,263	46,604	60,438	7,404	41,146	Whitman	7,065	2,969	4,960	1,745	2,787
Kitsap	3,207	3,668	3,954	490	4,215	Yakima	16,694	6,018	12,124	2,157	3,965
Kittitas	3,207	2,136	2,360	435	2,112						
Klickitat	1,944	975	1,482	518	790	Totals	335,844	156,772	220,224	42,842	150,727
Lewis	9,264	3,599	6,973	1,544	3,392						

President (1928)—Thomas, Soc., 2,615; Reynolds, Soc. Lab., 4,068; Foster, Workers, 1,541.

U. S. Senator (1928)—Dill, Dem., 261,524; MacKintosh, Rep., 227,415; Noral, Soc., 666.

Governor (1928)—Hartley, Rep., 281,991; Bullitt, Dem., 214,334; Stark, Soc. Lab., 3,343; Price, Soc., 1,262; Pysler, Workers, 698.

President (1924)—Foster, Workers' Party, 761; American 5,991; Soc. Lab., 1,004; Workers, 761.

U. S. Senator (1926)—Bullitt, Dem., 148,783; Jones, Rep., 164,130; Burgess, Soc.-Lab., 3,513; Freeman, Farm-Lab., 3,437.

Governor (1924)—Hartley, Rep., 220,162; Hill, Dem., 126,447; Oman, Farm.-Lab., 40,073; Burgess, Soc. Lab., 770; Herman, Soc., 898; Gilmore, State Party, 1,954.

U. S. Senator (1922)—Dill, Dem., 130,347; Poindexter, Rep., 126,410; Duncan, Farm.-Lab., 35,352; Bostrom, Workers' Party, 489; Burgess, Soc. Lab., 1,904.

PAST VOTE OF WASHINGTON.

1892 (Pres.), Cleveland, Dem., 29,844; Harrison; Rep., 36,460; Weaver, People's, 19,105; Bidwell, Proh., 2,553.

1896 (Pres.), Bryan, Dem; and People's, (Populist), 51,646; Palmer, Nat'l (Gold) Dem., 1,668; McKinley, Rep., 39,153; Levering, Proh., 1,116.

1900 (Pres.), Bryan, Dem., 44,833; McKinley, Rep., 57,456; Woolley, Proh., 2,363; Debs, Soc., 2,006.

1900 (Gov.), Dem., 51,944; Rep., 49,860; Proh., 2,103; Soc. Dem., 1,670; Soc. Lab., 843.

1904 (Pres.), Parker, Dem., 28,098; Roosevelt, Rep. 101,540; Swallow, Proh., 3,329; Debs, Soc., 10,023.

1908 (Pres.), Bryan, Dem., 58,691; Taft, Rep., 106,062; Chafin, Proh., 4,700; Debs, Soc., 14,177.

1912 (Pres.), Wilson, Dem., 86,840; Taft, Rep., 70,445; Roosevelt, Prog., 113,698; Debs, Soc., 40,134.

1914 (U. S. Sen.), Dem., 91,733; Rep., 130,479; Prog., 83,282; Soc., 30,234; Proh., 9,551.

1916 (Pres.), Wilson, Dem., 183,388; Hughes, Rep., 167,244; Hanly, Proh., 6,868; Benson, Soc., 22,800.

1916 (U. S. Sen.), Dem., 135,339; Rep., 202,287; Soc., 21,709; Prog., 1,441; Proh., 4,411.

1920 (Pres.), Cox, Dem., 84,298; Harding, Rep., 223,137; Watkins, Proh., 3,790; Debs, Soc., 8,913; Christensen, Farm-Lab., 77,246.

1920 (U. S. Sen.), Dem., 68,488; Rep., 217,069.

FEDERAL POWER COMMISSION.

(Headquarters, Interior Department Building, Washington, D. C.)

Commissioners—James W. Good, Secretary of War, chairman; Ray L. Wilbur, Secretary of the Interior; Arthur M. Hyde, Secretary of Agriculture. *Executive Secretary*—F. E. Bonner. *Chief Engineer*—Lieut. Col. Max C. Tyler, U. S. Army. *Chief Counsel*—Thad H. Brown. *Solicitor*—Chas. A. Russell. *Chief Accountant*—William V. King. *Chief Clerk*—F. W. Griffith.

MIXED CLAIMS COMMISSION.

United States and Germany—American Agency, 1511 K Street, Washington, D. C.

Edwin B. Parker, Umpire; Chandler P. Anderson, American Commissioner; Wilhelm Kiesselbach, German Commissioner; Robert E. Newby, Joint Secretary on behalf of the United States; Max Martin, Joint Secretary on behalf of Germany.

American Agency—Robert W. Bonynge, Agent; Harold H. Martin, Counsel and Assistant Agent; E. Russell Lutz, Attorney and Secretary.

German Agency—Karl von Lewinski, Agent; Wilhelm Tannenberg, Karl Storz, Friederich Roth, Counsel.

TRIPARTITE CLAIMS COMMISSION.

United States, Austria, and Hungary; U. S. Agency, 1511 K St., Washington.

Commissioner, Edwin B. Parker, 2001 24th Street, N. W.; Secretary, E. P. Bowyer;

American Agent, Robert W. Bonynge, 2400 16th Street, N. W.; Assistant American Agent, John J. Edwards, Argonne Apartments;

The work of the Tripartite Claims Commission, United States, Austria and Hungary, has been practically completed (Oct. 1, 1929) and the Austrian and Hungarian representatives have returned to their respective countries. Up to that date the Commission and the American Agency had not completed their reports concerning the work.

GENERAL CLAIMS COMMISSION, UNITED STATES AND MEXICO.

(Investment Building, 15th and K Sts., Washington, D. C.)

Presiding Commissioner—Commissioner appointed by the United States: Fred K. Nielsen, Nebraska; commissioner appointed by Mexico, G. Fernandez MacGregor, Mexico; secretary appointed by the United States, Benedict M. English, Nebraska; secretary appointed by Mexico, Dr. Jose Romero, Mexico; agent appointed by the United States, Clement L. Bouve, Maryland; agent appointed by Mexico, Dr. Bartolome Carbajal y Rosas, Mexico.

SPECIAL CLAIMS COMMISSION, UNITED STATES AND MEXICO.

Commissioner appointed by the United States, Ernest B. Perry, Nebraska; commissioner appointed by Mexico, F. Gonzalez Roa, Mexico; secretary appointed by the United States, Noble Warrum, Utah; secretary appointed by Mexico, J. Aspe Suinaga, Mexico; agent appointed by the United States, Clement L. Bouve, Maryland; agent appointed by Mexico, Sr. Lic. Don Aquiles Elorduy, Mexico.

WEST VIRGINIA.

(Presidential vote, 1928, 1924.)

COUNTIES.	1928.		1924.			COUNTIES.	1928.		1924.		
	Smith, Dem.	Hoover, Rep.	Davis, Dem.	La Fol'te, Prog.	Coolidge, Rep.		Smith, Dem.	Hoover, Rep.	Davis, Dem.	La Fol'te, Prog.	Coolidge, Rep.
Barbour	3,491	4,023	3,188	830	3,347	Monongalia	6,182	11,364	4,977	2,106	6,994
Berkeley	3,540	8,744	4,366	410	5,427	Monroe	2,346	3,025	2,686	31	2,713
Boone	4,805	4,000	3,326	939	3,010	Morgan	758	2,539	919	174	1,883
Braxton	4,582	4,028	5,168	117	4,192	McDowell	8,294	14,810	5,561	1,716	12,422
Brooke	2,419	5,277	2,037	558	3,858	Nicholas	3,495	3,917	3,956	122	3,347
Cabell	15,340	21,091	16,211	1,133	15,581	Ohio	13,132	20,064	8,753	3,416	14,402
Calhoun	2,179	1,745	2,231	2	1,399	Pendleton	1,921	1,710	2,037	9	1,462
Clay	1,929	2,551	2,037	40	1,843	Pleasants	1,210	1,821	1,675	26	1,619
Doddridge	1,202	2,919	1,594	57	2,777	Pocahontas	2,487	3,141	2,777	92	2,782
Fayette	12,351	12,961	9,563	2,411	10,555	Preston	2,355	7,783	2,445	502	6,396
Gilmer	2,313	1,705	2,750	28	1,570	Putnam	2,406	3,346	2,946	313	2,862
Grant	542	2,648	658	99	2,344	Raleigh	10,366	11,581	7,776	1,058	8,643
Greenbrier	6,141	6,423	6,048	415	4,768	Randolph	5,085	4,436	5,314	779	3,526
Hampshire	2,132	1,779	2,993	38	1,172	Ritchie	1,711	4,195	2,403	58	4,152
Hancock	1,884	5,461	1,187	320	3,775	Roane	3,007	4,472	3,504	.....	4,097
Hardy	1,965	1,611	2,442	33	1,272	Summers	3,752	4,063	3,998	393	3,124
Harrison	12,483	17,502	13,470	2,009	15,165	Taylor	2,548	5,101	2,499	686	3,683
Jackson	2,452	4,150	2,936	51	3,739	Tucker	2,263	2,525	2,127	560	2,277
Jefferson	3,312	3,850	4,368	191	1,870	Tyler	1,591	3,881	2,137	96	3,425
Kanawha	25,563	35,788	22,726	4,071	26,018	Upshur	1,683	5,277	1,952	133	4,930
Lewis	3,825	5,290	4,410	218	4,839	Wayne	5,177	5,630	5,870	357	3,999
Lincoln	3,416	3,823	3,355	173	3,164	Webster	2,306	1,936	2,523	36	1,617
Logan	9,944	11,404	7,377	569	7,062	Wetzel	4,052	4,428	4,998	240	3,458
Marion	10,133	16,088	9,386	2,482	12,167	Wirt	1,272	1,561	1,587	19	1,491
Marshall	4,785	9,204	4,710	1,194	7,413	Wood	6,412	15,184	9,378	539	10,086
Mason	2,814	5,125	3,308	547	4,225	Wyoming	3,647	3,987	2,358	393	3,327
Mercer	10,273	12,887	10,058	2,122	9,159						
Mineral	2,310	5,860	2,860	737	3,551	Total	263,784	375,551	257,232	36,723	288,635
Mingo	6,801	6,904	5,313	1,077	4,656						

President (1928)—Varney, Proh., 1,703; Thomas, Soc., 1,313; Foster, Workers, 401.
U. S. Senator (1928)—Hatfield, Rep., 327,266; Neely, Dem., 317,620; Holt, Soc., 919.
President (1924)—The American Party polled 1,072 votes.
Governor (1924)—Gore, Rep., 303,587; Fisher, Dem., 261,846; Bosworth, Soc., 7,218.
U. S. Senator (1924)—Goff, Rep., 290,004; Chilton, Dem., 271,809; Holt, Soc., 7,751.
U. S. Senator (1922)—Neely, Dem., 198,853; Sutherland, Rep., 185,046; Holt, Soc., 4,895.

PAST VOTE OF WEST VIRGINIA.

1872 (Pres.), Greeley, Dem. and Lib., 29,533; Grant, Rep., 32,323.
1876 (Pres.), Tilden, Dem., 55,584; Hayes, Rep., 41,392.
1880 (Pres.), Hancock, Dem., 57,391; Garfield, Rep., 46,243; Weaver, Greenback, 9,079.
1884 (Pres.), Cleveland, Dem., 67,331; Blaine, Rep., 63,913; St. John, Proh., 939; Butler, Greenback, 810.
1888 (Pres.), Cleveland, Dem., 78,677; Harrison, Rep., 78,171; Fisk, Proh., 1,085; Streeter, United Labor, 1,508.
1892 (Pres.), Cleveland, Dem., 84,467; Harrison Rep., 80,293; Weaver, People's, 4,166; Bidwell, Proh., 2,145.
1896 (Pres.), Bryan, Dem. and People's (Populist), 94,488; Palmer, Nat'l (Gold) Dem., 678; McKinley, Rep., 105,379; Levering, Proh., 1,223.
1900 (Pres.), Bryan, Dem., 98,807; McKinley, Rep., 119,829; Woolley, Proh., 1,692; Debs, Soc., 219.
1904 (Pres.), Parker, Dem., 100,881; Roosevelt, Rep., 132,628; Swallow, Proh., 4,604; Debs, Soc., 1,574.
1908 (Pres.), Bryan, Dem., 111,418; Taft, Rep., 137,869; Chafin, Proh., 5,139; Debs, Soc., 3,679.
1912 (Pres.), Wilson, Dem., 113,046; Taft, Rep., 56,667; Roosevelt, Prog., 78,977; Debs, Soc., 15,336.
1912 (Gov.), Dem., 119,173; Rep., 127,942; Soc. 14,900; Proh., 5,816.
1916 (Pres.), Wilson, Dem., 140,403; Hughes, Rep., 143,124; Hanly, Proh., 175; Benson, Soc., 6,150.
1916 (Gov.), Dem., 143,324; Rep., 140,569.
1916 (U. S. Sen.), Dem., 138,585; Rep., 144,243; Soc., 4,881.
1918 (U. S. Sen.), Dem., 97,715; Rep., 115,216; Soc., 2,238.
1920 (Pres.), Cox, Dem., 220,789; Harding, Rep., 282,007; Watkins, Proh., 1,528; Debs, Soc., 5,618.

GOVERNORS OF WEST VIRGINIA

Arthur I. Boreman, Rep., 1863-1869; Daniel D. T. Farnsworth, Rep., 1869; William E. Stevenson, Rep., 1869-1871; John J. Jacob, Dem., 1871-1877; Henry M. Mathews, Dem., 1877-1881; Jacob B. Jackson, Dem., 1881-1885; Emanuel W. Wilson, Dem., 1885-1890; Aretas B. Fleming, Dem., 1890-1893; William A. MacCorkle, Dem., 1893-1897; George W. Atkinson, Rep., 1897-1901; Albert B. White, Rep., 1901-1905; William M. O. Dawson, Rep., 1905-1909; William E. Glasscock, Rep., 1909-19.3; Henry D. Hatfield, Rep., 1913-1917; John J. Cornwell, Dem., 1917-1921; Ephraim F. Morgan, Rep., 1921-1925; Howard M. Gore, Rep., 1925-1929; William G. Conley, Rep., 1929-1933.

BELL TIME ON OLD-TIME SHIPS.

Time, A. M.	Time, A.M.	Time, A. M.	Time, A. M.	Time A. M.	Time, A. M.
1 Bell..... 12.30	5 Bells..... 2.30	1 Bell..... 4.30	5 Bells..... 6.30	1 Bell..... 8.30	5 Bells..... 10.30
2 Bells..... 1.00	6 " 3.00	2 Bells..... 5.00	6 " 7.00	2 Bells..... 9.00	6 " 11.00
3 " 1.30	7 " 3.30	3 " 5.30	7 " 7.30	3 " 9.30	7 " 11.30
4 " 2.00	8 " 4.00	4 " 6.00	8 " 8.00	4 " 10.00	8 " ..... Noon

The time, p. m., was the same as a. m.

On shipboard, for purpose of discipline and to divide the watch fairly, the crew was mustered in two divisions, the Starboard (right side, looking toward the head) and the Port (left).

The day commenced at noon, and was thus divided: Afternoon Watch, noon to 4 P.M.; First Dog Watch, 4 P.M. to 6 P.M.; Second Dog Watch, 6 P.M. to 8 P.M.; First Watch, 8 P.M. to Midnight; Middle Watch, 12 A.M. to 4 A.M.; Morning Watch, 4 A.M. to 8 A.M.; Forenoon Watch, 8 A.M. to noon.

This made seven Watches, which enabled the crew to keep them alternately, as the Watch which came on duty at noon one day had the afternoon next day, and the men who had only four hours' rest one night had eight hours the next.

This was the reason for having Dog Watches, which were made by dividing the hours between 4 P.M. and 8 P.M. into two Watches.

Time was kept by means of "Bells."

For the past several years practically all of the Maritime Nations have abandoned the use of the Sidereal Day in computing time for navigation purposes and are using the Civil Day instead.

The Civil Day commences at midnight and comprises the 24 hours until the following midnight.

In the American Nautical Almanac, beginning with the volume for 1925, the hours are counted in a continuous series from 0 to 24; but as ordinarily used in civil life, the hours are counted from 0 to 12 in two series, the first running from midnight to noon, and the second from noon to midnight, thus dividing the day into two periods of 12 hours each in which the hours are respectively marked A.M. (ante-meridian) and P.M. (post meridian).

WISCONSIN.

(Presidential vote, 1928, 1924.)

Counties.	1928.		1924.			Counties.	1928.		1924.		
	Smith Dem.	Hoover Rep.	Davis, Dem.	Coolidge, Rep.	La Fol'te, Prog.		Smith Dem.	Hoover Rep.	Davis, Dem.	Coolidge, Rep.	La Fol'te, Prog.
Adams	914	1,624	172	779	1,724	Marathon	10,675	10,127	1,117	5,577	12,193
Ashland	3,570	3,639	451	2,272	4,204	Marinette	4,781	6,516	583	4,911	3,411
Barron	3,185	8,455	384	2,703	6,010	Marquette	1,313	2,554	590	1,109	1,820
Bayfield	1,709	3,279	208	1,675	2,601	Milwaukee	110,668	82,025	14,264	50,730	81,697
Brown	16,465	9,371	2,328	7,611	10,024	Monroe	3,709	5,936	430	2,661	6,747
Buffalo	1,836	3,027	181	1,324	2,474	Oconto	4,253	4,661	605	2,562	4,506
Burnett	880	2,742	77	958	2,088	Oneida	2,504	3,100	328	1,769	3,196
Calumet	3,871	2,405	570	938	3,503	Outagamie	12,474	12,378	1,255	6,426	10,357
Chippewa	5,985	7,514	556	5,135	6,517	Ozaukee	3,864	2,338	596	1,015	3,264
Clark	3,938	6,948	545	3,130	6,208	Pepin	1,276	1,839	213	1,226	737
Columbia	4,819	7,615	913	4,724	5,968	Pierce	3,017	6,491	300	2,788	3,661
Crawford	3,238	3,452	939	1,687	2,977	Polk	2,177	6,905	316	2,793	4,251
Dane	19,126	23,680	2,091	12,280	24,595	Portage	6,764	5,161	2,007	2,854	5,347
Dodge	9,536	9,660	2,024	5,167	9,610	Price	2,223	3,210	324	1,754	3,151
Door	2,456	3,636	237	1,891	2,715	Racine	13,021	17,423	1,473	13,040	11,298
Douglas	6,762	11,280	642	5,887	8,255	Richland	2,262	5,685	900	2,669	2,660
Dunn	2,045	7,096	284	3,177	4,385	Rock	8,726	21,497	1,458	14,815	7,923
Eau Claire	4,385	10,079	636	5,149	5,222	Rusk	1,925	3,524	279	1,932	2,677
Florence	540	993	50	594	523	St. Croix	4,083	6,855	717	3,600	4,693
Fond du Lac	11,719	12,593	2,234	8,516	9,576	Sauk	5,151	7,496	554	3,935	6,400
Forest	1,677	1,918	305	1,104	1,259	Sawyer	1,129	1,882	135	990	1,487
Grant	6,630	10,052	1,525	5,714	6,825	Shawano	3,779	5,198	472	2,063	6,337
Green	2,812	5,152	430	2,922	4,885	Sheboygan	11,439	12,640	1,360	6,974	11,714
Green Lake	2,622	3,038	1,081	1,198	2,187	Taylor	2,095	2,648	183	1,389	3,079
Iowa	3,129	5,484	690	3,291	4,133	Trempl'au	2,963	5,596	378	2,083	4,148
Iron	1,724	1,274	87	1,058	1,400	Vernon	2,559	6,596	412	2,670	5,599
Jackson	1,364	4,353	257	1,662	3,167	Vilas	1,083	1,609	121	873	1,038
Jefferson	6,305	8,612	1,391	4,250	7,885	Walworth	4,253	9,846	1,173	7,484	4,335
Juneau	2,708	3,777	405	1,917	3,785	Washburn	1,192	2,898	160	1,422	2,043
Kenosha	10,638	11,330	1,500	10,341	6,695	Washingt'n	5,827	4,163	974	1,987	5,081
Kewaunee	3,988	1,556	392	1,018	2,804	Waukesha	7,846	12,218	1,975	7,026	6,348
La Crosse	8,877	11,321	1,260	5,733	10,543	Waupaca	3,307	8,928	678	3,654	6,395
Lafayette	3,585	5,134	1,263	2,671	3,681	Waushara	1,260	4,068	253	1,602	2,606
Langlade	4,078	3,715	935	2,572	3,578	Winnebago	9,995	16,191	1,811	11,239	9,891
Lincoln	3,091	4,025	505	1,857	4,465	Wood	6,167	6,655	557	3,469	7,303
Manitowoc	10,292	7,519	1,597	4,828	9,814						
						Totals	450,259	544,205	68,115	311,614	453,678

President (1928)—Thomas, Soc., 18,213; Foster, Workers, 1,528; Reynolds, Soc. Lab., 381; Varney, Proh., 2,245.

U. S. Senator (1928)—La Follette, Rep., 635,379; Markham, Ind. Rep., 81,302; Emerson, Proh., 21,359; Koeppel, Soc. Lab., 3,053; Kasun, Workers, 1,463.

Governor (1928)—Kohler, Rep., 547,738; Schmedeman, Dem., 394,368; Hauser, Soc., 36,924; Bucknam, Proh., 6,477; Ehrhardt, Soc. Lab., 1,938; Hayes, Workers, 1,420.

Wisconsin, in 1928, voted to ask the Legislature to repeal the State Prohibition Enforcement Act. This was done and Gov. Kohler signed the Repealer on May 29, 1929.

Governor (1926)—Cady, Dem., 72,627; Zimmerman, Rep., 350,927; Emerson, Proh., 7,333; Kent, Soc., 40,293; Perry, Ind., 76,507.

U. S. Senator (1926)—Kearney, Dem., 66,672; Blaine, Rep., 299,759; Rosa, Ind., 111,122; Krzycki, Soc., 31,317; Tittemore, Ind., 23,822; Sanford, Proh., 9,885.

In 1925 Milwaukee voters rejected the proposed service-at-cost contract whereby the city was to take over the traction lines.

President (1924)—Foster, Workers' Party, 3,773; Faris, Proh., 2,918; Johns, Soc. Lab., 411; Wallace, Commonwealth Land, 270.

Governor (1924)—Blaine, Rep., 412,255; Lueck, Dem., 317,550; Quick, Soc., 45,268; Bucknam, Proh., 11,516; Alanne, Workers' Party, 4,107; Shuttleworth, Ind., 4,089; Snover, Soc. Lab., 1,452.

Governor (1922)—Bentley, Ind. Dem., 51,061; John G. Blaine, Rep., 367,929; Arnold, Soc., 39,570; Welles, Proh., 21,438; Dietrick, Soc. Lab., 1,444.

U. S. Senator (1922)—Hooper, Ind. Dem., 78,029; La Follette, Rep., 379,494; Bucknam, Proh., 11,254; Koeppel, Soc. Lab., 1,656.

The election for U. S. Senator, held on Sept. 29, 1925, resulted as follows—R. M. La Follette jr., Rep., 237,719; Edward F. Dithmar, Ind. Rep. (Coolidge Conserv.), 91,318; J. M. Work, Soc., 11,130; W. G. Bruce, Dem., 10,743; George Bauman, Ind. Soc., 795; scattering, 430.

PAST VOTE OF WISCONSIN.

1872 (Pres.), Greeley, Dem. and Lib., 86,477; Grant, Rep., 104,992.

1876 (Pres.), Tilden, Dem., 123,927; Hayes, Rep., 130,058; Cooper, Greenback, 1,509; Smith, Proh. Ref., 153.

1880 (Pres.), Hancock, Dem., 114,634; Garfield, Rep., 144,897; Weaver, Greenback, 7,980; Dow, Proh., 69.

1884 (Pres.), Cleveland, Dem., 146,453; Blaine, Rep., 161,135; St. John, Proh., 7,649; Butler, Greenback, 4,598.

1888 (Pres.), Cleveland, Dem., 155,243; Harrison, Rep., 176,555; Fisk, Proh., 14,415; Streeter, U. Lab., 8,561.

1890 (Gov.), Dem., 160,388; Rep., 132,068; U. Lab., 5,447; Proh., 11,246.

1892 (Pres.), Cleveland, Dem., 177,335; Harrison, Rep., 170,846; Weaver, People's, 9,909; Bidwell, Proh., 13,132.

1894 (Gov.), Dem., 142,250; Rep., 196,150; Pop., 25,604; Proh., 11,240.

1896 (Pres.), Bryan, Dem. and People's (Populist), 165,349; Palmer, Nat'l (Gold) Dem., 4,553; McKinley, Rep., 268,051; Levering, Proh., 7,799.

1900 (Pres.), Bryan, Dem.; 159,279; McKinley, Rep., 265,756; Woolley, Proh., 10,022; Debs, Soc., 7,051.

1904 (Pres.), Parker, Dem., 124,107; Roosevelt, Rep., 280,164; Swallow, Proh., 9,770; Debs, Soc., 28,220.

1908 (Pres.), Bryan, Dem., 166,632; Taft, Rep., 247,747; Chafin, Proh., 11,572; Debs, Soc., 28,170.

1912 (Pres.), Wilson, Dem., 164,228; Taft, Rep., 130,695; Roosevelt, Prog., 62,460; Debs, Soc., 33,481.

1912 (Gov.), Dem., 167,316; Rep., 179,360; Soc., 34,368; Proh., 2,757; Soc. Lab., 433.

1914 (U. S. Sen.), Dem., 134,925; Rep., 133,966; Prog., 9,276; Soc. Dem., 29,744.

1916 (Pres.), Wilson, Dem., 193,042; Hughes, Rep., 221,323; Hanly, Proh., 7,166; Benson, Soc., 27,846.

1916 (U. S. Sen.), Dem., 135,144; Rep., 251,303; Soc., 28,908; Proh., 8,528.

1920 (Pres.), Cox, Dem., 113,422; Harding, Rep., 498,576; Watkins, Proh., 8,647; Debs, Soc., 85,041.

1920 (U. S. Sen.), Dem. and Ind., 235,029; Rep., 281,576; Soc., 66,172; Proh., 5,107.

WYOMING.

(Presidential vote, 1928, 1924.)

COUNTIES.	1928.		1924.			COUNTIES.	1928.		1924.		
	Hoover, Rep.	Smith, Dem.	Coolidge, Rep.	Davis, Dem.	La Fol'te, Prog.		Hoover Rep.	Smith, Dem.	Coolidge, Rep.	Davis, Dem.	La Fol'te, Prog.
Albany	2,941	1,618	2,164	743	1,628	Niobrara	1,424	469	820	202	671
Big Horn	2,646	933	2,023	459	1,233	Park	2,175	1,062	1,607	530	760
Campbell	1,528	744	1,121	577	443	Platte	2,206	932	1,383	436	972
Carbon	3,019	1,609	2,398	733	1,264	Sheridan	3,616	2,563	2,530	1,115	2,272
Converse	2,040	845	1,758	524	725	Sweetwater	573	316	2,119	688	2,219
Crook	1,466	582	978	468	349	Subiette	2,528	2,974	570	183	93
Fremont	2,267	1,449	1,986	561	1,292	Teton	495	270	342	173	111
Goshen	2,483	777	1,603	464	788	Uinta	1,439	1,012	1,126	427	921
Hot Springs	1,220	940	1,011	231	969	Washakie	966	392	724	209	371
Johnson	1,369	590	1,097	501	293	Weston	1,127	688	794	317	640
Laramie	5,862	3,029	3,944	1,120	2,378						
Lincoln	2,217	1,687	1,493	576	1,025	Total	52,748	29,299	41,858	12,868	25,174
Natrona	7,141	3,828	8,267	1,631	3,857						

President (1928)—Thomas, Socialist, 788.
U. S. Senator (1928)—Kendrick, Dem., 43,032; Winter, Rep., 37,076; Wolfe, Soc., 333.
Governor (1926)—Mrs. N. T. Ross, Dem., 33,247; Emerson, Rep., 34,707.
Governor (1924)—Mrs. Ross, Dem., 43,323; Sullivan, Rep., 35,275.
U. S. Senator (1924)—Warren, Rep., 41,293; Rose, Dem., 33,536; Kindler, Prog., 2,224.

PAST VOTE OF WYOMING.

1892 (Pres.), Harrison, Rep., 8,454; Weaver, People's, 7,722; Bidwell, Proh., 530.
1896 (Pres.), Bryan, Dem. and People's (Populist), 10,375; McKinley, Rep., 10,072; Proh., 159.
1900 (Pres.), Bryan, Dem., 10,164; McKinley, Rep., 14,482.
1904 (Pres.), Parker, Dem., 8,930; Roosevelt, Rep., 20,489; Swallow, Proh., 217; Debs, Soc., 1,077.
1908 (Pres.), Bryan, Dem., 14,918; Taft, Rep., 20,846; Chafin, Proh., 66; Debs, Soc., 1,715.
1912 (Pres.), Wilson, Dem., 15,310; Taft, Rep., 14,560; Roosevelt, Prog., 9,232; Debs, Soc., 2,760.
1916 (Pres.), Wilson, Dem., 28,316; Hughes, Rep., 21,698; Hanly, Proh., 373; Benson, Soc., 1,453.
1918 (Gov.), Dem., 18,640; Rep., 23,723.
1918 (U. S. Sen.), Dem., 17,528; Rep., 23,975.
1920 (Pres.), Cox, Dem., 17,429; Harding, Rep., 35,091; Watkins, Proh., 265; Debs, Soc., 1,288; Christensen, F.-Lab., 2,180.

ELECTORAL VOTES FOR PRESIDENT 1896-1928, BY PARTIES AND STATES.

Electoral colleges meet at the capitals of the several States on the first Wednesday in January.
Congress meets in joint session to canvass the electoral vote on the second Wednesday in February

State.	1896.		1900.		1904.		1908.		1912.			1916.		1920.		1924.			1928.	
	R.	D.P	R.	D.	R.	D.	R.	D.	R.	D.	P.	R.	D.	R.	D.	R.	D.	LaF	R.	D.
Ala.	....	11	....	11	....	11	....	11	....	12	....	....	12	....	12	....	12	....	....	12
Ariz.	....	....	....	....	....	....	....	....	....	3	....	....	3	....	3	....	3	....	3	....
Ark.	....	8	....	8	....	9	....	9	....	9	....	....	9	....	9	....	9	....	....	9
Calif.	8	1	9	....	10	....	10	....	....	2	11	....	13	13	....	13	....	....	13	....
Colo.	....	4	....	4	5	....	....	5	....	6	....	....	6	....	....	6	....	....	6	....
Conn.	6	....	6	....	7	....	7	....	....	7	....	7	....	7	....	7	....	....	7	....
Del.	3	....	3	....	3	....	3	....	....	3	....	3	....	3	....	3	....	....	3	....
Fla.	....	4	....	4	....	5	....	5	....	6	....	....	6	....	6	....	6	....	6	....
Ga.	....	13	....	13	....	13	....	13	....	14	....	....	14	....	14	....	14	....	....	14
Id.	....	3	....	3	3	....	3	....	....	4	....	....	4	4	....	4	....	....	4	....
Ill.	24	....	24	....	27	....	27	....	....	29	....	29	....	29	....	29	....	....	29	....
Ind.	15	....	15	....	15	....	15	....	....	15	....	15	....	15	....	15	....	....	15	....
Ia.	13	....	13	....	13	....	13	....	....	13	....	13	....	13	....	13	....	....	13	....
Kan.	....	10	10	....	10	....	10	....	....	10	....	....	10	10	....	10	....	....	10	....
Ky.	12	1	....	13	....	13	....	13	....	13	....	....	13	....	13	13	....	....	13	....
La.	....	8	....	8	....	9	....	9	....	10	....	....	10	....	10	....	10	....	....	10
Me.	6	....	6	....	6	....	6	....	....	6	....	6	....	6	....	6	....	....	6	....
Md.	8	....	8	....	1	7	2	6	....	8	....	....	8	8	....	8	....	....	8	....
Mass.	15	....	15	....	16	....	16	....	....	18	....	18	....	18	....	18	....	....	....	18
Mich.	14	....	14	....	14	....	14	....	....	....	15	15	....	15	....	15	....	....	15	....
Minn.	9	....	9	....	11	....	11	....	....	....	12	12	....	12	....	12	....	....	12	....
Miss.	....	9	....	9	....	10	....	10	....	10	....	....	10	....	10	....	10	....	....	10
Mo.	....	17	....	17	18	....	18	....	....	18	....	....	18	18	....	18	....	....	18	....
Mont.	....	3	....	3	3	....	3	....	....	4	....	....	4	4	....	4	....	....	4	....
Nebr.	....	8	8	....	8	....	....	8	....	8	....	....	8	8	....	8	....	....	8	....
Nev.	....	3	....	3	3	....	....	3	....	3	....	....	3	3	....	3	....	....	3	....
N. H.	4	....	4	....	4	....	4	....	....	4	....	....	4	4	....	4	....	....	4	....
N. J.	10	....	10	....	12	....	12	....	....	14	....	14	....	14	....	14	....	....	14	....
N. M.	....	....	....	....	....	....	....	....	....	3	....	....	3	3	....	3	....	....	3	....
N. Y.	36	....	36	....	39	....	39	....	....	45	....	45	....	45	....	45	....	....	45	....
N. C.	....	11	....	11	....	12	....	12	....	12	....	....	12	....	12	....	12	....	12	....
N. D.	3	....	3	....	4	....	4	....	....	5	....	5	....	5	....	5	....	....	5	....
Ohio	23	....	23	....	23	....	23	....	....	24	....	24	....	24	....	24	....	....	24	....
Okla.	....	....	....	....	....	....	....	7	....	10	....	....	10	10	....	....	10	....	10	....
Oreg.	4	....	4	....	4	....	4	....	....	5	....	5	....	5	....	5	....	....	5	....
Penn.	32	....	32	....	34	....	34	....	....	....	38	38	....	38	....	38	....	....	38	....
R. I.	4	....	4	....	4	....	4	....	....	5	....	5	....	5	....	5	....	....	....	5
S. C.	....	9	....	9	....	9	....	9	....	9	....	....	9	....	9	....	9	....	....	9
S. D.	....	4	4	....	4	....	4	....	....	....	5	5	....	5	....	5	....	....	5	....
Tenn.	....	12	....	12	....	12	....	12	....	12	....	....	12	12	....	....	12	....	12	....
Tex.	....	15	....	15	....	18	....	18	....	20	....	....	20	....	20	....	20	....	20	....
Utah	....	3	3	....	3	....	3	....	4	....	....	....	4	4	....	4	....	....	4	....
Vt.	4	....	4	....	4	....	4	....	4	....	....	4	....	4	....	4	....	....	4	....
Va.	....	12	....	12	....	12	....	12	....	12	....	....	12	....	12	....	12	....	12	....
Wash.	....	4	4	....	5	....	5	....	....	....	7	....	7	7	....	7	....	....	7	....
W. Va.	6	....	6	....	7	....	7	....	....	8	....	7	1	8	....	8	....	....	8	....
Wis.	12	....	12	....	13	....	13	....	....	13	....	13	....	13	....	....	....	13	13	....
Wyo.	....	3	3	....	3	....	3	....	....	3	....	....	3	3	....	3	....	....	3	....
Total.	271	176	292	155	336	140	321	162	8	435	88	254	277	404	127	382	136	13	444	87
Plu.	95	....	137	....	196	....	159	....	....	347	....	....	23	277	....	246	....	....	357	....

The electoral vote for Vice-President in 1896 was: Republican, 271; Democratic, 149; Populist, 27.

POPULAR VOTE FOR PRESIDENT IN 1928 BY STATES.

(Figures compiled from Official Sources by William Tyler Page, Clerk of the House of Representatives.)

States.	Hoover, Rep.	Smith, Dem.	Thom's Soc.	Foster W'k'rs
Alabama	120,725	127,797	460	.....
Arizona	52,533	38,537	.....	184
Arkansas	77,751	119,196	429	317
California	1,162,323	614,365	19,595	216
Colorado	253,872	133,131	3,472	675
Connecticut	296,614	252,040	3,014	730
Delaware	68,860	36,643	329	59
Florida	144,168	101,764	4,036	3,704
Georgia	63,498	129,602	124	64
Idaho	99,848	53,074	1,308	.....
Illinois	1,769,141	1,313,817	19,138	3,581
Indiana	848,290	562,691	3,871	321
Iowa	623,818	378,936	2,960	328
Kansas	513,672	193,003	6,205	320
Kentucky	558,064	381,070	837	293
Louisiana	51,160	164,655	.....	.....
Maine	179,923	81,179	1,068	.....
Maryland	301,479	223,626	1,701	636
Massachusetts	775,566	792,758	6,262	2,464
Michigan	965,396	396,762	3,516	2,881
Minnesota	560,977	396,451	6,774	4,853
Mississippi	27,153	124,539	.....	.....
Missouri	834,080	662,562	3,739	.....
Montana	113,300	78,578	1,667	563
Nebraska	345,745	197,959	3,434	.....
Nevada	18,327	14,090	.....	.....
New Hamp.	115,404	80,715	455	173
New Jersey	926,050	616,517	4,897	1,257
New Mexico	69,645	48,211	.....	158
New York	2,193,344	2,089,863	107,332	10,876
No. Carolina	348,992	287,078	.....	.....
No. Dakota	131,441	106,648	842	936
Ohio	1,627,546	864,210	8,683	2,836
Oklahoma	394,046	219,174	3,924	.....
Oregon	205,341	109,223	2,720	1,094
Pennsylvania	2,055,382	1,067,586	18,647	4,720
Rhode Island	117,522	118,973	.....	283
So. Carolina	3,188	62,700	47	.....
So. Dakota	157,603	102,660	443	232
Tennessee	195,388	167,343	631	111
Texas	367,036	341,032	722	209
Utah	94,618	80,985	954	47
Vermont	90,404	44,440	.....	.....
Virginia	164,609	140,146	250	173
Washington	335,844	156,772	2,615	1,541
West Virginia	375,551	263,784	1,313	401
Wisconsin	544,205	450,259	18,213	1,528
Wyoming	52,748	29,299	788	.....
United States	21,392,190	15,016,443	267,420	48,770

Foster's vote includes 104 for Gitlow in California.

Reynolds, Soc. Labor, received 622 in Connecticut, 1,812 in Illinois, 645 in Indiana, 230 in Iowa, 340 in Kentucky, 906 in Maryland as the Labor Candidate, 773 in Massachusetts, 799 in Michigan, 1921 in Minnesota as the Industrial Candidate, 340 in Missouri, 500 in New Jersey, 4,211 in New York, 1,515 in Ohio, 1,564 in Oregon, 380 in Pennsylvania as the Industrialist Candidate, 416 in Rhode Island, 180 in Virginia, 4,068 in Washington, and 381 in Wisconsin; total—21,603.

Varney, Prohibitionist, got 5,496 in Indiana, 2,728 in Michigan, 160 in New Jersey, 3,556 in Ohio, 3,880 in Pennsylvania, 338 in Vermont, 1,703 in West Virginia and 2,245 in Wisconsin; total—20,106.

Webb, Farmer Labor, got 1,092 in Colorado, 3,088 in Iowa, 1,283 in Oklahoma, and 927 in South Dakota; total—6,390.

The total vote, all candidates, include blank, void, defective—36,879,414.

The figures for Texas in the table above are those supplied to the United States Department of State by the Secretary of State of Texas. According to a compilation of the Texas figures by counties, as reported by the county clerks, the totals for the State were: Hoover, 373,822; Smith, 355,795. These are the figures used, by counties, in the vote of Texas on page 906.

HOOVER-SMITH CAMPAIGN EXPENSES.

The following official committees statement of the Hoover-Smith campaign funds for the 1928 presidential campaign was made to the U. S. Senate in Feb., 1929.

COMPARISON OF RECEIPTS AND EXPENDITURES MADE IN BEHALF OF THE REPUBLICAN AND DEMOCRATIC PARTIES.

	Receipts.		Expenditures.	
	Repub.	Dem.	Repub.	Dem.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*
Nat'l Com.	5,715,691	5,178,494	4,064,517	3,157,453
Alabama	13,109	8,318	21,947	18,761
Arizona	25,390	7,690	50,559	7,769
Arkansas	23,305	45,565	22,023	41,196
California	330,314	26,189	195,642	64,693
Colorado	48,794	19,647	53,120	48,402
Connecticut	148,681	20,073	93,749	63,863
Delaware	45,837	5,022	53,330	4,692
Dist. of Col.	102,528	440,192	95,179	431,445
Florida	48,011	115	86,721	20,115
Georgia	7,000	11,682	17,000	11,568
Idaho	39,900	250	63,677	5,258
Illinois	220,509	257,789	552,194	474,342
Indiana	153,678	40,671	196,307	141,862
Iowa	39,547	6,036	35,712	41,753
Kansas	27,973	8,498	27,108	11,903
Kentucky	37,820	12,984	84,179	112,984
Louisiana	27,492	27,427	23,375	3,687
Maine	6,263	.....	3,544	.....
Maryland	81,102	127,625	138,482	173,380
Mass'setts	330,457	29,235	302,256	175,944
Michigan	25,919	42,499	66,336	70,131
Minnesota	10,050	933	39,696	66,555
Mississippi	1,452	.....	1,452	12,243
Missouri	48,905	13,521	165,638	83,815
Montana	17,456	60,644	52,246	86,191
Nebraska	35,845	7,398	73,436	89,094
Nevada	8,395	16,816	12,689	25,455
New Hamp.	26,142	1,161	25,329	25,002
New Jersey	471,537	27,736	449,311	55,015
New Mexico	25,866	14,173	42,339	31,083
New York	354,352	416,762	924,366	745,605
No. Car.	50,772	39,865	74,520	49,621
No. Dakota	1,091	504	51,505	13,115
Ohio	1,519	106,831	151,935	184,947
Oklahoma	106,504	2,181	105,508	88,520
Oregon	24,109	3,412	22,161	3,406
Penn'vania	1,003,007	29,363	282,814	53,829
Rhode Is.	42,714	.....	43,575	33,254
So. Carolina	4,800	500	1,800	2,750
So. Dakota	4,995	11,200	73,893	30,453
Tennessee	26,938	1,709	76,616	69,643
Texas	54,663	11,626	68,678	27,135
Utah	14,791	15,251	40,164	20,235
Vermont	221	4,173	10,046	.....
Virginia	80,534	73,592	88,474	109,592
Washington	20,348	3,327	36,329	3,004
W. Virginia	68,916	5,296	127,565	60,240
Wisconsin	40,152	22,397	118,063	77,149
Wyoming	16,694	10,025	26,472	24,304
Total	10,062,115	7,220,681	9,433,604	7,152,511

WOMEN IN STATE LEGISLATURES.

In 1929 the names of 145 women were carried on the rosters of 38 state legislatures. This was a gain of 19 over the record established in the legislatures of 1927 and 1928, when 126 women served.

The political representation of the 1929 women legislators was: Republicans, 100; Democrats, 38; no party designation, 5; Non-Partisan, 2.

Outstanding results of the 1928 November election in regard to women law-makers were:

1. First woman elected to the Iowa legislature.
2. Connecticut elected 20 women, as compared to 15 in 1928.
3. Fifteen women are serving as state senators.
4. Twelve women were reelected to their fourth term.
5. Gains were made in Connecticut, Illinois, Indiana, Iowa, Kansas, Massachusetts, Minnesota, Nevada, North Dakota, South Carolina, Texas, Utah, Vermont, West Virginia, and Washington.
6. Losses were sustained in California, New Hampshire, New Jersey, North Carolina, Ohio, Oklahoma, Pennsylvania, South Dakota, and Tennessee.
7. Sixty-eight women who sat in the last legislature were reelected.

There were no women serving in the 1929 legislatures of the following states: Alabama, Delaware, Idaho, Kentucky, Louisiana, Maryland, Michigan, North Carolina, South Dakota, and Tennessee.

The legislatures of five states—Alabama, Kentucky, Louisiana, Mississippi, and Virginia—were not in session in 1929.

PRESIDENTIAL VOTE, BY STATES, SINCE 1896.

1924.

STATE.	Electoral Vote.		POPULAR VOTE.								
	R.	D.	Coolidge Rep.	Davis, Dem.	La Foll'te, Ind. Prog. and Soc.	Faris, Proh.	Nations, Amer.	Wallace, Com. Land.	Johns, Soc. Lab.	Foster, Workers'.	Total.
Alabama	....	12	45,005	112,966	8,084	538	.....	.....	.....	.....	166,593
Arizona	3	....	30,516	26,235	17,210	.....	.....	.....	.....	.....	73,961
Arkansas	....	9	40,564	84,795	13,173	.....	.....	.....	.....	.....	138,532
California	13	....	733,250	105,514	424,649	18,365	.....	.....	.....	.....	1,281,778
Colorado	6	....	195,171	75,238	69,945	966	.....	.....	378	562	342,260
Connecticut	7	....	246,322	110,184	42,416	.....	.....	.....	1,373	.....	400,295
Delaware	3	....	52,441	33,445	4,979	.....	.....	.....	.....	.....	90,865
Florida	....	6	30,633	62,083	8,625	5,498	2,315	.....	.....	.....	109,154
Georgia	....	14	30,300	123,200	12,691	231	155	.....	.....	.....	166,577
Idaho	4	....	69,879	24,256	54,160	.....	.....	.....	.....	.....	148,295
Illinois	29	....	1,453,321	576,975	432,027	2,367	.....	421	2,334	2,622	2,470,067
Indiana	15	....	703,042	492,245	71,700	4,416	.....	.....	.....	987	1,272,390
Iowa	13	....	537,635	162,600	272,243	.....	.....	.....	.....	4,037	976,960
Kansas	10	....	407,671	156,319	98,461	.....	.....	.....	.....	.....	662,451
Kentucky	13	....	398,966	374,855	38,465	.....	1,299	248	1,499	.....	815,332
Louisiana	....	10	24,670	93,218	4,063	.....	.....	.....	.....	.....	121,951
Maine	6	....	138,440	41,964	11,382	.....	.....	.....	406	.....	192,192
Maryland	8	....	162,414	148,072	47,157	.....	.....	.....	987	.....	358,630
Massachusetts	18	....	703,489	280,831	141,284	.....	.....	.....	1,668	2,637	1,129,909
Michigan	15	....	874,631	152,238	122,014	6,085	.....	.....	5,330	.....	1,160,298
Minnesota	12	....	420,759	55,913	339,192	.....	.....	.....	1,855	4,427	822,146
Mississippi	....	10	8,546	100,475	3,494	.....	.....	.....	.....	.....	112,515
Missouri	18	....	648,486	572,753	84,160	1,418	.....	259	909	.....	1,307,985
Montana	4	....	74,138	33,805	65,876	.....	.....	.....	247	357	174,423
Nebraska	8	....	218,585	137,289	106,701	1,594	.....	.....	.....	.....	464,169
Nevada	3	....	11,243	5,909	9,769	.....	.....	.....	.....	.....	26,921
New Hampshire	4	....	98,575	57,201	8,993	.....	.....	.....	.....	.....	164,769
New Jersey	14	....	676,277	298,043	109,028	1,660	.....	.....	358	1,560	1,088,054
New Mexico	3	....	54,745	48,542	9,543	.....	.....	.....	.....	.....	112,830
New York	45	....	1,820,058	950,796	467,293	.....	.....	.....	9,928	8,244	3,256,319
North Carolina	....	12	191,753	284,270	6,651	13	.....	.....	.....	.....	482,687
North Dakota	5	....	94,931	13,858	89,922	.....	.....	.....	.....	370	199,081
Ohio	24	....	1,176,130	477,888	357,948	.....	.....	1,246	3,025	.....	2,016,237
Oklahoma	....	10	226,242	255,798	41,141	.....	.....	.....	5,234	.....	528,415
Oregon	5	....	142,579	67,589	68,408	.....	.....	.....	917	.....	279,488
Pennsylvania	38	....	1,401,481	409,192	307,567	9,779	13,035	296	636	2,735	2,144,852
Rhode Island	5	....	125,286	76,606	7,628	.....	.....	38	268	289	210,115
South Carolina	....	9	1,123	49,008	620	.....	.....	.....	.....	.....	50,751
South Dakota	5	....	101,299	27,214	75,355	.....	.....	.....	.....	.....	203,868
Tennessee	....	12	130,882	158,537	10,656	115	.....	.....	.....	.....	300,275
Texas	....	20	130,023	484,605	42,881	.....	.....	.....	.....	.....	657,509
Utah	4	....	77,327	47,001	32,662	.....	.....	.....	.....	.....	156,990
Vermont	4	....	80,498	16,124	5,964	326	.....	.....	.....	.....	102,912
Virginia	....	12	73,359	139,797	10,379	.....	.....	.....	191	.....	223,726
Washington	7	....	220,224	42,842	150,727	.....	5,991	.....	1,004	761	421,549
West Virginia	8	....	288,635	257,232	36,723	.....	1,072	.....	.....	.....	583,662
Wisconsin	*	*	311,614	68,115	453,678	2,918	.....	270	411	3,773	840,779
Wyoming	3	....	41,858	12,868	25,174	.....	.....	.....	.....	.....	79,900
Grand total	382	136	15,725,016	8,386,503	4,822,856	56,289	23,867	2,778	38,958	33,361	29,091,417

La Follette's vote in California was cast on the Socialist ticket; in Colorado and Montana his total is that of Farmer-Labor and Progressive combined; in Connecticut and New York his total is Socialist and Progressive combined; in Missouri and Pennsylvania his total is Socialist and Labor combined; his vote in North Dakota was as a Non-Partisan; in Oklahoma his total is Farmer-Labor; in West Virginia his total is Socialist and Farmer-Labor combined. *La Follette received the 13 electoral votes of Wisconsin.

1920.

State.	Harding, Rep.	Cox, Dem.	Watkins, Proh.	Debs, Soc.	Christensen, F.-L.	State.	Harding, Rep.	Cox, Dem.	Watkins, Proh.	Debs, Soc.	Christensen, F.-L.
Ala.	74,690	163,254	757	2,369	.....	Nev.	15,479	9,851	.....	1,864	.....
Ariz.	37,016	29,546	4	222	15	N. H.	95,196	62,662	.....	1,234	.....
Ark.	71,117	107,408	.....	5,111	.....	N. J.	611,670	258,229	4,711	27,217	2,173
Cal.	624,992	229,191	25,204	64,076	.....	N. M.	57,634	46,668	.....	.....	1,097
Col.	173,248	104,936	2,807	8,046	3,016	N. Y.	1,871,167	731,238	19,653	203,201	18,413
Conn.	229,238	120,721	1,771	10,350	1,947	N. Car.	232,848	305,447	17	446	.....
Del.	52,858	39,911	986	988	93	N. Dak.	160,072	37,422	.....	8,282	.....
Fla.	44,863	90,515	5,124	5,189	.....	Ohio.	1,182,022	780,037	294	57,147	.....
Ga.	43,720	107,162	.....	465	.....	Okla.	243,464	215,808	.....	25,679	.....
Idaho	88,975	46,579	9	38	6	Ore.	143,592	80,019	3,595	9,801	.....
Ill.	1,420,480	534,395	11,216	74,747	49,630	Pa.	1,218,215	503,202	42,612	70,021	15,642
Ind.	696,370	511,364	13,462	24,703	16,499	R. I.	107,463	55,062	510	4,351	.....
Iowa	634,674	227,921	4,197	16,981	10,321	S. Car.	2,244	64,170	.....	26	.....
Kan.	369,268	185,464	.....	15,511	.....	S. Dak.	110,692	35,938	900	.....	34,707
Ky.	452,480	456,497	3,325	6,409	.....	Tenn.	219,829	206,558	.....	2,239	.....
La.	38,538	87,519	.....	.....	.....	Texas	114,269	288,767	.....	8,121	.....
Me.	136,355	58,961	1	2,214	.....	Utah	81,555	56,639	.....	3,159	4,475
Md.	236,117	180,626	.....	5,876	1,645	Vt.	68,212	20,919	774	.....	.....
Mass.	681,153	276,691	.....	32,267	.....	Va.	87,456	141,670	826	807	240
Mich.	762,865	233,450	9,646	28,947	10,372	Wash.	223,137	84,298	3,790	8,913	77,246
Minn.	519,421	142,994	11,489	56,106	.....	W. Va.	282,007	220,789	1,528	5,618	.....
Miss.	11,576	69,277	.....	1,639	.....	Wis.	498,576	113,422	8,647	85,041	.....
Mo.	727,162	574,799	5,142	20,242	3,291	Wyo.	35,091	17,429	265	1,288	2,180
Mont.	109,430	57,372	.....	.....	12,204						
Neb.	247,498	119,608	5,947	9,600	.....	Total.	16,152,200	9,147,353	189,408	919,799	265,411

Electoral vote (1920)—Harding, Rep., 404; Cox, Dem., 127.

1916.

State.	Hughes, Rep.	Wilson, Dem.	Hanly, Proh.	Benson, Soc.	State.	Hughes, Rep.	Wilson, Dem.	Hanly, Proh.	Benson, Soc.
Ala.	22,809	99,409	1,034	1,925	N. H.	43,723	43,779	303	1,318
Ariz.	20,524	33,170	1,153	3,174	N. J.	269,352	211,645	3,187	10,462
Ark.	47,148	112,148	2,015	6,999	N. M.	31,163	33,693	112	1,999
Cal.	462,394	466,200	27,698	43,250	N. Y.	869,115	759,426	19,031	45,944
Col.	102,308	178,816	2,793	10,049	N. C.	120,988	168,383	51	490
Conn.	106,514	99,786	1,789	5,179	N. D.	53,471	55,206	.....	.....
Del.	26,011	24,753	566	480	Ohio.	514,753	604,161	8,080	38,092
Fla.	14,611	55,984	4,855	5,353	Okla.	97,233	148,113	1,646	45,190
Ga.	11,225	125,845	.....	967	Ore.	126,813	120,087	4,729	9,711
Idaho.	55,368	70,054	1,127	8,066	Penn.	703,734	521,784	28,525	42,637
Ill.	1,152,549	950,229	26,047	61,304	R. I.	44,858	40,394	470	1,914
Ind.	341,005	334,063	16,368	21,855	S. C.	1,550	61,846	.....	135
Iowa.	280,449	221,699	3,371	10,976	S. D.	64,217	59,191	1,774	3,760
Kan.	277,658	314,588	12,882	24,685	Tenn.	116,223	153,282	147	2,542
Ky.	241,854	269,990	3,036	4,734	Tex.	64,999	268,514	1,985	18,963
La.	6,466	79,375	.....	292	Utah.	54,137	84,025	149	4,460
Me.	69,506	64,127	597	2,177	Vt.	40,250	22,708	709	798
Md.	117,347	138,359	2,903	2,677	Va.	49,356	102,824	783	1,060
Mass.	268,784	247,885	2,993	11,058	Wash.	167,244	183,388	6,868	22,800
Mich.	339,097	285,151	8,139	16,120	W. Va.	143,124	140,403	175	6,140
Minn.	179,544	179,152	7,793	20,117	Wis.	221,323	193,042	7,166	27,846
Miss.	4,253	80,422	.....	1,481	Wyo.	21,698	28,316	373	1,453
Mo.	369,339	398,025	3,884	14,612					
Mont.	66,750	101,063	.....	9,564	Total.	8,538,221	9,129,606	220,506	585,113
Neb.	117,257	158,827	2,952	7,141					
Nev.	12,127	17,776	348	3,065	Reimer, Soc. Labor, 13,403.				

Electoral vote (1916)—Wilson, Dem., 277; Hughes, Rep., 254.

1912.

State.	Taft, Rep.	Wilson, Dem.	Roosevelt, Prog.	Debs, Soc.	State.	Taft, Rep.	Wilson, Dem.	Roosevelt, Prog.	Debs, Soc.
Ala.	9,732	82,438	22,680	3,029	N. H.	32,927	34,724	17,794	1,980
Ariz.	3,021	10,324	6,949	3,163	N. J.	88,834	170,282	145,409	15,900
Ark.	24,467	68,838	21,673	8,153	N. M.	17,900	22,139	8,347	2,859
Cal.	3,914	283,436	283,610	79,201	N. Y.	455,428	655,475	390,021	63,381
Col.	58,386	114,232	72,306	16,418	N. C.	29,139	144,507	69,667	117
Conn.	68,324	74,561	34,129	10,056	N. D.	23,090	29,555	25,726	6,966
Del.	15,997	22,631	8,886	556	Ohio.	278,168	424,834	229,807	90,144
Fla.	4,279	36,417	4,535	4,806	Okla.	90,786	119,156	.....	41,674
Ga.	5,191	93,076	21,980	1,026	Ore.	34,673	47,064	37,600	13,343
Idaho.	32,810	33,921	25,527	11,960	Penn.	273,305	395,619	447,426	80,915
Ill.	253,593	405,048	386,478	81,278	R. I.	27,703	30,412	16,878	2,049
Ind.	151,267	281,890	162,007	36,931	S. C.	536	48,357	1,293	164
Iowa.	119,805	185,325	161,819	16,967	S. D.	.....	48,942	58,811	4,662
Kan.	74,845	143,663	120,210	26,779	Tenn.	59,444	130,335	53,725	3,492
Ky.	115,512	219,584	102,766	11,647	Tex.	26,745	219,489	28,530	24,896
La.	3,334	60,971	9,323	5,249	Utah.	42,100	36,579	24,174	9,023
Me.	26,545	51,113	48,493	2,541	Vt.	23,332	15,354	22,132	928
Md.	54,956	112,674	57,789	3,996	Va.	23,288	90,332	21,777	820
Mass.	155,948	173,408	142,228	12,616	Wash.	70,445	86,840	113,698	40,134
Mich.	152,244	150,751	214,584	23,211	W. Va.	56,667	113,046	78,977	15,336
Minn.	64,334	106,426	125,856	27,505	Wis.	130,695	164,228	62,460	33,481
Miss.	1,595	57,227	3,645	2,061	Wyo.	14,560	15,310	9,232	2,760
Mo.	207,821	330,746	124,371	28,466					
Mont.	18,512	27,941	22,456	10,885	Total.	3,483,922	6,286,214	4,126,020	897,011
Neb.	54,029	109,008	72,614	10,174					
Nev.	3,196	7,986	5,620	3,313	Reimer, Soc. L., 29,079. Chafin, Proh., 208,923.				

Electoral vote (1912)—Wilson, Dem., 435; Taft, Rep., 8; Roosevelt, Prog., 88.

1908.

State.	Taft, Rep.	Bryan, Dem.	Chafin, Proh.	Debs, Soc.	State.	Taft, Rep.	Bryan, Dem.	Chafin, Proh.	Debs, Soc.
Ala.	25,308	74,374	665	1,399	Nev.	10,775	11,212	.....	2,103
Ark.	56,760	87,015	1,194	5,842	N. H.	53,149	33,655	905	1,299
Cal.	214,398	127,492	11,770	28,659	N. J.	265,326	182,567	4,934	10,253
Col.	123,700	126,644	5,559	7,974	N. Y.	870,070	667,468	22,667	38,451
Conn.	112,915	68,255	2,380	5,113	N. C.	114,937	136,995	.....	378
Del.	25,114	22,071	670	239	N. D.	57,680	32,885	1,553	2,421
Fla.	10,654	31,104	553	3,747	Ohio.	572,312	502,721	11,402	33,795
Ga.	41,692	72,413	1,059	584	Okla.	110,474	122,363	.....	21,734
Idaho.	52,621	36,162	1,986	6,400	Ore.	62,530	38,049	2,682	7,339
Ill.	629,929	450,795	29,342	34,691	Penn.	745,779	448,778	36,694	33,913
Ind.	348,993	338,262	18,045	13,476	R. I.	43,942	24,706	1,016	1,365
Iowa.	275,210	200,771	9,837	8,287	S. C.	3,965	62,290	.....	100
Kan.	197,216	161,209	5,033	12,420	S. D.	67,536	40,266	4,039	2,846
Ky.	235,711	244,092	5,887	4,060	Tenn.	118,324	135,608	300	1,870
La.	8,958	63,568	.....	2,538	Tex.	65,666	217,302	1,634	7,870
Me.	66,987	35,403	1,487	1,758	Utah.	61,028	42,601	.....	4,895
Md.	116,513	115,908	3,302	2,323	Vt.	39,552	11,496	802	.....
Mass.	265,966	155,543	4,379	10,781	Va.	52,573	82,946	1,111	255
Mich.	335,580	175,771	16,974	11,586	Wash.	106,062	58,691	4,700	14,177
Minn.	195,843	109,401	11,107	14,527	W. Va.	137,869	111,418	5,139	3,679
Miss.	4,363	60,287	.....	978	Wis.	247,747	166,632	11,572	28,170
Mo.	347,203	346,574	4,231	15,431	Wyo.	20,846	14,918	66	1,715
Mont.	32,339	29,326	827	5,855					
Neb.	126,997	131,099	5,179	3,524	Total.	7,679,006	6,409,106	252,683	420,820

Electoral vote (1908)—Taft, Rep., 321; Bryan, Dem., 162.

1904.

State.	Roosevelt, Rep.	Parker, Dem.	Swallow, Proh.	Debs, Soc.	State.	Roosevelt, Rep.	Parker, Dem.	Swallow, Proh.	Debs, Soc.
Ala.	22,472	79,857	612	853	Nev.	6,864	3,982	.....	925
Ark.	46,860	64,434	993	1,816	N. H.	54,180	33,905	749	1,090
Cal.	205,226	89,404	7,380	29,535	N. J.	245,164	164,367	6,845	9,587
Col.	134,687	100,105	3,432	4,304	N. Y.	859,533	683,981	20,787	36,883
Conn.	111,089	72,909	1,506	4,543	N. C.	82,625	124,121	361	124
Del.	23,712	19,359	607	146	N. D.	52,595	14,273	1,140	2,117
Fla.	8,314	27,046	5	2,337	Ohio.	600,095	344,940	19,339	36,200
Ga.	24,003	83,472	685	197	Ore.	60,455	17,521	3,806	7,619
Idaho.	47,783	18,480	1,013	4,949	Penn.	840,949	337,998	33,717	21,863
Ill.	632,645	327,606	34,770	69,225	R. I.	41,605	24,839	768	956
Ind.	368,289	274,345	23,496	11,762	S. C.	2,554	52,563	.....	22
Iowa	307,907	149,141	11,601	14,847	S. D.	72,083	21,969	2,965	3,138
Kan.	212,955	86,174	7,306	15,869	Tenn.	105,369	131,653	1,906	1,354
Ky.	205,277	217,170	6,609	3,602	Tex.	51,242	167,200	4,292	2,791
La.	5,205	47,708	.....	995	Utah.	62,446	33,413	.....	2,767
Me.	64,438	27,648	1,510	2,103	Vt.	40,459	9,777	792	859
Md.	109,497	109,446	3,034	2,247	Va.	47,380	80,648	1,383	56
Mass.	257,822	165,772	4,286	13,602	Wash.	101,540	28,098	3,329	10,023
Mich.	364,957	135,392	13,441	9,042	W. Va.	132,628	100,881	4,604	1,574
Minn.	216,651	55,187	6,352	11,692	Wis.	280,164	124,107	9,770	28,220
Miss.	3,187	53,374	.....	392	Wyo.	20,489	8,930	217	1,077
Mo.	321,449	296,312	7,191	13,009					
Mont.	34,932	21,773	335	5,676	Total.	7,628,834	5,084,491	259,257	402,400
Neb.	138,558	52,921	6,323	7,412					

Electoral vote (1904)—Roosevelt, Rep., 336; Parker, Dem., 140.

1900.

State.	McKinley, Rep.	Bryan, Dem.	Woolley, Proh.	Debs, Soc.	State.	McKinley, Rep.	Bryan, Dem.	Woolley, Proh.	Debs, Soc.
Ala.	55,634	96,368	2,762	.....	Nev.	3,849	6,347	.....	.....
Ark.	44,770	81,091	584	27	N. H.	54,798	35,489	1,271	790
Cal.	164,755	124,985	5,087	7,572	N. J.	221,754	164,879	7,190	4,611
Col.	93,039	122,733	3,790	714	N. Y.	822,013	678,425	22,077	12,869
Conn.	102,572	74,014	1,617	1,029	N. C.	133,081	157,752	1,009	.....
Del.	22,535	18,863	546	57	N. D.	35,898	20,531	735	520
Fla.	7,314	28,007	2,234	601	Ohio.	543,918	474,882	10,203	4,847
Ga.	35,056	81,700	1,396	.....	Ore.	46,526	33,385	2,536	1,494
Idaho.	27,198	29,414	857	.....	Penn.	712,665	424,232	27,908	4,831
Ill.	597,985	503,061	17,626	9,687	R. I.	33,784	19,812	1,529	.....
Ind.	336,063	309,584	13,718	2,374	S. C.	3,579	47,283	.....	.....
Iowa	307,808	209,265	9,502	2,742	S. D.	54,530	39,544	1,542	169
Kan.	185,955	162,601	3,605	1,605	Tenn.	123,180	145,356	3,882	413
Ky.	226,801	234,899	2,814	770	Tex.	130,641	267,432	2,644	1,846
La.	14,233	53,671	.....	.....	Utah.	47,089	45,006	209	720
Me.	65,435	36,823	2,585	878	Vt.	42,569	12,849	367	.....
Md.	136,185	122,237	4,574	904	Va.	115,865	146,080	2,150	145
Mass.	239,147	157,016	6,208	9,716	Wash.	57,456	44,233	2,363	2,006
Mich.	316,269	211,685	11,859	2,826	W. Va.	119,829	98,807	1,692	219
Minn.	190,461	112,901	8,555	3,065	Wis.	265,756	159,279	10,022	7,051
Miss.	5,753	51,706	.....	.....	Wyo.	14,482	10,164	.....	.....
Mo.	314,992	351,922	5,965	6,139					
Mont.	25,373	37,145	298	708	Total.	7,219,530	6,358,071	209,166	94,768
Neb.	121,835	114,013	3,655	823					

Electoral vote (1900)—McKinley, Rep., 292; Bryan, Dem., 155.

1896.

State.	McKinley, Rep.	Bryan, D., Peop.	Palmer, Nat. Dem.	Levering, Proh.	State.	McKinley, Rep.	Bryan, D., Peop.	Palmer, Nat. Dem.	Levering, Proh.
Ala.	54,737	131,226	6,464	2,147	Nev.	1,938	8,376	.....	.....
Ark.	37,512	110,103	.....	893	N. H.	57,444	21,650	3,420	825
Cal.	146,688	144,618	2,006	2,573	N. J.	221,371	133,695	6,378	5,617
Col.	26,279	161,269	1	2,110	N. Y.	819,838	551,513	18,972	16,086
Conn.	110,297	56,740	4,336	1,806	N. C.	155,243	174,488	578	681
Del.	16,883	13,425	877	353	N. D.	26,335	20,686	.....	358
Fla.	11,208	32,736	1,778	654	Ohio.	525,991	477,497	1,858	7,784
Ga.	60,107	94,733	2,809	5,613	Ore.	48,779	40,739	977	919
Idaho.	6,314	23,135	.....	172	Penn.	728,300	433,228	11,000	20,147
Ill.	607,130	464,523	6,390	9,818	R. I.	37,437	14,459	1,166	1,161
Ind.	323,754	305,573	2,145	5,323	S. C.	9,313	58,801	824	.....
Iowa	289,293	223,741	4,586	3,544	S. D.	41,042	41,225	.....	683
Kan.	159,345	172,915	1,209	2,318	Tenn.	149,708	168,847	2,106	3,140
Ky.	218,171	217,890	5,114	4,781	Tex.	158,894	361,224	4,853	1,722
La.	22,037	77,175	1,834	.....	Utah.	13,491	64,607	21	.....
Me.	80,461	34,587	1,867	1,589	Vt.	51,127	10,640	1,331	733
Md.	136,978	104,746	2,507	6,058	Va.	135,388	154,985	2,127	2,344
Mass.	278,976	121,385	11,809	3,060	Wash.	39,153	51,646	1,668	1,116
Mich.	293,582	237,268	6,968	6,846	W. Va.	105,379	94,488	678	1,223
Minn.	193,503	139,735	.....	4,348	Wis.	268,051	165,349	4,553	7,799
Miss.	5,123	63,793	1,071	485	Wyo.	10,072	10,375	.....	159
Mo.	239,333	313,576	2,363	2,462					
Mont.	10,494	42,537	.....	186	Total.	7,035,638	6,467,946	131,529	141,676
Neb.	103,064	115,999	2,885	2,040					

Electoral vote (1896)—McKinley, Rep., 271; Bryan, Dem., 176.

APPORTIONMENT OF CONGRESSIONAL REPRESENTATION.

(Ratios under the Constitution and at each census, 1790 to 1910, by States. Source: Reports of the Bureau of the Census, Department of Commerce.)

STATE.	RATIOS UNDER CONSTITUTION AND CENSUSES.													
	Constitution.	1790.	1800.	1810.	1820.	1830.	1840.	1850.	1860.	1870.	1880.	1890.	1900.	1910.
	30,000.	33,000.	33,000.	35,000.	40,000.	47,700.	70,680.	93,423.	127,381.	131,425.	151,911.	173,901.	194,182.	211,877.
	REPRESENTATION.													
Alabama				1	3	5	7	7	6	8	8	9	9	10
Arizona														1
Arkansas						1	1	2	3	4	5	6	7	7
California							2	2	3	4	6	7	8	11
Colorado									1	1	1	2	3	4
Connecticut	5	7	7	7	6	6	4	4	4	4	4	4	5	5
Delaware	1	1	1	2	1	1	1	1	1	1	1	1	1	1
Florida							1	1	1	2	2	2	3	4
Georgia	3	2	4	6	7	9	8	8	7	9	10	11	11	12
Idaho											1	1	1	2
Illinois				1	1	3	7	9	14	19	20	22	25	27
Indiana				1	3	7	10	11	11	13	13	13	13	13
Iowa							2	2	6	9	11	11	11	11
Kansas									1	3	7	8	8	8
Kentucky		2	6	10	12	13	10	10	9	10	11	11	11	11
Louisiana				1	3	3	4	4	5	6	6	6	7	8
Maine				7	7	8	7	6	5	5	4	4	4	4
Maryland	6	8	9	9	9	8	6	6	5	6	6	6	6	6
Massachusetts	8	14	17	13	13	12	10	11	10	11	12	13	14	16
Michigan						1	3	4	6	9	11	12	12	13
Minnesota								2	2	3	5	7	9	10
Mississippi				1	1	2	4	5	5	6	7	7	8	8
Missouri					1	2	5	7	9	13	14	15	16	16
Montana											1	1	1	2
Nebraska									1	1	3	6	6	6
Nevada									1	1	1	1	1	1
New Hampshire	3	4	5	6	6	5	4	3	3	3	2	2	2	2
New Jersey	4	5	6	6	6	6	5	5	5	7	7	8	10	12
New Mexico														1
New York	6	10	17	27	34	40	34	33	31	33	34	34	37	43
North Carolina	5	10	12	13	13	13	9	8	7	8	9	9	10	10
North Dakota											1	1	2	3
Ohio			1	6	14	19	21	21	19	20	21	21	21	22
Oklahoma													5	8
Oregon								1	1	1	1	2	2	3
Pennsylvania	8	13	18	23	26	28	24	25	24	27	28	30	32	36
Rhode Island	1	2	2	2	2	2	2	2	2	2	2	2	2	3
So. Carolina	5	6	8	9	9	9	7	6	4	5	7	7	7	7
South Dakota											2	2	2	3
Tennessee		1	3	6	9	13	11	10	8	10	10	10	10	10
Texas							2	2	4	6	11	13	16	18
Utah												1	1	2
Vermont		2	4	6	5	5	4	3	3	3	2	2	2	2
Virginia	10	19	22	23	22	21	15	13	11	9	10	10	10	10
Washington											1	2	3	5
West Virginia										3	4	4	5	6
Wisconsin							2	3	6	8	9	10	11	11
Wyoming											1	1	1	1
Total	65	106	142	186	213	242	232	237	243	293	332	357	391	435

Since the taking of the Census of 1920 there have been several efforts in the House of Representatives to pass a reapportionment bill based on that census as provided for under Article I., Section 2, paragraph 3 of the Constitution. All had failed up to the end of 1927. If the present membership of 435 should be retained, and reapportionment based on that, these States would be entitled to additional representatives: California, 3; Connecticut, 1; Michigan, 2; New Jersey, 1; North Carolina, 1; Ohio, 2; Texas, 1; Washington, 1. These States would lose representatives: Indiana, 1; Iowa, 1; Kansas, 1; Kentucky, 1; Louisiana, 1; Maine, 1; Mississippi, 1; Missouri, 2; Nebraska, 1; Rhode Island, 1; Vermont, 1.

If reapportionment is arranged so that no States shall lose a representative it would be necessary to fix the ratio at 218,986 and increase the membership of the house to 483. Twenty-three State delegations would then be unchanged and the increases would be: Ala., 1; Ark., 1; Cal., 5; Conn., 1; Ga., 1; Ill., 3; Md., 1; Mass., 2; Mich., 4; Minn., 1; N. J., 2; N. M., 1; N. Y., 4; N. C., 2; Ohio, 4; Okla., 1; Ore., 1; Penn., 4; S. C., 1; Tenn., 1; Tex., 3; Va., 1; Wash., 1; W. Va., 1 and Wis., 1.

The House by a vote of 265 to 87 on April 8, 1926, on a vote regarding procedure refused to instruct the Census Committee to report a reapportionment bill.

Membership of House under census of 1850 was increased from 233 to 234 by act of July 30, 1852; membership under census of 1860 was increased from 233 to 241 by act of March 4, 1862; membership under census of 1870 was originally fixed at 283, but increased to 292 by act of May 30, 1872.

Representation such as shown in table was assigned after apportionment under censuses, as follows: (1790) Tenn.; (1800) Ohio; (1810) Ala., Del., Ind., La., Miss.; (1830) Ark., Mich.; (1840) Cal., Fla., Iowa, Texas, Wis.; (1850) Minn., Ore.; (1860) Neb., Nev.; (1870) Col.; (1880) Idaho, Mont., S. D., N. D., Wash., Wyo.; (1890) Utah; (1900) Okla.

Ariz. and N. Mex. were included in apportionment under 1910 census, in anticipation of becoming States.

Maine's apportionment of seven members under 1810 census was included in the 20 members originally assigned to Mass. but credited to Maine after it became a State, March 15, 1820.

The ratio under the Constitution was one Representative in Congress for each 30,000 of population. Thereafter, the ratios, as determined by the decennial censuses, were as follows: 1790 and 1800, one to each 33,000; 1810, one in each 35,000; 1820, one in each 40,000; 1830, one in each 47,700; 1840, one in each 70,680; 1850, one in each 93,423; 1860, one in each 127,381; 1870, one in each 131,425; 1880, one in each 151,911; 1890, one in each 173,901; 1900, one in each 194,182; 1910, one in each 211,877.

Of the thirteen Original States the present quotas are the same as under the Constitution in Connecticut, Delaware, Maryland, and Virginia. The original quotas in the other Original States were as follows: Georgia, 3; Massachusetts, 8; New Hampshire, 3; New Jersey, 4; New York, 6; North Carolina, 5; Pennsylvania, 8; Rhode Island, 1; and South Carolina, 5.

QUALIFICATIONS FOR VOTING, BY STATES.

State.	Previous Resid. Required. State.	C'nty.	Town or City.	Elec. Dist. or Ward.	Special Qualifications Required (Other Than Citizenship).	Persons Disqualified (Other Than Felons, Idiots and Insane).
Ala.	2 yrs.	1 yr.	3 mos.	3 mos.	Property, or able to read and write, and employment. Poll tax.	Bribery, malfeasance, election crimes, vagrants, tramps (convicted).
Ariz.	1 yr.	30 dys	30 dys	30 dys	Ability to read and write	Persons under guardianship.
Ark.	1 yr.	6 mos.	1 mo.	1 mo.	Poll tax. Declarants	U. S. soldiers and sailors.
Cal.	1 yr.	90 dys	.....	30 dys	Ability to read Constitution and write name.	Bribery, malfeasance, Chinese.
Col.	1 yr.	90 dys	30 dys	10 dys		Persons under guardianship.
Conn.	1 yr.	.....	6 mos.	.....	Good moral character, ability to read Constitution.	Bribery, dueling.
Del.	1 yr.	3 mos.	.....	30 dys	Read Constitution and write name.	Bribery, paupers, U. S. soldiers and sailors.
Fla.	1 yr.	6 mos.	.....	30 dys	Ability to read Constitution and write name. Payment of poll tax (certain exemptions).	Bettors on election, bribery, dueling, under guardianship, malfeasance.
Ga.	1 yr.	6 mos.	.....	.....	Ability to read and write	Delinquent taxpayers.
Idaho	6 mos.	30 dys	.....	10 dys	Must be registered	Election crimes, teachers of polygamy, persons having guardians.
Ill.	1 yr.	90 dys	30 dys	30 dys		Penitentiary convicts.
Ind.	6 mos.	60 dys	30 dys	30 dys	Must be registered	Violators of election laws.
Iowa	6 mos.	60 dys	10 dys	10 dys	Must be registered	U. S. soldiers and sailors.
Kan.	6 mos.	30 dys	30 dys	30 dys		Bribery, persons under guardianship, duelists, dishonorably discharged officials.
Ky.	1 yr.	6 mos.	60 dys	60 dys	Must be registered	Bribery.
La.	2 yrs.	1 yr. in	Parish	3 mos.	Must be registered; ability to read and write; or to understand Constitution when read.	Inmates of charitable institutions, except soldiers' homes, interdicted persons.
Me.	3 mos.	.....	.....	.....	Ability to read Constitution and write name, unless a voter before 1893.	Bribery, paupers, persons under guardianship, Indians not taxed.
Md.	1 yr.	6 mos.	6 mos.	1 day	Citizens who can read; must be registered.	Bribery, election crimes.
Mass.	1 yr.	6 mos.	6 mos.	6 mos.	Ability to read Constitution and write name. Poll tax.	Election crimes, paupers, persons under guardianship.
Mich.	6 mos.	20 dys	20 dys	20 dys		
Minn.	6 mos.	30 dys	30 dys	30 dys		Persons under guardianship, U. S. soldiers and sailors.
Miss.	2 yrs.	1 yr.	1 yr.	1 yr.	Ability to read or explain Constitution. Poll tax.	Bribery, dueling, delinquent taxpayers.
Mo.	1 yr.	60 dys	60 dys	60 dys		Soldiers and sailors, paupers.
Mont.	1 yr.	30 dys	30 dys	30 dys		
Neb.	6 mos.	40 dys	10 dys	10 dys		U. S. soldiers and sailors.
Nev.	6 mos.	30 dys	30 dys	30 dys	Must be registered	Dueling, Chinese.
N. H.	6 mos.	6 mos.	6 mos.	6 mos.	Ability to read Constitution and write one line.	Paupers, non-taxpayers.
N. J.	1 yr.	5 mos.	.....	.....		Paupers.
N. M.	1 yr.	90 dys	30 dys	30 dys		
N. Y.	1 yr.	4 mos.	30 dys	30 dys	(See Note below this table)	Bettors on elections, bribery.
N. C.	1 yr.	4 mos.	.....	4 mos.	Must be registered; read and write	
N. D.	1 yr.	90 dys	.....	30 dys		Persons under guardianship, U. S. soldiers and sailors.
Ohio	1 yr.	30 dys	20 dys	20 dys		U. S. soldiers and sailors.
Okla.	1 yr.	6 mos.	30 dys	30 dys	Must be registered; read and write	Persons kept in poor houses, except Federal and Confederate soldiers.
Ore.	6 mos.	No specified time			30 days in district required in school elections. Property. Must be able to read and write English.	Soldiers and sailors, Chinese Registration required.
Pa.	1 yr.	.....	.....	2 mos.	Payment of a State or county tax within two years.	Bribery, election crimes, non-taxpayers.
R. I.	2 yrs.	.....	6 mos.	.....		Bribery, paupers, persons under guardianship.
S. C.	2 yrs. (6 mos publi	1 yr. for m cschoo	4 mos. inisters l teach	4 mos. and ers.)	Ability to read and write, or owns and pays taxes on $300 or more of property.	Bribery, election crimes, paupers, duelists.
S. D.	1 yr.	90 dys	30 dys	30 dys		
Tenn.	1 yr.	6 mos.	.....	.....	Poll tax. Must be able to mark ballot unless blind.	Persons under guardianship.
Tex.	1 yr.	6 mos.	6 mos.	6 mos.	Poll tax	Bribery, dueling, paupers, U. S. soldiers and sailors.
Utah	1 yr.	4 mos.	.....	60 dys	Must be registered	Election crimes.
Vt.	1 yr.	3 mos.	3 mos.	3 mos.	Good behavior; must take freeman's oath.	Election bribery.
Va.	2 yrs.	1 yr.	1 yr.	30 dys	Poll tax; read or understand Constitution. Must be registered.	Bribery, dueling, paupers, U. S. soldiers and sailors.
Wash.	1 yr.	90 dys	30 dys	30 dys	Ability to read and write English.	
W. Va.	1 yr.	60 dys	10 dys	.....		Bribery, paupers, U. S. soldiers and sailors.
Wis.	1 yr.	10 dys	10 dys	10 dys		Bettors on election, persons under guardianship.
Wyo.	1 yr.	60 dys	10 dys	10 dys	Ability to read Constitution, unless physically disabled.	

Literacy tests for voters were authorized by Legislatures of the various States in the following years: Alabama, 1900; Arizona, 1913; California, 1894; Colorado, 1876 (the law was not in effect in 1926). Connecticut, 1897; Delaware, 1897; Georgia, 1908; Louisiana, 1898; Maine, 1892. Massachusetts, 1857; Mississippi, 1890; New Hampshire, 1902; New York, 1921; North Carolina, 1900.

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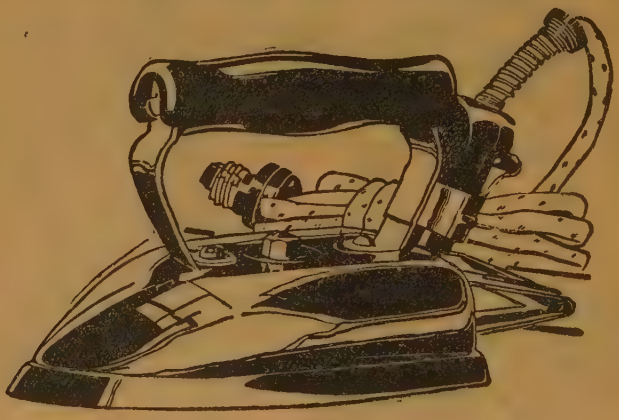

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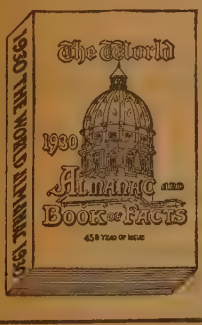

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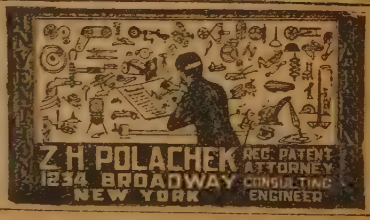

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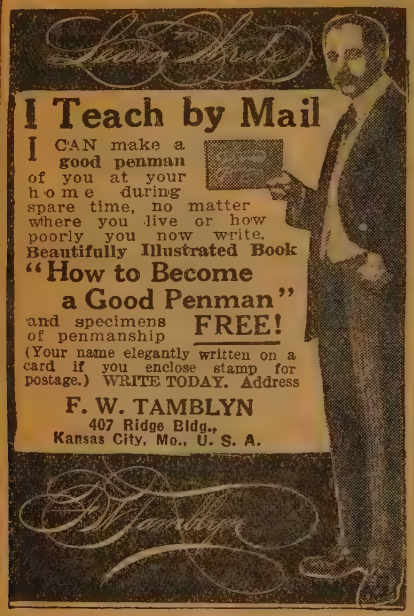

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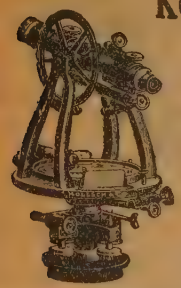

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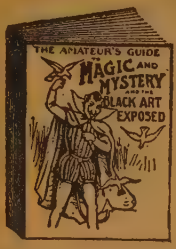

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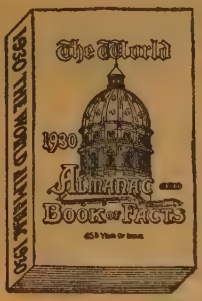

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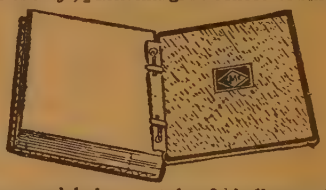

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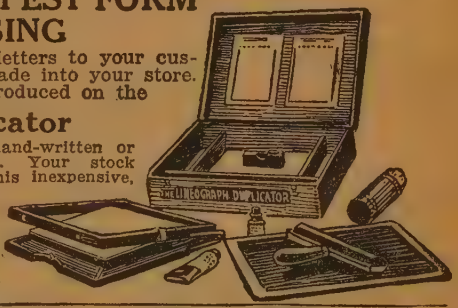

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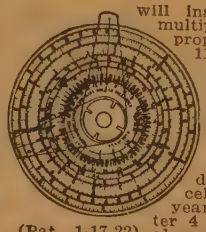

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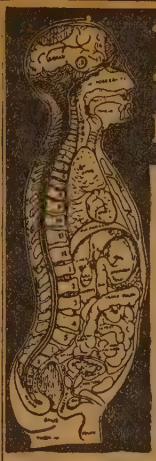

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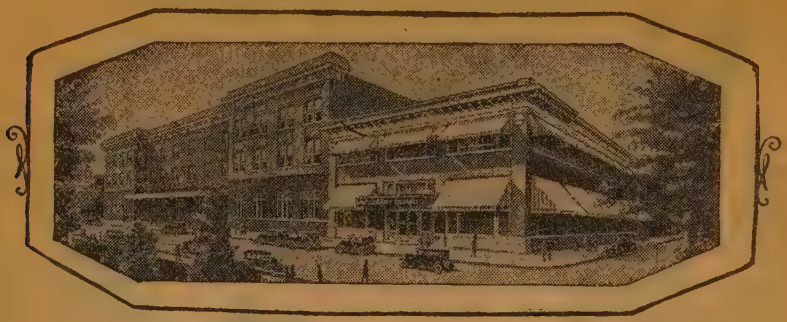

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Nature sets up danger signals to warn us. If these warnings are heeded in time much suffering and often grave danger can be avoided. If you have been troubled with headaches, nervousness, faulty nutrition, stomach and liver troubles, constipation, etc., and have been unable to overcome them, you should write at once for Free Book and learn if your symptoms are not due to some rectal or colonic trouble.

The McCleary treatment finds favor with men and women, young and old, for it entirely does away with harsh surgical methods of treating hemorrhoids or piles. All the discomfort and dangers of ether and chloroform have been eliminated.

Illustrated Book FREE!

We have just prepared a new book describing the McCleary treatment which is fully illustrated, printed in colors and copyrighted at Washington. It explains in a very interesting and instructive manner the various kinds of hemorrhoids (piles) and other rectal troubles and the mild McCleary treatment which has proved so successful. A copy of this book will be sent postpaid, free to anyone. Send your name and address in a letter or postal. So confident are we of results that we say to one and all alike, "If our treatment for your rectal trouble should not prove successful, you need not pay us one cent."

Are you one of the hundreds in every community who suffer from rectal trouble? If so, you should not delay. We are pleased to refer you to any of our former patients. Ask them about their experience here.

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